

SUPPLEMENTARY APPENDIX

MICROARRAY EXPRESSION PROFILING ASSOCIATES PROGRESSIVE CHRONIC DAMAGE OF RENAL ALLOGRAFTS WITH INNATE AND ADAPTIVE IMMUNITY

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SUPPLEMENTAL METHODS

Histological Evaluation

All slides (n=120) were stained with hematoxylin and eosin and with the periodic acid-Schiff method. The revised Banff criteria (31) were used to semi-quantitatively score the severity of acute histological lesions (interstitial inflammation, tubulitis, intimal arteritis, glomerulitis, inflammation in atrophic areas) and of chronic histological lesions (tubular atrophy [TA], interstitial fibrosis [IF], vascular intimal thickening, arteriolar hyalinosis, increase in mesangial matrix, transplant glomerulopathy). The number of globally sclerosed glomeruli was counted and classified into 4 groups (0% = 0; <25% = 1; 26–50% = 2; >50% = 3). Besides the established Banff scores, we also assessed the recently proposed “total i-score” (31), representing all interstitial inflammation, including infiltrates in areas of unscarred tubulo-interstitium, in areas of interstitial fibrosis and tubular atrophy (IFTA), nodular infiltrates, perivascular infiltrates and subcapsular infiltrates. The CADI score was calculated in all biopsies (score range 0–18) (1), as

the addition of the histological scores for interstitial inflammation in non-fibrotic areas (score 0-3), interstitial fibrosis (score 0-3), tubular atrophy (score 0-3), mesangial matrix increase (score 0-3), glomerulosclerosis (score 0-3) and vascular intimal proliferation (score 0-3). This CADI score, obtained in early protocol biopsies, correlates significantly with graft survival and was used as surrogate end-point for transplantation outcome (1). For implantation biopsies, we calculated the “Remuzzi score” as the addition of the scores for glomerulosclerosis, interstitial fibrosis, tubular atrophy and vascular intimal thickening (score range 0-12) (27).

For inclusion in the study, patients needed to have a clear histological evolution, i.e. either absence of progression of chronic histological damage or clear progression of histological damage. All pathology analyses were performed by a single pathologist. In the longitudinal cohort, patients were categorized into a *progressor* group when the histological CADI score obtained reached at least 6 within the first 2 years after transplantation. All other patients were categorized as *non-progressors*.

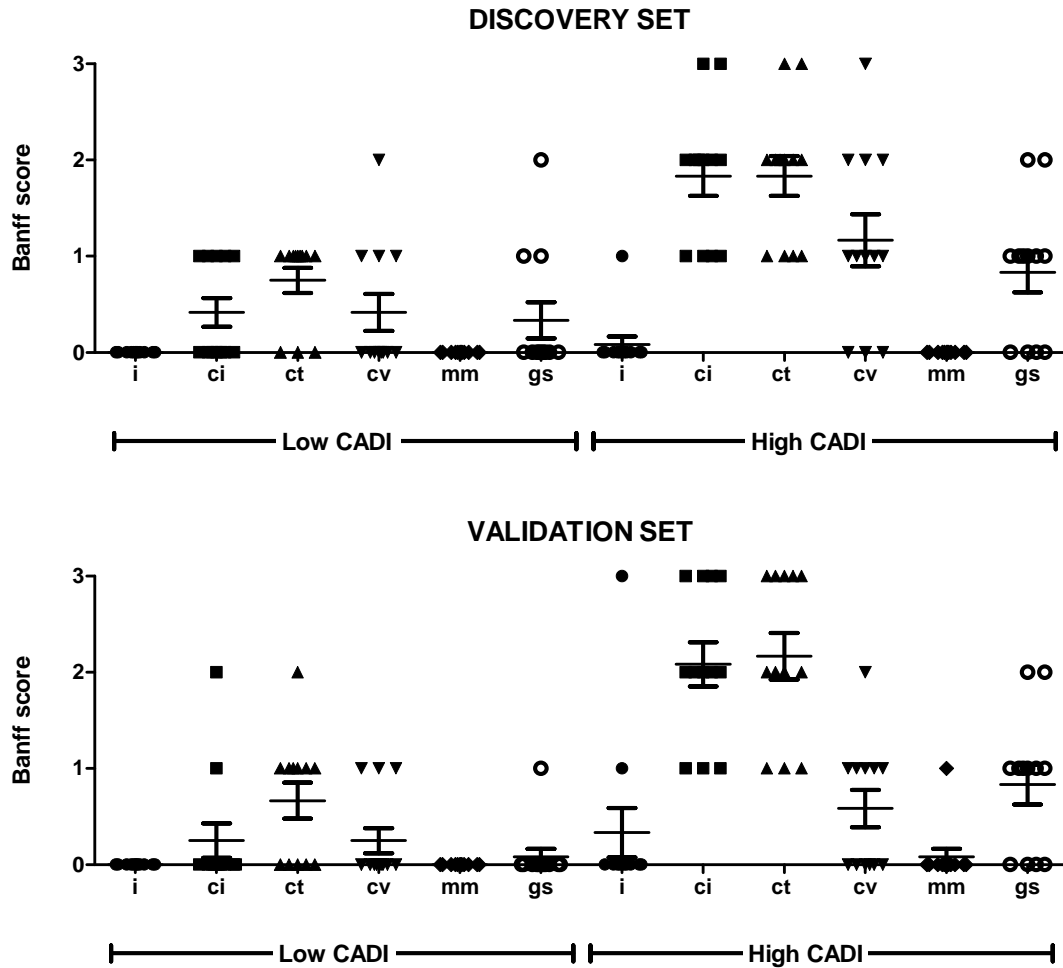
RNA Extraction, Quality Control, Amplification and Hybridization

For each kidney allograft biopsy (n=120), a separate biopsy core was placed in RNAlater[®] (Ambion Inc, Austin, TX, USA) and stored at -20°C until RNA extraction. Total RNA was extracted from each biopsy using TRIzol[®] Reagent (Invitrogen, Carlsbad, CA, USA). RNA integrity was ensured using the RNA 6000 Nano LabChip[®] Kit (Agilent Technologies, Waldbronn, Germany) on a 2100 Bioanalyzer (Agilent Technologies, Waldbronn, Germany). RNA was

amplified to cDNA and biotin labeled using the Ovation™ Biotin System (NuGEN Technologies, San Carlos, CA, USA). The cDNA fragments of all 120 biopsies were hybridized onto Affymetrix GeneChip® Human Genome U133 Plus 2.0 Arrays comprising more than 54,000 probe sets, covering more than 47,000 transcripts and variants, including 38,500 well-characterized human genes (Affymetrix Inc., Santa Clara, CA, USA). The microarrays were scanned using GeneChip Scanner 3000 (Affymetrix Inc., Santa Clara, CA, USA). For processing and normalization of the scanned images, dChip 2006 software was used, with perfect match [PM]/mismatch [MM] difference modeling and invariant set normalization (49).

SUPPLEMENTAL FIGURE 1

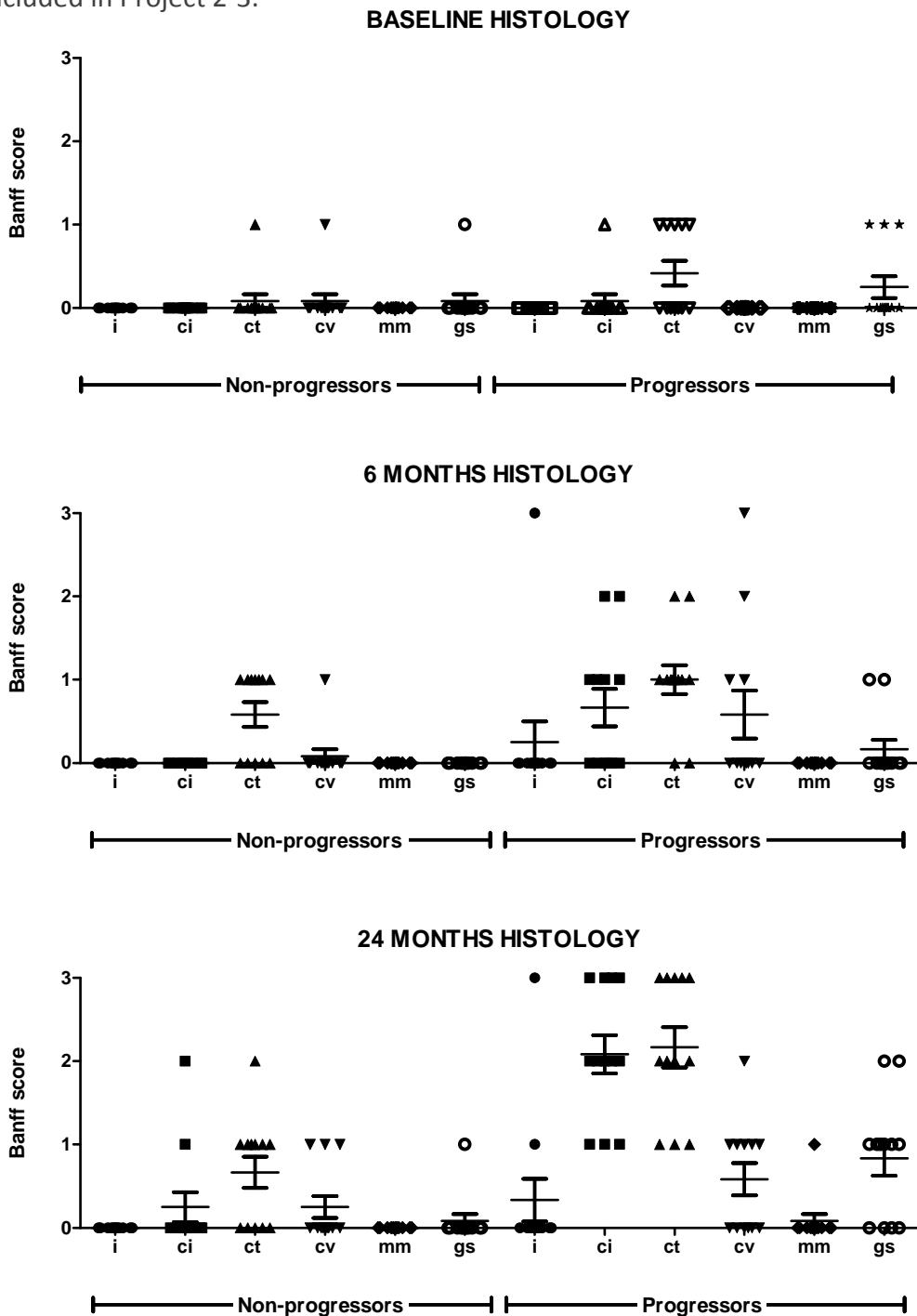
Distribution of the different components of the CADI score in the different biopsy groups included in the discovery set and the validation set of Project 1.



[i]=interstitial inflammation; [ci]=interstitial fibrosis; [ct]=tubular atrophy; [cv]=vascular intimal thickening; [mm]=increase in mesangial matrix; [gs]=globally sclerosed glomeruli.

SUPPLEMENTAL FIGURE 2

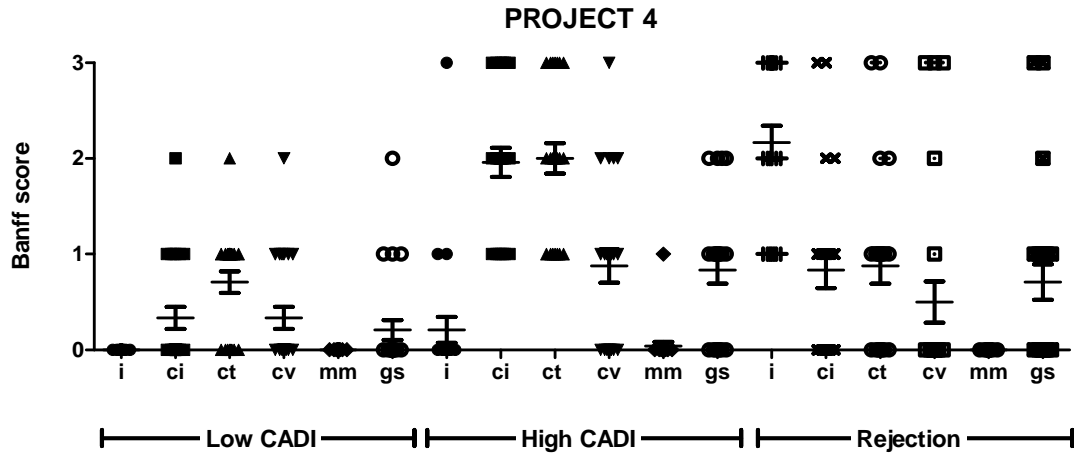
Distribution of the different components of the CADI score in the different biopsy groups included in Project 2-3.



[i]=interstitial inflammation; [ci]=interstitial fibrosis; [ct]=tubular atrophy; [cv]=vascular intimal thickening; [mm]=increase in mesangial matrix; [gs]=globally sclerosed glomeruli.

SUPPLEMENTAL FIGURE 3

Distribution of the different components of the CADI score in the different biopsy groups included in Project 4.



[i]=interstitial inflammation; [ci]=interstitial fibrosis; [ct]=tubular atrophy; [cv]=vascular intimal thickening; [mm]=increase in mesangial matrix; [gs]=globally sclerosed glomeruli.

SUPPLEMENTAL TABLES

SUPPLEMENTAL TABLE 1

Details of the IPA® enrichment analysis (biological functions) of the 397 upregulated probesets in the discovery set of Project 1.

SUPPLEMENTAL TABLE 2

Details of the IPA® enrichment analysis (biological functions) of the 703 upregulated probesets in the validation set of Project 1.

SUPPLEMENTAL TABLE 3

Details of the IPA® enrichment analysis (biological functions) of the 601 upregulated probesets in Project 2.

SUPPLEMENTAL TABLE 4

Details of the IPA® enrichment analysis (biological functions) of the 92 upregulated probesets in Project 3.

SUPPLEMENTAL TABLE 5

Probesets (and their corresponding genes on Affymetrix GeneChip Human Genome U133 Plus 2.0 Arrays) included in the IPKB lists, that were used to calculate the different immune geneset scores.

SUPPLEMENTAL TABLE 1

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397 probeset list enrichment analysis (biological functions)

Category	Function	Function Annotation	p-value	Molecules	# Molecules
Inflammatory Response	immune response	immune response	7,99E-43	AHR, ANXA1, APOL1, ARHGDI1B, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD96, CD209, CD247, CD1C, CD300A, CD8A, CIITA, CLEC7A, CSF1R, CST7, CTSS, CXCL9, CYBB, DEF6, ETS1, FCGR2A, FCGR2B, FLI1, FYB, GBP2, GFI1, GPR65, GZMA, GZMB, HCK, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, LTB4R, MMP7, NCF4, NFATC2, NLRP3, NOD2, P2RY14, PRF1, PTPRC, RNASE6, SELL, SELPLG, SIRPG, SIT1, STAT4, TAP1, TBX21, TNFSF13B, TRIM22, VAV1	85
Inflammatory Response	immune response	immune response of T lymphocytes	2,45E-06	CASP1, CD28, CD8A, HLA-DQB1, IL7R, ITK, NFATC2, PTPRC	8
Inflammatory Response	activation	activation of leukocytes	2,13E-26	ANXA1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	52
Inflammatory Response	activation	activation of lymphocytes	1,59E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD1C, CD8A, CLEC7A, DEF6, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRK1, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	37
Inflammatory Response	activation	activation of T lymphocytes	7,00E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CLEC7A, DEF6, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, VAV1	32
Inflammatory Response	activation	activation of mast cells	4,95E-08	CCL5, CCR2, CD48, CD300A, FCGR2A, FCGR2B, FYB, ITGAM, LCP2	9
Inflammatory Response	activation	activation of natural killer cells	4,75E-07	CCL5, CD2, CD28, CD44, FCGR2A, IL2RB, ITGAL, ITGB2, KLRK1, PRF1, STAT4	11
Inflammatory Response	activation	activation of antigen presenting cells	5,10E-06	CCL5, CD74, CD209, CSF1R, FCGR2A, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, IL7, ITGB6, STAT4	13
Inflammatory Response	inflammatory response	inflammatory response	2,84E-14	ANXA1, AOA1, APOL3 (includes EG:80833), CASP1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CSF1R, CXCL9, CXCL16, CYBB, ETS1, FCGR2A, FCGR2B, HCK, IL7, IL10RA, ITGAL, ITGAM, ITGB2, ITGB6, LTB4R, LYZ, NFKB1, NLRP3, NOD2, PRKCB, PTPRC, RAC2, SELL, SELPLG, STAT4, THBS2, UACA, VAV1	38
Inflammatory Response	accumulation	accumulation of leukocytes	7,14E-12	CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CYBB, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, NFATC2, SELL, SELPLG, TIMP2	20
Inflammatory Response	accumulation	accumulation of mononuclear leukocytes	3,74E-10	CCL5, CCR5, CCR7, CD28, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	13
Inflammatory Response	accumulation	accumulation of lymphocytes	1,36E-09	CCL5, CCR5, CCR7, CD28, DEF6, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	12
Inflammatory Response	accumulation	accumulation of T lymphocytes	1,45E-07	CCL5, CCR5, CCR7, CD28, DEF6, IL10RA, IL2RG, ITGAL, NFATC2	9
Inflammatory Response	phagocytosis	phagocytosis of blood cells	7,54E-12	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, RAC2, SELPLG	14
Inflammatory Response	phagocytosis	phagocytosis of eukaryotic cells	2,08E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, PRKCB, RAC2, SELPLG, VAV1	16

Inflammatory Response	phagocytosis	phagocytosis	3,55E-11	ANXA1, CD44, CD47, CLEC7A, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, PRKCB, RAC2, SELPLG, VAV1	18
Inflammatory Response	phagocytosis	phagocytosis of cells	4,30E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, PRKCB, RAC2, SELPLG, VAV1	17
Inflammatory Response	phagocytosis	phagocytosis of leukocytes	1,00E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, IRF8, ITGAM, ITGB2, SELPLG	12
Inflammatory Response	phagocytosis	phagocytosis of phagocytes	6,05E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, ITGAM, ITGB2, SELPLG	11
Inflammatory Response	phagocytosis	phagocytosis of myeloid cells	7,84E-09	ANXA1, CD47, CSF2RB, FCGR2A, IRF8, ITGAM, ITGB2, SELPLG	8
Inflammatory Response	phagocytosis	phagocytosis of granulocytes	1,47E-07	ANXA1, CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	7
Inflammatory Response	phagocytosis	phagocytosis of tumor cell lines	3,25E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB	7
Inflammatory Response	phagocytosis	phagocytosis of red blood cells	6,31E-07	CD44, FCGR2A, HCK, ITGAM, ITGB2, RAC2	6
Inflammatory Response	phagocytosis	phagocytosis of cell lines	8,56E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB, VAV1	8
Inflammatory Response	phagocytosis	phagocytosis of macrophages	1,23E-06	ANXA1, CD44, CD47, CNN2, DEF6, FCGR2B, ITGB2	7
Inflammatory Response	phagocytosis	phagocytosis of neutrophils	1,95E-06	CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	6
Inflammatory Response	phagocytosis	phagocytosis of leukemia cell lines	2,43E-06	ANXA1, DEF6, FCGR2A, FCGR2B, PRKCB	5
Inflammatory Response	recruitment	recruitment of phagocytes	2,30E-10	AHR, ANXA1, CCL5, CCR2, CCR5, CD28, CD44, CD8A, CLU, ETS1, FCGR2B, ITGAM, ITGB2, LYZ, THBS2	15
Inflammatory Response	recruitment	recruitment of macrophages	1,01E-06	ANXA1, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	8
Inflammatory Response	degranulation	degranulation of eukaryotic cells	1,11E-09	ANXA1, CD300A, FCGR2A, FCGR2B, HCK, ITGAM, ITGB2, ITK, KLRK1, LCP2, LTB4R, RAC2, SLA, VAV1, WIPF1	15
Inflammatory Response	degranulation	degranulation of mast cells	3,22E-06	ANXA1, CD300A, HCK, ITK, LCP2, RAC2, VAV1, WIPF1	8
Inflammatory Response	degranulation	degranulation of granulocytes	6,13E-06	ANXA1, FCGR2A, FCGR2B, ITGAM, ITGB2, LTB4R	6
Inflammatory Response	aggregation	aggregation of leukocytes	2,37E-09	CD44, CD209, IL7, ITGAL, ITGAM, ITGB2, LCK, NRP1, SELL, SELPLG	10
Inflammatory Response	aggregation	aggregation of phagocytes	4,88E-06	ITGAM, ITGB2, LCK, SELL, SELPLG	5
Inflammatory Response	aggregation	aggregation of blood platelets	9,79E-06	ADRA2A, CCL5, CD47, FCGR2A, HCLS1, LCP2, SELL, THBS2, TIMP2, VAV1	10
Inflammatory Response	aggregation	aggregation of neutrophils	1,16E-05	ITGAM, ITGB2, SELL, SELPLG	4
Inflammatory Response	cell movement	cell movement	4,29E-09	ANXA1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CSF1R, CXCL9, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG,	21

		of phagocytes		TGFBR2	
Inflammatory Response	cell movement	cell movement of neutrophils	5,75E-09	ANXA1, CASP1, CCL5, CCR2, CD28, CD44, CD47, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	18
Inflammatory Response	cell movement	cell movement of bone marrow cells	7,72E-06	ANXA1, CD44, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	8
Inflammatory Response	adhesion	adhesion of neutrophils	6,75E-09	ANXA1, CD44, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	10
Inflammatory Response	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Inflammatory Response	inflammation	inflammation	8,58E-09	ADAM12, CASP1, CCL5, CCR2, CCR5, CD44, CD47, CLU, CTSS, FCGR2A, FCGR2B, IL2RG, IL7R, ITGB2, ITK, NLRP3, PRF1, PTPRC, SELL, STAT4, TGFBR2, THBS2, TNFSF13B	23
Inflammatory Response	inflammation	inflammation of organ	9,45E-08	CASP1, CCR2, CCR5, CD44, CD47, CLU, CTSS, FCGR2A, FCGR2B, ITGB2, ITK, NLRP3, PRF1, STAT4, THBS2, TNFSF13B	16
Inflammatory Response	processing	processing of antigen	2,09E-08	CD74, FCGR2B, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1	7
Inflammatory Response	migration	migration of phagocytes	4,15E-08	ANXA1, CCL5, CD47, CNN2, CSF1R, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, RAC2, SELL	13
Inflammatory Response	migration	migration of neutrophils	1,42E-07	ANXA1, CCL5, CD47, CNN2, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	11
Inflammatory Response	binding	binding of phagocytes	2,27E-07	CD2, CD209, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, PTPRC, SELL, SELPLG	10
Inflammatory Response	chemotaxis	chemotaxis of leukocytes	3,58E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, THBS2	18
Inflammatory Response	chemotaxis	chemotaxis of myeloid cells	9,94E-06	ANXA1, CCL5, CD28, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	11
Inflammatory Response	infiltration	infiltration by neutrophils	1,14E-06	ANXA1, CASP1, CCR2, CD44, ITGAL, ITGAM, ITGB2, LTB4R, RAC2, SELL, TGFBR2	11
Inflammatory Response	antibody response	antibody response	2,39E-06	CCL5, CCR2, CD28, HLA-B, IL7, LCP2, PTPRC, SH2D1A, TNFSF13B, VAV1	10
Inflammatory Response	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5
Inflammatory Response	transmigration	transmigration of granulocytes	3,66E-06	ANXA1, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	7
Inflammatory Response	transmigration	transmigration of neutrophils	9,11E-06	ANXA1, CD47, ITGAL, ITGAM, ITGAX, ITGB2	6
Inflammatory Response	TH1 immune response	TH1 immune response of animal	3,18E-06	CCR5, CLEC7A, IRF1, ITK, STAT4, TBX21	6
Inflammatory Response	trafficking	trafficking of phagocytes	3,84E-06	CCL5, CCR5, ITGB2	3
Inflammatory Response	quantity	quantity of phagocytes	4,80E-06	AHR, CCR2, CNN2, CSF1R, CTSS, ITGB2, ITGB6, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13
Inflammatory Response	CD4 T-cell response	CD4 T-cell response	9,71E-06	CASP1, CCR5, CLEC7A, IL7, IRF1, ITK, STAT4, TBX21	8
Inflammatory Response	cytotoxic reaction	cytotoxic reaction of eukaryotic cells	1,06E-05	ATM, CD47, CD48, FCGR2A, ITGAM, LCK, VAV1	7
Inflammatory Response	respiratory burst	respiratory burst of leukocytes	1,06E-05	HCK, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, PTPRC	7
Inflammatory Response	respiratory	respiratory	1,21E-	CYBB, HCK, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, PTPRC	8

ry Response	burst	burst	05		
Cellular Development	developmental process	developmental process of blood cells	3,48E-41	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD209, CD247, CD300A, CD3D, CD8A, CIITA, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, ETV6, FCGR2A, FCGR2B, FLI1, GFI1, GFRA1, GZMA, GZMB, HCLS1, HHEX, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	84
Cellular Development	developmental process	developmental process of leukocytes	4,17E-40	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD209, CD247, CD300A, CD3D, CD8A, CIITA, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GFRA1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	79
Cellular Development	developmental process	developmental process of mononuclear leukocytes	8,26E-39	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GFRA1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	73
Cellular Development	developmental process	developmental process of lymphocytes	3,33E-37	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	70
Cellular Development	developmental process	developmental process of helper T lymphocytes	7,59E-17	AHR, ANXA1, CASP1, CD28, ETS1, GFI1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, LCP2, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1	23
Cellular Development	developmental process	developmental process of thymocytes	9,99E-15	CD2, CD28, CD74, CD247, CD3D, ETS1, FCGR2B, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCK, LCP2, MYB (includes EG:4602), PTPRC, RUNX1, SIT1	19
Cellular Development	developmental process	developmental process of Th2 cells	8,18E-10	CD28, GFI1, IRF1, ITK, JAK3, LCP2, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1	12
Cellular Development	developmental process	developmental process of B lymphocytes	1,18E-09	AHR, BCL11A, CD74, EBF1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF4, JAK3, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PTPRC, TCF4, TNFSF13B, VAV1	19
Cellular Development	developmental process	developmental process of hematopoietic cells	2,52E-09	CCND2, CSF1R, EBF1, ETV6, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, JAK3, MYB (includes EG:4602), PTPRC, RUNX1, RUNX2, SH2B3, THBS2	17
Cellular Development	developmental process	developmental process of bone marrow cells	9,77E-09	CCND2, CD44, CD8A, CSF1R, CSF2RB, ETV6, FLI1, GFI1, IL7, IL2RB, IRF8, JAK3, MYB (includes EG:4602), RASGRP4, RUNX1, RUNX2, SH2B3, THBS2, VAV1	19
Cellular Development	developmental process	developmental process of gamma-delta T lymphocytes	3,83E-08	CD3D, IL7, IL2RG, JAK3, LCK, PTPRC	6

Cellular Development	developmental process	developmental process of leukocyte cell lines	1,03E-07	CCND2, CD28, CSF2RB, ETV6, IKZF1, IL10RA, IL2RB, IL2RG, IRF1, JAK3, LCP2, MYB (includes EG:4602), NOTCH2, RUNX1, SH2B3	15
Cellular Development	developmental process	developmental process of hematopoietic progenitor cells	1,43E-07	CCND2, CSF1R, EBF1, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, MYB (includes EG:4602), RUNX1, RUNX2, SH2B3, THBS2	14
Cellular Development	developmental process	developmental process of antigen presenting cells	1,53E-07	CCL5, CCR2, CD44, CD47, CD209, CSF1R, CSF2RB, FCGR2B, GFI1, IKZF1, IRF1, IRF4, IRF8, ITGB6, MYB (includes EG:4602), TGFBR2	16
Cellular Development	developmental process	developmental process of dendritic cells	2,25E-07	CCL5, CCR2, CD44, CD209, CSF1R, FCGR2B, GFI1, IKZF1, IRF1, IRF4, IRF8, ITGB6, TGFBR2	13
Cellular Development	developmental process	developmental process of Th1 cells	5,38E-07	ANXA1, CASP1, IRF1, IRF8, ITGAL, ITGB2, JAK3, LCP2, STAT4, TBX21	10
Cellular Development	developmental process	developmental process of myeloid cells	5,56E-07	CD8A, CSF1R, CSF2RB, GFI1, IL7, IL2RB, IRF8, JAK3, MYB (includes EG:4602), RASGRP4, RUNX1, RUNX2, SH2B3	13
Cellular Development	developmental process	developmental process of natural killer T lymphocytes	6,31E-07	ETS1, IKZF1, ITK, SH2D1A, TBX21, TGFBR2	6
Cellular Development	developmental process	developmental process of intraepithelial T lymphocytes	2,01E-06	IL7, IRF1, LCK, PTPRC	4
Cellular Development	developmental process	developmental process of lymphoid cells	7,05E-06	IL2RG, JAK3, LCP2, PRF1	4
Cellular Development	developmental process	developmental process of Th17 cells	9,11E-06	AHR, ETS1, IL7, STAT4, TGFBR2, TNFSF13B	6
Cellular Development	developmental process	developmental process of common lymphoid progenitor cells	1,16E-05	EBF1, IKZF1, IL7, SH2B3	4
Cellular Development	developmental process	arrest in developmental process of blood cells	1,32E-05	CD3D, IRF8, LCK, LCP2, PTPRC, RUNX1	6
Cellular Development	developmental process	developmental process of myeloid progenitor cells	1,59E-05	CSF1R, GFI1, IL7, IRF8, RUNX1, RUNX2, SH2B3	7
Cellular Development	development	development of leukocytes	1,19E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes	69

				EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, VAV1, WIPF1	
Cellular Development	development	T cell development	1,24E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, VAV1, WIPF1	66
Cellular Development	development	development of lymphocytes	1,44E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, VAV1, WIPF1	68
Cellular Development	development	development of cells	2,60E-32	ADRA2A, AHR, ANTXR1, ANXA1, ATM, BASP1, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CDC42SE1, CIITA, CNN2, CSF1R, DEF6, DGKA, EBF1, EOMES, ETS1, ETV6, FCGR2A, FCGR2B, GFI1, GFRA1, GZMA, GZMB, HCK, HHEX, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MAP4K1, MARCKS, MYB (includes EG:4602), MYH9, NFATC2, NOTCH2, PARVG, PRF1, PTPN22, PTPRC, RAC2, RASSF5, ROBO1, RUNX1, RUNX2, SELL, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1, VAV1, WIPF1	90
Cellular Development	development	development of thymocytes	4,81E-10	CD74, CD3D, ETS1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCP2, MYB (includes EG:4602), PTPRC, SIT1	12
Cellular Development	development	development of helper T lymphocytes	7,26E-07	AHR, CASP1, CD28, IRF1, ITGB2, ITK, STAT4, TBX21	8
Cellular Development	development	NK cell development	9,73E-07	CD2, EOMES, FCGR2A, IKZF1, IL7, IRF1, ITGAL, JAK3, TBX21	9
Cellular Development	development	development of B lymphocytes	1,06E-06	EBF1, IL7, IL2RG, IL7R, JAK3, MYB (includes EG:4602), NOTCH2, TCF4, TNFSF13B, VAV1	10
Cellular Development	development	development of lymphatic system cells	6,65E-06	CD44, CD8A, ETV6, IL7, IL2RB, IL2RG, JAK3, LCP2, THBS2	9
Cellular Development	differentiation	differentiation of blood cells	3,36E-33	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD47, CD74, CD300A, CD3D, CD8A, CSF1R, CSF2RB, DEF6, EBF1, ETS1, ETV6, FCGR2B, FLI1, GFI1, HCLS1, HHEX, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TGFBR2, THBS2, TNFSF13B, VAV1, WIPF1	61
Cellular Development	differentiation	differentiation of leukocytes	1,01E-30	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD47, CD74, CD300A, CD3D, CD8A, CSF1R, CSF2RB, DEF6, EBF1, ETS1, FCGR2B, GFI1, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1, WIPF1	55
Cellular Development	differentiation	differentiation of T lymphocytes	1,50E-28	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD8A, DEF6, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1, WIPF1	42
Cellular Development	differentiation	differentiation of lymphocytes	1,06E-27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes	46

				EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1, WIPF1	
Cellular Development	differentiation	differentiation of mononuclear leukocytes	5,62E-27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, CSF1R, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1, WIPF1	47
Cellular Development	differentiation	differentiation of cells	4,51E-19	AHR, ANXA1, ATM, BCL11A, BCL2A1, CCL5, CCND2, CD2, CD28, CD44, CD47, CD74, CD300A, CD3D, CD8A, CLU, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, ETV6, FCGR2B, FLI1, GAS7, GFI1, GFRA1, GZMB, HCLS1, HHEX, HLA-C, HLA-DOA, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, NRP1, PRKCB, PTPN22, PTPRC, RASA3, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TGFBR2, THBS2, TIMP2, TNFSF13B, VAV1, WIPF1	76
Cellular Development	differentiation	differentiation of helper T lymphocytes	6,25E-15	AHR, ANXA1, CD28, ETS1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1	20
Cellular Development	differentiation	differentiation of Th2 cells	1,44E-08	CD28, IRF1, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1	10
Cellular Development	differentiation	differentiation of hematopoietic cells	1,77E-08	CSF1R, ETV6, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, JAK3, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	13
Cellular Development	differentiation	differentiation of hematopoietic progenitor cells	3,47E-07	CSF1R, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	11
Cellular Development	differentiation	differentiation of B lymphocytes	1,56E-06	BCL11A, CD74, EBF1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF4, NFAM1, PTPRC, TNFSF13B	12
Cellular Development	differentiation	differentiation of thymocytes	5,92E-06	CD2, CD28, FCGR2B, IKZF1, IL2RG, LCP2, MYB (includes EG:4602)	7
Cellular Development	differentiation	differentiation of Th1 cells	1,21E-05	ANXA1, IRF1, IRF8, ITGAL, ITGB2, JAK3, STAT4, TBX21	8
Cellular Development	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFBR2, THBS2	29
Cellular Development	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC	10
Cellular Development	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25
Cellular Development	shape change	shape change of blood cells	3,13E-14	ADRA2A, CCL5, CCR2, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, MYH9, SELL, WIPF1	16
Cellular Development	shape change	shape change of leukocytes	1,08E-11	CCL5, CCR2, CD44, CD47, CD247, CNN2, HCK, ITGAL, ITGAM, ITGB2, MYH9, SELL, WIPF1	13
Cellular Development	shape change	shape change of eukaryotic cells	1,54E-11	ADRA2A, ANTXR1, BASP1, CCL5, CCR2, CD44, CD47, CD247, CDC42SE1, CNN2, CSF1R, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, KLRK1, MARCKS, MYH9, PARVG, ROBO1, RUNX2, SELL, THBS2, TPM1, WIPF1	27
Cellular Development	shape change	shape change of normal cells	1,95E-11	ADRA2A, BASP1, CCL5, CCR2, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, MYH9, ROBO1, RUNX2, SELL, THBS2, WIPF1	20
Cellular Development	shape change	shape change of	1,95E-06	CCL5, CCR2, HCK, ITGAM, ITGB2, SELL	6

nt		granulocytes				
Cellular Development	maturation	maturation of leukocytes	2,32E-13	AHR, ATM, CCL5, CCR2, CD28, CD44, CD209, CD247, FCGR2B, GFRA1, IL7, IRF1, IRF8, ITGAM, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2, TNFSF13B, VAV1	22	
Cellular Development	maturation	maturation of blood cells	2,94E-13	AHR, ATM, CCL5, CCND2, CCR2, CD28, CD44, CD209, CD247, FCGR2B, GFRA1, IL7, IRF1, IRF8, ITGAM, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2, TNFSF13B, VAV1	23	
Cellular Development	maturation	maturation of cells	6,37E-11	AHR, ATM, CCL5, CCND2, CCR2, CD28, CD44, CD209, CD247, CLU, FCGR2B, GFRA1, IL7, IRF1, IRF8, ITGAM, ITK, LCK, PRKCB, PTPRC, RUNX1, RUNX2, TBX21, TGFB2, TNFSF13B, VAV1	26	
Cellular Development	maturation	maturation of mononuclear leukocytes	6,77E-11	AHR, ATM, CD28, CD247, GFRA1, IL7, ITGAM, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2, TNFSF13B, VAV1	15	
Cellular Development	maturation	maturation of lymphocytes	4,80E-09	AHR, ATM, CD28, CD247, IL7, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2, TNFSF13B, VAV1	13	
Cellular Development	maturation	maturation of T lymphocytes	4,00E-08	ATM, CD28, CD247, IL7, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2	10	
Cellular Development	maturation	maturation of thymocytes	2,43E-06	CD247, IL7, LCK, PTPRC, RUNX1	5	
Cellular Development	expansion	expansion of blood cells	2,02E-11	AHR, CCND2, CD2, CD28, GFI1, IL7, IL10RA, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), NFATC2, PRF1, RUNX1, SH2B3, STAT4, TNFSF13B	18	
Cellular Development	expansion	expansion of lymphocytes	1,84E-09	AHR, CD2, CD28, GFI1, IL7, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	14	
Cellular Development	expansion	expansion of leukocytes	1,93E-09	AHR, CD2, CD28, GFI1, IL7, IL10RA, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	15	
Cellular Development	expansion	expansion of T lymphocytes	2,25E-07	AHR, CD2, CD28, GFI1, IL7, IRF1, JAK3, LCP2, PRF1, STAT4, TNFSF13B	11	
Cellular Development	growth	growth of blood cells	2,10E-11	AHR, CCND2, CD2, CD28, CSF1R, GFI1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, MYB (includes EG:4602), NFATC2, PRF1, RUNX1, SH2B3, STAT4, TNFSF13B	21	
Cellular Development	growth	growth of leukocytes	4,78E-10	AHR, CD2, CD28, CSF1R, GFI1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	18	
Cellular Development	growth	growth of lymphocytes	4,91E-09	AHR, CD2, CD28, GFI1, IL7, IL2RB, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	15	
Cellular Development	morphogenesis	morphogenesis of cells	2,62E-10	ADRA2A, ANTXR1, BASP1, CCL5, CCR2, CD44, CD47, CD247, CDC42SE1, CNN2, CSF1R, FCGR2A, GZMB, HCK, IL7R, ITGAL, ITGAM, ITGB2, KLRK1, MARCKS, MYH9, PARVG, RAC2, ROBO1, RUNX2, SELL, THBS2, TIMP2, TPM1, WIPF1	30	
Cellular Development	cell spreading	cell spreading of blood cells	1,89E-09	CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2	10	
Cellular Development	cell spreading	cell spreading of leukocytes	1,34E-07	CD44, CD47, CD247, CNN2, HCK, ITGAL, ITGAM, ITGB2	8	
Cellular Development	cell spreading	cell spreading of normal cells	1,42E-07	CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, THBS2	11	
Cellular Development	cell spreading	cell spreading of eukaryotic cells	2,00E-07	ANTXR1, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, KLRK1, PARVG, THBS2, TPM1	15	
Cellular Development	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8	

Cellular Development	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9
Cellular Development	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10
Cellular Development	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Cellular Development	hematopoiesis	hematopoiesis of cells	3,07E-07	ATM, CCR2, CD44, EBF1, ETV6, HHEX, IKZF1, IL7, JAK3, NOTCH2, RUNX1, SH2B3	12
Cellular Development	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7
Cellular Development	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)	8
Hematological System Development and Function	development	development of leukocytes	1,19E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	69
Hematological System Development and Function	development	T cell development	1,24E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	66
Hematological System Development and Function	development	development of lymphocytes	1,44E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	68
Hematological System Development and Function	development	development of thymocytes	4,81E-10	CD74, CD3D, ETS1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCP2, MYB (includes EG:4602), PTPRC, SIT1	12
Hematological System Development and Function	development	development of helper T lymphocytes	7,26E-07	AHR, CASP1, CD28, IRF1, ITGB2, ITK, STAT4, TBX21	8
Hematological System Development and Function	development	NK cell development	9,73E-07	CD2, EOMES, FCGR2A, IKZF1, IL7, IRF1, ITGAL, JAK3, TBX21	9
Hematological System Development and Function	development	development of B lymphocytes	1,06E-06	EBF1, IL7, IL2RG, IL7R, JAK3, MYB (includes EG:4602), NOTCH2, TCF4, TNFSF13B, VAV1	10
Hematological System Development	hematopoiesis	hematopoiesis	5,09E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, ETV6, FCGR2A, FCGR2B, GFI1, GZMA,	76

nt and Function				GZMB, HHEX, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	
Hematologi cal System Developme nt and Function	hematopoi esis	hematopoie sis of cells	3,07E- 07	ATM, CCR2, CD44, EBF1, ETV6, HHEX, IKZF1, IL7, JAK3, NOTCH2, RUNX1, SH2B3	12
Hematologi cal System Developme nt and Function	hematologi cal process	hematologic al process	9,48E- 36	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CLU, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, ETV6, FCGR2A, FCGR2B, FLI1, GFI1, GZMA, GZMB, HHEX, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	78
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of blood cells	3,36E- 33	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD47, CD74, CD300A, CD3D, CD8A, CSF1R, CSF2RB, DEF6, EBF1, ETS1, ETV6, FCGR2B, FLI1, GFI1, HCLS1, HHEX, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1	61
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of leukocytes	1,01E- 30	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD47, CD74, CD300A, CD3D, CD8A, CSF1R, CSF2RB, DEF6, EBF1, ETS1, FCGR2B, GFI1, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	55
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of T lymphocytes	1,50E- 28	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD8A, DEF6, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	42
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of lymphocytes	1,06E- 27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	46
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of mononuclea r leukocytes	5,62E- 27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, CSF1R, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	47
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of helper T lymphocytes	6,25E- 15	AHR, ANXA1, CD28, ETS1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1	20
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of Th2 cells	1,44E- 08	CD28, IRF1, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1	10
Hematologi cal System Developme nt and Function	differentiati on	differentiati on of hematopoi etic cells	1,77E- 08	CSF1R, ETV6, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, JAK3, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	13
Hematologi cal System	differentiati on	differentiati on of	3,47E- 07	CSF1R, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	11

Development and Function		hematopoietic progenitor cells			
Hematological System Development and Function	differentiation	differentiation of B lymphocytes	1,56E-06	BCL11A, CD74, EBF1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF4, NFAM1, PTPRC, TNFSF13B	12
Hematological System Development and Function	differentiation	differentiation of thymocytes	5,92E-06	CD2, CD28, FCGR2B, IKZF1, IL2RG, LCP2, MYB (includes EG:4602)	7
Hematological System Development and Function	differentiation	differentiation of Th1 cells	1,21E-05	ANXA1, IRF1, IRF8, ITGAL, ITGB2, JAK3, STAT4, TBX21	8
Hematological System Development and Function	quantity	quantity of leukocytes	2,16E-32	AHR, ATM, BCL2A1, CCL5, CCR2, CCR7, CD28, CD47, CD247, CD3D, CD8A, CIITA, CNN2, CSF1R, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LTB4R, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, TNFSF13B, VAV1	59
Hematological System Development and Function	quantity	quantity of blood cells	6,22E-32	AHR, ATM, BCL2A1, CCL5, CCR2, CCR7, CD28, CD47, CD247, CD3D, CD8A, CIITA, CNN2, CSF1R, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LTB4R, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, VAV1	61
Hematological System Development and Function	quantity	quantity of mononuclear leukocytes	1,30E-31	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CNN2, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, TNFSF13B, VAV1	52
Hematological System Development and Function	quantity	quantity of lymphocytes	1,51E-31	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, TNFSF13B, VAV1	51
Hematological System Development and Function	quantity	quantity of T lymphocytes	6,66E-27	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CSF2RB, CTSS, DEF6, ETS1, ETV6, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITK, JAK3, LCK, LCP2, PTPRC, RUNX1, RUNX2, SELPLG, SH2B3, SIT1, TAP1, TBX21, TGFBR2, TNFSF13B, VAV1	40
Hematological System Development and Function	quantity	quantity of B lymphocytes	2,44E-11	AHR, BCL2A1, CCR7, CD28, FCGR2A, IL7, IL2RG, IL7R, ITGB2, JAK3, NFATC2, NOTCH2, RAC2, SH2B3, SLA, TCF4, TGFBR2, TNFSF13B, VAV1	19
Hematological System Development and Function	quantity	quantity of natural killer T lymphocytes	8,25E-11	CSF2RB, ETS1, IKZF1, IL2RB, IL2RG, PTPRC, TBX21, TGFBR2, VAV1	9
Hematological System Development and Function	quantity	quantity of intraepithelial T lymphocytes	2,82E-09	IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1	6
Hematological System Development	quantity	quantity of thymocytes	5,97E-08	ATM, CCR7, CD247, ETS1, IL7, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1	12

nt and Function					
Hematologi cal System Developme nt and Function	quantity	quantity of antigen presenting cells	1,22E- 07	CCR2, CCR7, CD47, CSF1R, CTSS, IKZF1, IRF1, IRF4, IRF8, ITGB2, ITGB6, SELPLG, SH2B3, STAT4	14
Hematologi cal System Developme nt and Function	quantity	quantity of myeloid cells	2,13E- 07	AHR, CD8A, CNN2, CSF2RB, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	14
Hematologi cal System Developme nt and Function	quantity	quantity of natural killer cells	2,46E- 07	ETS1, IL2RB, IL2RG, IRF1, JAK3, PRF1, PTPRC, TBX21	8
Hematologi cal System Developme nt and Function	quantity	quantity of granulocytes	3,16E- 07	AHR, CD8A, CNN2, CSF2RB, FLI1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13
Hematologi cal System Developme nt and Function	quantity	quantity of pre-B lymphocytes	1,23E- 06	CD28, IL7, IL2RG, IL7R, SH2B3, TCF4, TNFSF13B	7
Hematologi cal System Developme nt and Function	quantity	quantity of dendritic cells	2,13E- 06	CCR2, CCR7, CD47, IKZF1, IRF1, IRF4, IRF8, ITGB2	8
Hematologi cal System Developme nt and Function	quantity	quantity of hematopoi etic progenitor cells	2,87E- 06	FLI1, IKZF1, IRF8, JAK3, MYB (includes EG:4602), RUNX1, SH2B3, STAT4, THBS2	9
Hematologi cal System Developme nt and Function	quantity	quantity of phagocytes	4,80E- 06	AHR, CCR2, CNN2, CSF1R, CTSS, ITGB2, ITGB6, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13
Hematologi cal System Developme nt and Function	quantity	quantity of pro-B lymphocytes	1,52E- 05	CD28, IL7, IL2RG, IL7R, TCF4	5
Hematologi cal System Developme nt and Function	proliferatio n	proliferation of mononuclea r leukocytes	4,96E- 29	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF1R, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	57
Hematologi cal System Developme nt and Function	proliferatio n	proliferation of leukocytes	1,01E- 28	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF1R, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	58
Hematologi cal System Developme nt and Function	proliferatio n	proliferation of lymphocytes	3,49E- 28	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	56

Hematological System Development and Function	proliferation	proliferation of T lymphocytes	1,06E-23	ANXA1, ATM, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF2RB, DEF6, DGKA, FYB, GFI1, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, MYB (includes EG:4602), NFATC2, PTPRC, RAC2, SASH3, SH2D1A, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	46
Hematological System Development and Function	proliferation	proliferation of B lymphocytes	1,01E-11	CCND2, CD44, CD74, CD8A, FCGR2B, HCK, IL7, IL2RG, IL7R, IRF4, IRF8, LEF1, NFATC2, PRKCB, PTPRC, SASH3, SH2B3, SLAMF7, TNFSF13B, VAV1, WIPF1	21
Hematological System Development and Function	proliferation	proliferation of leukocyte cell lines	8,85E-11	CD28, CD44, CD8A, CLEC7A, CSF1R, CSF2RB, ETV6, HCK, IL7, IL10RA, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602), PTPRC, RASGRP4, RUNX1, SH2B3	19
Hematological System Development and Function	proliferation	proliferation of naive lymphocytes	8,13E-07	CD28, DEF6, IL7, ITGAL, ITGB2, KLRK1, SLAMF7	7
Hematological System Development and Function	proliferation	proliferation of naive T lymphocytes	4,97E-06	CD28, DEF6, IL7, ITGAL, ITGB2, KLRK1	6
Hematological System Development and Function	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)	8
Hematological System Development and Function	activation	activation of leukocytes	2,13E-26	ANXA1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	52
Hematological System Development and Function	activation	activation of lymphocytes	1,59E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD1C, CD8A, CLEC7A, DEF6, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRK1, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	37
Hematological System Development and Function	activation	activation of T lymphocytes	7,00E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CLEC7A, DEF6, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, VAV1	32
Hematological System Development and Function	activation	activation of mast cells	4,95E-08	CCL5, CCR2, CD48, CD300A, FCGR2A, FCGR2B, FYB, ITGAM, LCP2	9
Hematological System Development and Function	activation	activation of natural killer cells	4,75E-07	CCL5, CD2, CD28, CD44, FCGR2A, IL2RB, ITGAL, ITGB2, KLRK1, PRF1, STAT4	11
Hematological System Development and Function	activation	activation of antigen presenting cells	5,10E-06	CCL5, CD74, CD209, CSF1R, FCGR2A, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, IL7, ITGB6, STAT4	13
Hematological System Development and Function	binding	binding of leukocytes	3,45E-18	CCL5, CCR5, CD2, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FCGR2B, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, PTPRC, SELL, SELPLG	26

Function					
Hematological System Development and Function	binding	binding of mononuclear leukocytes	3,00E-14	CCL5, CCR5, CD2, CD44, CD47, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, LCP2, NFATC2, SELL, SELPLG	18
Hematological System Development and Function	binding	binding of lymphocytes	3,03E-13	CCL5, CD2, CD44, CD47, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, NFATC2, SELL, SELPLG	16
Hematological System Development and Function	binding	binding of T lymphocytes	2,04E-11	CCL5, CD2, CD47, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG	13
Hematological System Development and Function	binding	binding of phagocytes	2,27E-07	CD2, CD209, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, PTPRC, SELL, SELPLG	10
Hematological System Development and Function	binding	binding of peripheral blood leukocytes	3,97E-06	CCR5, ITGAM, ITGB2, LCP2	4
Hematological System Development and Function	binding	binding of antigen presenting cells	1,22E-05	CD2, CD209, FYB, ITGAL, LCK, MRC1, PTPRC	7
Hematological System Development and Function	binding	binding of peripheral blood mononuclear leukocytes	1,52E-05	CCR5, ITGAM, ITGB2	3
Hematological System Development and Function	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFBR2, THBS2	29
Hematological System Development and Function	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC	10
Hematological System Development and Function	adhesion	adhesion of leukocytes	5,52E-17	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFBR2, THBS2, VAV1	28
Hematological System Development and Function	adhesion	adhesion of mononuclear leukocytes	1,06E-16	CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, SELL, SELPLG, TGFBR2, THBS2, VAV1	22
Hematological System Development and Function	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Hematological System Development and Function	adhesion	adhesion of lymphocytes	5,56E-12	CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	16

Function					
Hematological System Development and Function	adhesion	adhesion of neutrophils	6,75E-09	ANXA1, CD44, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	10
Hematological System Development and Function	adhesion	adhesion of granulocytes	2,67E-08	ANXA1, CD44, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	11
Hematological System Development and Function	adhesion	adhesion of antigen presenting cells	4,14E-07	CD2, CD44, CD48, CD209, ITGAL, ITGAM, ITGB2	7
Hematological System Development and Function	adhesion	adhesion of monocytes	5,07E-06	CCL5, ITGAM, ITGAX, ITGB2, LCP1, TGFBR2, VAV1	7
Hematological System Development and Function	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Hematological System Development and Function	adhesion	adhesion of leukocyte cell lines	1,32E-05	ANXA1, GF11, ITGAL, ITGAM, ITGB2, SELL	6
Hematological System Development and Function	interaction	interaction of T lymphocytes	8,46E-16	CCL5, CCR5, CCR7, CD2, CD28, CD47, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, NRP1, SELPLG	18
Hematological System Development and Function	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GF11, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25
Hematological System Development and Function	cell movement	cell movement of leukocytes	1,10E-13	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CSF1R, CTSS, CXCL9, CXCL16, FCGR2A, FCGR2B, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, NFATC2, PRF1, PRKCB, PTPRC, RAC2, SELL, SELPLG, TGFBR2, THBS2, TIMP2	36
Hematological System Development and Function	cell movement	cell movement of myeloid cells	9,23E-12	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, PTPRC, RAC2, SELL, SELPLG, TGFBR2	24
Hematological System Development and Function	cell movement	cell movement of granulocytes	5,64E-11	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, RAC2, SELL, SELPLG, TGFBR2	23
Hematological System Development and Function	cell movement	cell movement of mononuclear leukocytes	1,34E-10	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CTSS, CXCL9, CXCL16, ITGAL, ITGAX, ITGB2, ITK, NFATC2, PRF1, PRKCB, RAC2, SELL, SELPLG, THBS2, TIMP2	23
Hematological System Development and Function	cell movement	cell movement of phagocytes	4,29E-09	ANXA1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CSF1R, CXCL9, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	21

Function					
Hematological System Development and Function	cell movement	cell movement of neutrophils	5,75E-09	ANXA1, CASP1, CCL5, CCR2, CD28, CD44, CD47, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	18
Hematological System Development and Function	cell movement	cell movement of T lymphocytes	1,12E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, PRF1, SELL, SELPLG, THBS2	14
Hematological System Development and Function	cell movement	cell movement of lymphocytes	5,42E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, NFATC2, PRF1, RAC2, SELL, SELPLG, THBS2	16
Hematological System Development and Function	cell movement	cell movement of eosinophils	9,47E-07	CCL5, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK	10
Hematological System Development and Function	cell movement	cell movement of monocytes	2,11E-06	ANXA1, CCL5, CCR2, CD47, CTSS, CXCL9, ITGAL, ITGAX, ITGB2, PRKCB, TIMP2	11
Hematological System Development and Function	cell movement	cell movement of memory T lymphocytes	6,67E-06	CCL5, CCR7, CD28, CXCL9, ITGB2	5
Hematological System Development and Function	recruitment	recruitment of leukocytes	5,72E-13	AHR, ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD8A, CLU, CXCL9, CXCL16, ETS1, FCGR2B, ITGAM, ITGB2, LTB4R, LYZ, SELL, SELPLG, THBS2	21
Hematological System Development and Function	recruitment	recruitment of phagocytes	2,30E-10	AHR, ANXA1, CCL5, CCR2, CCR5, CD28, CD44, CD8A, CLU, ETS1, FCGR2B, ITGAM, ITGB2, LYZ, THBS2	15
Hematological System Development and Function	recruitment	recruitment of antigen presenting cells	2,35E-07	ANXA1, CCL5, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	9
Hematological System Development and Function	recruitment	recruitment of T lymphocytes	5,16E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1	8
Hematological System Development and Function	recruitment	recruitment of lymphocytes	5,69E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1, SELL	9
Hematological System Development and Function	recruitment	recruitment of macrophages	1,01E-06	ANXA1, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	8
Hematological System Development and Function	recruitment	recruitment of granulocytes	1,24E-06	AHR, ANXA1, CCL5, CCR2, CD28, CD8A, CXCL9, FCGR2B, ITGAM, LTB4R, LYZ	11

Function					
Hematological System Development and Function	aggregation	aggregation of blood cells	1,75E-12	ADRA2A, CCL5, CD44, CD47, CD209, CXCL9, FCGR2A, HCLS1, IL7, ITGAL, ITGAM, ITGB2, LCK, LCP2, NRP1, SELL, SELPLG, THBS2, TIMP2, VAV1	20
Hematological System Development and Function	aggregation	aggregation of leukocytes	2,37E-09	CD44, CD209, IL7, ITGAL, ITGAM, ITGB2, LCK, NRP1, SELL, SELPLG	10
Hematological System Development and Function	aggregation	aggregation of leukocyte cell lines	2,17E-07	CD2, CD47, ITGAL, ITGAM, ITGB2	5
Hematological System Development and Function	aggregation	aggregation of phagocytes	4,88E-06	ITGAM, ITGB2, LCK, SELL, SELPLG	5
Hematological System Development and Function	aggregation	aggregation of blood platelets	9,79E-06	ADRA2A, CCL5, CD47, FCGR2A, HCLS1, LCP2, SELL, THBS2, TIMP2, VAV1	10
Hematological System Development and Function	aggregation	aggregation of neutrophils	1,16E-05	ITGAM, ITGB2, SELL, SELPLG	4
Hematological System Development and Function	accumulation	accumulation of leukocytes	7,14E-12	CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CYBB, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, NFATC2, SELL, SELPLG, TIMP2	20
Hematological System Development and Function	accumulation	accumulation of mononuclear leukocytes	3,74E-10	CCL5, CCR5, CCR7, CD28, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	13
Hematological System Development and Function	accumulation	accumulation of lymphocytes	1,36E-09	CCL5, CCR5, CCR7, CD28, DEF6, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	12
Hematological System Development and Function	accumulation	accumulation of T lymphocytes	1,45E-07	CCL5, CCR5, CCR7, CD28, DEF6, IL10RA, IL2RG, ITGAL, NFATC2	9
Hematological System Development and Function	transmigration	transmigration of leukocytes	1,62E-10	ANXA1, CCL5, CCR7, CD28, CD44, CD47, CD209, CTSS, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, TIMP2	14
Hematological System Development and Function	transmigration	transmigration of mononuclear leukocytes	2,95E-09	CCL5, CCR7, CD28, CD44, CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	10
Hematological System Development and Function	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5

Function					
Hematological System Development and Function	transmigration	transmigration of granulocytes	3,66E-06	ANXA1, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	7
Hematological System Development and Function	transmigration	transmigration of neutrophils	9,11E-06	ANXA1, CD47, ITGAL, ITGAM, ITGAX, ITGB2	6
Hematological System Development and Function	transmigration	transmigration of monocytes	1,32E-05	CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	6
Hematological System Development and Function	function	function of lymphocytes	2,26E-10	AHR, CD28, FCGR2A, IL7, IL10RA, JAK3, KLRK1, PRF1, SH2D1A, STAT4, TNFSF13B, VAV1	12
Hematological System Development and Function	function	function of T lymphocytes	1,37E-06	CD28, IL7, IL10RA, JAK3, PRF1, SH2D1A, STAT4, VAV1	8
Hematological System Development and Function	generation	generation of lymphocytes	4,39E-10	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	13
Hematological System Development and Function	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10
Hematological System Development and Function	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Hematological System Development and Function	survival	survival of lymphocytes	1,73E-09	CD28, CD44, CD8A, CLU, HCK, IL7, IL2RB, IL2RG, JAK3, LEF1, MYB (includes EG:4602), PRKCB, PTPRC, STAT4, TNFSF13B	15
Hematological System Development and Function	survival	survival of B lymphocytes	3,22E-06	CD44, CLU, HCK, IL7, LEF1, MYB (includes EG:4602), PRKCB, TNFSF13B	8
Hematological System Development and Function	survival	survival of T lymphocytes	3,57E-06	CD28, CD8A, IL7, IL2RB, IL2RG, JAK3, MYB (includes EG:4602), PTPRC, STAT4	9
Hematological System Development and Function	expansion	expansion of lymphocytes	1,84E-09	AHR, CD2, CD28, GFI1, IL7, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	14
Hematological System Development and Function	expansion	expansion of T lymphocytes	2,25E-07	AHR, CD2, CD28, GFI1, IL7, IRF1, JAK3, LCP2, PRF1, STAT4, TNFSF13B	11

Function					
Hematological System Development and Function	maturation	maturation of lymphocytes	4,80E-09	AHR, ATM, CD28, CD247, IL7, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2, TNFSF13B, VAV1	13
Hematological System Development and Function	maturation	maturation of T lymphocytes	4,00E-08	ATM, CD28, CD247, IL7, ITK, LCK, PTPRC, RUNX1, TBX21, TGFB2	10
Hematological System Development and Function	maturation	maturation of thymocytes	2,43E-06	CD247, IL7, LCK, PTPRC, RUNX1	5
Hematological System Development and Function	growth	growth of lymphocytes	4,91E-09	AHR, CD2, CD28, GFI1, IL7, IL2RB, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	15
Hematological System Development and Function	phagocytosis	phagocytosis of myeloid cells	7,84E-09	ANXA1, CD47, CSF2RB, FCGR2A, IRF8, ITGAM, ITGB2, SELPLG	8
Hematological System Development and Function	phagocytosis	phagocytosis of granulocytes	1,47E-07	ANXA1, CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	7
Hematological System Development and Function	phagocytosis	phagocytosis of red blood cells	6,31E-07	CD44, FCGR2A, HCK, ITGAM, ITGB2, RAC2	6
Hematological System Development and Function	phagocytosis	phagocytosis of macrophages	1,23E-06	ANXA1, CD44, CD47, CNN2, DEF6, FCGR2B, ITGB2	7
Hematological System Development and Function	phagocytosis	phagocytosis of neutrophils	1,95E-06	CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	6
Hematological System Development and Function	cell rolling	cell rolling of leukocytes	8,21E-09	ANXA1, CCR2, CCR7, CD44, FCGR2A, ITGAM, ITGB2, RAC2, SELL, SELPLG	10
Hematological System Development and Function	cell rolling	cell rolling of granulocytes	1,52E-05	ANXA1, ITGB2, RAC2, SELL, SELPLG	5
Hematological System Development and Function	cell rolling	cell rolling of mononuclear leukocytes	1,52E-05	CCR2, CCR7, ITGB2, SELL, SELPLG	5
Hematological System Development and Function	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8

Function					
Hematological System Development and Function	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9
Hematological System Development and Function	lymphopoiesis	lymphopoiesis	1,08E-07	CD44, EBF1, IL7, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602)	8
Hematological System Development and Function	homing	homing of leukocytes	1,40E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, SELPLG, THBS2	19
Hematological System Development and Function	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7
Hematological System Development and Function	chemotaxis	chemotaxis of leukocytes	3,58E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, THBS2	18
Hematological System Development and Function	chemotaxis	chemotaxis of myeloid cells	9,94E-06	ANXA1, CCL5, CD28, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	11
Hematological System Development and Function	extravasation	extravasation of leukocytes	4,14E-07	CCL5, CCR2, CCR5, CD44, ITGAM, ITGB2, SELL	7
Hematological System Development and Function	infiltration	infiltration by neutrophils	1,14E-06	ANXA1, CASP1, CCR2, CD44, ITGAL, ITGAM, ITGB2, LTB4R, RAC2, SELL, TGFBR2	11
Hematological System Development and Function	egression	egression of leukocytes	1,64E-06	CCR2, CCR5, CCR7, ITGAM, ITGB2	5
Hematological System Development and Function	signaling	signaling of T lymphocytes	1,64E-06	IL2RB, IL2RG, ITGB2, LCP2, SH2D1A	5
Hematological System Development and Function	stimulation	stimulation of T lymphocytes	1,85E-06	CD2, CD28, CD74, CD209, IL7, KLRK1, PTPRC, TNFSF13B	8
Hematological System Development and Function	response	response of lymphocytes	3,18E-06	CD28, CXCL9, FCGR2B, GZMB, IL10RA, ITK, NFATC2, SELPLG, STAT4, TBX21	10
Hematological System Development and Function	trafficking	trafficking of phagocytes	3,84E-06	CCL5, CCR5, ITGB2	3

Function						
Hematological System Development and Function	trafficking	trafficking of leukocytes	6,13E-06	ANXA1, CCL5, CCR2, CCR5, CD44, ITGB2		6
Hematological System Development and Function	trafficking	trafficking of antigen presenting cells	1,52E-05	CCL5, CCR2, CCR5		3
Hematological System Development and Function	detachment	detachment of leukocytes	7,05E-06	ANXA1, ITGAL, PTPRC, SELL		4
Hematological System Development and Function	attachment	attachment of lymphocytes	1,16E-05	CD209, ITGB2, SELL, VAV1		4
Hematopoiesis	development	development of leukocytes	1,19E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1		69
Hematopoiesis	development	T cell development	1,24E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1		66
Hematopoiesis	development	development of lymphocytes	1,44E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EBF1, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1		68
Hematopoiesis	development	development of thymocytes	4,81E-10	CD74, CD3D, ETS1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCP2, MYB (includes EG:4602), PTPRC, SIT1		12
Hematopoiesis	development	development of helper T lymphocytes	7,26E-07	AHR, CASP1, CD28, IRF1, ITGB2, ITK, STAT4, TBX21		8
Hematopoiesis	development	NK cell development	9,73E-07	CD2, EOMES, FCGR2A, IKZF1, IL7, IRF1, ITGAL, JAK3, TBX21		9
Hematopoiesis	development	development of B lymphocytes	1,06E-06	EBF1, IL7, IL2RG, IL7R, JAK3, MYB (includes EG:4602), NOTCH2, TCF4, TNFSF13B, VAV1		10
Hematopoiesis	hematopoiesis	hematopoiesis	5,09E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, CSF1R, CSF2RB, DEF6, EBF1, EOMES, ETS1, ETV6, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HHEX, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFAM1, NFATC2, NOTCH2, PRF1, PTPN22, PTPRC, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1		76

Hematopoiesis	hematopoiesis	hematopoiesis of cells	3,07E-07	ATM, CCR2, CD44, EBF1, ETV6, HHEX, IKZF1, IL7, JAK3, NOTCH2, RUNX1, SH2B3	12
Hematopoiesis	differentiation	differentiation of leukocytes	1,01E-30	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD47, CD74, CD300A, CD3D, CD8A, CSF1R, CSF2RB, DEF6, EBF1, ETS1, FCGR2B, GFI1, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	55
Hematopoiesis	differentiation	differentiation of T lymphocytes	1,50E-28	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD8A, DEF6, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	42
Hematopoiesis	differentiation	differentiation of lymphocytes	1,06E-27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	46
Hematopoiesis	differentiation	differentiation of mononuclear leukocytes	5,62E-27	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD3D, CD8A, CSF1R, DEF6, EBF1, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFAM1, NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1	47
Hematopoiesis	differentiation	differentiation of helper T lymphocytes	6,25E-15	AHR, ANXA1, CD28, ETS1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1	20
Hematopoiesis	differentiation	differentiation of Th2 cells	1,44E-08	CD28, IRF1, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1	10
Hematopoiesis	differentiation	differentiation of hematopoietic cells	1,77E-08	CSF1R, ETV6, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, JAK3, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	13
Hematopoiesis	differentiation	differentiation of hematopoietic progenitor cells	3,47E-07	CSF1R, FLI1, GFI1, HHEX, IKZF1, IL7, IRF8, MYB (includes EG:4602), RUNX1, RUNX2, THBS2	11
Hematopoiesis	differentiation	differentiation of B lymphocytes	1,56E-06	BCL11A, CD74, EBF1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF4, NFAM1, PTPRC, TNFSF13B	12
Hematopoiesis	differentiation	differentiation of thymocytes	5,92E-06	CD2, CD28, FCGR2B, IKZF1, IL2RG, LCP2, MYB (includes EG:4602)	7
Hematopoiesis	differentiation	differentiation of Th1 cells	1,21E-05	ANXA1, IRF1, IRF8, ITGAL, ITGB2, JAK3, STAT4, TBX21	8
Hematopoiesis	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFB2, THBS2	29
Hematopoiesis	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC	10
Hematopoiesis	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25
Hematopoiesis	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8
Hematopoiesis	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9
Hematopoiesis	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10

Hematopoiesis	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Hematopoiesis	quantity	quantity of thymocytes	5,97E-08	ATM, CCR7, CD247, ETS1, IL7, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1	12
Hematopoiesis	quantity	quantity of pre-B lymphocytes	1,23E-06	CD28, IL7, IL2RG, IL7R, SH2B3, TCF4, TNFSF13B	7
Hematopoiesis	quantity	quantity of hematopoietic progenitor cells	2,87E-06	FLI1, IKZF1, IRF8, JAK3, MYB (includes EG:4602), RUNX1, SH2B3, STAT4, THBS2	9
Hematopoiesis	quantity	quantity of pro-B lymphocytes	1,52E-05	CD28, IL7, IL2RG, IL7R, TCF4	5
Hematopoiesis	lymphopoiesis	lymphopoiesis	1,08E-07	CD44, EBF1, IL7, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602)	8
Hematopoiesis	migration	migration of neutrophils	1,42E-07	ANXA1, CCL5, CD47, CNN2, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	11
Hematopoiesis	migration	migration of granulocytes	4,86E-07	ANXA1, CCL5, CD47, CNN2, CXCL9, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	12
Hematopoiesis	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7
Hematopoiesis	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5
Hematopoiesis	transmigration	transmigration of granulocytes	3,66E-06	ANXA1, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	7
Hematopoiesis	transmigration	transmigration of neutrophils	9,11E-06	ANXA1, CD47, ITGAL, ITGAM, ITGAX, ITGB2	6
Hematopoiesis	cell movement	cell movement of bone marrow cells	7,72E-06	ANXA1, CD44, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	8
Hematopoiesis	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)	8
Cell-mediated Immune Response	development	T cell development	1,24E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, VAV1, WIPF1	66
Cell-mediated Immune Response	development	development of thymocytes	4,81E-10	CD74, CD3D, ETS1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCP2, MYB (includes EG:4602), PTPRC, SIT1	12
Cell-mediated Immune Response	development	development of helper T lymphocytes	7,26E-07	AHR, CASP1, CD28, IRF1, ITGB2, ITK, STAT4, TBX21	8
Cell-mediated Immune Response	development	NK cell development	9,73E-07	CD2, EOMES, FCGR2A, IKZF1, IL7, IRF1, ITGAL, JAK3, TBX21	9
Cell-mediated Immune Response	differentiation	differentiation of T lymphocytes	1,50E-28	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD8A, DEF6, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1, WIPF1	42
Cell-	differentiation	differentiation	6,25E-	AHR, ANXA1, CD28, ETS1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3,	20

mediated Immune Response	on	on of helper T lymphocytes	15	NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFBR2, TNFSF13B, VAV1	
Cell-mediated Immune Response	differentiation	differentiation of Th2 cells	1,44E-08	CD28, IRF1, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1	10
Cell-mediated Immune Response	differentiation	differentiation of thymocytes	5,92E-06	CD2, CD28, FCGR2B, IKZF1, IL2RG, LCP2, MYB (includes EG:4602)	7
Cell-mediated Immune Response	differentiation	differentiation of Th1 cells	1,21E-05	ANXA1, IRF1, IRF8, ITGAL, ITGB2, JAK3, STAT4, TBX21	8
Cell-mediated Immune Response	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFBR2, THBS2	29
Cell-mediated Immune Response	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC	10
Cell-mediated Immune Response	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25
Cell-mediated Immune Response	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Cell-mediated Immune Response	migration	T cell migration	1,62E-09	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, FYB, IL7, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, THBS2, TIMP2	18
Cell-mediated Immune Response	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8
Cell-mediated Immune Response	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9
Cell-mediated Immune Response	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10
Cell-mediated Immune Response	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Cell-mediated Immune Response	cell movement	cell movement of T lymphocytes	1,12E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, PRF1, SELL, SELPLG, THBS2	14
Cell-mediated Immune Response	cell movement	movement of memory T lymphocytes	6,67E-06	CCL5, CCR7, CD28, CXCL9, ITGB2	5
Cell-mediated Immune Response	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7
Cell-mediated Immune Response	recruitment	recruitment of T	5,16E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1	8

Immune Response		lymphocytes				
Cell-mediated Immune Response	formation	formation of immunological synapses	1,07E-06	CD28, CD209, DEF6, ITGAM, ITK		5
Cell-mediated Immune Response	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)		8
Cellular Function and Maintenance	development	T cell development	1,24E-38	AHR, ANXA1, ATM, BCL11A, BCL11B, BCL2A1, CASP1, CCL5, CCR5, CCR7, CD2, CD28, CD44, CD47, CD74, CD247, CD3D, CD8A, CIITA, DEF6, EOMES, ETS1, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-C, HLA-DOA, HLA-DQB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MAP4K1, MYB (includes EG:4602), NFATC2, PRF1, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, SH2D1A, SIT1, STAT4, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1, WIPF1		66
Cellular Function and Maintenance	development	development of thymocytes	4,81E-10	CD74, CD3D, ETS1, IL7, IL2RB, IL2RG, IL7R, IRF1, LCP2, MYB (includes EG:4602), PTPRC, SIT1		12
Cellular Function and Maintenance	development	development of helper T lymphocytes	7,26E-07	AHR, CASP1, CD28, IRF1, ITGB2, ITK, STAT4, TBX21		8
Cellular Function and Maintenance	development	NK cell development	9,73E-07	CD2, EOMES, FCGR2A, IKZF1, IL7, IRF1, ITGAL, JAK3, TBX21		9
Cellular Function and Maintenance	differentiation	differentiation of T lymphocytes	1,50E-28	AHR, ANXA1, ATM, BCL11A, BCL2A1, CD2, CD28, CD74, CD8A, DEF6, ETS1, FCGR2B, HLA-C, HLA-DOA, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1, WIPF1		42
Cellular Function and Maintenance	differentiation	differentiation of helper T lymphocytes	6,25E-15	AHR, ANXA1, CD28, ETS1, IL7, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, TGFB2, TNFSF13B, VAV1		20
Cellular Function and Maintenance	differentiation	differentiation of Th2 cells	1,44E-08	CD28, IRF1, ITK, JAK3, NFATC2, RUNX1, SH2D1A, STAT4, TBX21, VAV1		10
Cellular Function and Maintenance	differentiation	differentiation of thymocytes	5,92E-06	CD2, CD28, FCGR2B, IKZF1, IL2RG, LCP2, MYB (includes EG:4602)		7
Cellular Function and Maintenance	differentiation	differentiation of Th1 cells	1,21E-05	ANXA1, IRF1, IRF8, ITGAL, ITGB2, JAK3, STAT4, TBX21		8
Cellular Function and Maintenance	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFB2, THBS2		29
Cellular Function and Maintenance	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC		10

Maintenance						
Cellular Function and Maintenance	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25	
Cellular Function and Maintenance	function	function of leukocytes	5,45E-12	AHR, CD28, CD209, FCGR2A, GFI1, IL7, IL10RA, IRF1, JAK3, KLRK1, PRF1, SH2D1A, STAT4, TNFSF13B, VAV1	15	
Cellular Function and Maintenance	function	function of cells	1,81E-11	AHR, CD28, CD44, CD47, CD209, FCGR2A, GFI1, IL7, IL10RA, IRF1, JAK3, KLRK1, PRF1, SH2D1A, STAT4, TBX21, TNFSF13B, VAV1	18	
Cellular Function and Maintenance	function	function of lymphocytes	2,26E-10	AHR, CD28, FCGR2A, IL7, IL10RA, JAK3, KLRK1, PRF1, SH2D1A, STAT4, TNFSF13B, VAV1	12	
Cellular Function and Maintenance	function	function of normal cells	5,10E-10	AHR, CD28, CD47, CD209, FCGR2A, GFI1, IL7, IL10RA, IRF1, JAK3, KLRK1, PRF1, SH2D1A, STAT4, TNFSF13B, VAV1	16	
Cellular Function and Maintenance	function	function of T lymphocytes	1,37E-06	CD28, IL7, IL10RA, JAK3, PRF1, SH2D1A, STAT4, VAV1	8	
Cellular Function and Maintenance	engulfment	engulfment of cells	6,44E-12	ANXA1, CD44, CD47, CD209, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, MRC1, PRKCB, RAC2, SELPLG, VAV1, WIPF1	20	
Cellular Function and Maintenance	engulfment	engulfment of eukaryotic cells	7,27E-12	ANXA1, CD44, CD47, CD209, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, PRKCB, RAC2, SELPLG, VAV1	17	
Cellular Function and Maintenance	engulfment	engulfment of tumor cell lines	1,08E-07	ANXA1, CD44, CD209, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB	8	
Cellular Function and Maintenance	engulfment	engulfment of cell lines	2,35E-07	ANXA1, CD44, CD209, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB, VAV1	9	
Cellular Function and Maintenance	phagocytosis	phagocytosis of blood cells	7,54E-12	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, RAC2, SELPLG	14	
Cellular Function and Maintenance	phagocytosis	phagocytosis of eukaryotic cells	2,08E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, PRKCB, RAC2, SELPLG, VAV1	16	
Cellular Function and Maintenance	phagocytosis	phagocytosis	3,55E-11	ANXA1, CD44, CD47, CLEC7A, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, PRKCB, RAC2, SELPLG, VAV1	18	

Maintenance						
Cellular Function and Maintenance	phagocytosis	phagocytosis of cells	4,30E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, PRKCB, RAC2, SELPLG, VAV1	17	
Cellular Function and Maintenance	phagocytosis	phagocytosis of leukocytes	1,00E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, IRF8, ITGAM, ITGB2, SELPLG	12	
Cellular Function and Maintenance	phagocytosis	phagocytosis of phagocytes	6,05E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, ITGAM, ITGB2, SELPLG	11	
Cellular Function and Maintenance	phagocytosis	phagocytosis of myeloid cells	7,84E-09	ANXA1, CD47, CSF2RB, FCGR2A, IRF8, ITGAM, ITGB2, SELPLG	8	
Cellular Function and Maintenance	phagocytosis	phagocytosis of granulocytes	1,47E-07	ANXA1, CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	7	
Cellular Function and Maintenance	phagocytosis	phagocytosis of tumor cell lines	3,25E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB	7	
Cellular Function and Maintenance	phagocytosis	phagocytosis of red blood cells	6,31E-07	CD44, FCGR2A, HCK, ITGAM, ITGB2, RAC2	6	
Cellular Function and Maintenance	phagocytosis	phagocytosis of cell lines	8,56E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB, VAV1	8	
Cellular Function and Maintenance	phagocytosis	phagocytosis of macrophages	1,23E-06	ANXA1, CD44, CD47, CNN2, DEF6, FCGR2B, ITGB2	7	
Cellular Function and Maintenance	phagocytosis	phagocytosis of neutrophils	1,95E-06	CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	6	
Cellular Function and Maintenance	phagocytosis	phagocytosis of leukemia cell lines	2,43E-06	ANXA1, DEF6, FCGR2A, FCGR2B, PRKCB	5	
Cellular Function and Maintenance	organization	organization of cytoskeleton	1,66E-08	ANTXR1, CD44, CD47, CLU, CXCL9, FLNA, ITK, LCK, LCP1, MARCKS, MYH9, PLEK, TRIO, VAV1	14	
Cellular Function and Maintenance	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8	

Maintenance						
Cellular Function and Maintenance	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9	
Cellular Function and Maintenance	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10	
Cellular Function and Maintenance	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4	
Cellular Function and Maintenance	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7	
Cellular Function and Maintenance	reorganization	reorganization of cytoskeleton	5,81E-07	ANTXR1, CD44, CD47, CXCL9, FLNA, ITK, LCK, MYH9, PLEK, TRIO, VAV1	11	
Cellular Function and Maintenance	polymerization	polymerization of actin	6,14E-07	CD47, DEF6, ITGAL, ITGB2, ITK, LCP2, VAV1, WIPF1	8	
Cellular Function and Maintenance	presence	presence of blood cells	3,99E-06	CCR7, CD44, FCGR2A, HCK, ITGAM, JAK3	6	
Cellular Function and Maintenance	respiratory burst	respiratory burst of leukocytes	1,06E-05	HCK, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, PTPRC	7	
Cellular Function and Maintenance	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)	8	
Tissue Morphology	quantity	quantity of leukocytes	2,16E-32	AHR, ATM, BCL2A1, CCL5, CCR2, CCR7, CD28, CD47, CD247, CD3D, CD8A, CIITA, CNN2, CSF1R, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GF11, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LTB4R, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFB2, TNFSF13B, VAV1	59	
Tissue Morphology	quantity	quantity of blood cells	6,22E-32	AHR, ATM, BCL2A1, CCL5, CCR2, CCR7, CD28, CD47, CD247, CD3D, CD8A, CIITA, CNN2, CSF1R, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GF11, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LTB4R, MYB (includes EG:4602), NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFB2, THBS2, TNFSF13B, VAV1	61	
Tissue Morphology	quantity	quantity of mononuclear leukocytes	1,30E-31	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CNN2, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GF11, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFB2, TNFSF13B,	52	

VAV1

Tissue Morphology	quantity	quantity of lymphocytes	1,51E-31	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CSF2RB, CTSS, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, NFATC2, NOTCH2, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, TNFSF13B, VAV1	51
Tissue Morphology	quantity	quantity of T lymphocytes	6,66E-27	AHR, ATM, BCL2A1, CCR2, CCR7, CD28, CD247, CD3D, CIITA, CSF2RB, CTSS, DEF6, ETS1, ETV6, FLI1, GFI1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITK, JAK3, LCK, LCP2, PTPRC, RUNX1, RUNX2, SELPLG, SH2B3, SIT1, TAP1, TBX21, TGFBR2, TNFSF13B, VAV1	40
Tissue Morphology	quantity	quantity of cells	2,39E-26	ADAM12, AHR, ANXA1, ATM, BCL2A1, CCL5, CCND2, CCR2, CCR5, CCR7, CD28, CD44, CD47, CD247, CD3D, CD8A, CIITA, CNN2, CSF1R, CSF2RB, CTSS, CYBB, CYTIP, DEF6, ETS1, ETV6, FCGR2A, FLI1, GFI1, GFRA1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LTB4R, MMP7, MYB (includes EG:4602), MYH9, NFATC2, NOTCH2, NRP1, PRF1, PTPRC, RAC2, RUNX1, RUNX2, SELL, SELPLG, SH2B3, SH2D1A, SIT1, SLA, STAT4, TAP1, TBX21, TCF4, TGFBR2, THBS2, TNFSF13B, TRPA1, VAV1	75
Tissue Morphology	quantity	quantity of B lymphocytes	2,44E-11	AHR, BCL2A1, CCR7, CD28, FCGR2A, IL7, IL2RG, IL7R, ITGB2, JAK3, NFATC2, NOTCH2, RAC2, SH2B3, SLA, TCF4, TGFBR2, TNFSF13B, VAV1	19
Tissue Morphology	quantity	quantity of natural killer T lymphocytes	8,25E-11	CSF2RB, ETS1, IKZF1, IL2RB, IL2RG, PTPRC, TBX21, TGFBR2, VAV1	9
Tissue Morphology	quantity	quantity of intraepithelial T lymphocytes	2,82E-09	IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1	6
Tissue Morphology	quantity	quantity of thymocytes	5,97E-08	ATM, CCR7, CD247, ETS1, IL7, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1	12
Tissue Morphology	quantity	quantity of lymphatic system cells	8,81E-08	AHR, CD8A, CNN2, CSF2RB, ETS1, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4, THBS2	16
Tissue Morphology	quantity	quantity of antigen presenting cells	1,22E-07	CCR2, CCR7, CD47, CSF1R, CTSS, IKZF1, IRF1, IRF4, IRF8, ITGB2, ITGB6, SELPLG, SH2B3, STAT4	14
Tissue Morphology	quantity	quantity of bone marrow cells	1,73E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4, THBS2	15
Tissue Morphology	quantity	quantity of myeloid cells	2,13E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	14
Tissue Morphology	quantity	quantity of natural killer cells	2,46E-07	ETS1, IL2RB, IL2RG, IRF1, JAK3, PRF1, PTPRC, TBX21	8
Tissue Morphology	quantity	quantity of granulocytes	3,16E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13
Tissue Morphology	quantity	quantity of pre-B lymphocytes	1,23E-06	CD28, IL7, IL2RG, IL7R, SH2B3, TCF4, TNFSF13B	7
Tissue Morphology	quantity	quantity of dendritic cells	2,13E-06	CCR2, CCR7, CD47, IKZF1, IRF1, IRF4, IRF8, ITGB2	8
Tissue Morphology	quantity	quantity of hematopoietic progenitor cells	2,87E-06	FLI1, IKZF1, IRF8, JAK3, MYB (includes EG:4602), RUNX1, SH2B3, STAT4, THBS2	9
Tissue Morphology	quantity	quantity of phagocytes	4,80E-06	AHR, CCR2, CNN2, CSF1R, CTSS, ITGB2, ITGB6, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13

Tissue Morphology	quantity	quantity of pro-B lymphocytes	1,52E-05	CD28, IL7, IL2RG, IL7R, TCF4	5
Cellular Growth and Proliferation	proliferation	proliferation of mononuclear leukocytes	4,96E-29	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF1R, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	57
Cellular Growth and Proliferation	proliferation	proliferation of blood cells	5,44E-29	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF1R, CSF2RB, DEF6, DGKA, FCGR2B, FLI1, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, RUNX1, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	60
Cellular Growth and Proliferation	proliferation	proliferation of leukocytes	1,01E-28	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF1R, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	58
Cellular Growth and Proliferation	proliferation	proliferation of lymphocytes	3,49E-28	ANXA1, ATM, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF2RB, DEF6, DGKA, FCGR2B, FYB, GFI1, HCK, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, MYB (includes EG:4602), NFATC2, PRKCB, PTPRC, RAC2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	56
Cellular Growth and Proliferation	proliferation	proliferation of normal cells	3,88E-24	AHR, ANXA1, ATM, BCL2A1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CIITA, CLDN11, CLU, CSF1R, CSF2RB, CXCL9, CXCL16, DEF6, DGKA, FCGR2B, FLI1, FYB, GFI1, GZMB, HCK, HLA-DPB1, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, LTB4R, MMP7, MYB (includes EG:4602), NDP, NFATC2, NRP1, PRKCB, PTPRC, RAC2, RUNX1, RUNX2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TCF4, TGFB2, TIMP2, TNFSF13B, TRD@, VAV1, WIPF1	78
Cellular Growth and Proliferation	proliferation	proliferation of T lymphocytes	1,06E-23	ANXA1, ATM, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CSF2RB, DEF6, DGKA, FYB, GFI1, HLA-DRB1, IKZF1, IL7, IL2RB, IL2RG, IL7R, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, MYB (includes EG:4602), NFATC2, PTPRC, RAC2, SASH3, SH2D1A, STAT4, TGFB2, TNFSF13B, TRD@, VAV1, WIPF1	46
Cellular Growth and Proliferation	proliferation	proliferation of eukaryotic cells	3,68E-23	AHR, ANXA1, ATM, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CIITA, CLDN11, CLEC7A, CLU, CNN2, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYBB, DEF6, DGKA, ETS1, ETV6, FCGR2B, FLI1, FYB, GFI1, GZMB, HCK, HHEX, HLA-DPB1, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LEF1, LTB4R, MMP7, MYB (includes EG:4602), NDP, NFATC2, NRP1, PRKCB, PTPRC, PTPRE, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SASH3, SH2B3, SH2D1A, SLAMF7, STAT4, TCF4, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B, TRD@, VAV1, WIPF1	91
Cellular Growth and Proliferation	proliferation	proliferation of cells	3,44E-22	ADRA2A, AHR, ANXA1, ATM, BCL11B, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CD247, CD8A, CDC7, CIITA, CLDN11, CLEC7A, CLU, CNN2, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYBB, DEF6, DGKA, ETS1, ETV6, FCGR2B, FLI1, FYB, GFI1, GZMB, HCK, HCLS1, HHEX, HLA-DPB1, HLA-DRB1, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRK1, LAMP3, LCK, LCP2, LEF1, LTB4R, MAP4K1, MMP7, MYB (includes EG:4602), NDP, NFATC2, NOD2, NOTCH2, NRP1, PRKCB, PTPRC, PTPRE, RAC2, RASGRP4, RASSF5, RUNX1, RUNX2, SASH3, SH2B3, SH2D1A, SIRPG, SLAMF7, STAT4, TCF4, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B, TRD@, VAV1, VIM, WIPF1	101
Cellular Growth and Proliferation	proliferation	proliferation of B lymphocytes	1,01E-11	CCND2, CD44, CD74, CD8A, FCGR2B, HCK, IL7, IL2RG, IL7R, IRF4, IRF8, LEF1, NFATC2, PRKCB, PTPRC, SASH3, SH2B3, SLAMF7, TNFSF13B, VAV1, WIPF1	21

Cellular Growth and Proliferation	proliferation	proliferation of leukocyte cell lines	8,85E-11	CD28, CD44, CD8A, CLEC7A, CSF1R, CSF2RB, ETV6, HCK, IL7, IL10RA, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602), PTPRC, RASGRP4, RUNX1, SH2B3	19
Cellular Growth and Proliferation	proliferation	proliferation of cell lines	1,51E-08	AHR, ANXA1, ATM, CCND2, CD28, CD44, CD8A, CLEC7A, CLU, CNN2, CSF1R, CSF2RB, CYBB, DGKA, ETS1, ETV6, FLI1, GFI1, HCK, HHEX, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF8, JAK3, LEF1, MYB (includes EG:4602), NRP1, PRKCB, PTPRC, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B	43
Cellular Growth and Proliferation	proliferation	proliferation of naive lymphocytes	8,13E-07	CD28, DEF6, IL7, ITGAL, ITGB2, KLRK1, SLAMF7	7
Cellular Growth and Proliferation	proliferation	proliferation of naive T lymphocytes	4,97E-06	CD28, DEF6, IL7, ITGAL, ITGB2, KLRK1	6
Cellular Growth and Proliferation	proliferation	proliferation of lymphatic system cells	9,94E-06	CCND2, CD44, CD8A, CSF1R, IL7, IL2RG, IRF8, LTB4R, PTPRC, RUNX1, SH2B3	11
Cellular Growth and Proliferation	proliferation	proliferation of thymocytes	1,67E-05	CD2, CD28, IL7, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602)	8
Cellular Growth and Proliferation	growth	growth of eukaryotic cells	1,25E-12	ACSL5, AHR, AKAP12, ANTXR1, ANXA1, ATM, CASP1, CCND2, CD2, CD28, CD44, CDC7, CLU, COL6A3, CSF1R, CSF2RB, EMILIN2, ETS1, ETV6, FLI1, GABRP, GBP2, GFI1, GFRA1, GZMB, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF8, JAK3, LCP1, LCP2, LEF1, MMP7, MYB (includes EG:4602), NFATC2, NOTCH2, NRP1, PRF1, PRKCB, PTPN22, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, STAT4, TGFB2, THBS2, TIMP2, TNFSF13B, TPM1, VAV1	57
Cellular Growth and Proliferation	growth	growth of blood cells	2,10E-11	AHR, CCND2, CD2, CD28, CSF1R, GFI1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, MYB (includes EG:4602), NFATC2, PRF1, RUNX1, SH2B3, STAT4, TNFSF13B	21
Cellular Growth and Proliferation	growth	growth of leukocytes	4,78E-10	AHR, CD2, CD28, CSF1R, GFI1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	18
Cellular Growth and Proliferation	growth	growth of cells	9,89E-10	ACSL5, ADAM12, AHR, AKAP12, ANTXR1, ANXA1, ATM, BCL2A1, CASP1, CCND2, CD2, CD28, CD44, CDC7, CLU, COL6A3, CSF1R, CSF2RB, CXCL16, DGKA, EMILIN2, ETS1, ETV6, FLI1, GABRP, GBP2, GFI1, GFRA1, GZMB, HNRNP, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF8, ITGB6, JAK3, LCP1, LCP2, LEF1, MMP7, MYB (includes EG:4602), NFATC2, NOTCH2, NRP1, PRF1, PRKCB, PTPN22, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, STAT4, TAP1, TGFB2, THBS2, TIMP2, TNFSF13B, TPM1, VAV1	64
Cellular Growth and Proliferation	growth	growth of normal cells	2,69E-09	AHR, ATM, CCND2, CD2, CD28, CDC7, CSF1R, GFI1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, MYB (includes EG:4602), NFATC2, PRF1, RUNX1, RUNX2, SH2B3, STAT4, TGFB2, TIMP2, TNFSF13B, TPM1, VAV1	28
Cellular Growth and Proliferation	growth	growth of lymphocytes	4,91E-09	AHR, CD2, CD28, GFI1, IL7, IL2RB, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	15
Cellular Growth and Proliferation	growth	growth of cell lines	3,35E-08	ACSL5, AHR, AKAP12, ANTXR1, ANXA1, ATM, CASP1, CD28, CD44, CLU, COL6A3, CSF1R, CSF2RB, EMILIN2, ETS1, ETV6, FLI1, GABRP, GBP2, GZMB, IKZF1, IL7, IL2RB, IL2RG, IRF1, LCP1, LEF1, MMP7, NOTCH2, NRP1, PRKCB, PTPN22, RASGRP4, RASSF5, RUNX1, RUNX2, SH2B3, TGFB2, THBS2, TIMP2, TPM1	41
Cellular Growth and Proliferation	expansion	expansion of blood cells	2,02E-11	AHR, CCND2, CD2, CD28, GFI1, IL7, IL10RA, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), NFATC2, PRF1, RUNX1, SH2B3, STAT4, TNFSF13B	18
Cellular Growth and Proliferation	expansion	expansion of	1,84E-	AHR, CD2, CD28, GFI1, IL7, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3,	14

Growth and Proliferation		lymphocytes	09	STAT4, TNFSF13B	
Cellular Growth and Proliferation	expansion	expansion of leukocytes	1,93E-09	AHR, CD2, CD28, GFI1, IL7, IL10RA, IL7R, IRF1, JAK3, LCP2, NFATC2, PRF1, SH2B3, STAT4, TNFSF13B	15
Cellular Growth and Proliferation	expansion	expansion of T lymphocytes	2,25E-07	AHR, CD2, CD28, GFI1, IL7, IRF1, JAK3, LCP2, PRF1, STAT4, TNFSF13B	11
Cellular Growth and Proliferation	generation	generation of leukocytes	3,87E-10	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, IRF8, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	14
Cellular Growth and Proliferation	generation	generation of lymphocytes	4,39E-10	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	13
Cellular Growth and Proliferation	generation	generation of normal cells	3,09E-08	ATM, CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, IRF8, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	15
Cellular Growth and Proliferation	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10
Cellular Growth and Proliferation	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Cellular Growth and Proliferation	stimulation	stimulation of T lymphocytes	1,85E-06	CD2, CD28, CD74, CD209, IL7, KLRK1, PTPRC, TNFSF13B	8
Cellular Growth and Proliferation	stimulation	stimulation of cells	2,70E-06	CCL5, CCND2, CD2, CD28, CD74, CD209, CD8A, IL7, IL2RB, KLRK1, PTPRC, RASGRP4, TNFSF13B	13
Cellular Growth and Proliferation	stimulation	stimulation of eukaryotic cells	1,40E-05	CCL5, CCND2, CD2, CD28, CD74, CD209, CD8A, IL7, IL2RB, KLRK1, PTPRC, TNFSF13B	12
Cellular Growth and Proliferation	formation	formation of eukaryotic cells	4,76E-06	ADAM12, CCL5, CCR5, CD44, CD47, CLU, CSF1R, DEF6, IKZF1, IL7, IL7R, LCP2, MYB (includes EG:4602), MYH9, NDP, RUNX2, TGFBR2	17
Cell-To-Cell Signaling and Interaction	activation	activation of leukocytes	2,13E-26	ANXA1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	52
Cell-To-Cell Signaling and Interaction	activation	activation of normal cells	1,71E-24	ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, CYBB, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1, VIM	57
Cell-To-Cell Signaling and Interaction	activation	activation of cells	1,80E-24	ACSL5, ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, CYBB, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1, VIM	60

Cell-To-Cell Signaling and Interaction	activation	activation of eukaryotic cells	9,38E-24	ACSL5, ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, CYBB, DEF6, FCGR2A, FCGR2B, FYB, GFI1, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1, VIM	58
Cell-To-Cell Signaling and Interaction	activation	activation of lymphocytes	1,59E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD1C, CD8A, CLEC7A, DEF6, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRK1, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	37
Cell-To-Cell Signaling and Interaction	activation	activation of T lymphocytes	7,00E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CLEC7A, DEF6, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, VAV1	32
Cell-To-Cell Signaling and Interaction	activation	activation of mast cells	4,95E-08	CCL5, CCR2, CD48, CD300A, FCGR2A, FCGR2B, FYB, ITGAM, LCP2	9
Cell-To-Cell Signaling and Interaction	activation	activation of natural killer cells	4,75E-07	CCL5, CD2, CD28, CD44, FCGR2A, IL2RB, ITGAL, ITGB2, KLRK1, PRF1, STAT4	11
Cell-To-Cell Signaling and Interaction	activation	activation of antigen presenting cells	5,10E-06	CCL5, CD74, CD209, CSF1R, FCGR2A, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, IL7, ITGB6, STAT4	13
Cell-To-Cell Signaling and Interaction	binding	binding of blood cells	7,83E-19	ADRA2A, CCL5, CCR5, CD2, CD44, CD47, CD48, CD84, CD209, CXCL9, FCGR2A, FCGR2B, FYB, HCK, IL7, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, PTPRC, SELL, SELPLG	29
Cell-To-Cell Signaling and Interaction	binding	binding of leukocytes	3,45E-18	CCL5, CCR5, CD2, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FCGR2B, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, PTPRC, SELL, SELPLG	26
Cell-To-Cell Signaling and Interaction	binding	binding of normal cells	9,64E-16	ADRA2A, CCL5, CCR5, CD2, CD44, CD47, CD48, CD84, CD209, CXCL9, FCGR2A, FCGR2B, FYB, HCK, IL7, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, NRP1, PTPRC, SELL, SELPLG, THBS2	31
Cell-To-Cell Signaling and Interaction	binding	binding of cells	8,90E-15	ADRA2A, CCL5, CCR5, CD2, CD28, CD44, CD47, CD48, CD74, CD84, CD209, CLEC7A, CXCL9, FCGR2A, FCGR2B, FYB, GFRA1, GZMB, HCK, IL7, IL2RG, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, NRP1, PTPRC, SELL, SELPLG, THBS2	37
Cell-To-Cell Signaling and Interaction	binding	binding of mononuclear leukocytes	3,00E-14	CCL5, CCR5, CD2, CD44, CD47, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, LCP2, NFATC2, SELL, SELPLG	18
Cell-To-Cell Signaling and Interaction	binding	binding of eukaryotic cells	2,22E-13	ADRA2A, CCL5, CCR5, CD2, CD44, CD47, CD48, CD84, CD209, CLEC7A, CXCL9, FCGR2A, FCGR2B, FYB, GFRA1, HCK, IL7, IL2RG, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, MRC1, NFATC2, NRP1, PTPRC, SELL, SELPLG, THBS2	34
Cell-To-Cell Signaling and Interaction	binding	binding of lymphocytes	3,03E-13	CCL5, CD2, CD44, CD47, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, NFATC2, SELL, SELPLG	16
Cell-To-Cell Signaling and Interaction	binding	binding of T lymphocytes	2,04E-11	CCL5, CD2, CD47, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG	13
Cell-To-Cell Signaling and Interaction	binding	binding of leukemia cell lines	1,65E-09	CCR5, CD47, CD209, FYB, ITGAL, ITGAM, ITGB2, KLRK1, LCK, SELL, SELPLG	11
Cell-To-Cell Signaling and Interaction	binding	binding of cell lines	8,94E-09	CCR5, CD2, CD44, CD47, CD48, CD209, CLEC7A, CXCL9, FCGR2A, FYB, IL7, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, KLRK1, LCK, NRP1, SELL, SELPLG	21

Interaction					
Cell-To-Cell Signaling and Interaction	binding	binding of tumor cell lines	1,09E-08	CCR5, CD44, CD47, CD209, CLEC7A, CXCL9, FCGR2A, FYB, ITGAL, ITGAM, ITGB2, KLRK1, LCK, NRP1, SELL, SELPLG	16
Cell-To-Cell Signaling and Interaction	binding	binding of phagocytes	2,27E-07	CD2, CD209, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, PTPRC, SELL, SELPLG	10
Cell-To-Cell Signaling and Interaction	binding	binding of peripheral blood leukocytes	3,97E-06	CCR5, ITGAM, ITGB2, LCP2	4
Cell-To-Cell Signaling and Interaction	binding	binding of lymphatic system cells	8,67E-06	CCL5, CD47, FCGR2A, HCK, ITGAM, ITGB2, SELL, SELPLG	8
Cell-To-Cell Signaling and Interaction	binding	binding of antigen presenting cells	1,22E-05	CD2, CD209, FYB, ITGAL, LCK, MRC1, PTPRC	7
Cell-To-Cell Signaling and Interaction	binding	binding of peripheral blood mononuclear leukocytes	1,52E-05	CCR5, ITGAM, ITGB2	3
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of cells	4,20E-18	ADAM12, AMICA1, ANXA1, ARHGDI1B, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD84, CD96, CD209, CD8A, CLDN11, CLEC7A, CLU, CXCL9, CXCL16, CYTIP, EMB, ETS1, FCGR2A, FYB, GFI1, GFRA1, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LCP1, LTB4R, MARCKS, MYH9, MYO1F, PARVG, PTPRC, RAC2, RASSF5, ROBO1, SELL, SELPLG, TGFB2, THBS2, VAV1	53
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of leukocytes	5,52E-17	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	28
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of mononuclear leukocytes	1,06E-16	CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	22
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of normal cells	5,75E-16	ADAM12, AMICA1, ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CD8A, CXCL9, CXCL16, FCGR2A, FYB, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	33
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of blood cells	6,59E-16	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	29
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of eukaryotic cells	2,78E-15	ADAM12, AMICA1, ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CD8A, CXCL9, CXCL16, CYTIP, ETS1, FCGR2A, FYB, GFI1, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, MARCKS, MYH9, PARVG, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	39
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of lymphocytes	5,56E-12	CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	16
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of neutrophils	6,75E-09	ANXA1, CD44, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	10

Cell-To-Cell Signaling and Interaction	adhesion	adhesion of granulocytes	2,67E-08	ANXA1, CD44, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	11
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of tumor cell lines	4,00E-07	ADAM12, ANXA1, CD28, CD44, CD47, CYTIP, ETS1, GZMB, ITGAL, ITGAM, ITGAX, ITGB2, MARCKS, MYH9, PARVG, SELPLG	16
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of antigen presenting cells	4,14E-07	CD2, CD44, CD48, CD209, ITGAL, ITGAM, ITGB2	7
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of endothelial cells	5,38E-07	AMICA1, CCL5, CD44, ITGAL, ITGAM, ITGAX, ITGB2, SELL, SELPLG, TGFB2	10
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of leukemia cells	2,01E-06	AMICA1, CD44, ITGB2, SELL	4
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of cell lines	2,12E-06	ADAM12, ANXA1, CD28, CD44, CD47, CYTIP, ETS1, GF11, GZMB, ITGAL, ITGAM, ITGAX, ITGB2, MARCKS, MYH9, PARVG, SELL, SELPLG	18
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of monocytes	5,07E-06	CCL5, ITGAM, ITGAX, ITGB2, LCP1, TGFB2, VAV1	7
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of leukocyte cell lines	1,32E-05	ANXA1, GF11, ITGAL, ITGAM, ITGB2, SELL	6
Cell-To-Cell Signaling and Interaction	interaction	interaction of T lymphocytes	8,46E-16	CCL5, CCR5, CCR7, CD2, CD28, CD47, CD209, CXCL9, Fyb, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, NRP1, SELPLG	18
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of leukocytes	5,72E-13	AHR, ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD8A, CLU, CXCL9, CXCL16, ETS1, FCGR2B, ITGAM, ITGB2, LTB4R, LYZ, SELL, SELPLG, THBS2	21
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of phagocytes	2,30E-10	AHR, ANXA1, CCL5, CCR2, CCR5, CD28, CD44, CD8A, CLU, ETS1, FCGR2B, ITGAM, ITGB2, LYZ, THBS2	15
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of antigen presenting cells	2,35E-07	ANXA1, CCL5, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	9
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of T lymphocytes	5,16E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1	8
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of lymphocytes	5,69E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1, SELL	9
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of macrophages	1,01E-06	ANXA1, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	8
Cell-To-Cell Signaling and Interaction	recruitment	recruitment	1,24E-	AHR, ANXA1, CCL5, CCR2, CD28, CD8A, CXCL9, FCGR2B, ITGAM, LTB4R, LYZ	11

Signaling and Interaction		of granulocytes	06		
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of blood cells	7,54E-12	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, RAC2, SELPLG	14
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of eukaryotic cells	2,08E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGB2, PRKCB, RAC2, SELPLG, VAV1	16
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of cells	4,30E-11	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, HCK, IRF8, ITGAM, ITGAX, ITGB2, PRKCB, RAC2, SELPLG, VAV1	17
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of leukocytes	1,00E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, IRF8, ITGAM, ITGB2, SELPLG	12
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of phagocytes	6,05E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, ITGAM, ITGB2, SELPLG	11
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of myeloid cells	7,84E-09	ANXA1, CD47, CSF2RB, FCGR2A, IRF8, ITGAM, ITGB2, SELPLG	8
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of granulocytes	1,47E-07	ANXA1, CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	7
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of tumor cell lines	3,25E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB	7
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of red blood cells	6,31E-07	CD44, FCGR2A, HCK, ITGAM, ITGB2, RAC2	6
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of cell lines	8,56E-07	ANXA1, CD44, DEF6, FCGR2A, FCGR2B, ITGAM, PRKCB, VAV1	8
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of macrophages	1,23E-06	ANXA1, CD44, CD47, CNN2, DEF6, FCGR2B, ITGB2	7
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of neutrophils	1,95E-06	CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	6
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of leukemia cell lines	2,43E-06	ANXA1, DEF6, FCGR2A, FCGR2B, PRKCB	5
Cell-To-Cell Signaling and Interaction	response	response of blood cells	1,82E-11	CCL5, CCR2, CCR5, CD28, CLEC7A, CSF2RB, CXCL9, FCGR2B, GZMB, IL10RA, ITGAM, ITK, NFATC2, SELPLG, SH2B3, STAT4, TBX21	17
Cell-To-Cell Signaling and Interaction	response	response of leukocytes	1,28E-10	CCL5, CCR2, CCR5, CD28, CLEC7A, CSF2RB, CXCL9, FCGR2B, GZMB, IL10RA, ITGAM, ITK, NFATC2, SELPLG, STAT4, TBX21	16
Cell-To-Cell Signaling	response	response of eukaryotic	4,36E-10	CCL5, CCR2, CCR5, CD28, CLEC7A, CSF2RB, CXCL9, FCGR2B, GZMB, IL10RA, ITGAM, ITK, NFATC2, NOD2, SELPLG, SH2B3, STAT4, TBX21	18

and Interaction Cell-To-Cell Signaling and Interaction	response	response of mononuclear leukocytes	8,86E-09	CCR2, CCR5, CD28, CLEC7A, CXCL9, FCGR2B, GZMB, IL10RA, ITK, NFATC2, SELPLG, STAT4, TBX21	13
Interaction Cell-To-Cell Signaling and Interaction	response	response of cells	1,21E-06	CCL5, CCR2, CCR5, CD28, CLEC7A, CSF2RB, CXCL9, FAIM3, FCGR2B, GZMA, GZMB, IL7, IL10RA, ITGAM, ITK, NFATC2, NOD2, PRF1, SELPLG, SH2B3, STAT4, TBX21	22
Interaction Cell-To-Cell Signaling and Interaction	response	response of lymphocytes	3,18E-06	CD28, CXCL9, FCGR2B, GZMB, IL10RA, ITK, NFATC2, SELPLG, STAT4, TBX21	10
Interaction Cell-To-Cell Signaling and Interaction	attachment	attachment of leukocytes	5,65E-10	CD209, CSF2RB, ITGAL, ITGAM, ITGAX, ITGB2, SELL, VAV1	8
Interaction Cell-To-Cell Signaling and Interaction	attachment	attachment of normal cells	6,05E-10	CD209, CSF2RB, ITGAL, ITGAM, ITGAX, ITGB2, SELL, TFPI2, THBS2, TIMP2, VAV1	11
Interaction Cell-To-Cell Signaling and Interaction	attachment	attachment of eukaryotic cells	1,09E-09	CD44, CD209, CSF2RB, ETS1, ITGAL, ITGAM, ITGAX, ITGB2, SELL, TFPI2, THBS2, TIMP2, VAV1	13
Interaction Cell-To-Cell Signaling and Interaction	attachment	attachment of lymphocytes	1,16E-05	CD209, ITGB2, SELL, VAV1	4
Interaction Cell-To-Cell Signaling and Interaction	signaling	signaling of leukocytes	1,41E-08	CLEC7A, IL2RB, IL2RG, ITGAM, ITGB2, LCP2, SH2D1A	7
Interaction Cell-To-Cell Signaling and Interaction	signaling	signaling of T lymphocytes	1,64E-06	IL2RB, IL2RG, ITGB2, LCP2, SH2D1A	5
Interaction Cell-To-Cell Signaling and Interaction	selection	selection of T lymphocytes	4,22E-08	CD28, CD74, CD3D, HLA-DOA, ITK, PTPRC, SIT1, VAV1	8
Interaction Cell-To-Cell Signaling and Interaction	cell-cell contact	cell-cell contact of leukocytes	2,94E-07	ITGAL, ITGAM, ITGAX, ITGB2	4
Interaction Cell-To-Cell Signaling and Interaction	stimulation	stimulation of T lymphocytes	1,85E-06	CD2, CD28, CD74, CD209, IL7, KLRK1, PTPRC, TNFSF13B	8
Interaction Cell-To-Cell Signaling and Interaction	stimulation	stimulation of cells	2,70E-06	CCL5, CCND2, CD2, CD28, CD74, CD209, CD8A, IL7, IL2RB, KLRK1, PTPRC, RASGRP4, TNFSF13B	13
Interaction Cell-To-Cell Signaling and Interaction	stimulation	stimulation of eukaryotic cells	1,40E-05	CCL5, CCND2, CD2, CD28, CD74, CD209, CD8A, IL7, IL2RB, KLRK1, PTPRC, TNFSF13B	12
Interaction Cell-To-Cell Signaling and Interaction	detachment	detachment of leukocytes	7,05E-06	ANXA1, ITGAL, PTPRC, SELL	4
Immune Cell Trafficking	activation	activation of leukocytes	2,13E-26	ANXA1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD1C, CD300A, CD8A, CLEC7A, CSF1R, CXCL9, DEF6, FCGR2A, FCGR2B, FYB, GF11, GZMA, GZMB, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-	52

				DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LCP2, NFATC2, PRF1, PTPRC, SELL, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	
Immune Cell Trafficking	activation	activation of lymphocytes	1,59E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD1C, CD8A, CLEC7A, DEF6, FCGR2A, FCGR2B, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRK1, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, TNFSF13B, VAV1	37
Immune Cell Trafficking	activation	activation of T lymphocytes	7,00E-19	CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CLEC7A, DEF6, GFI1, GZMA, GZMB, HLA-DRA, HLA-DRB1, IL7, IL2RB, ITGAL, ITGB2, ITK, JAK3, LCK, NFATC2, PRF1, PTPRC, SIRPG, SIT1, STAT4, TBX21, VAV1	32
Immune Cell Trafficking	activation	activation of mast cells	4,95E-08	CCL5, CCR2, CD48, CD300A, FCGR2A, FCGR2B, FYB, ITGAM, LCP2	9
Immune Cell Trafficking	activation	activation of natural killer cells	4,75E-07	CCL5, CD2, CD28, CD44, FCGR2A, IL2RB, ITGAL, ITGB2, KLRK1, PRF1, STAT4	11
Immune Cell Trafficking	activation	activation of antigen presenting cells	5,10E-06	CCL5, CD74, CD209, CSF1R, FCGR2A, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, IL7, ITGB6, STAT4	13
Immune Cell Trafficking	migration	migration of leukocytes	5,07E-21	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CNN2, CSF1R, CTSS, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FCGR2A, FYB, HCK, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, LTB4R, MMP7, MYH9, PRF1, PRKCB, PTPRC, RAC2, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	45
Immune Cell Trafficking	migration	migration of mononuclear leukocytes	2,44E-19	CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CTSS, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, MYH9, PRF1, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	34
Immune Cell Trafficking	migration	Lymphocyte migration	1,34E-17	CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FYB, IL7, ITGAL, ITGB2, ITK, LCK, MYH9, PRF1, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	31
Immune Cell Trafficking	migration	T cell migration	1,62E-09	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, FYB, IL7, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, THBS2, TIMP2	18
Immune Cell Trafficking	migration	migration of phagocytes	4,15E-08	ANXA1, CCL5, CD47, CNN2, CSF1R, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, RAC2, SELL	13
Immune Cell Trafficking	migration	migration of neutrophils	1,42E-07	ANXA1, CCL5, CD47, CNN2, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	11
Immune Cell Trafficking	migration	migration of granulocytes	4,86E-07	ANXA1, CCL5, CD47, CNN2, CXCL9, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	12
Immune Cell Trafficking	migration	migration of antigen presenting cells	1,49E-06	CCL5, CCR2, CCR5, CCR7, CD44, CD209, CNN2, CSF1R, CXCL9, IL10RA, RAC2	11
Immune Cell Trafficking	migration	migration of dendritic cells	6,65E-06	CCL5, CCR2, CCR5, CCR7, CD44, CD209, CXCL9, IL10RA, RAC2	9
Immune Cell Trafficking	migration	migration of monocytes	1,67E-05	CCR2, CD47, CTSS, ITGAL, ITGAM, ITGAX, ITGB2, TIMP2	8
Immune Cell Trafficking	adhesion	adhesion of leukocytes	5,52E-17	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	28
Immune Cell Trafficking	adhesion	adhesion of mononuclear leukocytes	1,06E-16	CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	22
Immune Cell Trafficking	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Immune Cell Trafficking	adhesion	adhesion of lymphocytes	5,56E-12	CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	16

Trafficking					
Immune Cell Trafficking	adhesion	adhesion of neutrophils	6,75E-09	ANXA1, CD44, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	10
Immune Cell Trafficking	adhesion	adhesion of granulocytes	2,67E-08	ANXA1, CD44, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	11
Immune Cell Trafficking	adhesion	adhesion of antigen presenting cells	4,14E-07	CD2, CD44, CD48, CD209, ITGAL, ITGAM, ITGB2	7
Immune Cell Trafficking	adhesion	adhesion of monocytes	5,07E-06	CCL5, ITGAM, ITGAX, ITGB2, LCP1, TGFBR2, VAV1	7
Immune Cell Trafficking	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Immune Cell Trafficking	cell movement	cell movement of leukocytes	1,10E-13	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CSF1R, CTSS, CXCL9, CXCL16, FCGR2A, FCGR2B, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, NFATC2, PRF1, PRKCB, PTPRC, RAC2, SELL, SELPLG, TGFBR2, THBS2, TIMP2	36
Immune Cell Trafficking	cell movement	cell movement of myeloid cells	9,23E-12	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, PTPRC, RAC2, SELL, SELPLG, TGFBR2	24
Immune Cell Trafficking	cell movement	cell movement of granulocytes	5,64E-11	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, RAC2, SELL, SELPLG, TGFBR2	23
Immune Cell Trafficking	cell movement	cell movement of mononuclear leukocytes	1,34E-10	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CTSS, CXCL9, CXCL16, ITGAL, ITGAX, ITGB2, ITK, NFATC2, PRF1, PRKCB, RAC2, SELL, SELPLG, THBS2, TIMP2	23
Immune Cell Trafficking	cell movement	cell movement of phagocytes	4,29E-09	ANXA1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CSF1R, CXCL9, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	21
Immune Cell Trafficking	cell movement	cell movement of neutrophils	5,75E-09	ANXA1, CASP1, CCL5, CCR2, CD28, CD44, CD47, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	18
Immune Cell Trafficking	cell movement	cell movement of T lymphocytes	1,12E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, PRF1, SELL, SELPLG, THBS2	14
Immune Cell Trafficking	cell movement	cell movement of lymphocytes	5,42E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, NFATC2, PRF1, RAC2, SELL, SELPLG, THBS2	16
Immune Cell Trafficking	cell movement	cell movement of eosinophils	9,47E-07	CCL5, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK	10
Immune Cell Trafficking	cell movement	cell movement of monocytes	2,11E-06	ANXA1, CCL5, CCR2, CD47, CTSS, CXCL9, ITGAL, ITGAX, ITGB2, PRKCB, TIMP2	11
Immune Cell Trafficking	cell movement	cell movement of memory T lymphocytes	6,67E-06	CCL5, CCR7, CD28, CXCL9, ITGB2	5
Immune Cell Trafficking	cell movement	cell movement of bone	7,72E-06	ANXA1, CD44, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	8

		marrow cells			
Immune Cell Trafficking	recruitment	recruitment of leukocytes	5,72E-13	AHR, ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD8A, CLU, CXCL9, CXCL16, ETS1, FCGR2B, ITGAM, ITGB2, LTB4R, LYZ, SELL, SELPLG, THBS2	21
Immune Cell Trafficking	recruitment	recruitment of phagocytes	2,30E-10	AHR, ANXA1, CCL5, CCR2, CCR5, CD28, CD44, CD8A, CLU, ETS1, FCGR2B, ITGAM, ITGB2, LYZ, THBS2	15
Immune Cell Trafficking	recruitment	recruitment of antigen presenting cells	2,35E-07	ANXA1, CCL5, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	9
Immune Cell Trafficking	recruitment	recruitment of T lymphocytes	5,16E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1	8
Immune Cell Trafficking	recruitment	recruitment of lymphocytes	5,69E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1, SELL	9
Immune Cell Trafficking	recruitment	recruitment of macrophages	1,01E-06	ANXA1, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	8
Immune Cell Trafficking	recruitment	recruitment of granulocytes	1,24E-06	AHR, ANXA1, CCL5, CCR2, CD28, CD8A, CXCL9, FCGR2B, ITGAM, LTB4R, LYZ	11
Immune Cell Trafficking	accumulation	accumulation of leukocytes	7,14E-12	CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CYBB, DEF6, GF11, IL7, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, NFATC2, SELL, SELPLG, TIMP2	20
Immune Cell Trafficking	accumulation	accumulation of mononuclear leukocytes	3,74E-10	CCL5, CCR5, CCR7, CD28, DEF6, GF11, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	13
Immune Cell Trafficking	accumulation	accumulation of lymphocytes	1,36E-09	CCL5, CCR5, CCR7, CD28, DEF6, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	12
Immune Cell Trafficking	accumulation	accumulation of T lymphocytes	1,45E-07	CCL5, CCR5, CCR7, CD28, DEF6, IL10RA, IL2RG, ITGAL, NFATC2	9
Immune Cell Trafficking	transmigration	transmigration of leukocytes	1,62E-10	ANXA1, CCL5, CCR7, CD28, CD44, CD47, CD209, CTSS, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, TIMP2	14
Immune Cell Trafficking	transmigration	transmigration of mononuclear leukocytes	2,95E-09	CCL5, CCR7, CD28, CD44, CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	10
Immune Cell Trafficking	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5
Immune Cell Trafficking	transmigration	transmigration of granulocytes	3,66E-06	ANXA1, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	7
Immune Cell Trafficking	transmigration	transmigration of neutrophils	9,11E-06	ANXA1, CD47, ITGAL, ITGAM, ITGAX, ITGB2	6
Immune Cell Trafficking	transmigration	transmigration of monocytes	1,32E-05	CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	6
Immune Cell Trafficking	emigration	emigration of leukocytes	1,03E-09	ANXA1, CCR2, CCR7, CD44, CNN2, CYTIP, FCGR2A, ITGB2, SELL	9
Immune Cell Trafficking	cell rolling	cell rolling of leukocytes	8,21E-09	ANXA1, CCR2, CCR7, CD44, FCGR2A, ITGAM, ITGB2, RAC2, SELL, SELPLG	10
Immune Cell Trafficking	cell rolling	cell rolling of granulocytes	1,52E-05	ANXA1, ITGB2, RAC2, SELL, SELPLG	5

Immune Cell Trafficking	cell rolling	cell rolling of mononuclear leukocytes	1,52E-05	CCR2, CCR7, ITGB2, SELL, SELPLG	5
Immune Cell Trafficking	homing	homing of leukocytes	1,40E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, SELPLG, THBS2	19
Immune Cell Trafficking	chemotaxis	chemotaxis of leukocytes	3,58E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, THBS2	18
Immune Cell Trafficking	chemotaxis	chemotaxis of myeloid cells	9,94E-06	ANXA1, CCL5, CD28, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	11
Immune Cell Trafficking	infiltration	infiltration by neutrophils	1,14E-06	ANXA1, CASP1, CCR2, CD44, ITGAL, ITGAM, ITGB2, LTB4R, RAC2, SELL, TGFB2	11
Immune Cell Trafficking	egression	egression of leukocytes	1,64E-06	CCR2, CCR5, CCR7, ITGAM, ITGB2	5
Immune Cell Trafficking	trafficking	trafficking of phagocytes	3,84E-06	CCL5, CCR5, ITGB2	3
Immune Cell Trafficking	trafficking	trafficking of leukocytes	6,13E-06	ANXA1, CCL5, CCR2, CCR5, CD44, ITGB2	6
Immune Cell Trafficking	trafficking	trafficking of antigen presenting cells	1,52E-05	CCL5, CCR2, CCR5	3
Immune Cell Trafficking	detachment	detachment of leukocytes	7,05E-06	ANXA1, ITGAL, PTPRC, SELL	4
Immunological Disease	immunological disorder	immunological disorder	4,86E-26	ADAM12, ADRA2A, AHR, AMICA1, ANAPC4, ANTXR1, ANXA1, AOA, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD52, CD53, CD74, CD247, CD3D, CD8A, CDC7, CELF2, CHODL, CIITA, CLU, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYBB, DEF6, EBF1, ETS1, ETV6, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GFRA1, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, HLA-F, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRB1, LCK, LCP1, LCP2, LHFP, LYZ, MRC1, MS4A7, MYB (includes EG:4602), MYH9, NCF4, NFATC2, NFKB1, NOD2, NOTCH2, P2RY13, PID1, PRF1, PRKCB, PTPN22, PTPRC, RAC2, RASGRP4, RNF213, ROBO1, RUNX1, SELL, SH2B3, SH2D1A, SIPA1L2, SIRPG, STAT4, TAP1, TBX21, TCF4, TGFB2, THEMIS, TNFSF13B, TSHZ2, VAV1, VIM	120
Immunological Disease	immunological disorder	immunological disorder of mammalia	5,87E-22	AHR, AOA, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CIITA, CXCL9, CYBB, DEF6, ETS1, FCGR2A, FCGR2B, HLA-B, HLA-C, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, JAK3, LCP2, NFATC2, PRF1, RUNX1, SELL, SH2B3, SH2D1A, STAT4, TAP1, TBX21, VAV1	41
Immunological Disease	immunological disorder	immunological disorder of mice	1,50E-21	AHR, AOA, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CIITA, CYBB, DEF6, ETS1, FCGR2A, FCGR2B, HLA-B, HLA-C, HLA-DQB1, HLA-DRA, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, JAK3, LCP2, NFATC2, PRF1, RUNX1, SELL, SH2B3, SH2D1A, STAT4, TAP1, TBX21, VAV1	39
Immunological Disease	autoimmune disease	autoimmune disease	5,46E-18	ADAM12, ADRA2A, AMICA1, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD53, CD74, CD3D, CDC7, CELF2, CHODL, CIITA, CLU, CSF2RB, CXCL9, CXCL16, DEF6, EBF1, ETS1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, HLA-F, IKZF1, IL7, IL10RA, IL2RB, IL7R, IRF1, IRF4, ITGAL, ITGAM, ITGB2, JAK3, KLRB1, LCP1, LHFP, LYZ, MRC1, MS4A7, MYH9, NCF4, NFATC2, NOD2, NOTCH2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, SELL, SH2B3, SH2D1A, SIRPG, STAT4, TAP1, TBX21, TCF4, TGFB2, THEMIS, TNFSF13B, TSHZ2, VIM	97
Immunological Disease	autoimmune disease	autoimmune disease of	2,79E-15	CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CIITA, DEF6, FCGR2A, FCGR2B, HLA-B, HLA-C, HLA-DQB1, HLA-DRA, IL7, IL7R, IRF4, ITGAL, JAK3,	26

		mice		RUNX1, SELL, SH2D1A, STAT4, TAP1, TBX21	
Immunological Disease	autoimmune disease	autoimmune disease of mammalia	5,47E-15	CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CIITA, DEF6, FCGR2A, FCGR2B, HLA-B, HLA-C, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL7R, IRF4, ITGAL, JAK3, RUNX1, SELL, SH2D1A, STAT4, TAP1, TBX21	27
Immunological Disease	rheumatoid arthritis	rheumatoid arthritis	1,24E-14	ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MRC1, MS4A7, MYH9, NCF4, NFATC2, NOD2, P2RY13, PID1, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TCF4, TNFSF13B, VIM	72
Immunological Disease	systemic lupus erythematosus	systemic lupus erythematosus	2,02E-10	CD44, CLU, CXCL16, FCGR2A, FCGR2B, HLA-DRA, IL7R, ITGAM, PTPN22, PTPRC, SH2B3, SH2D1A, STAT4, TAP1, TNFSF13B	15
Immunological Disease	immunodeficiency	immunodeficiency	1,65E-09	CD28, CD247, CD3D, CIITA, IL2RG, IL7R, ITGB2, JAK3, PTPRC, RAC2, TAP1	11
Immunological Disease	graft-vs-host disease	graft-vs-host disease	2,72E-08	CCR5, CD2, CD52, CD247, CD3D, CSF2RB, IL2RB, IL2RG, PRF1	9
Immunological Disease	severe combined immunodeficiency	severe combined immunodeficiency	2,24E-07	CD247, CD3D, IL2RG, IL7R, JAK3, PTPRC	6
Immunological Disease	lymphocytic leukemia	lymphocytic leukemia	3,73E-07	ATM, CD52, CD74, CD247, CD3D, CSF2RB, ETV6, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RUNX1	15
Immunological Disease	infection	infection of leukocytes	1,81E-06	CASP1, CCL5, CCR2, CCR5, CD209, IRF1, ITGAM	7
Immunological Disease	eosinophilia	eosinophilia	3,76E-06	CD247, CTSS, CXCL9, DEF6, IL2RG, IRF8, ITGB6, ITK, LCK, MYH9, PRF1	11
Immunological Disease	autosomal recessive severe combined immunodeficiency	autosomal recessive severe combined immunodeficiency	3,84E-06	CD3D, IL7R, JAK3	3
Immunological Disease	insulin-dependent diabetes mellitus	insulin-dependent diabetes mellitus	4,40E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, CCR2, CD2, CD44, CD53, CDC7, CHODL, CIITA, FLI1, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-F, IL2RB, IL7R, ITGAL, KLRB1, LHFP, MYH9, NFATC2, NOD2, NOTCH2, PRKCB, PTPN22, RNF213, ROBO1, RUNX1, SH2B3, SIRPG, STAT4, TAP1, TGFBR2, TNFSF13B, TSHZ2	40
Immunological Disease	hypersensitive reaction	hypersensitive reaction	5,35E-06	ADRA2A, CCL5, CD2, CD44, CD74, FCGR2A, FCGR2B, HLA-DRA, HLA-DRB1, ITGAL, ITGB2, LCP2, NFKBIZ, VAV1	14
Immunological Disease	autoimmune hemolytic anemia	autoimmune hemolytic anemia of mice	7,05E-06	CD28, CD47, FCGR2A, IL7R	4
Cell Death	cytotoxicity	cytotoxicity of cells	5,99E-25	CASP1, CCL5, CD2, CD28, CD44, CD48, CD74, CD96, CD300A, CYBB, FCGR2A, GZMA, GZMB, HCK, HLA-B, HLA-C, HLA-DRB1, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, NFATC2, PRF1, PTPRC, SH2D1A, SLAMF7, STAT4, TAP1, TBX21, VAV1, WIPF1	34
Cell Death	cytotoxicity	cytotoxicity of leukocytes	4,50E-23	CASP1, CCL5, CD2, CD44, CD48, CD96, CD300A, CYBB, FCGR2A, GZMA, GZMB, HCK, HLA-C, HLA-DRB1, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, NFATC2, PRF1, PTPRC, STAT4, TBX21, VAV1, WIPF1	28
Cell Death	cytotoxicity	cytotoxicity of normal cells	5,14E-23	CASP1, CCL5, CD2, CD44, CD48, CD74, CD96, CD300A, CYBB, FCGR2A, GZMA, GZMB, HCK, HLA-C, HLA-DRB1, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, NFATC2, PRF1, PTPRC, STAT4, TBX21, VAV1, WIPF1	29
Cell Death	cytotoxicity	cytotoxicity of eukaryotic cells	3,37E-22	CASP1, CCL5, CD2, CD28, CD44, CD48, CD74, CD96, CD300A, CYBB, FCGR2A, GZMA, GZMB, HCK, HLA-B, HLA-C, HLA-DRB1, IL7, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, NFATC2, PRF1, PTPRC, STAT4, TBX21, VAV1, WIPF1	30
Cell Death	cytotoxicity	cytotoxicity of lymphocytes	4,84E-19	CCL5, CD2, CD44, CD48, CD96, CD300A, FCGR2A, GZMA, GZMB, HLA-C, HLA-DRB1, IL7, ITGAL, ITGB2, ITK, KLRK1, LCK, NFATC2, PRF1, PTPRC, STAT4, TBX21, VAV1, WIPF1	24

Cell Death	cytotoxicity	cytotoxicity of natural killer cells	4,42E-13	CD2, CD44, CD48, CD96, CD300A, FCGR2A, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, STAT4, TBX21, VAV1, WIPF1	16
Cell Death	cytotoxicity	cytotoxicity of T lymphocytes	1,99E-09	CCL5, GZMA, GZMB, HLA-C, HLA-DRB1, IL7, KLRK1, NFATC2, PRF1, PTPRC, STAT4	11
Cell Death	cytotoxicity	cytotoxicity of cytotoxic T cells	6,13E-06	CCL5, GZMA, GZMB, HLA-C, PRF1, PTPRC	6
Cell Death	cell death	cell death of leukocytes	5,76E-20	ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, FCGR2B, GFI1, GZMA, GZMB, HLA-DRB4, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, TBX21, TGFBR2, THBS2, TNFSF13B	40
Cell Death	cell death	cell death of blood cells	8,39E-20	ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, FCGR2B, FLI1, GFI1, GZMA, GZMB, HLA-DRB4, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, TBX21, TGFBR2, THBS2, TNFSF13B	41
Cell Death	cell death	cell death of lymphocytes	9,27E-20	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, FCGR2B, GFI1, GZMA, GZMB, HLA-DRB4, IL7, IL2RG, IL7R, ITGAL, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, TBX21, TGFBR2, THBS2, TNFSF13B	35
Cell Death	cell death	cell death	5,71E-18	ADAM12, AGAP2, AHR, AKAP12, ANTXR1, ANTXR2, ANXA1, APOL1, ATM, BCL11B, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD53, CD74, CD247, CD8A, CDC7, CIITA, CLU, CNN2, CSF1R, CSF2RB, CTSS, CYBB, DEF6, EBF1, EMILIN2, EOMES, ETS1, ETV6, FAIM3, FCGR2B, FLI1, FLNA, FUBP1, GABRP, GFI1, GFRA1, GLIPR1, GPR65, GZMA, GZMB, GZMK, HCK, HCLS1, HLA-B, HLA-DRB4, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LEF1, LYZ, MAP4K1, MMP7, MYB (includes EG:4602), NFATC2, NFKBIZ, NLRP3, NOD2, NOTCH2, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RAC2, RASSF2, RASSF5, RUNX1, RUNX2, SERPINB9, SLC2A3, STAT4, TBX21, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1, UACA, VAV1	102
Cell Death	cell death	cell death of T lymphocytes	5,27E-17	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, DEF6, EOMES, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, TBX21, TGFBR2, THBS2	29
Cell Death	cell death	cell death of normal cells	5,31E-16	ADAM12, AGAP2, AHR, ANXA1, APOL1, ATM, BCL2A1, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD247, CDC7, CIITA, CLU, CSF1R, CTSS, CYBB, DEF6, EOMES, ETS1, ETV6, FCGR2B, FLI1, FLNA, GFI1, GFRA1, GZMA, GZMB, HLA-B, HLA-DRB4, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, MMP7, NFATC2, NLRP3, NRP1, PRF1, PRKCB, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, TBX21, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B	64
Cell Death	cell death	cell death of eukaryotic cells	1,16E-15	ADAM12, AGAP2, AHR, ANTXR1, ANTXR2, ANXA1, APOL1, ATM, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD247, CD8A, CDC7, CIITA, CLU, CNN2, CSF1R, CSF2RB, CTSS, CYBB, DEF6, EMILIN2, EOMES, ETS1, ETV6, FCGR2B, FLI1, FLNA, FUBP1, GFI1, GFRA1, GLIPR1, GPR65, GZMA, GZMB, GZMK, HCK, HCLS1, HLA-B, HLA-DRB4, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602), NFATC2, NFKBIZ, NLRP3, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RUNX1, RUNX2, SERPINB9, TBX21, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1, VAV1	87
Cell Death	cell death	cell death of tumor cell lines	4,73E-11	AGAP2, AHR, APOL1, ATM, BCL2A1, CASP1, CD28, CD44, CD47, CD48, CDC7, CLU, CNN2, CSF1R, CSF2RB, EMILIN2, ETS1, FCGR2B, FLI1, FUBP1, GFI1, GLIPR1, GPR65, GZMB, GZMK, HCK, HCLS1, HLA-DRB4, IL7, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602), NFKBIZ, NLRP3, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RUNX1, TNFSF13B, VAV1	52
Cell Death	cell death	cell death of leukemia cell lines	6,48E-11	BCL2A1, CD28, CD47, CSF2RB, EMILIN2, GFI1, GZMB, GZMK, HCLS1, HLA-DRB4, IL7, IL2RG, ITGAM, LCK, NLRP3, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX1, VAV1	22
Cell Death	cell death	cell death of cell lines	1,33E-10	AGAP2, AHR, ANTXR1, ANTXR2, APOL1, ATM, BCL2A1, CASP1, CCL5, CCND2, CCR5, CD2, CD28, CD44, CD47, CD48, CD8A, CDC7, CLU, CNN2, CSF1R, CSF2RB, EMILIN2, ETS1, ETV6, FCGR2B, FLI1, FUBP1, GFI1, GLIPR1, GPR65, GZMB, GZMK, HCK, HCLS1, HLA-DRB4, IL7, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602),	61

				NFKBIZ, NLRP3, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RUNX1, TCF4, TNFSF13B, VAV1	
Cell Death	cell death	cell death of lymphoma cell lines	8,47E-09	BCL2A1, CD48, CNN2, FCGR2B, FUBP1, GPR65, HLA-DRB4, IRF8, JAK3, LEF1, MAP4K1, PRKCB, PTPN22, PTPRC, RUNX1, TNFSF13B	16
Cell Death	cell death	cell death of leukocyte cell lines	5,47E-08	BCL2A1, CCL5, CCND2, CCR5, CD2, CD44, CD8A, ETV6, GFI1, GZMB, HCLS1, HLA-DRB4, IL7, IRF4, MYB (includes EG:4602), PTPRC, RUNX1	17
Cell Death	cell death	cell death of B lymphocytes	2,25E-07	BCL2A1, CASP1, CD47, FCGR2B, GZMB, HLA-DRB4, IL7, PRF1, PRKCB, PTPRC, TNFSF13B	11
Cell Death	cell death	cell death of tumor cells	3,77E-07	ADAM12, AGAP2, ATM, CASP1, CD47, CLU, GZMB, IL7, IRF1, LEF1, NRP1, SERPINB9, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1	17
Cell Death	cell death	cell death of thymocytes	7,66E-06	ATM, BCL2A1, CASP1, CD28, CD44, GFI1, GZMA, GZMB, IL7, PTPRC	10
Cell Death	apoptosis	apoptosis of leukocytes	1,42E-16	ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, FCGR2B, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, THBS2, TNFSF13B	34
Cell Death	apoptosis	apoptosis of blood cells	1,55E-16	ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, FCGR2B, FLI1, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, THBS2, TNFSF13B	35
Cell Death	apoptosis	apoptosis of lymphocytes	4,48E-16	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, FCGR2B, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, NFATC2, PRF1, PRKCB, PTPRC, RAC2, THBS2, TNFSF13B	29
Cell Death	apoptosis	apoptosis	9,51E-16	ADAM12, AGAP2, AHR, AKAP12, ANXA1, ATM, BCL11B, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD53, CD74, CD247, CD8A, CDC7, CIITA, CLU, CNN2, CSF1R, CSF2RB, CTSS, EBF1, EMILIN2, ETS1, ETV6, FAIM3, FCGR2B, FLI1, FUBP1, GFI1, GFRA1, GLIPR1, GPR65, GZMA, GZMB, HCK, HCLS1, HLA-B, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602), NFATC2, NFKBIZ, NLRP3, NOD2, NOTCH2, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RAC2, RASSF2, RASSF5, RUNX1, RUNX2, SLC2A3, STAT4, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1, UACA, VAV1	88
Cell Death	apoptosis	apoptosis of T lymphocytes	7,02E-15	ATM, BCL2A1, CASP1, CCL5, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, GFI1, GZMA, GZMB, IL7, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, THBS2	25
Cell Death	apoptosis	apoptosis of eukaryotic cells	3,33E-14	ADAM12, AGAP2, AHR, ANXA1, ATM, BCL2A1, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD247, CD8A, CDC7, CIITA, CLU, CNN2, CSF1R, CSF2RB, CTSS, EMILIN2, ETS1, ETV6, FCGR2B, FLI1, FUBP1, GFI1, GFRA1, GLIPR1, GPR65, GZMA, GZMB, HCK, HCLS1, HLA-B, IL7, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602), NFATC2, NFKBIZ, NLRP3, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RUNX1, RUNX2, TCF4, TGFBR2, THBS2, TIMP2, TNFSF13B, TPM1, VAV1	75
Cell Death	apoptosis	apoptosis of normal cells	5,97E-13	ADAM12, AGAP2, AHR, ANXA1, ATM, BCL2A1, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD247, CIITA, CLU, CSF1R, CTSS, ETS1, ETV6, FCGR2B, FLI1, GFI1, GFRA1, GZMA, GZMB, HLA-B, IL7, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, MAP4K1, MMP7, NFATC2, NLRP3, NRP1, PRF1, PRKCB, PTPRC, RAC2, RUNX2, TCF4, THBS2, TIMP2, TNFSF13B	52
Cell Death	apoptosis	apoptosis of tumor cell lines	4,61E-11	AGAP2, AHR, ATM, BCL2A1, CASP1, CD28, CD44, CD47, CD48, CDC7, CLU, CNN2, CSF1R, CSF2RB, EMILIN2, ETS1, FCGR2B, FLI1, FUBP1, GFI1, GLIPR1, GPR65, GZMB, HCK, HCLS1, IL7, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, MAP4K1, MMP7, MYB (includes EG:4602), NFKBIZ, NLRP3, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RUNX1, TNFSF13B, VAV1	47
Cell Death	apoptosis	apoptosis of cell lines	5,59E-11	AGAP2, AHR, ATM, BCL2A1, CASP1, CCL5, CCND2, CCR5, CD2, CD28, CD44, CD47, CD48, CD8A, CDC7, CLU, CNN2, CSF1R, CSF2RB, EMILIN2, ETS1, ETV6, FCGR2B, FLI1, FUBP1, GFI1, GLIPR1, GPR65, GZMB, HCK, HCLS1, IL7, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, MAP4K1, MMP7, MYB (includes EG:4602), NFKBIZ, NRP1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RUNX1, TCF4, TNFSF13B, VAV1	55
Cell Death	apoptosis	apoptosis of leukemia	1,20E-08	BCL2A1, CD28, CD47, CSF2RB, GFI1, GZMB, HCLS1, IL7, IL2RG, ITGAM, LCK, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX1, VAV1	18

			cell lines		
Cell Death	apoptosis	apoptosis of lymphoma cell lines	7,33E-08	BCL2A1, CD48, CNN2, FCGR2B, FUBP1, GPR65, IRF8, JAK3, MAP4K1, PRKCB, PTPN22, PTPRC, RUNX1, TNFSF13B	14
Cell Death	apoptosis	apoptosis of B lymphocytes	7,59E-07	BCL2A1, CASP1, CD47, FCGR2B, GZMB, IL7, PRF1, PRKCB, PTPRC, TNFSF13B	10
Cell Death	apoptosis	apoptosis of leukocyte cell lines	7,61E-07	BCL2A1, CCL5, CCND2, CCR5, CD2, CD44, CD8A, ETV6, GZMB, HCLS1, IL7, IRF4, MYB (includes EG:4602), PTPRC, RUNX1	15
Cell Death	apoptosis	apoptosis of tumor cells	8,71E-06	ADAM12, AGAP2, ATM, CASP1, CLU, GZMB, IL7, IRF1, NRP1, TGFB2, THBS2, TIMP2, TNFSF13B, TPM1	14
Cell Death	survival	survival of leukocytes	8,90E-13	BCL2A1, CD28, CD44, CD300A, CD8A, CLU, CSF1R, CSF2RB, HCK, IL7, IL2RB, IL2RG, ITGB2, JAK3, LEF1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, STAT4, TNFSF13B	21
Cell Death	survival	survival of blood cells	1,01E-12	BCL2A1, CD28, CD44, CD300A, CD8A, CLU, CSF1R, CSF2RB, HCK, IL7, IL2RB, IL2RG, ITGB2, JAK3, LEF1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, RUNX1, STAT4, TNFSF13B	22
Cell Death	survival	survival of lymphocytes	1,73E-09	CD28, CD44, CD8A, CLU, HCK, IL7, IL2RB, IL2RG, JAK3, LEF1, MYB (includes EG:4602), PRKCB, PTPRC, STAT4, TNFSF13B	15
Cell Death	survival	survival of cells	2,12E-08	ANTXR1, ANTXR2, ATM, BCL2A1, CCL5, CD28, CD44, CD48, CD74, CD300A, CD8A, CLU, CSF1R, CSF2RB, CXCL9, DGKA, EMILIN2, ETV6, FLI1, GFRA1, GZMB, HCK, IL7, IL2RB, IL2RG, ITGB2, JAK3, LCK, LEF1, LYZ, MYB (includes EG:4602), PRKCB, PTPN22, PTPRC, RAC2, RUNX1, STAT4, TGFB2, TIMP2, TNFSF13B	40
Cell Death	survival	survival of normal cells	3,79E-08	ATM, BCL2A1, CCL5, CD28, CD44, CD300A, CD8A, CLU, CSF1R, CSF2RB, CXCL9, GFRA1, HCK, IL7, IL2RB, IL2RG, ITGB2, JAK3, LEF1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, RUNX1, STAT4, TNFSF13B	26
Cell Death	survival	survival of eukaryotic cells	4,57E-08	ANTXR1, ANTXR2, ATM, BCL2A1, CCL5, CD28, CD44, CD74, CD300A, CD8A, CLU, CSF1R, CSF2RB, CXCL9, DGKA, EMILIN2, ETV6, FLI1, GFRA1, HCK, IL7, IL2RB, IL2RG, ITGB2, JAK3, LCK, LEF1, MYB (includes EG:4602), PRKCB, PTPN22, PTPRC, RAC2, RUNX1, STAT4, TGFB2, TIMP2, TNFSF13B	37
Cell Death	survival	survival of B lymphocytes	3,22E-06	CD44, CLU, HCK, IL7, LEF1, MYB (includes EG:4602), PRKCB, TNFSF13B	8
Cell Death	survival	survival of T lymphocytes	3,57E-06	CD28, CD8A, IL7, IL2RB, IL2RG, JAK3, MYB (includes EG:4602), PTPRC, STAT4	9
Cell Death	cytolysis	cytolysis	1,27E-09	APOL1, CD44, CD48, CD247, FCGR2A, GZMA, GZMB, HLA-C, ITGB2, KLRK1, LCK, PRF1, PTPRC, VAV1	14
Cell Death	cytolysis	cytolysis of cells	3,48E-09	CD44, CD48, FCGR2A, GZMA, GZMB, HLA-C, ITGB2, KLRK1, LCK, PRF1, PTPRC, VAV1	12
Cell Death	cytolysis	cytolysis of eukaryotic cells	1,72E-08	CD48, FCGR2A, GZMB, HLA-C, ITGB2, KLRK1, LCK, PRF1, PTPRC, VAV1	10
Cell Death	cytolysis	cytolysis of lymphocytes	2,01E-06	HLA-C, LCK, PRF1, PTPRC	4
Cell Death	lysis	lysis of cells	1,23E-08	CASP1, CD44, CD48, CD8A, FCGR2A, GZMA, GZMB, HLA-C, ITGB2, KLRK1, LCK, PRF1, PTPRC, VAV1	14
Cell Death	lysis	lysis of lymphocytes	1,07E-06	CD48, HLA-C, LCK, PRF1, PTPRC	5
Cell Death	killing	killing of cells	9,12E-08	ANTXR1, CD47, CD48, CIITA, CYBB, ETS1, GZMB, HLA-C, KLRK1, LYZ, PRF1, SH2D1A, SLAMF7	13
Cell Death	killing	killing of lymphocytes	2,02E-07	CD47, CD48, CIITA, HLA-C, KLRK1, PRF1, SH2D1A, SLAMF7	8
Cell Death	killing	killing of eukaryotic cells	2,25E-07	ANTXR1, CD47, CD48, CIITA, CYBB, ETS1, HLA-C, KLRK1, PRF1, SH2D1A, SLAMF7	11
Cell Death	killing	killing of normal cells	6,53E-07	CD47, CD48, CIITA, ETS1, HLA-C, KLRK1, PRF1, SH2D1A, SLAMF7	9
Cell Death	killing	killing of natural killer cells	1,52E-05	CD48, HLA-C, PRF1, SH2D1A, SLAMF7	5
Cell Death	activation-induced cell death	activation-induced cell death	2,35E-07	CCR5, CD28, CIITA, GFI1, IRF4, ITK, MAP4K1, PRF1, RAC2	9

Cell Death	activation-induced cell death	activation-induced cell death of T lymphocytes	3,25E-07	CCR5, CD28, CIITA, ITK, MAP4K1, PRF1, RAC2	7
Cell Death	activation-induced cell death	activation-induced cell death of eukaryotic cells	6,14E-07	CCR5, CD28, CIITA, GF11, ITK, MAP4K1, PRF1, RAC2	8
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mammalia	1,02E-22	ANXA1, AOA, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CIITA, CLU, CTSS, CYBB, DEF6, FCGR2A, FCGR2B, GF11, GZMB, HCK, HLA-B, HLA-DQB1, HLA-DRA, HLA-DRB1, IL7, IL2RB, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LTB4R, MMP7, NFATC2, NOD2, PRF1, PTPRC, SELL, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TGFB2, TNFSF13B, VAV1	47
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mice	2,60E-22	ANXA1, AOA, CASP1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CIITA, CLU, CTSS, CYBB, DEF6, FCGR2A, FCGR2B, GF11, GZMB, HCK, HLA-B, HLA-DQB1, HLA-DRA, IL7, IL2RB, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LTB4R, MMP7, NFATC2, PRF1, PTPRC, SELL, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TGFB2, TNFSF13B, VAV1	45
Inflammatory Disease	inflammatory disorder	inflammatory disorder	4,07E-20	ADAM12, ADRA2A, AHR, ANAPC4, ANTXR1, ANXA1, AOA, ARHGDIB, ATM, BCL2A1, BICD1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD48, CD52, CD53, CD74, CD247, CD3D, CD8A, CDC7, CELF2, CIITA, CLEC7A, CLU, CSF2RB, CTSS, CXCL9, CXCL16, CYBB, DEF6, EBF1, ETV6, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GF11, GFRA1, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, HLA-F, IKZF1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRB1, LCK, LCP1, LCP2, LHFP, LTB4R, LYZ, MAP4K1, MMP7, MRC1, MS4A7, MYH9, NCF4, NFATC2, NFKBIZ, NLRP3, NOD2, NOTCH2, P2RY13, PID1, PRF1, PRKCB, PTPN22, PTPRC, RASGRP4, RNF213, ROBO1, RUNX1, SELL, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B, VAV1, VIM, WDR33	120
Inflammatory Disease	rheumatic disease	rheumatic disease	4,48E-18	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, LCK, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	86
Inflammatory Disease	rheumatic disease	rheumatic disease of mammalia	4,36E-10	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	18
Inflammatory Disease	rheumatic disease	rheumatic disease of rodents	1,62E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	17
Inflammatory Disease	rheumatic disease	rheumatic disease of mice	4,15E-09	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	16
Inflammatory Disease	arthritis	arthritis	7,13E-17	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	82
Inflammatory Disease	arthritis	arthritis of mammalia	7,12E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, STAT4, TBX21, TNFSF13B	16
Inflammatory Disease	arthritis	arthritis of rodents	3,36E-08	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, STAT4, TBX21, TNFSF13B	15
Inflammatory Disease	arthritis	arthritis of	8,71E-	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7,	14

ry Disease		mice	08	IL2RB, STAT4, TBX21, TNFSF13B	
Inflammatory Disease	rheumatoid arthritis	rheumatoid arthritis	1,24E-14	ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MRC1, MS4A7, MYH9, NCF4, NFATC2, NOD2, P2RY13, PID1, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TCF4, TNFSF13B, VIM	72
Inflammatory Disease	systemic lupus erythematosus	systemic lupus erythematosus	2,02E-10	CD44, CLU, CXCL16, FCGR2A, FCGR2B, HLA-DRA, IL7R, ITGAM, PTPN22, PTPRC, SH2B3, SH2D1A, STAT4, TAP1, TNFSF13B	15
Inflammatory Disease	myocarditis	myocarditis	1,50E-06	CCR2, CCR5, CLU, PRF1, STAT4, TBX21	6
Inflammatory Disease	myocarditis	myocarditis of mice	6,67E-06	CCR2, CCR5, PRF1, STAT4, TBX21	5
Inflammatory Disease	experimentally-induced arthritis	experimentally-induced arthritis of mice	1,96E-06	ANXA1, CCR2, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	10
Inflammatory Disease	experimentally-induced arthritis	experimentally-induced arthritis	4,07E-06	ANXA1, CCR2, CCR5, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	11
Inflammatory Disease	dermatitis	dermatitis	3,73E-06	CASP1, CCL5, CD2, CD52, CD74, HLA-DRA, HLA-DRB1, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, NFKBIZ	13
Inflammatory Disease	inflammatory bowel disease	inflammatory bowel disease of mammalia	4,91E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, NOD2, STAT4, TGFB2	9
Inflammatory Disease	nephritis	nephritis	5,14E-06	CCL5, CD2, CD28, CD8A, CLU, CXCL16, FCGR2B, HLA-DQB1, ITGAL, PTPRC, TNFSF13B	11
Inflammatory Disease	multiple sclerosis	multiple sclerosis	8,26E-06	ADRA2A, CASP1, CD52, CIITA, GFI1, HLA-DMB, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-F, IL7, IL7R, KLRB1, PTPRC	14
Inflammatory Disease	colitis	colitis of mice	8,67E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, STAT4, TGFB2	8
Inflammatory Disease	collagen-induced arthritis	collagen-induced arthritis of mice	1,21E-05	ANXA1, CCR2, CD44, CTSS, IL2RB, STAT4, TBX21, TNFSF13B	8
Cellular Movement	migration	migration of leukocytes	5,07E-21	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CNN2, CSF1R, CTSS, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FCGR2A, FYB, HCK, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, LTB4R, MMP7, MYH9, PRF1, PRKCB, PTPRC, RAC2, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	45
Cellular Movement	migration	migration of mononuclear leukocytes	2,44E-19	CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CTSS, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, MYH9, PRF1, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	34
Cellular Movement	migration	migration of cells	5,88E-19	ADAM12, ADAM19, ANXA1, ARHGDIB, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD8A, CLDN11, CLU, CNN2, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYTIP, EBF1, ETS1, ETV6, FCGR2A, FYB, GFRA1, GZMB, HCK, HHEX, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, KLRK1, LCK, LTB4R, MARCKS, MMP7, MYH9, MYO1F, NDP, NR2F2, NRP1, PRF1, PRKCB, PTPRC, RAC2, RASSF5, RGS18, ROBO1, RUNX2, SELL, SELPLG, TGFB2, THBS2, TIMP2, TNFSF13B, TPM1	68
Cellular Movement	migration	Lymphocyte migration	1,34E-17	CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CXCL9, CXCL16, CYTIP, ETS1, ETV6, FYB, IL7, ITGAL, ITGB2, ITK, LCK, MYH9, PRF1, RASSF5, SELL, SELPLG, THBS2, TIMP2, TNFSF13B	31
Cellular Movement	migration	migration of normal cells	1,38E-17	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CD247, CD8A, CLDN11, CLU, CNN2, CSF1R, CTSS, CXCL9, CXCL16, CYTIP, EBF1, ETS1, ETV6, FCGR2A, FYB, GFRA1, HCK, HHEX, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LTB4R, MMP7, MYH9, NDP, NR2F2, NRP1, PRF1, PRKCB, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2,	55

				TIMP2, TNFSF13B	
Cellular Movement	migration	migration of eukaryotic cells	2,82E-17	ADAM12, ADAM19, ANXA1, ARHGDIB, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD8A, CLDN11, CLU, CNN2, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYTIP, EBF1, ETS1, ETV6, FCGR2A, FYB, GFRA1, GZMB, HCK, HHEX, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, KLRK1, LCK, LTB4R, MMP7, MYH9, NDP, NR2F2, NRP1, PRF1, PRKCB, PTPRC, RAC2, RASSF5, ROBO1, SELL, SELPLG, TGFB2, THBS2, TIMP2, TNFSF13B	63
Cellular Movement	migration	T cell migration	1,62E-09	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, FYB, IL7, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, THBS2, TIMP2	18
Cellular Movement	migration	migration of phagocytes	4,15E-08	ANXA1, CCL5, CD47, CNN2, CSF1R, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, RAC2, SELL	13
Cellular Movement	migration	migration of neutrophils	1,42E-07	ANXA1, CCL5, CD47, CNN2, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	11
Cellular Movement	migration	migration of granulocytes	4,86E-07	ANXA1, CCL5, CD47, CNN2, CXCL9, HCK, ITGAL, ITGAM, ITGAX, ITGB2, MMP7, SELL	12
Cellular Movement	migration	migration of cell lines	5,03E-07	ADAM12, ADAM19, ARHGDIB, CCL5, CCR2, CCR5, CCR7, CD44, CD47, CLU, CNN2, CSF1R, CSF2RB, CXCL9, ETS1, GZMB, HHEX, ITGAL, ITGAM, ITGB2, ITGB6, KLRK1, LCK, NRP1, RAC2, ROBO1, TIMP2	27
Cellular Movement	migration	migration of leukemia cell lines	7,26E-07	CCL5, CCR2, CD44, CD47, ITGAL, ITGB2, KLRK1, LCK	8
Cellular Movement	migration	migration of antigen presenting cells	1,49E-06	CCL5, CCR2, CCR5, CCR7, CD44, CD209, CNN2, CSF1R, CXCL9, IL10RA, RAC2	11
Cellular Movement	migration	migration of dendritic cells	6,65E-06	CCL5, CCR2, CCR5, CCR7, CD44, CD209, CXCL9, IL10RA, RAC2	9
Cellular Movement	migration	migration of monocytes	1,67E-05	CCR2, CD47, CTSS, ITGAL, ITGAM, ITGAX, ITGB2, TIMP2	8
Cellular Movement	movement	movement of eukaryotic cells	1,20E-17	ADAM12, ADAM19, ANXA1, ARHGDIB, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD74, CD209, CD247, CD8A, CLDN11, CLU, CNN2, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYTIP, EBF1, ETS1, ETV6, FCGR2A, FYB, GFRA1, GZMB, HCK, HHEX, IL7, IL10RA, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, KLRK1, LCK, LTB4R, MARCKS, MMP7, MYH9, NDP, NR2F2, NRP1, PRF1, PRKCB, PTPRC, RAC2, RASSF5, ROBO1, SELL, SELPLG, TGFB2, THBS2, TIMP2, TNFSF13B	64
Cellular Movement	movement	movement of cell lines	2,52E-07	ADAM12, ADAM19, ARHGDIB, CCL5, CCR2, CCR5, CCR7, CD44, CD47, CLU, CNN2, CSF1R, CSF2RB, CXCL9, ETS1, GZMB, HHEX, ITGAL, ITGAM, ITGB2, ITGB6, KLRK1, LCK, MARCKS, NRP1, RAC2, ROBO1, TIMP2	28
Cellular Movement	cell movement	cell movement	2,04E-16	ADRA2A, ANXA1, ARHGDIB, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CIITA, CLU, CSF1R, CTSS, CXCL9, CXCL16, DGKA, FCGR2A, FCGR2B, FLNA, GFRA1, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LTB4R, MARCKS, MYH9, NFATC2, NFKBIZ, NRP1, PRF1, PRKCB, PTPRC, RAC2, ROBO1, SELL, SELPLG, TGFB2, THBS2, TIMP2, TPBG, TPM1, VIM	55
Cellular Movement	cell movement	cell movement of eukaryotic cells	8,06E-16	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CIITA, CLU, CSF1R, CTSS, CXCL9, CXCL16, DGKA, FCGR2A, FCGR2B, FLNA, GFRA1, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LTB4R, MYH9, NFATC2, NFKBIZ, NRP1, PRF1, PRKCB, PTPRC, RAC2, ROBO1, SELL, SELPLG, TGFB2, THBS2, TIMP2, TPBG	50
Cellular Movement	cell movement	cell movement of normal cells	1,00E-15	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CIITA, CSF1R, CTSS, CXCL9, CXCL16, DGKA, FCGR2A, FCGR2B, GFRA1, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCP2, LTB4R, NFATC2, NFKBIZ, PRF1, PRKCB, PTPRC, RAC2, ROBO1, SELL, SELPLG, TGFB2, THBS2, TIMP2, TPBG	44
Cellular Movement	cell movement	cell movement of blood cells	1,27E-15	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CIITA, CSF1R, CTSS, CXCL9, CXCL16, FCGR2A, FCGR2B, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LTB4R, NFATC2, NFKBIZ, PRF1, PRKCB, PTPRC, RAC2, SELL, SELPLG, TGFB2, THBS2, TIMP2	39
Cellular Movement	cell movement	cell movement of leukocytes	1,10E-13	ANXA1, CASP1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD209, CSF1R, CTSS, CXCL9, CXCL16, FCGR2A, FCGR2B, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, NFATC2, PRF1, PRKCB, PTPRC, RAC2, SELL, SELPLG, TGFB2, THBS2, TIMP2	36

Cellular Movement	cell movement	cell movement of lymphatic system cells	2,75E-12	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP2, LTB4R, PTPRC, RAC2, SELL, SELPLG, TGFBR2	25
Cellular Movement	cell movement	cell movement of myeloid cells	9,23E-12	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, PTPRC, RAC2, SELL, SELPLG, TGFBR2	24
Cellular Movement	cell movement	cell movement of granulocytes	5,64E-11	ANXA1, CASP1, CCL5, CCR2, CD2, CD28, CD44, CD47, CD48, CXCL9, FCGR2A, HCK, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LTB4R, RAC2, SELL, SELPLG, TGFBR2	23
Cellular Movement	cell movement	cell movement of mononuclear leukocytes	1,34E-10	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CTSS, CXCL9, CXCL16, ITGAL, ITGAX, ITGB2, ITK, NFATC2, PRF1, PRKCB, RAC2, SELL, SELPLG, THBS2, TIMP2	23
Cellular Movement	cell movement	cell movement of phagocytes	4,29E-09	ANXA1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD47, CSF1R, CXCL9, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	21
Cellular Movement	cell movement	cell movement of neutrophils	5,75E-09	ANXA1, CASP1, CCL5, CCR2, CD28, CD44, CD47, FCGR2A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTB4R, RAC2, SELL, SELPLG, TGFBR2	18
Cellular Movement	cell movement	cell movement of T lymphocytes	1,12E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, PRF1, SELL, SELPLG, THBS2	14
Cellular Movement	cell movement	cell movement of lymphocytes	5,42E-07	CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, ITGB2, ITK, NFATC2, PRF1, RAC2, SELL, SELPLG, THBS2	16
Cellular Movement	cell movement	cell movement of eosinophils	9,47E-07	CCL5, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK	10
Cellular Movement	cell movement	cell movement of monocytes	2,11E-06	ANXA1, CCL5, CCR2, CD47, CTSS, CXCL9, ITGAL, ITGAX, ITGB2, PRKCB, TIMP2	11
Cellular Movement	cell movement	cell movement of memory T lymphocytes	6,67E-06	CCL5, CCR7, CD28, CXCL9, ITGB2	5
Cellular Movement	cell movement	cell movement of bone marrow cells	7,72E-06	ANXA1, CD44, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	8
Cellular Movement	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Cellular Movement	transmigration	transmigration of leukocytes	1,62E-10	ANXA1, CCL5, CCR7, CD28, CD44, CD47, CD209, CTSS, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, TIMP2	14
Cellular Movement	transmigration	transmigration of mononuclear leukocytes	2,95E-09	CCL5, CCR7, CD28, CD44, CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	10
Cellular Movement	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5
Cellular Movement	transmigration	transmigration of granulocytes	3,66E-06	ANXA1, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2	7

Cellular Movement	transmigration	transmigration of neutrophils	9,11E-06	ANXA1, CD47, ITGAL, ITGAM, ITGAX, ITGB2	6
Cellular Movement	transmigration	transmigration of monocytes	1,32E-05	CD47, CTSS, ITGAL, ITGAX, ITGB2, TIMP2	6
Cellular Movement	emigration	emigration of leukocytes	1,03E-09	ANXA1, CCR2, CCR7, CD44, CNN2, CYTIP, FCGR2A, ITGB2, SELL	9
Cellular Movement	cell rolling	cell rolling	2,88E-09	ANXA1, CCR2, CCR7, CD44, CD209, FCGR2A, ITGAM, ITGB2, RAC2, SELL, SELPLG	11
Cellular Movement	cell rolling	cell rolling of leukocytes	8,21E-09	ANXA1, CCR2, CCR7, CD44, FCGR2A, ITGAM, ITGB2, RAC2, SELL, SELPLG	10
Cellular Movement	cell rolling	cell rolling of granulocytes	1,52E-05	ANXA1, ITGB2, RAC2, SELL, SELPLG	5
Cellular Movement	cell rolling	cell rolling of mononuclear leukocytes	1,52E-05	CCR2, CCR7, ITGB2, SELL, SELPLG	5
Cellular Movement	homing	homing of eukaryotic cells	5,55E-09	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CXCL9, CXCL16, DGKA, FCGR2A, GFRA1, HCK, ITGAL, ITGAM, ITGB2, LCK, LTB4R, NRP1, PRKCB, PTPRC, RAC2, ROBO1, SELPLG, THBS2	26
Cellular Movement	homing	homing of normal cells	4,08E-08	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CXCL9, CXCL16, FCGR2A, GFRA1, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, ROBO1, SELPLG, THBS2	22
Cellular Movement	homing	homing of leukocytes	1,40E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, SELPLG, THBS2	19
Cellular Movement	homing	homing of lymphatic system cells	3,55E-06	ANXA1, CCL5, CD28, CD44, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	12
Cellular Movement	invasion	invasion of eukaryotic cells	6,01E-09	AGAP2, ANXA1, BATF3, CCR7, CD44, CD53, CLU, CTSS, ETS1, ETV6, GFRA1, GZMB, HHEX, ITGB2, ITGB6, LCP1, LEF1, MARCKS, NFATC2, NRP1, PRKCB, RUNX2, TFPI2, TGFB2, THBS2, TIMP2, TRIO, VIM	28
Cellular Movement	invasion	invasion of cell lines	4,13E-06	ANXA1, BATF3, CCR7, CD44, CTSS, ETS1, ETV6, GFRA1, HHEX, ITGB2, ITGB6, LCP1, LEF1, MARCKS, NFATC2, NRP1, PRKCB, TFPI2, TIMP2, TRIO, VIM	21
Cellular Movement	chemotaxis	chemotaxis of cells	7,02E-09	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CXCL9, CXCL16, DGKA, FCGR2A, GFRA1, HCK, ITGAL, ITGAM, ITGB2, LCK, LTB4R, NRP1, PRKCB, PTPRC, RAC2, ROBO1, SELPLG, THBS2	26
Cellular Movement	chemotaxis	chemotaxis of eukaryotic cells	7,86E-09	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CD47, CXCL9, CXCL16, DGKA, FCGR2A, GFRA1, HCK, ITGAL, ITGAM, ITGB2, LCK, LTB4R, NRP1, PRKCB, PTPRC, RAC2, ROBO1, SELPLG, THBS2	25
Cellular Movement	chemotaxis	chemotaxis of normal cells	3,46E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, GFRA1, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, ROBO1, THBS2	20
Cellular Movement	chemotaxis	chemotaxis of leukocytes	3,58E-07	ANXA1, CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CXCL16, FCGR2A, HCK, ITGAL, ITGAM, ITGB2, LTB4R, PRKCB, PTPRC, RAC2, THBS2	18
Cellular Movement	chemotaxis	chemotaxis of myeloid cells	9,94E-06	ANXA1, CCL5, CD28, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	11
Cellular Movement	extravasation	extravasation of leukocytes	4,14E-07	CCL5, CCR2, CCR5, CD44, ITGAM, ITGB2, SELL	7
Cellular Movement	extravasation	extravasation	1,59E-06	CCL5, CCR2, CCR5, CD44, ITGAM, ITGB2, ITK, SELL	8
Cellular Movement	recruitment	recruitment of T lymphocytes	5,16E-07	CCL5, CCR2, CCR7, CD44, CD8A, CXCL9, CXCL16, ETS1	8
Cellular Movement	infiltration	infiltration of cells	7,71E-07	CCR2, CCR5, CCR7, CD44, CIITA, CSF1R, FCGR2B, ITGAM, ITK, JAK3, LCP2, NFATC2, NFKBIZ, NRP1, PRF1, SELPLG	16
Cellular Movement	infiltration	infiltration by neutrophils	1,14E-06	ANXA1, CASP1, CCR2, CD44, ITGAL, ITGAM, ITGB2, LTB4R, RAC2, SELL, TGFB2	11
Cellular Movement	egression	egression of	1,64E-	CCR2, CCR5, CCR7, ITGAM, ITGB2	5

Movement		leukocytes	06		
Cellular Movement	trafficking	trafficking of cells	2,60E-06	ANXA1, CCL5, CCR2, CCR5, CD44, ITGB2, MARCKS	7
Cellular Movement	trafficking	trafficking of phagocytes	3,84E-06	CCL5, CCR5, ITGB2	3
Cellular Movement	trafficking	trafficking of leukocytes	6,13E-06	ANXA1, CCL5, CCR2, CCR5, CD44, ITGB2	6
Cellular Movement	trafficking	trafficking of antigen presenting cells	1,52E-05	CCL5, CCR2, CCR5	3
Connective Tissue Disorders	connective tissue disorder	connective tissue disorder	1,12E-20	ADRA2A, ANAPC4, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD96, CD3D, CDC7, CELF2, CIITA, CLU, COL4A4 (includes EG:1286), COL6A3, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FLNA, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, LCK, LCP1, LHFP, LYZ, MAP4K1, MMP7, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TIMP2, TNFSF13B, VIM	93
Connective Tissue Disorders	rheumatic disease	rheumatic disease	4,48E-18	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, LCK, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	86
Connective Tissue Disorders	rheumatic disease	rheumatic disease of mammalia	4,36E-10	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	18
Connective Tissue Disorders	rheumatic disease	rheumatic disease of rodents	1,62E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	17
Connective Tissue Disorders	rheumatic disease	rheumatic disease of mice	4,15E-09	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	16
Connective Tissue Disorders	arthritis	arthritis	7,13E-17	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	82
Connective Tissue Disorders	arthritis	arthritis of mammalia	7,12E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, STAT4, TBX21, TNFSF13B	16
Connective Tissue Disorders	arthritis	arthritis of rodents	3,36E-08	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, STAT4, TBX21, TNFSF13B	15
Connective Tissue Disorders	arthritis	arthritis of mice	8,71E-08	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, STAT4, TBX21, TNFSF13B	14
Connective Tissue Disorders	rheumatoid arthritis	rheumatoid arthritis	1,24E-14	ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ,	72

Connective Tissue Disorders	systemic lupus erythematosus	systemic lupus erythematosus	2,02E-10	MRC1, MS4A7, MYH9, NCF4, NFATC2, NOD2, P2RY13, PID1, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TCF4, TNFSF13B, VIM CD44, CLU, CXCL16, FCGR2A, FCGR2B, HLA-DRA, IL7R, ITGAM, PTPN22, PTPRC, SH2B3, SH2D1A, STAT4, TAP1, TNFSF13B	15
Connective Tissue Disorders	experimentally-induced arthritis	experimentally-induced arthritis of mice	1,96E-06	ANXA1, CCR2, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	10
Connective Tissue Disorders	experimentally-induced arthritis	experimentally-induced arthritis	4,07E-06	ANXA1, CCR2, CCR5, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	11
Connective Tissue Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	1,21E-05	ANXA1, CCR2, CD44, CTSS, IL2RB, STAT4, TBX21, TNFSF13B	8
Tissue Development	adhesion	adhesion of cells	4,20E-18	ADAM12, AMICA1, ANXA1, ARHGDI1, CCL5, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD84, CD96, CD209, CD8A, CLDN11, CLEC7A, CLU, CXCL9, CXCL16, CYTIP, EMB, ETS1, FCGR2A, FYB, GF11, GFRA1, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LCP1, LTB4R, MARCKS, MYH9, MYO1F, PARVG, PTPRC, RAC2, RASSF5, ROBO1, SELL, SELPLG, TGFB2, THBS2, VAV1	53
Tissue Development	adhesion	adhesion of leukocytes	5,52E-17	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	28
Tissue Development	adhesion	adhesion of mononuclear leukocytes	1,06E-16	CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	22
Tissue Development	adhesion	adhesion of normal cells	5,75E-16	ADAM12, AMICA1, ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CD8A, CXCL9, CXCL16, FCGR2A, FYB, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	33
Tissue Development	adhesion	adhesion of blood cells	6,59E-16	ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FCGR2A, FYB, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	29
Tissue Development	adhesion	adhesion of eukaryotic cells	2,78E-15	ADAM12, AMICA1, ANXA1, CCL5, CD2, CD28, CD44, CD47, CD48, CD209, CD8A, CXCL9, CXCL16, CYTIP, ETS1, FCGR2A, FYB, GF11, GZMB, HCK, IL7, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTB4R, MARCKS, MYH9, PARVG, PTPRC, RAC2, RASSF5, SELL, SELPLG, TGFB2, THBS2, VAV1	39
Tissue Development	adhesion	adhesion of T lymphocytes	1,51E-12	CD2, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	15
Tissue Development	adhesion	adhesion of lymphocytes	5,56E-12	CD2, CD28, CD44, CD47, CD48, CD209, CXCL9, FYB, IL7, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, THBS2	16
Tissue Development	adhesion	adhesion of neutrophils	6,75E-09	ANXA1, CD44, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	10
Tissue Development	adhesion	adhesion of granulocytes	2,67E-08	ANXA1, CD44, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, SELL, SELPLG, VAV1	11
Tissue Development	adhesion	adhesion of endothelial tissue	9,94E-08	ANXA1, CD209, ITGAM, ITGB2, SELL, VAV1	6
Tissue Development	adhesion	adhesion of tumor cell lines	4,00E-07	ADAM12, ANXA1, CD28, CD44, CD47, CYTIP, ETS1, GZMB, ITGAL, ITGAM, ITGAX, ITGB2, MARCKS, MYH9, PARVG, SELPLG	16
Tissue Development	adhesion	adhesion of antigen presenting cells	4,14E-07	CD2, CD44, CD48, CD209, ITGAL, ITGAM, ITGB2	7
Tissue Development	adhesion	adhesion of endothelial	5,38E-07	AMICA1, CCL5, CD44, ITGAL, ITGAM, ITGAX, ITGB2, SELL, SELPLG, TGFB2	10

nt		cells			
Tissue Development	adhesion	adhesion of leukemia cells	2,01E-06	AMICA1, CD44, ITGB2, SELL	4
Tissue Development	adhesion	adhesion of cell lines	2,12E-06	ADAM12, ANXA1, CD28, CD44, CD47, CYTIP, ETS1, GFI1, GZMB, ITGAL, ITGAM, ITGAX, ITGB2, MARCKS, MYH9, PARVG, SELL, SELPLG	18
Tissue Development	adhesion	adhesion of monocytes	5,07E-06	CCL5, ITGAM, ITGAX, ITGB2, LCP1, TGFBR2, VAV1	7
Tissue Development	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Tissue Development	adhesion	adhesion of leukocyte cell lines	1,32E-05	ANXA1, GFI1, ITGAL, ITGAM, ITGB2, SELL	6
Tissue Development	aggregation	aggregation of cells	1,41E-14	ADRA2A, CCL5, CD2, CD44, CD47, CD209, CLU, CP, CXCL9, ETV6, FCGR2A, HCLS1, IL7, ITGAL, ITGAM, ITGB2, LCK, LCP2, MMP7, NRP1, PTPRC, RUNX2, SELL, SELPLG, THBS2, TIMP2, VAV1	27
Tissue Development	aggregation	aggregation of blood cells	1,75E-12	ADRA2A, CCL5, CD44, CD47, CD209, CXCL9, FCGR2A, HCLS1, IL7, ITGAL, ITGAM, ITGB2, LCK, LCP2, NRP1, SELL, SELPLG, THBS2, TIMP2, VAV1	20
Tissue Development	aggregation	aggregation of leukocytes	2,37E-09	CD44, CD209, IL7, ITGAL, ITGAM, ITGB2, LCK, NRP1, SELL, SELPLG	10
Tissue Development	aggregation	aggregation of leukocyte cell lines	2,17E-07	CD2, CD47, ITGAL, ITGAM, ITGB2	5
Tissue Development	aggregation	aggregation of phagocytes	4,88E-06	ITGAM, ITGB2, LCK, SELL, SELPLG	5
Tissue Development	aggregation	aggregation of blood platelets	9,79E-06	ADRA2A, CCL5, CD47, FCGR2A, HCLS1, LCP2, SELL, THBS2, TIMP2, VAV1	10
Tissue Development	aggregation	aggregation of neutrophils	1,16E-05	ITGAM, ITGB2, SELL, SELPLG	4
Tissue Development	accumulation	accumulation of leukocytes	7,14E-12	CCL5, CCR2, CCR5, CCR7, CD28, CXCL9, CYBB, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, NFATC2, SELL, SELPLG, TIMP2	20
Tissue Development	accumulation	accumulation of cells	2,86E-11	AHR, CCL5, CCR2, CCR5, CCR7, CD28, CLU, CXCL9, CYBB, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, NFATC2, RAC2, SELL, SELPLG, TIMP2	23
Tissue Development	accumulation	accumulation of mononuclear leukocytes	3,74E-10	CCL5, CCR5, CCR7, CD28, DEF6, GFI1, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	13
Tissue Development	accumulation	accumulation of lymphocytes	1,36E-09	CCL5, CCR5, CCR7, CD28, DEF6, IL7, IL10RA, IL2RG, ITGAL, ITGB2, NFATC2, SELL	12
Tissue Development	accumulation	accumulation of T lymphocytes	1,45E-07	CCL5, CCR5, CCR7, CD28, DEF6, IL10RA, IL2RG, ITGAL, NFATC2	9
Tissue Development	generation	generation of leukocytes	3,87E-10	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, IRF8, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	14
Tissue Development	generation	generation of lymphocytes	4,39E-10	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	13
Tissue Development	generation	generation of normal cells	3,09E-08	ATM, CD28, HLA-DQB1, IL7, IL10RA, IL2RG, IL7R, IRF4, IRF8, ITK, JAK3, NOTCH2, STAT4, TBX21, TNFSF13B	15
Tissue Development	generation	generation of T lymphocytes	5,48E-08	CD28, HLA-DQB1, IL7, IL10RA, IL2RG, ITK, JAK3, STAT4, TBX21, TNFSF13B	10

Tissue Development	generation	generation of Th1 cells	7,05E-06	CD28, JAK3, STAT4, TBX21	4
Tissue Development	cell-cell contact	cell-cell contact of leukocytes	2,94E-07	ITGAL, ITGAM, ITGAX, ITGB2	4
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease	4,48E-18	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, LCK, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	86
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of mammalia	4,36E-10	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	18
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of rodents	1,62E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	17
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of mice	4,15E-09	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	16
Skeletal and Muscular Disorders	arthritis	arthritis	7,13E-17	ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CTSS, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, P2RY13, PID1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, VIM	82
Skeletal and Muscular Disorders	arthritis	arthritis of mammalia	7,12E-09	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, HLA-DRB1, IL7, IL2RB, STAT4, TBX21, TNFSF13B	16
Skeletal and Muscular Disorders	arthritis	arthritis of rodents	3,36E-08	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, STAT4, TBX21, TNFSF13B	15
Skeletal and Muscular Disorders	arthritis	arthritis of mice	8,71E-08	ANXA1, CASP1, CCR2, CD44, CIITA, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, STAT4, TBX21, TNFSF13B	14
Skeletal and Muscular Disorders	rheumatoid arthritis	rheumatoid arthritis	1,24E-14	ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BICD1, CCL5, CCR2, CCR5, CD28, CD44, CD53, CD74, CD3D, CDC7, CELF2, CIITA, CLU, CSF2RB, CXCL9, CXCL16, DEF6, EBF1, FCGR2A, FCGR2B, FLI1, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GZMA, GZMB, HCK, HCLS1, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, IKZF1, IL7, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LHFP, LYZ, MRC1, MS4A7, MYH9, NCF4, NFATC2, NOD2, P2RY13, PID1, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, STAT4, TAP1, TCF4, TNFSF13B, VIM	72
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder	5,16E-14	ADAM12, ADCY7, ADRA2A, ANAPC4, ANTXR1, ANXA1, ARHGDIB, ATM, BASP1, BCL11B, BICD1, CASP1, CCL5, CCR2, CCR5, CD28, CD44, CD52, CD53, CD74, CD96, CD3D, CDC7, CELF2, CIITA, CLU, COL6A3, CP, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYTH4, DEF6, EBF1, ETV6, FCGR2A, FCGR2B, FLI1, FLNA, FMNL2 (includes EG:114793), FUBP1, GABRP, GAS7, GBP2, GF11, GZMA, GZMB, HCK, HCLS1, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, HLA-F, IKZF1, IL7, IL10RA, IL2RB, IL7R, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, KLRB1, LCK, LCP1, LHFP, LYZ, MAP4K1, MRC1, MS4A7, MYH9, NCF4, NFATC2, NLRP3, NOD2, NOTCH2, P2RY13, PID1, PLXDC1, PRKCB, PTPN22, PTPRC, RNF213, ROBO1, RUNX1, RUNX2, SH2B3, SH2D1A, STAT4, TAP1, TBX21, TCF4, TFPI2, THBS2, TNFSF13B, TSHZ2, VIM	107
Skeletal and Muscular Disorders	skeletal and muscular	skeletal and muscular	1,12E-08	ANXA1, CASP1, CCL5, CCR2, CD44, CIITA, CSF1R, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, ITGB2, RUNX2, SH2D1A, STAT4, TAP1, TBX21,	20

Disorders	disorder	disorder of rodents		TNFSF13B	
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder of mice	2,01E-08	ANXA1, CASP1, CCR2, CD44, CIITA, CSF1R, CTSS, DEF6, FCGR2A, FCGR2B, IL7, IL2RB, ITGB2, RUNX2, SH2D1A, STAT4, TAP1, TBX21, TNFSF13B	19
Skeletal and Muscular Disorders	systemic lupus erythematosus	systemic lupus erythematosus	2,02E-10	CD44, CLU, CXCL16, FCGR2A, FCGR2B, HLA-DRA, IL7R, ITGAM, PTPN22, PTPRC, SH2B3, SH2D1A, STAT4, TAP1, TNFSF13B	15
Skeletal and Muscular Disorders	experimentally-induced arthritis	experimentally-induced arthritis of mice	1,96E-06	ANXA1, CCR2, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	10
Skeletal and Muscular Disorders	experimentally-induced arthritis	experimentally-induced arthritis	4,07E-06	ANXA1, CCR2, CCR5, CD44, CTSS, FCGR2A, FCGR2B, IL2RB, STAT4, TBX21, TNFSF13B	11
Skeletal and Muscular Disorders	multiple sclerosis	multiple sclerosis	8,26E-06	ADRA2A, CASP1, CD52, CIITA, GFI1, HLA-DMB, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-F, IL7, IL7R, KLRB1, PTPRC	14
Skeletal and Muscular Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	1,21E-05	ANXA1, CCR2, CD44, CTSS, IL2RB, STAT4, TBX21, TNFSF13B	8
Hematological Disease	hematological disorder	hematological disorder	2,44E-16	ADRA2A, AHR, ANTXR1, ATM, BCL11A, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD52, CD74, CD247, CD3D, CLU, CSF1R, CSF2RB, CTSS, CXCL9, DEF6, ETS1, ETV6, FCGR2A, FCGR2B, FUBP1, FYB, GFI1, HCLS1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, MMP7, MYB (includes EG:4602), MYH9, PRF1, PRKCB, RAC2, RASGRP4, RUNX1, RUNX2, SELL, STAT4, TGFB2, THBS2, VAV1	59
Hematological Disease	hematological disorder	hematological disorder of mice	3,53E-12	CASP1, CCND2, CD28, CD47, DEF6, ETS1, ETV6, FCGR2A, FCGR2B, GFI1, HCLS1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF8, ITGB2, JAK3, MYH9, PRF1, RAC2, RUNX1, STAT4, TGFB2, THBS2, VAV1	27
Hematological Disease	hematological disorder	hematological disorder of mammalia	3,65E-12	CASP1, CCND2, CD28, CD47, CXCL9, DEF6, ETS1, ETV6, FCGR2A, FCGR2B, GFI1, HCLS1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF8, ITGB2, JAK3, MYH9, PRF1, RAC2, RUNX1, STAT4, TGFB2, THBS2, VAV1	28
Hematological Disease	hematologic cancer	hematologic cancer	6,58E-08	ATM, CD2, CD52, CD74, CD247, CD3D, CSF1R, CSF2RB, ETV6, IKZF1, IL7, IL2RB, IL2RG, IRF4, ITGB2, JAK3, KLRK1, LCK, MYB (includes EG:4602), PRKCB, RUNX1, RUNX2, TGFB2	23
Hematological Disease	lymphocytic leukemia	lymphocytic leukemia	3,73E-07	ATM, CD52, CD74, CD247, CD3D, CSF2RB, ETV6, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RUNX1	15
Hematological Disease	infection	infection of leukocytes	1,81E-06	CASP1, CCL5, CCR2, CCR5, CD209, IRF1, ITGAM	7
Hematological Disease	leukemia	leukemia	2,95E-06	ATM, CD2, CD52, CD74, CD247, CD3D, CSF1R, CSF2RB, ETV6, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, JAK3, LCK, PRKCB, RUNX1, TGFB2	19
Hematological Disease	eosinophilia	eosinophilia	3,76E-06	CD247, CTSS, CXCL9, DEF6, IL2RG, IRF8, ITGB6, ITK, LCK, MYH9, PRF1	11
Hematological Disease	autoimmune hemolytic anemia	autoimmune hemolytic anemia of mice	7,05E-06	CD28, CD47, FCGR2A, IL7R	4
Organismal Survival	survival	survival of organism	4,19E-15	ADRA2A, AHR, ANTXR2, ATM, BCL2A1, CCND2, CCR2, CCR5, CD2, CD44, CD48, CD74, CDC7, CXCL9, CYBB, FCGR2B, FLI1, HLA-DRA, IKZF1, IL7, IL7R, ITGAL, ITGAM, ITGB6, ITK, LTB4R, LYZ, MYB (includes EG:4602), NLRP3, NRP1, PRF1, PRKCB, PTPRC, STAT4, TAP1, THBS2	36
Organismal Survival	survival	survival of mammalia	3,94E-13	ADRA2A, ANTXR2, ATM, BCL2A1, CCND2, CCR2, CCR5, CD2, CD44, CD74, CDC7, CXCL9, CYBB, FCGR2B, FLI1, HLA-DRA, IKZF1, IL7, IL7R, ITGAL, ITGAM, ITGB6, ITK, LTB4R, MYB (includes EG:4602), NLRP3, NRP1, PRF1, PRKCB, PTPRC, STAT4, TAP1, THBS2	33
Organismal Survival	survival	survival of rodents	1,57E-11	ADRA2A, ANTXR2, ATM, BCL2A1, CCND2, CCR2, CCR5, CD2, CD74, CDC7, CXCL9, CYBB, FCGR2B, FLI1, HLA-DRA, IKZF1, IL7, IL7R, ITGAL, ITGAM, ITK, LTB4R, NLRP3, NRP1, PRF1, PRKCB, PTPRC, STAT4, TAP1, THBS2	30
Organismal Survival	survival	survival of	4,87E-	ADRA2A, ATM, BCL2A1, CCND2, CCR2, CCR5, CD2, CD74, CDC7, CXCL9,	29

Survival		mice	11	CYBB, FCGR2B, FLI1, HLA-DRA, IKZF1, IL7, IL7R, ITGAL, ITGAM, ITK, LTB4R, NLRP3, NRP1, PRF1, PRKCB, PTPRC, STAT4, TAP1, THBS2	
Organismal Survival	death	death of mice	1,83E-10	ADAM12, ADAM19, ADRA2A, AHR, ANTXR2, ANXA1, ATM, BCL2A1, CASP1, CCND2, CCR2, CCR5, CD28, CD44, CD209, CD8A, CDC7, CXCL9, CYBB, ETS1, ETV6, FCGR2B, FLI1, GFI1, GZMA, GZMB, IL2RB, IRF8, ITGAM, LCP2, LYZ, MYB (includes EG:4602), NOD2, NOTCH2, NR2F2, NRP1, PRF1, PTPRC, ROBO1, RUNX2, STAT4, TBX21, THBS2, TNFSF13B, VAV1	45
Respiratory Disease	respiratory disorder	respiratory disorder	8,97E-15	ADRA2A, ANTXR1, ARL4C, ATM, CASP1, CCL5, CCR2, CCR5, CCR7, CD44, CD247, CD8A, CIITA, CLU, CSF2RB, CTSS, CYBB, GZMB, HCK, HLA-DRA, HLA-DRB1, IL7, IL10RA, IL2RB, IRF8, ITGAM, ITGB2, ITGB6, ITK, LCK, LEF1, LTB4R, LYZ, MMP7, MYH9, NOD2, PTPRC, RASGRP4, SH2B3, SLC2A3, STAT4, TBX21, TGFB2, TIMP2	44
Respiratory Disease	respiratory disorder	respiratory disorder of mice	1,80E-08	CCL5, CCR2, CCR5, CD44, CIITA, CTSS, CYBB, GZMB, HLA-DRA, IL2RB, ITGB6, ITK, LTB4R, STAT4, TBX21, TGFB2	16
Respiratory Disease	severe acute respiratory syndrome	severe acute respiratory syndrome	6,07E-11	ARL4C, CCR7, CD247, CLU, CSF2RB, IL10RA, IRF8, ITGAM, ITK, LCK, LEF1, LTB4R, SH2B3, SLC2A3, STAT4, TIMP2	16
Respiratory Disease	disease	disease of lung	2,90E-07	AHR, AKAP12, CCR2, CD8A, HCK, IRF1, ITGB6, ITK, LYZ, MMP7, PRF1, TGFB2, TIMP2	13
Cell Morphology	shape change	shape change of blood cells	3,13E-14	ADRA2A, CCL5, CCR2, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, MYH9, SELL, WIPF1	16
Cell Morphology	shape change	shape change of leukocytes	1,08E-11	CCL5, CCR2, CD44, CD47, CD247, CNN2, HCK, ITGAL, ITGAM, ITGB2, MYH9, SELL, WIPF1	13
Cell Morphology	shape change	shape change of eukaryotic cells	1,54E-11	ADRA2A, ANTXR1, BASP1, CCL5, CCR2, CD44, CD47, CD247, CDC42SE1, CNN2, CSF1R, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, KLRK1, MARCKS, MYH9, PARVG, ROBO1, RUNX2, SELL, THBS2, TPM1, WIPF1	27
Cell Morphology	shape change	shape change of normal cells	1,95E-11	ADRA2A, BASP1, CCL5, CCR2, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, MYH9, ROBO1, RUNX2, SELL, THBS2, WIPF1	20
Cell Morphology	shape change	shape change	2,63E-10	ADRA2A, ANTXR1, BASP1, CCL5, CCR2, CCR5, CD44, CD47, CD247, CDC42SE1, CNN2, CSF1R, EMB, FCGR2A, GAS7, GZMB, HCK, ITGAL, ITGAM, ITGB2, ITGB6, KLRK1, MARCKS, MYH9, NRP1, PARVG, ROBO1, RUNX2, SELL, THBS2, TPM1, WIPF1	32
Cell Morphology	shape change	shape change of granulocytes	1,95E-06	CCL5, CCR2, HCK, ITGAM, ITGB2, SELL	6
Cell Morphology	morphogenesis	morphogenesis of cells	2,62E-10	ADRA2A, ANTXR1, BASP1, CCL5, CCR2, CD44, CD47, CD247, CDC42SE1, CNN2, CSF1R, FCGR2A, GZMB, HCK, IL7R, ITGAL, ITGAM, ITGB2, KLRK1, MARCKS, MYH9, PARVG, RAC2, ROBO1, RUNX2, SELL, THBS2, TIMP2, TPM1, WIPF1	30
Cell Morphology	polarization	polarization of eukaryotic cells	1,63E-09	CCL5, CCR5, CD28, CD47, CD74, CXCL9, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	14
Cell Morphology	polarization	polarization of blood cells	2,19E-09	CCL5, CD28, CD74, CXCL9, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	12
Cell Morphology	polarization	polarization of lymphocytes	1,72E-08	CD28, CD74, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	10
Cell Morphology	polarization	polarization of leukocytes	2,00E-08	CCL5, CD28, CD74, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	11
Cell Morphology	polarization	polarization of T lymphocytes	4,95E-08	CD28, CD74, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1, WIPF1	9
Cell Morphology	cell spreading	cell spreading of blood cells	1,89E-09	CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2	10
Cell	cell	cell	4,45E-	ANTXR1, CCL5, CCR5, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK,	17

Morphology	spreading	spreading	08	ITGAL, ITGAM, ITGB2, KLRK1, PARVG, THBS2, TPM1	
Cell Morphology	cell spreading	cell spreading of leukocytes	1,34E-07	CD44, CD47, CD247, CNN2, HCK, ITGAL, ITGAM, ITGB2	8
Cell Morphology	cell spreading	cell spreading of normal cells	1,42E-07	CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, THBS2	11
Cell Morphology	cell spreading	cell spreading of eukaryotic cells	2,00E-07	ANTXR1, CD44, CD47, CD247, CNN2, FCGR2A, GZMB, HCK, ITGAL, ITGAM, ITGB2, KLRK1, PARVG, THBS2, TPM1	15
Cell Morphology	reorganization	reorganization of cytoskeleton	5,81E-07	ANTXR1, CD44, CD47, CXCL9, FLNA, ITK, LCK, MYH9, PLEK, TRIO, VAV1	11
Cancer	tumorigenesis	tumorigenesis	1,03E-13	ACSL5, ADAM12, ADRA2A, AHR, AKAP12, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, ATM, BCL11A, C1ORF63, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD52, CD74, CD247, CD3D, CD8A, CDC7, CLDN11, CLU, COL4A4 (includes EG:1286), COL6A3, CP, CSF1R, CSF2RB, CST7, CTSS, CXCL9, CXCL16, CYTIP, DGKA, ETS1, ETV6, FCGR2A, FLI1, FLNA, FUBP1, GABRP, GBP2, GF11, GFRA1, GPR65, GZMA, GZMB, GZMK, HCLS1, HLA-B, HLA-DOA, HLA-DRA, HLA-DRB4, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGB2, ITGB6, ITK, JAK3, KCNK6, KLRK1, LCK, LEF1, LTB4R, LYZ, MAP4K1, MARCKS, MMP7, MYB (includes EG:4602), NFATC2, NOTCH2, NRP1, PLXDC1, PRF1, PRKCB, PTPRC, PTPRE, RASGRP4, RASSF5, ROBO1, RUNX1, RUNX2, SELL, SERPINB9, SLC2A3, TCF4, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B, TPBG, TPM1, TRIO, VAV1, VIM	111
Cancer	tumorigenesis	tumorigenesis of mammalia	3,77E-07	AHR, AKAP12, ATM, CASP1, CCND2, CTSS, CYTIP, ETV6, GF11, IL7, IL2RB, IRF1, LEF1, MMP7, RUNX1, RUNX2, TGFB2	17
Cancer	tumorigenesis	tumorigenesis of mice	2,48E-06	AHR, AKAP12, ATM, CASP1, CYTIP, ETV6, GF11, IL7, IL2RB, IRF1, LEF1, MMP7, RUNX1, RUNX2, TGFB2	15
Cancer	neoplasia	neoplasia	5,84E-13	ACSL5, ADAM12, ADRA2A, AHR, AKAP12, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, ATM, BCL11A, C1ORF63, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD52, CD74, CD247, CD3D, CD8A, CDC7, CLDN11, CLU, COL4A4 (includes EG:1286), COL6A3, CP, CSF1R, CSF2RB, CST7, CTSS, CXCL9, CXCL16, CYTIP, DGKA, ETS1, ETV6, FCGR2A, FLI1, FLNA, FUBP1, GABRP, GBP2, GFRA1, GPR65, GZMA, GZMB, GZMK, HCLS1, HLA-B, HLA-DOA, HLA-DRA, HLA-DRB4, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITGB6, ITK, JAK3, KCNK6, KLRK1, LCK, LEF1, LYZ, MAP4K1, MARCKS, MMP7, MYB (includes EG:4602), NFATC2, NOTCH2, NRP1, PLXDC1, PRF1, PRKCB, PTPRC, PTPRE, RASGRP4, RASSF5, ROBO1, RUNX1, RUNX2, SELL, SERPINB9, SLC2A3, TCF4, TFPI2, TGFB2, TIMP2, TPBG, TPM1, VIM	104
Cancer	cancer	cancer	6,67E-13	ACSL5, ADAM12, ADRA2A, AHR, AKAP12, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, ATM, BCL11A, C1ORF63, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD52, CD74, CD247, CD3D, CD8A, CDC7, CLDN11, CLU, COL4A4 (includes EG:1286), COL6A3, CP, CSF1R, CSF2RB, CST7, CTSS, CXCL9, CXCL16, CYTIP, DGKA, ETS1, ETV6, FCGR2A, FLI1, FLNA, FUBP1, GABRP, GBP2, GFRA1, GPR65, GZMA, GZMB, GZMK, HCLS1, HLA-B, HLA-DOA, HLA-DRA, HLA-DRB4, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITGB6, ITK, JAK3, KCNK6, KLRK1, LCK, LEF1, LYZ, MAP4K1, MARCKS, MMP7, MYB (includes EG:4602), NOTCH2, NRP1, PLXDC1, PRF1, PRKCB, PTPRC, PTPRE, RASGRP4, RASSF5, ROBO1, RUNX1, RUNX2, SELL, SERPINB9, SLC2A3, TCF4, TFPI2, TGFB2, TIMP2, TPBG, TPM1, VIM	103
Cancer	tumor	tumor	1,08E-12	ADAM12, ADRA2A, AHR, AKAP12, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, ATM, BCL11A, CASP1, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD52, CD74, CD3D, CD8A, CDC7, CLDN11, CLU, COL6A3, CP, CSF1R, CSF2RB, CST7, CTSS, CXCL9, CXCL16, ETS1, ETV6, FCGR2A, FLI1, FLNA, GABRP, GBP2, GFRA1, GPR65, GZMB, GZMK, HLA-B, HLA-DRA, HLA-DRB4, IKZF1, IL2RB, IL2RG, IRF1, IRF8, ITGB6, KCNK6, LCK, LEF1, LTB4R, LYZ, MAP4K1, MARCKS, MMP7, NRP1, PLXDC1, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX1, RUNX2, SELL, SERPINB9, TFPI2, TGFB2, THBS2, TIMP2, TNFSF13B, TPBG, TPM1, VAV1, VIM	84

Cancer	malignant tumor	malignant tumor	1,23E-09	ADAM12, AHR, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, ATM, BCL11A, CASP1, CCR2, CCR5, CCR7, CD2, CD44, CD48, CD52, CD74, CD3D, CD8A, CLDN11, CLU, COL6A3, CP, CSF1R, CSF2RB, CST7, CTSS, CXCL9, ETS1, ETV6, FCGR2A, FLI1, FLNA, GABRP, GBP2, GFRA1, GPR65, GZMB, GZMK, HLA-DRA, HLA-DRB4, IKZF1, IL2RB, IL2RG, IRF1, KCNK6, LCK, LEF1, LYZ, MAP4K1, MMP7, PLXDC1, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX2, SERPINB9, TFPI2, TGFB2, TIMP2, VIM	64
Cancer	prostate cancer	prostate cancer	1,87E-08	ANTXR1, ANTXR2, ARHGDIB, CCL5, CCR2, CCR7, CD44, CD52, CD74, CLDN11, CLU, CSF1R, CSF2RB, CYTIP, FLNA, GBP2, GZMA, HLA-DRB4, IL7R, IRF1, ITK, LCK, LEF1, LYZ, MMP7, PRKCB, PTPRC, RUNX1, RUNX2, TCF4	30
Cancer	hematologic cancer	hematologic cancer	6,58E-08	ATM, CD2, CD52, CD74, CD247, CD3D, CSF1R, CSF2RB, ETV6, IKZF1, IL7, IL2RB, IL2RG, IRF4, ITGB2, JAK3, KLRK1, LCK, MYB (includes EG:4602), PRKCB, RUNX1, RUNX2, TGFB2	23
Cancer	lymphomagenesis	lymphomagenesis	2,18E-07	ATM, CD44, CD52, CSF2RB, CXCL9, ETV6, FCGR2A, GFI1, IKZF1, IL7, IL2RB, IL2RG, IRF1, LCK, MAP4K1, PRF1, PRKCB, PTPRC	18
Cancer	lymphocytic leukemia	lymphocytic leukemia	3,73E-07	ATM, CD52, CD74, CD247, CD3D, CSF2RB, ETV6, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RUNX1	15
Cancer	growth	growth of tumor	7,61E-07	AHR, ANTXR1, CASP1, CCR2, CD44, CTSS, IRF1, IRF8, ITGB6, NRP1, RUNX1, RUNX2, SELL, TIMP2, TPM1	15
Cancer	developmental process	developmental process of tumor	9,96E-07	AHR, ANTXR1, ATM, CASP1, CCR2, CD44, CTSS, IRF1, IRF8, ITGB6, LCK, NRP1, PTPRC, RUNX1, RUNX2, SELL, TIMP2, TPM1	18
Cancer	carcinoma	carcinoma	2,11E-06	ADAM12, AHR, ANTXR1, ANTXR2, ANXA1, ARHGDIB, ARL4C, BCL11A, CASP1, CCR2, CCR5, CCR7, CD44, CD48, CD74, CLDN11, CLU, COL6A3, CP, CSF1R, CST7, CTSS, ETS1, FLNA, GABRP, GBP2, GFRA1, GPR65, HLA-DRA, HLA-DRB4, IL2RB, IL2RG, IRF1, KCNK6, LCK, LEF1, LYZ, MMP7, PLXDC1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX2, SERPINB9, TFPI2, TGFB2, TIMP2, VIM	49
Cancer	papillary carcinoma	papillary carcinoma	2,87E-06	CD44, CD48, CST7, ETS1, PTPRC, RUNX2, TGFB2, TIMP2, VIM	9
Cancer	leukemia	leukemia	2,95E-06	ATM, CD2, CD52, CD74, CD247, CD3D, CSF1R, CSF2RB, ETV6, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, JAK3, LCK, PRKCB, RUNX1, TGFB2	19
Cancer	endocrine gland tumor	endocrine gland tumor	3,59E-06	AHR, CD48, CD74, CSF1R, CST7, CTSS, ETS1, GABRP, HLA-DRA, MMP7, PTPRC, RUNX2, TGFB2, VIM	14
Cancer	head and neck tumor	head and neck tumor	5,20E-06	ANXA1, ATM, CCR5, CCR7, CD44, CD48, CLU, COL6A3, CSF1R, CST7, CXCL16, ETS1, LCK, MARCKS, PRKCB, PTPRC, RUNX2, TGFB2, VIM	19
Cancer	lymphoma	lymphoma	7,45E-06	ATM, CD44, CD52, CSF2RB, CXCL9, ETV6, FCGR2A, IKZF1, IL2RB, IL2RG, LCK, MAP4K1, PRF1, PRKCB, PTPRC	15
Cancer	head and neck cancer	head and neck cancer	1,21E-05	ADAM12, ANXA1, ATM, CCR5, CCR7, CD44, CD48, CLU, COL6A3, CSF1R, CSF2RB, CST7, CXCL16, ETS1, LCK, MARCKS, PRKCB, PTPRC, RUNX2, TGFB2, VIM	21
Cancer	papillary thyroid cancer	papillary thyroid cancer	1,50E-05	CD48, CSF1R, CST7, ETS1, PTPRC, RUNX2, TGFB2, VIM	8
Cell Signaling	tyrosine phosphorylation	tyrosine phosphorylation of protein	1,29E-13	CCL5, CD2, CD28, CD44, CD47, CD48, CD247, CD8A, CSF1R, ETV6, FCGR2A, FCGR2B, HCK, IL7, ITGAM, ITGB2, JAK3, LCK, NFAM1, PTPN22, PTPRC, SELL, SH2D1A	23
Cell Signaling	mobilization	mobilization of calcium	6,48E-13	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD247, CD3D, CXCL9, CXCL16, DEF6, FCGR2A, FCGR2B, ITGB2, ITK, KLRK1, LCK, LCP2, LTB4R, NFATC2, PTPRC, RAC2, SELL, SLA, TRD@, VAV1, WIPF1	29
Cell Signaling	mobilization	mobilization of Ca ²⁺	3,81E-06	CCL5, CD44, CD247, CD3D, CXCL9, FCGR2A, FCGR2B, ITGB2, KLRK1, LCK, SELL, VAV1	12
Cell Signaling	flux	flux of calcium	3,95E-10	ANXA1, CCL5, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD8A, FCGR2A, FCGR2B, HCK, ITGB2, ITK, LCP2, LTB4R, PRF1, PRKCB, RAC2, TRPA1, VAV1	21
Cell Signaling	cell surface receptor linked signal transduction	cell surface receptor linked signal transduction	4,10E-09	ANXA1, CCR2, CD2, CD28, CD247, CD8A, FCGR2A, FCGR2B, GFRA1, IL2RB, IL7R, ITGAL, JAK3, KLRB1, LCK, LCP2, PTPRC, PTPRE, RUNX2, STAT4, TGFB2, TRIO	22
Post-Translational	tyrosine phosphorylation	tyrosine phosphorylation of	1,29E-13	CCL5, CD2, CD28, CD44, CD47, CD48, CD247, CD8A, CSF1R, ETV6, FCGR2A, FCGR2B, HCK, IL7, ITGAM, ITGB2, JAK3, LCK, NFAM1, PTPN22, PTPRC, SELL, SH2D1A	23

Modification		protein			
Post-Translational Modification	phosphorylation	phosphorylation of protein	3,05E-13	AHR, ATM, CCL5, CCND2, CD2, CD28, CD44, CD47, CD48, CD247, CD8A, CSF1R, ETV6, FCGR2A, FCGR2B, HCK, IL7, ITGAM, ITGB2, JAK3, LCK, NFAM1, PTPN22, PTPRC, SELL, SH2D1A, TGFBR2	27
Post-Translational Modification	cleavage	cleavage of protein	1,67E-05	ADAM19, CASP1, GZMA, GZMB, MMP7, MYH9, PTPRC, TIMP2	8
Molecular Transport	mobilization	mobilization of calcium	6,48E-13	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD247, CD3D, CXCL9, CXCL16, DEF6, FCGR2A, FCGR2B, ITGB2, ITK, KLRK1, LCK, LCP2, LTB4R, NFATC2, PTPRC, RAC2, SELL, SLA, TRD@, VAV1, WIPF1	29
Molecular Transport	mobilization	mobilization of Ca ²⁺	3,81E-06	CCL5, CD44, CD247, CD3D, CXCL9, FCGR2A, FCGR2B, ITGB2, KLRK1, LCK, SELL, VAV1	12
Molecular Transport	flux	flux of calcium	3,95E-10	ANXA1, CCL5, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD8A, FCGR2A, FCGR2B, HCK, ITGB2, ITK, LCP2, LTB4R, PRF1, PRKCB, RAC2, TRPA1, VAV1	21
Vitamin and Mineral Metabolism	mobilization	mobilization of calcium	6,48E-13	ANXA1, CCL5, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD247, CD3D, CXCL9, CXCL16, DEF6, FCGR2A, FCGR2B, ITGB2, ITK, KLRK1, LCK, LCP2, LTB4R, NFATC2, PTPRC, RAC2, SELL, SLA, TRD@, VAV1, WIPF1	29
Vitamin and Mineral Metabolism	mobilization	mobilization of Ca ²⁺	3,81E-06	CCL5, CD44, CD247, CD3D, CXCL9, FCGR2A, FCGR2B, ITGB2, KLRK1, LCK, SELL, VAV1	12
Vitamin and Mineral Metabolism	flux	flux of calcium	3,95E-10	ANXA1, CCL5, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD8A, FCGR2A, FCGR2B, HCK, ITGB2, ITK, LCP2, LTB4R, PRF1, PRKCB, RAC2, TRPA1, VAV1	21
Humoral Immune Response	proliferation	proliferation of B lymphocytes	1,01E-11	CCND2, CD44, CD74, CD8A, FCGR2B, HCK, IL7, IL2RG, IL7R, IRF4, IRF8, LEF1, NFATC2, PRKCB, PTPRC, SASH3, SH2B3, SLAMF7, TNFSF13B, VAV1, WIPF1	21
Humoral Immune Response	quantity	quantity of B lymphocytes	2,44E-11	AHR, BCL2A1, CCR7, CD28, FCGR2A, IL7, IL2RG, IL7R, ITGB2, JAK3, NFATC2, NOTCH2, RAC2, SH2B3, SLA, TCF4, TGFBR2, TNFSF13B, VAV1	19
Humoral Immune Response	quantity	quantity of pre-B lymphocytes	1,23E-06	CD28, IL7, IL2RG, IL7R, SH2B3, TCF4, TNFSF13B	7
Humoral Immune Response	quantity	quantity of pro-B lymphocytes	1,52E-05	CD28, IL7, IL2RG, IL7R, TCF4	5
Humoral Immune Response	development	development of B lymphocytes	1,06E-06	EBF1, IL7, IL2RG, IL7R, JAK3, MYB (includes EG:4602), NOTCH2, TCF4, TNFSF13B, VAV1	10
Humoral Immune Response	differentiation	differentiation of B lymphocytes	1,56E-06	BCL11A, CD74, EBF1, IKZF1, IL7, IL2RB, IL2RG, IL7R, IRF4, NFAM1, PTPRC, TNFSF13B	12
Infectious Disease	severe acute respiratory syndrome	severe acute respiratory syndrome	6,07E-11	ARL4C, CCR7, CD247, CLU, CSF2RB, IL10RA, IRF8, ITGAM, ITK, LCK, LEF1, LTB4R, SH2B3, SLC2A3, STAT4, TIMP2	16
Infectious Disease	infectious disorder	infectious disorder	1,05E-10	ADRA2A, AFG3L1, AGAP2, AHR, ANTXR2, APOL1, ARL4C, BCL11A, CASP1, CCL5, CCR2, CCR5, CCR7, CD28, CD44, CD47, CD74, CD209, CD247, CELF2, CLU, CSF2RB, CTSS, CXCL9, CYBB, FCGR2A, FCGR2B, GABRP, GFRA1, HCK, HLA-C, HLA-DOA, HLA-DQB1, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, LAPTM5, LCK, LCP2, LEF1, LTB4R, LYZ, MYO1F, PRF1, PTPRC, SELPLG, SFT2D1, SH2B3, SIPA1L2, SLC2A3, STAT4, TBX21, TIMP2, VAV1	62
Infectious Disease	infectious disorder	infectious disorder of mice	3,97E-08	AHR, ANTXR2, CASP1, CCR2, CCR5, CYBB, HCK, HLA-DQB1, IRF8, ITGB2, ITK, PRF1, STAT4, TBX21, VAV1	15
Infectious Disease	infection	infection of normal cells	8,56E-07	CASP1, CCL5, CCR2, CCR5, CD44, CD209, IRF1, ITGAM	8
Infectious Disease	infection	infection of leukocytes	1,81E-06	CASP1, CCL5, CCR2, CCR5, CD209, IRF1, ITGAM	7
Infectious	infection	infection by	1,21E-	ANTXR2, CASP1, CCR2, CD44, CD209, ITGAM, LYZ, PRF1	8

Disease		bacteria	05		
Infectious Disease	myocarditis	myocarditis	1,50E-06	CCR2, CCR5, CLU, PRF1, STAT4, TBX21	6
Infectious Disease	myocarditis	myocarditis of mice	6,67E-06	CCR2, CCR5, PRF1, STAT4, TBX21	5
Gene Expression	activation	activation of synthetic promoter	1,43E-10	ADRA2A, AHR, ATM, CD2, CD28, CD74, CLU, CSF2RB, CYTIP, ETS1, ETV6, FCGR2A, FLI1, GFI1, GPR65, IRF1, IRF4, IRF8, LCK, LCP2, LEF1, MYB (includes EG:4602), MYH9, NFATC2, NFKBIZ, NLRP3, PTPN22, RUNX1, RUNX2, SH2D1A, TCF4, TGFB2, TNFSF13B, WIPF1	34
Gene Expression	activation	activation of Nfat binding site	6,29E-08	CD28, CD247, FLNA, LCK, NFATC2, VAV1	6
Gene Expression	transactivation	transactivation	9,63E-06	ADAM12, AHR, CCND2, CD28, CD44, CD247, CIITA, CYTIP, ETS1, ETV6, FLI1, GFI1, IRF1, IRF4, IRF8, LEF1, MYB (includes EG:4602), NFATC2, NOTCH2, PTPN22, RGS18, RUNX1, RUNX2, SELPLG, TCF4, TGFB2, VAV1	27
Dermatological Diseases and Conditions	dermatological disorder	dermatological disorder	1,53E-10	ADRA2A, AHR, ATM, CASP1, CCL5, CD2, CD28, CD47, CD52, CD74, CLU, COL4A4 (includes EG:1286), COL6A3, CSF1R, CSF2RB, CXCL9, FCGR2A, GFI1, HLA-B, HLA-C, HLA-DRA, HLA-DRB1, IL7, IL2RB, IL2RG, ITGAL, ITGB2, LCK, LCP2, LEF1, MAP4K1, MMP7, NFKBIZ, NOD2, PRKCB, RASGRP4, SELL, STAT4, TMC6, TMC8	40
Dermatological Diseases and Conditions	dermatitis	dermatitis	3,73E-06	CASP1, CCL5, CD2, CD52, CD74, HLA-DRA, HLA-DRB1, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, NFKBIZ	13
Antigen Presentation	phagocytosis	phagocytosis of phagocytes	6,05E-10	ANXA1, CD44, CD47, CNN2, CSF2RB, DEF6, FCGR2A, FCGR2B, ITGAM, ITGB2, SELPLG	11
Antigen Presentation	phagocytosis	phagocytosis of macrophages	1,23E-06	ANXA1, CD44, CD47, CNN2, DEF6, FCGR2B, ITGB2	7
Antigen Presentation	phagocytosis	phagocytosis of neutrophils	1,95E-06	CD47, CSF2RB, FCGR2A, ITGAM, ITGB2, SELPLG	6
Antigen Presentation	processing	processing of antigen	2,09E-08	CD74, FCGR2B, HLA-DMB, HLA-DOA, HLA-DQB1, HLA-DRA, HLA-DRB1	7
Antigen Presentation	recruitment	recruitment of antigen presenting cells	2,35E-07	ANXA1, CCL5, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	9
Antigen Presentation	recruitment	recruitment of macrophages	1,01E-06	ANXA1, CCR2, CCR5, CD44, CD8A, ETS1, ITGB2, THBS2	8
Antigen Presentation	adhesion	adhesion of antigen presenting cells	4,14E-07	CD2, CD44, CD48, CD209, ITGAL, ITGAM, ITGB2	7
Antigen Presentation	adhesion	adhesion of dendritic cells	7,05E-06	CD44, CD209, ITGAL, ITGAM	4
Antigen Presentation	quantity	quantity of dendritic cells	2,13E-06	CCR2, CCR7, CD47, IKZF1, IRF1, IRF4, IRF8, ITGB2	8
Antigen Presentation	activation	activation of antigen presenting cells	5,10E-06	CCL5, CD74, CD209, CSF1R, FCGR2A, HCK, HLA-C, HLA-DMB, HLA-DOA, HLA-DQB1, IL7, ITGB6, STAT4	13
Antigen Presentation	migration	migration of dendritic cells	6,65E-06	CCL5, CCR2, CCR5, CCR7, CD44, CD209, CXCL9, IL10RA, RAC2	9
Antigen Presentation	binding	binding of antigen	1,22E-05	CD2, CD209, FYB, ITGAL, LCK, MRC1, PTPRC	7

n		presenting cells			
Cellular Compromise	degranulation	degranulation of eukaryotic cells	1,11E-09	ANXA1, CD300A, FCGR2A, FCGR2B, HCK, ITGAM, ITGB2, ITK, KLRK1, LCP2, LTB4R, RAC2, SLA, VAV1, WIPF1	15
Cellular Compromise	degranulation	degranulation of mast cells	3,22E-06	ANXA1, CD300A, HCK, ITK, LCP2, RAC2, VAV1, WIPF1	8
Cellular Compromise	degranulation	degranulation of granulocytes	6,13E-06	ANXA1, FCGR2A, FCGR2B, ITGAM, ITGB2, LTB4R	6
Cellular Compromise	depletion	depletion of mononuclear leukocytes	1,23E-06	CCR2, EOMES, IL2RB, NFATC2, SELL, TBX21, TNFSF13B	7
Cellular Compromise	depletion	depletion of lymphocytes	1,57E-05	EOMES, IL2RB, NFATC2, SELL, TBX21, TNFSF13B	6
Cellular Compromise	adhesion	adhesion of leukemia cells	2,01E-06	AMICA1, CD44, ITGB2, SELL	4
Cellular Compromise	respiratory burst	respiratory burst of leukocytes	1,06E-05	HCK, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, PTPRC	7
Cellular Compromise	respiratory burst	respiratory burst	1,21E-05	CYBB, HCK, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, PTPRC	8
Genetic Disorder	genetic disorder	genetic disorder	2,37E-09	ADAM12, ADAM19, ADCY7, ADRA2A, AHR, AKAP12, AMICA1, ANTXR1, ANTXR2, AOA, APOL1, ARHGDI, ARL4C, ATM, ATP2A3, BASP1, BATF3, BAZ1A, BCL11A, BCL11B, C13ORF18, C10RF63, C2CD2, CASP1, CCL5, CCND2, CCR2, CCR5, CCR7, CD2, CD28, CD44, CD47, CD48, CD52, CD53, CD74, CD96, CD209, CD247, CD3D, CD8A, CDC7, CELF2, CIITA, CLDN11, CLEC7A, CLU, COL4A4 (includes EG:1286), COL6A3, CP, CSF1R, CSF2RB, CTSS, CXCL9, CXCL16, CYBB, CYTH4, CYTIP, DGKA, EBF1, EMB, EMILIN2, ETV6, FCGR2A, FCGR2B, FLI1, FLNA, FMNL2 (includes EG:114793), FUBP1, FYB, GABRP, GAS7, GBP2, GFI1, GFRA1, GPR65, GZMA, GZMB, HCK, HLA-B, HLA-C, HLA-DMB, HLA-DOA, HLA-DPB1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DRB4, HLA-F, IL7, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KCNK6, KCNT2, KLRB1, LAMP3, LCK, LCP2, LEF1, LHFP, LPCAT1, LYZ, MAP4K1, MARCKS, MMP7, MRC1, MS4A7, MYH9, MYO1F, NBP10, NCF4, NDP, NFATC2, NFKB1, NLRP3, NOD2, NOTCH2, NRP1, P2RY14, PLEK, PLXDC1, POLG2, PRF1, PRKCB, PTPRC, PTPRE, RAC2, RASGRP4, RNF213, ROBO1, RUNX1, RUNX2, SAMD3, SEC24D, SELL, SH2D1A, SIPA1L2, SLC2A3, STAT4, TBX21, TCF4, TFP12, TGFB2, THBS2, TIMP2, TMC6, TMC8, TNFSF13B, TPM1, TRD, TRIO, TSHZ2, TSHZ3, UBASH3B, VAV1, VIM, WDR33	168
Genetic Disorder	genetic disorder	genetic disorder of mice	5,54E-06	ADAM12, ADRA2A, AHR, CASP1, CCL5, CCR2, CCR5, CD44, CYBB, FCGR2A, FCGR2B, GZMB, HCK, IL7, ITGAM, ITGB2, JAK3, LCP2, MMP7, RUNX1, STAT4, TBX21, TGFB2, VAV1	24
Genetic Disorder	prostate cancer	prostate cancer	1,87E-08	ANTXR1, ANTXR2, ARHGDI, CCL5, CCR2, CCR7, CD44, CD52, CD74, CLDN11, CLU, CSF1R, CSF2RB, CYTIP, FLNA, GBP2, GZMA, HLA-DRB4, IL7R, IRF1, ITK, LCK, LEF1, LYZ, MMP7, PRKCB, PTPRC, RUNX1, RUNX2, TCF4	30
Genetic Disorder	severe combined immunodeficiency	severe combined immunodeficiency	2,24E-07	CD247, CD3D, IL2RG, IL7R, JAK3, PTPRC	6
Genetic Disorder	autosomal recessive severe combined immunodeficiency	autosomal recessive severe combined immunodeficiency	3,84E-06	CD3D, IL7R, JAK3	3
Genetic Disorder	inflammatory bowel disease	inflammatory bowel disease of	4,91E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, NOD2, STAT4, TGFB2	9

		mammalia				
Genetic Disorder	multiple sclerosis	multiple sclerosis	8,26E-06	ADRA2A, CASP1, CD52, CIITA, GFI1, HLA-DMB, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-F, IL7, IL7R, KLRB1, PTPRC	14	
Genetic Disorder	colitis	colitis of mice	8,67E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, STAT4, TGFBR2	8	
Cellular Assembly and Organization	organization	organization of cytoskeleton	1,66E-08	ANTXR1, CD44, CD47, CLU, CXCL9, FLNA, ITK, LCK, LCP1, MARCKS, MYH9, PLEK, TRIO, VAV1	14	
Cellular Assembly and Organization	reorganization	reorganization of cytoskeleton	5,81E-07	ANTXR1, CD44, CD47, CXCL9, FLNA, ITK, LCK, MYH9, PLEK, TRIO, VAV1	11	
Cellular Assembly and Organization	polymerization	polymerization of actin	6,14E-07	CD47, DEF6, ITGAL, ITGB2, ITK, LCP2, VAV1, WIPF1	8	
Cellular Assembly and Organization	formation	formation of immunological synapses	1,07E-06	CD28, CD209, DEF6, ITGAM, ITK	5	
Reproductive System Disease	prostate cancer	prostate cancer	1,87E-08	ANTXR1, ANTXR2, ARHGDI1, CCL5, CCR2, CCR7, CD44, CD52, CD74, CLDN11, CLU, CSF1R, CSF2RB, CYTIP, FLNA, GBP2, GZMA, HLA-DRB4, IL7R, IRF1, ITK, LCK, LEF1, LYZ, MMP7, PRKCB, PTPRC, RUNX1, RUNX2, TCF4	30	
Reproductive System Disease	endometriosis	endometriosis	3,20E-06	AHR, CASP1, CSF1R, CXCL9, GZMA, HLA-C, IL2RB, IL2RG, ITGAL, ITGAM, LTB4R, MARCKS, MMP7, NOTCH2, PRKCB, PTPN22, SLC2A3, THBS2, TIMP2, TNFSF13B, VIM	21	
Free Radical Scavenging	production	production of reactive oxygen species	3,38E-08	ANXA1, ARHGDI1, CCL5, CD28, CD44, CD47, CD52, CYBB, GZMA, GZMB, GZMK, LCP2, PRF1, PRKCB, RAC2, SELPLG	16	
Free Radical Scavenging	production	production of superoxide	1,41E-05	CXCL9, CYBB, ETS1, HCK, ITGAM, ITGAX, ITGB2, PRKCB, RAC2	9	
Cell Cycle	cell division process	cell division process of leukocytes	4,76E-08	ATM, CD28, CD44, GFI1, IL7, IL2RB, ITGAL, LEF1, NFATC2, STAT4, TNFSF13B, VAV1	12	
Cell Cycle	cell division process	cell division process of lymphocytes	1,12E-07	ATM, CD28, GFI1, IL7, IL2RB, ITGAL, LEF1, NFATC2, STAT4, TNFSF13B, VAV1	11	
Cell Cycle	cell division process	cell division process of T lymphocytes	1,22E-07	ATM, CD28, GFI1, IL7, IL2RB, ITGAL, STAT4, TNFSF13B, VAV1	9	
Cell Cycle	cell division process	cell division process	1,37E-07	AHR, AKAP12, ANAPC4, ANXA1, ATM, BCL2A1, CCND2, CD28, CD44, CD247, CDC7, CLU, CSF1R, ETS1, ETV6, FCGR2B, FLI1, FLNA, FUBP1, GAS7, GFI1, GFRA1, HHEX, IL7, IL2RB, IRF1, ITGAL, JAK3, LCK, LEF1, MARCKS, MYB (includes EG:4602), MYH9, NFATC2, NOTCH2, PRKCB, PTPN22, PTPRC, RASSF2, RASSF5, RUNX1, RUNX2, SH2B3, SLA, STAT4, TIMP2, TNFSF13B, TPM1, VAV1	49	
Cell Cycle	cell division process	cell division process of bone cell lines	6,54E-07	CCND2, CSF1R, FCGR2B, JAK3, MYB (includes EG:4602), RUNX2, SH2B3	7	
Cell Cycle	cell division process	cell division process of eukaryotic cells	6,70E-07	AHR, AKAP12, ATM, CCND2, CD28, CD44, CD247, CDC7, CLU, CSF1R, ETS1, FCGR2B, FLI1, FUBP1, GFI1, GFRA1, IL7, IL2RB, IRF1, ITGAL, JAK3, LEF1, MYB (includes EG:4602), NFATC2, NOTCH2, PRKCB, PTPN22, RASSF5, RUNX1, RUNX2, SH2B3, SLA, STAT4, TIMP2, TNFSF13B, VAV1	36	
Cell Cycle	cell division process	cell division process of cell lines	9,80E-06	AHR, AKAP12, ATM, CCND2, CD44, CDC7, CLU, CSF1R, ETS1, FCGR2B, FLI1, FUBP1, GFI1, IL7, IRF1, JAK3, LEF1, MYB (includes EG:4602), NOTCH2, PRKCB, PTPN22, RASSF5, RUNX1, RUNX2, SH2B3, SLA, TIMP2, VAV1	28	

Cell Cycle	cell division process	arrest in cell division process	1,07E-05	AHR, AKAP12, ATM, CCND2, CD28, CD44, CD247, CDC7, ETV6, FLNA, FUBP1, GAS7, GFI1, IL7, JAK3, LCK, LEF1, MYB (includes EG:4602), NOTCH2, PTPN22, RASSF2, RUNX1, TIMP2, VAV1	24
Cell Cycle	cell division process	cell division process of leukocyte cell lines	1,50E-05	CCND2, CSF1R, FCGR2B, IL7, JAK3, MYB (includes EG:4602), RUNX1, SH2B3	8
Cell Cycle	interphase	interphase of bone cell lines	3,94E-07	CCND2, JAK3, MYB (includes EG:4602), RUNX2, SH2B3	5
Cell Cycle	cell cycle progression	cell cycle progression of blood cells	1,26E-06	ATM, CD28, CD44, IL7, ITGAL, NFATC2, STAT4, TNFSF13B, VAV1	9
Cell Cycle	cell cycle progression	cell cycle progression of leukocytes	1,59E-06	ATM, CD28, CD44, IL7, ITGAL, NFATC2, TNFSF13B, VAV1	8
Cell Cycle	cell cycle progression	cell cycle progression of lymphocytes	7,99E-06	ATM, CD28, IL7, ITGAL, NFATC2, TNFSF13B, VAV1	7
Cell Cycle	cell cycle progression	cell cycle progression	1,59E-05	AHR, ANXA1, ATM, BCL2A1, CCND2, CD28, CD44, CDC7, CLU, CSF1R, ETS1, FCGR2B, FLI1, GAS7, HHEX, IL7, IRF1, ITGAL, LCK, LEF1, MARCKS, NFATC2, NOTCH2, PRKCB, PTPRC, RASSF2, RASSF5, RUNX1, STAT4, TIMP2, TNFSF13B, VAV1	32
Cell Cycle	G1 phase	G1 phase of eukaryotic cells	5,10E-06	AHR, AKAP12, ATM, CCND2, CD28, CD247, GFI1, IL7, JAK3, LEF1, MYB (includes EG:4602), NOTCH2, PTPN22, RUNX2, TIMP2, VAV1	16
Cell Cycle	G1 phase	G1 phase of bone cell lines	7,05E-06	CCND2, JAK3, MYB (includes EG:4602), RUNX2	4
Cell Cycle	cell stage	arrest in cell stage	1,65E-05	AHR, AKAP12, ATM, CCND2, CD28, CD44, CD247, CDC7, ETV6, FLNA, GFI1, IL7, JAK3, MYB (includes EG:4602), NOTCH2, PTPN22, RUNX1, TIMP2, VAV1	19
Hypersensitivity Response	activation	activation of mast cells	4,95E-08	CCL5, CCR2, CD48, CD300A, FCGR2A, FCGR2B, FYB, ITGAM, LCP2	9
Hypersensitivity Response	cell movement	cell movement of eosinophils	9,47E-07	CCL5, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK	10
Hypersensitivity Response	transmigration	transmigration of eosinophils	2,43E-06	CD47, CXCL9, ITGAL, ITGAM, ITGB2	5
Hypersensitivity Response	degranulation	degranulation of mast cells	3,22E-06	ANXA1, CD300A, HCK, ITK, LCP2, RAC2, VAV1, WIPF1	8
Lymphoid Tissue Structure and Development	quantity	quantity of lymphatic system cells	8,81E-08	AHR, CD8A, CNN2, CSF2RB, ETS1, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4, THBS2	16
Lymphoid Tissue Structure and Development	quantity	quantity of bone marrow cells	1,73E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4, THBS2	15
Lymphoid Tissue Structure and Development	quantity	quantity of myeloid cells	2,13E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IKZF1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	14

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Lymphoid Tissue Structure and Development	quantity	quantity of granulocytes	3,16E-07	AHR, CD8A, CNN2, CSF2RB, FLI1, IRF8, ITGB2, JAK3, RAC2, SELL, SELPLG, SH2B3, STAT4	13
Lymphoid Tissue Structure and Development	homing	homing of lymphatic system cells	3,55E-06	ANXA1, CCL5, CD28, CD44, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	12
Lymphoid Tissue Structure and Development	development	development of lymphatic system cells	6,65E-06	CD44, CD8A, ETV6, IL7, IL2RB, IL2RG, JAK3, LCP2, THBS2	9
Lymphoid Tissue Structure and Development	chemotaxis	chemotaxis of myeloid cells	9,94E-06	ANXA1, CCL5, CD28, CXCL9, FCGR2A, HCK, ITGAM, ITGB2, LTB4R, PTPRC, RAC2	11
Lymphoid Tissue Structure and Development	proliferation	proliferation of lymphatic system cells	9,94E-06	CCND2, CD44, CD8A, CSF1R, IL7, IL2RG, IRF8, LTB4R, PTPRC, RUNX1, SH2B3	11
Lymphoid Tissue Structure and Development	aggregation	aggregation of neutrophils	1,16E-05	ITGAM, ITGB2, SELL, SELPLG	4
Cardiovascular System Development and Function	adhesion	adhesion of endothelial tissue	9,94E-08	ANXA1, CD209, ITGAM, ITGB2, SELL, VAV1	6
Cardiovascular System Development and Function	adhesion	adhesion of endothelial cells	5,38E-07	AMICA1, CCL5, CD44, ITGAL, ITGAM, ITGAX, ITGB2, SELL, SELPLG, TGFBR2	10
Organismal Injury and Abnormalities	damage	damage of organ	2,10E-07	AHR, ANXA1, CASP1, CCR2, CCR5, CD44, CYBB, FCGR2A, FCGR2B, HCK, ITGAL, ITGB2, ITGB6, NLRP3, PRF1, STAT4, TIMP2	17
Organismal Injury and Abnormalities	injury	injury of organ	2,86E-06	AHR, ANXA1, CASP1, CYBB, FCGR2A, FCGR2B, ITGAL, ITGB2, ITGB6, NLRP3, STAT4, TIMP2	12
Organismal Injury and Abnormalities	cytosis	cytosis	8,71E-06	CASP1, CCR2, CSF1R, DEF6, IL2RB, IL2RG, ITGB2, LCK, MYB (includes EG:4602), RAC2, RASGRP4, RUNX1, SELL	13
Protein Synthesis	polymerization	polymerization of actin	6,14E-07	CD47, DEF6, ITGAL, ITGB2, ITK, LCP2, VAV1, WIPF1	8
Antimicrobial Response	elimination	elimination of virus	8,71E-07	CD8A, GZMA, GZMB, PRF1	4
Antimicrobial Response	elimination	elimination of Murine	3,84E-06	GZMA, GZMB, PRF1	3

		cytomegalovirus				
Cardiovascular Disease	myocarditis	myocarditis	1,50E-06	CCR2, CCR5, CLU, PRF1, STAT4, TBX21		6
Cardiovascular Disease	myocarditis	myocarditis of mice	6,67E-06	CCR2, CCR5, PRF1, STAT4, TBX21		5
Cardiovascular Disease	cardiovascular disorder	cardiovascular disorder of blood vessel	7,72E-06	AHR, CD44, CLU, DEF6, ETS1, ITGAM, ITGAX, PRKCB		8
Cardiovascular Disease	cardiovascular disorder	cardiovascular disorder of mice	9,93E-06	ADRA2A, CASP1, CCR2, CCR5, CD44, CLU, CTSS, CYBB, HCK, HCLS1, ITGAM, MMP7, PRF1, PRKCB, STAT4, TBX21, THBS2		17
Tumor Morphology	adhesion	adhesion of leukemia cells	2,01E-06	AMICA1, CD44, ITGB2, SELL		4
Endocrine System Disorders	diabetes mellitus	diabetes mellitus	3,49E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, ANXA1, C13ORF18, CCND2, CCR2, CD2, CD28, CD44, CD48, CD52, CD53, CD74, CD96, CDC7, CELF2, CHODL, CIITA, CLU, CP, CYBB, EBF1, EMB, FLI1, GABRP, GBP2, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-DRB4, HLA-F, IL2RB, IL7R, IRF1, ITGAL, ITGB2, KCNT2, KLRB1, LHFP, MS4A7, MYH9, NFATC2, NOD2, NOTCH2, NRP1, P2RY14, PLEK, PRKCB, PTPN22, PTPRE, RNF213, ROBO1, RUNX1, SAMD3, SELL, SH2B3, SIRPG, SLC2A3, STAT4, TAP1, TCF4, TGFB2, TNFSF13B, TRIO, TSHZ2		70
Endocrine System Disorders	insulin-dependent diabetes mellitus	insulin-dependent diabetes mellitus	4,40E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, CCR2, CD2, CD44, CD53, CDC7, CHODL, CIITA, FLI1, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-F, IL2RB, IL7R, ITGAL, KLRB1, LHFP, MYH9, NFATC2, NOD2, NOTCH2, PRKCB, PTPN22, RNF213, ROBO1, RUNX1, SH2B3, SIRPG, STAT4, TAP1, TGFB2, TNFSF13B, TSHZ2		40
Endocrine System Disorders	endocrine system disorder	endocrine system disorder	1,33E-05	ADAM12, ADRA2A, AHR, AMICA1, ANAPC4, ANXA1, C13ORF18, CCND2, CCR2, CD2, CD28, CD44, CD48, CD52, CD53, CD74, CD96, CDC7, CELF2, CHODL, CIITA, CLU, CP, CYBB, EBF1, EMB, ETS1, FLI1, GABRP, GBP2, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-DRB4, HLA-F, IL2RB, IL7R, IRF1, ITGAL, ITGB2, KCNT2, KLRB1, LHFP, MS4A7, MYH9, NFATC2, NOD2, NOTCH2, NRP1, P2RY14, PLEK, PRKCB, PTPN22, PTPRE, RNF213, ROBO1, RUNX1, SAMD3, SELL, SH2B3, SIRPG, SLC2A3, STAT4, TAP1, TCF4, TGFB2, TNFSF13B, TRIO, TSHZ2		72
Metabolic Disease	diabetes mellitus	diabetes mellitus	3,49E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, ANXA1, C13ORF18, CCND2, CCR2, CD2, CD28, CD44, CD48, CD52, CD53, CD74, CD96, CDC7, CELF2, CHODL, CIITA, CLU, CP, CYBB, EBF1, EMB, FLI1, GABRP, GBP2, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-DRB4, HLA-F, IL2RB, IL7R, IRF1, ITGAL, ITGB2, KCNT2, KLRB1, LHFP, MS4A7, MYH9, NFATC2, NOD2, NOTCH2, NRP1, P2RY14, PLEK, PRKCB, PTPN22, PTPRE, RNF213, ROBO1, RUNX1, SAMD3, SELL, SH2B3, SIRPG, SLC2A3, STAT4, TAP1, TCF4, TGFB2, TNFSF13B, TRIO, TSHZ2		70
Metabolic Disease	insulin-dependent diabetes mellitus	insulin-dependent diabetes mellitus	4,40E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, CCR2, CD2, CD44, CD53, CDC7, CHODL, CIITA, FLI1, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-F, IL2RB, IL7R, ITGAL, KLRB1, LHFP, MYH9, NFATC2, NOD2, NOTCH2, PRKCB, PTPN22, RNF213, ROBO1, RUNX1, SH2B3, SIRPG, STAT4, TAP1, TGFB2, TNFSF13B, TSHZ2		40
Metabolic Disease	metabolic disorder	metabolic disorder	6,44E-06	ADAM12, ADRA2A, AMICA1, ANAPC4, ANXA1, C13ORF18, CASP1, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD44, CD47, CD48, CD52, CD53, CD74, CD96, CDC7, CELF2, CHODL, CIITA, CLU, CP, CYBB, EBF1, EMB, ETS1, FCGR2A, FLI1, GABRP, GBP2, HLA-B, HLA-C, HLA-DOA, HLA-DPA1, HLA-DQB1, HLA-DRA, HLA-DRB4, HLA-F, IL7, IL2RB, IL7R, IRF1, ITGAL, ITGB2, KCNT2, KLRB1, LHFP, LYZ, MS4A7, MYH9, NFATC2, NOD2, NOTCH2, NRP1, P2RY14, PLEK, PRKCB, PTPN22, PTPRE, RNF213, ROBO1, RUNX1, RUNX2, SAMD3, SELL, SH2B3, SIRPG, SLC2A3, STAT4, TAP1, TCF4, TGFB2, TNFSF13B, TRIO, TSHZ2		79
Gastrointestinal Disease	inflammatory bowel disease	inflammatory bowel disease of mammalia	4,91E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, NOD2, STAT4, TGFB2		9
Gastrointestinal	colitis	colitis of mice	8,67E-06	CASP1, CCR2, CCR5, CD44, IL7, MMP7, STAT4, TGFB2		8

Disease					
Renal and Urological Disease	nephritis	nephritis	5,14E-06	CCL5, CD2, CD28, CD8A, CLU, CXCL16, FCGR2B, HLA-DQB1, ITGAL, PTPRC, TNFSF13B	11
Skeletal and Muscular System Development and Function	G1 phase	G1 phase of bone cell lines	7,05E-06	CCND2, JAK3, MYB (includes EG:4602), RUNX2	4
Neurological Disease	multiple sclerosis	multiple sclerosis	8,26E-06	ADRA2A, CASP1, CD52, CIITA, GFI1, HLA-DMB, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-F, IL7, IL7R, KLRB1, PTPRC	14
Infection Mechanism	infection	infection by bacteria	1,21E-05	ANTXR2, CASP1, CCR2, CD44, CD209, ITGAM, LYZ, PRF1	8

SUPPLEMENTAL TABLE 2

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703 probeset list enrichment analysis (biological functions)

Category	Function	Function Annotation	p-value	Molecules	# Molecules
Inflammatory Response	immune response	immune response	2,77E-74	AHR, APAF1, APOBEC3G, APOL1, BTK, C1QA, C1QB, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD47, CD48, CD69, CD84, CD86, CD96, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CIITA, CLEC4C, CLEC7A, CORO1A, CSF1R, CST7, CTLA4, CTSS, CTSW, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DOCK2, ERAP2, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FLI1, FYB, GBP2, GIMAP5, GPR65, GPSM3, GZMA, GZMB, GZMH, HCK, HIF1A, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IGHM, IL10RA, IL10RB, IL12RB1, IL2RB, IL2RG, IL7R, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY75, LY96, LYN, MMP7, MX2, NCF2, NCF4, NLRP3, P2RY14, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTGER4, PTGES, PTPRC, RGS1, RNASE6, SECTM1, SELPLG, SIRPG, SIT1, SLAMF6, SP140, STAT1, STAT4, TAP1, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TRIM22, TYROBP, VAV1	140
Inflammatory Response	immune response	immune response of T lymphocytes	7,06E-10	C3AR1, CASP1, CD28, CD69, CD1D, CD8A, CTLA4, HLA-DQB1, ICOS, IL7R, ITK, PTPRC, TNFRSF1B	13
Inflammatory Response	activation	activation of leukocytes	1,47E-45	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	86
Inflammatory Response	activation	activation of mononuclear leukocytes	1,22E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	69
Inflammatory Response	activation	activation of lymphocytes	3,94E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	67
Inflammatory Response	activation	activation of T lymphocytes	3,31E-31	C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, PIK3CD, PRF1, PTPRC, SIRPG, SIT1, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	52
Inflammatory Response	activation	activation of antigen presenting cells	1,93E-12	CCL2, CCL4, CCL5, CD86, CD1D, CSF1R, FAS, FCER1G, FCGR1A, FCGR2A, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, ITGB6, LTF, PSMB9, PTGES, STAT1, STAT4, TLR4, TLR7, TNFRSF1B	25
Inflammatory Response	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Inflammatory Response	activation	activation of natural killer	3,15E-10	CCL5, CD2, CD28, CD244, CD1D, FCGR2A, IL12RB1, IL2RB, ITGAL, ITGB2, KLRD1, KLRK1, LTF, PRF1, SLAMF6, STAT4, TYROBP	17

		cells				
Inflammatory Response	activation	activation of mast cells	1,71E-08	CCL5, CCR2, CD48, CD300A, FCER1G, FCGR2A, FYB, ITGAM, LCP2, TLR7, TLR8 (includes EG:51311)	11	
Inflammatory Response	activation	activation of cytotoxic T cells	8,02E-07	CCR2, CD28, CD86, CD247, CTLA4, FAS, GZMA, GZMB, PRF1	9	
Inflammatory Response	inflammatory response	inflammatory response	6,76E-23	AIF1, AOA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CFH, CORO1A, CSF1R, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, ETS1, FCER1A, FCER1G, FCGR2A, GNA13, HCK, HDAC9 (includes EG:9734), IGHG1, IL10RA, IL10RB, IL12RB1, ITGAL, ITGAM, ITGB2, ITGB6, LTF, LY75, LY96, LYN, LYZ, NFKB1, NLRP3, PIK3CD, PRKCB, PTGDR, PTGER4, PTGES, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, STAT1, STAT4, TLR4, TLR7, TLR8 (includes EG:51311), TNFRSF1B, VAV1, XCL1	61	
Inflammatory Response	inflammatory response	inflammatory response of organism	6,80E-08	AOAH, CASP1, CCL2, CCR5, FCER1A, FCER1G, FCGR2A, IGHG1, IL10RA, IL10RB, SELPLG, TLR4, TLR7, TLR8 (includes EG:51311), TNFRSF1B	15	
Inflammatory Response	cell movement	cell movement of phagocytes	4,85E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CFH, CORO1A, CSF1R, CX3CR1, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, HIF1A, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	36	
Inflammatory Response	cell movement	cell movement of neutrophils	2,82E-13	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD28, CD47, CFH, CORO1A, CXCL6, FAS, FCER1G, FCGR2A, HCK, HGF, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	28	
Inflammatory Response	cell movement	cell movement of macrophages	6,26E-08	CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGES, RAC2	16	
Inflammatory Response	cell movement	cell movement of bone marrow cells	4,66E-07	CCL2, CCL4, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	11	
Inflammatory Response	degranulation	degranulation of eukaryotic cells	3,78E-15	BTK, C3AR1, CCL4, CD300A, CTLA4, FCER1A, FCER1G, FCGR2A, FCGR3B, HCK, ITGAM, ITGB2, ITK, KLRK1, LAT2, LAX1, LCP2, LYN, PIK3CD, PLD1, PLSR1, RAB27A, RAC2, VAV1	24	
Inflammatory Response	degranulation	degranulation of mast cells	4,03E-13	BTK, C3AR1, CD300A, CTLA4, FCER1A, FCER1G, HCK, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PLD1, RAC2, VAV1	16	
Inflammatory Response	antibody response	antibody response	1,06E-14	BTK, CCL2, CCL5, CCR2, CCR6, CD28, CTLA4, ICOS, IGHG1, LCP2, LTF, LY86, LYN, POU2AF1, PRDM1, PSMB10, PTPRC, SH2D1A, TLR4, TNFSF13B, VAV1	21	
Inflammatory Response	antibody response	antibody response of animal	3,47E-09	BTK, CD28, CTLA4, ICOS, IGHG1, LYN, PRDM1, PTPRC, SH2D1A, TLR4, TNFSF13B, VAV1	12	
Inflammatory Response	antibody response	antibody response of mice	9,87E-07	BTK, ICOS, LYN, PRDM1, PTPRC, SH2D1A, TLR4, TNFSF13B, VAV1	9	
Inflammatory Response	chemotaxis	chemotaxis of leukocytes	2,49E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	32	
Inflammatory Response	chemotaxis	chemotaxis of mononuclear leukocytes	1,60E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, ITGAL, PRKCB, PTGDR, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	19	
Inflammatory Response	chemotaxis	chemotaxis of lymphocytes	1,63E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, PTGDR, RAC2, RGS1, SOCS3, TLR4, XCL1	16	
Inflammatory Response	chemotaxis	chemotaxis of phagocytes	2,48E-08	CCL2, CCL4, CCL5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, IL12RB1, ITGAM, ITGB2, PIK3CD, RAC2, XCL1	17	
Inflammatory Response	chemotaxis	chemotaxis of myeloid cells	1,27E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, PTPRC, RAC2, XCL1	15	
Inflammatory Response	chemotaxis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13	
Inflammatory Response	chemotaxis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7	

Inflammatory Response	phagocytosis	phagocytosis	4,72E-13	C1QA, CD47, CLEC7A, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, ICOS, IGHG1, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	24
Inflammatory Response	phagocytosis	phagocytosis of cells	1,68E-11	C1QA, CD47, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	21
Inflammatory Response	phagocytosis	phagocytosis of blood cells	2,67E-10	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, RAC2, SELPLG, TLR4	15
Inflammatory Response	phagocytosis	phagocytosis of myeloid cells	6,32E-10	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	10
Inflammatory Response	phagocytosis	phagocytosis of eukaryotic cells	1,94E-09	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	17
Inflammatory Response	phagocytosis	phagocytosis of neutrophils	4,30E-09	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	9
Inflammatory Response	phagocytosis	phagocytosis of leukocytes	1,66E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	11
Inflammatory Response	phagocytosis	phagocytosis of red blood cells	4,43E-07	FCGR1A, FCGR2A, HCK, ITGAM, ITGB2, LYN, RAC2	7
Inflammatory Response	phagocytosis	phagocytosis of phagocytes	6,53E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	10
Inflammatory Response	respiratory burst	respiratory burst	7,54E-12	CCL2, CYBB, FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LYN, NCF2, PTPRC, TYROBP	16
Inflammatory Response	respiratory burst	respiratory burst of leukocytes	1,15E-10	CCL2, FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	13
Inflammatory Response	respiratory burst	respiratory burst of myeloid cells	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	11
Inflammatory Response	respiratory burst	respiratory burst of phagocytes	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	11
Inflammatory Response	respiratory burst	respiratory burst of neutrophils	7,59E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	10
Inflammatory Response	quantity	quantity of phagocytes	1,16E-11	AHR, C1QA, CCL2, CCR2, CCR6, CD1D, CFH, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, FCGR1A, IL12RB1, ITGB2, ITGB6, JAK3, PLSCR1, PTGES, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	24
Inflammatory Response	quantity	quantity of neutrophils	3,31E-08	AHR, C1QA, CD1D, CFH, FAS, FCGR1A, ITGB2, JAK3, PLSCR1, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B	14
Inflammatory Response	quantity	quantity of macrophages	1,07E-06	CCL2, CCR2, CCR6, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, IL12RB1, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4	14
Inflammatory Response	accumulation	accumulation of leukocytes	1,48E-11	CCL2, CCL5, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CTLA4, CX3CR1, CXCL9, CYBB, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, RUNX3, SELPLG, SH2D2A, TLR4	24
Inflammatory Response	accumulation	accumulation of lymphocytes	2,17E-10	CCL5, CCL21, CCR5, CD28, CD86, CD1D, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SH2D2A	15
Inflammatory Response	accumulation	accumulation of T lymphocytes	4,33E-10	CCL5, CCL21, CCR5, CD28, CD86, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A	13
Inflammatory Response	accumulation	accumulation of macrophages	8,02E-07	CCL2, CCL5, CCR2, CD28, CX3CR1, FAS, ITGAM, ITGAX, TLR4	9
Inflammatory Response	inflammation	inflammation	4,49E-11	C3AR1, CASP1, CCL2, CCL4, CCL5, CCR2, CCR5, CD47, CD86, CTLA4, CTSS, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, HGF, ICOS, IGHG1, IL2RG, IL7R, ITGB2, ITK, NLRP3, PRF1, PTGER4, PTPRC, STAT1, STAT4, TLR4, TLR8 (includes EG:51311), TNFRSF1B, TNFSF13B	33
Inflammatory Response	inflammation	inflammation of organ	1,90E-08	CASP1, CCL4, CCR2, CCR5, CD47, CTLA4, CTSS, FAS, FCGR2A, ICOS, IGHG1, ITGB2, ITK, NLRP3, PRF1, STAT1, STAT4, TLR4, TLR8 (includes EG:51311), TNFRSF1B, TNFSF13B	21
Inflammatory Response	inflammation	inflammation	7,78E-07	CASP1, CCL2, CCL5, FAS, FCER1G, IL2RG, IL7R, ITGB2, NLRP3, PTGER4,	14

Response	mation	of organism		STAT1, STAT4, TLR4, TNFRSF1B	
Inflammatory Response	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated cytotoxic reaction	5,78E-10	CD247, FCER1A, FCGR1A, FCGR2A, IGHG1, IGKC, VAV1	7
Inflammatory Response	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated reaction of eukaryotic cells	1,76E-07	CD247, FCER1A, FCGR2A, IGKC, VAV1	5
Inflammatory Response	recruitment	recruitment of phagocytes	1,94E-09	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD28, CD8A, CX3CR1, ETS1, ITGAM, ITGB2, LYZ, PIK3CD, TLR4	17
Inflammatory Response	recruitment	recruitment of neutrophils	2,45E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, ITGAM, LYZ, PIK3CD, TLR4	14
Inflammatory Response	recruitment	recruitment of macrophages	3,06E-07	C3AR1, CCL2, CCL4, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	10
Inflammatory Response	binding	binding of phagocytes	2,76E-09	CD2, CD69, CLEC10A, FCGR1A, FCGR2A, FCGR3B, HCK, ITGAL, ITGAM, ITGB2, LYN, PTPRC, SELPLG, TLR4	14
Inflammatory Response	migration	migration of phagocytes	4,42E-09	CCL2, CCL5, CD47, CSF1R, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, RAC2, TLR4	17
Inflammatory Response	migration	migration of neutrophils	3,31E-08	CCL5, CD47, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, TLR4	14
Inflammatory Response	antiviral response	antiviral response	6,41E-09	APOBEC3G, CCL4, CCL5, CCL19, CXCR4, IFI44, IRF1, ISG20, MX2, SOCS3, STAT1, TLR7, TLR8 (includes EG:51311), TRIM22, VAV1	15
Inflammatory Response	antiviral response	antiviral response of organism	1,95E-07	CCL4, CCL5, CCL19, CXCR4, IFI44, ISG20, MX2, STAT1, TLR7, TLR8 (includes EG:51311), TRIM22, VAV1	12
Inflammatory Response	infiltration	infiltration by neutrophils	9,60E-09	CASP1, CCL4, CCL21, CCR2, CFH, FAS, FCER1G, HGF, ITGAL, ITGAM, ITGB2, RAC2, SOCS3, TLR4, TNFRSF1B, XCL1	16
Inflammatory Response	adhesion	adhesion of neutrophils	4,19E-08	CORO1A, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	11
Inflammatory Response	chemoattraction	chemoattraction of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7
Inflammatory Response	chemoattraction	chemoattraction of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5
Inflammatory Response	processing	processing of antigen	4,43E-07	ERAP2, FCER1G, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA	7
Inflammatory Response	CD4 T-cell response	CD4 T-cell response	6,40E-07	CASP1, CCR5, CD86, CLEC7A, CTLA4, ICOS, IRF1, ITK, STAT4, TBX21, TLR4	11
Inflammatory Response	transmigration	transmigration of granulocytes	6,48E-07	CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	9
Inflammatory Response	transmigration	transmigration of neutrophils	7,77E-07	CD47, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	8

Cellular Development	developmental process	developmental process of leukocytes	1,52E-56	AHR, APAF1, BCL11B, BCL2A1, BTK, C1QC, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD300A, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, MLLT3, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RGS10, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, SRGN, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, TYROBP, VAV1, XCL1	117
Cellular Development	developmental process	developmental process of blood cells	8,46E-55	AHR, APAF1, BCL11B, BCL2A1, BTK, C1QC, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD69, CD86, CD163, CD244, CD247, CD1D, CD300A, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, FLI1, GIMAP5, GZMA, GZMB, HCLS1, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, MLLT3, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RGS10, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, SRGN, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, TYROBP, VAV1, XCL1	121
Cellular Development	developmental process	developmental process of mononuclear leukocytes	7,47E-53	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCR5, CCR6, CD2, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, SRGN, STAT1, STAT4, TBX21, TLR4, TLR7, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	106
Cellular Development	developmental process	developmental process of lymphocytes	4,66E-50	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CCR6, CD2, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, SRGN, STAT1, STAT4, TBX21, TLR4, TLR7, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	101
Cellular Development	developmental process	developmental process of T lymphocytes	1,51E-46	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CCR6, CD2, CD28, CD47, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, SRGN, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	91
Cellular Development	developmental process	developmental process of thymocytes	1,76E-18	APAF1, CD2, CD28, CD86, CD247, CD3D, CD3E, CD3G, CD8B, CXCR4, ETS1, IKZF1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCK, LCP2, PTPRC, RUNX1, SIT1, TOX, TRA@, TRAT1	26
Cellular	developmental	developmental	1,85E-16	AHR, CASP1, CBL, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1,	27

Development	developmental process of helper T lymphocytes			IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, LCP2, PIK3CD, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, VAV1	
Cellular Development	developmental process of Th2 cells	3,38E-15		CBL, CD28, CD86, CTLA4, ICOS, IGHG1, IL12RB1, IRF1, ITK, JAK3, LCP2, PIK3CD, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, VAV1	19
Cellular Development	developmental process of antigen presenting cells	1,02E-12		C1QC, CCL5, CCL19, CCL21, CCR2, CD47, CSF1R, CSF2RB, DUSP5, FAS, GIMAP5, HGF, IKZF1, IRF1, IRF4, IRF8, ITGB6, LYN, PRDM1, RGS10, RUNX3, SOCS3, STAT1, TLR4, TLR7, TLR8 (includes EG:51311), TYROBP	27
Cellular Development	developmental process of B lymphocytes	1,77E-11		AHR, BTK, CBL, CD69, CXCR4, DCK, DUSP5, HDAC9 (includes EG:9734), HIF1A, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, PTPRC, TLR4, TLR7, TNFSF13B, VAV1	26
Cellular Development	developmental process of Th1 cells	1,01E-10		CASP1, CBL, CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, LCP2, PIK3CD, STAT1, STAT4, TBX21	16
Cellular Development	developmental process of dendritic cells	9,17E-10		CCL5, CCL19, CCL21, CCR2, CSF1R, FAS, GIMAP5, IKZF1, IRF1, IRF4, IRF8, ITGB6, LYN, RUNX3, STAT1, TLR4, TLR7, TLR8 (includes EG:51311), TYROBP	19
Cellular Development	arrest in developmental process of blood cells	5,54E-09		BTK, CBL, CD3D, CXCR4, HIF1A, IRF8, LCK, LCP2, PTPRC, RUNX1	10
Cellular Development	arrest in developmental process of leukocytes	9,44E-09		BTK, CBL, CD3D, CXCR4, HIF1A, IRF8, LCK, LCP2, RUNX1	9
Cellular Development	developmental process of gamma-delta T lymphocytes	1,52E-08		CD3D, CD3G, GIMAP5, IL2RG, JAK3, LCK, PTPRC	7
Cellular Development	developmental process of natural killer cells	1,02E-07		CD2, CD86, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	12
Cellular Development	arrest in developmental process of lymphocytes	3,02E-07		BTK, CBL, CD3D, CXCR4, HIF1A, LCK, LCP2	7
Cellular Development	developmental process of osteoclasts	3,53E-07		CCL2, CCL5, CD47, CD300LF, CSF1R, FCER1G, FHL2, IGHG1, PTGER4, RGS10, SOCS3, STAT1, TLR4, TYROBP	14
Cellular Development	developmental process of natural killer T lymphocytes	4,43E-07		CD1D, CTLA4, ETS1, IKZF1, ITK, SH2D1A, TBX21	7
Cellular Development	development of lymphocytes	3,56E-48		AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	94
Cellular Development	development of leukocytes	7,69E-48		AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CTLA4, CXCR4, DCK, DOCK2,	95

Cellular Development	development	T cell development	2,65E-45	EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	88
Cellular Development	development	development of cells	3,91E-32	AHR, APAF1, BASP1, BCL11B, BCL2A1, BMP8B, BTK, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CDC42SE2, CHEK2, CIITA, CLEC10A, CORO1A, CSF1R, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GNA13, GZMA, GZMB, HCK, HGF, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PARVG, PIK3CD, PLD1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRA, PTPRC, RAC2, RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SERPINA3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, STK4, TBX21, TLR4, TNC, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, TYROBP, VAV1, VCAN, XCL1	116
Cellular Development	development	development of thymocytes	4,63E-12	CD3D, CD3E, CD3G, CXCR4, ETS1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCP2, PTPRC, SIT1, TRA@, TRAT1	16
Cellular Development	development	development of helper T lymphocytes	8,61E-11	AHR, CASP1, CD28, CD86, ICOS, IL12RB1, IRF1, ITGB2, ITK, SOCS3, STAT1, STAT4, TBX21	13
Cellular Development	development	development of B lymphocytes	3,12E-10	BTK, CBL, CD69, CXCR4, DCK, HIF1A, IGHM, IL2RG, IL7R, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, TNFSF13B, VAV1	16
Cellular Development	development	arrest in development of lymphocytes	1,73E-07	BTK, CBL, CD3D, CXCR4, LCK, LCP2	6
Cellular Development	development	arrest in development of cells	3,02E-07	BTK, CBL, CD3D, CXCR4, LCK, LCP2, TYROBP	7
Cellular Development	development	NK cell development	6,40E-07	CD2, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	11
Cellular Development	development	arrest in development of T lymphocytes	1,02E-06	CBL, CD3D, CXCR4, LCK, LCP2	5
Cellular Development	development	development of gamma-delta T lymphocytes	1,76E-06	CD3D, CD3G, IL2RG, JAK3	4
Cellular Development	differentiation	differentiation of leukocytes	2,18E-37	AHR, APAF1, BCL2A1, C1QC, CCL2, CCL19, CD2, CD28, CD47, CD86, CD1D, CD300A, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RGS10, RUNX1, RUNX2, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	75
Cellular Development	differentiation	differentiation	1,65E-36	AHR, APAF1, BCL2A1, C1QC, CCL2, CCL19, CD2, CD28, CD47, CD86,	79

Development	ntiation	of blood cells		CD1D, CD300A, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, FLI1, GIMAP5, HCLS1, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, PLSCR1, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RGS10, RUNX1, RUNX2, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	
Cellular Development	differe ntiation	differentiation of mononuclear leukocytes	8,74E-34	AHR, APAF1, BCL2A1, CCL2, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CSF1R, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	65
Cellular Development	differe ntiation	differentiation of lymphocytes	2,36E-32	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	61
Cellular Development	differe ntiation	differentiation of T lymphocytes	3,33E-26	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3E, CD8A, CD8B, CTLA4, ETS1, GIMAP5, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, TOX, TRA@, VAV1	48
Cellular Development	differe ntiation	differentiation of cells	1,25E-19	AHR, APAF1, BCL2A1, BTK, C1QC, CCL2, CCL5, CCL19, CCND2, CD2, CD28, CD47, CD86, CD1D, CD300A, CD300LF, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CSTA, CTLA4, CXCR4, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FHL2, FLI1, GABBR1, GIMAP5, GNA13, GZMB, HCLS1, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, PLAC8, PLSCR1, POU2AF1, PRDM1, PRKCB, PTGER4, PTPN22, PTPRC, RAB27A, RASSF5, RBL1, RGS10, RUNX1, RUNX2, RUNX3, SH2D1A, SIT1, SOCS3, ST8SIA4, STAT1, STAT4, TBX21, TLR4, TLR7, TNC, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, TYROBP, VAV1, VCAN	102
Cellular Development	differe ntiation	differentiation of helper T lymphocytes	3,76E-14	AHR, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, TNFSF13B, VAV1	23
Cellular Development	differe ntiation	differentiation of Th2 cells	3,55E-12	CD28, CD86, CTLA4, ICOS, IGHG1, IRF1, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, VAV1	15
Cellular Development	differe ntiation	differentiation of Th1 cells	1,08E-08	CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, PIK3CD, STAT1, STAT4, TBX21	13
Cellular Development	differe ntiation	differentiation of B lymphocytes	3,90E-08	CXCR4, DUSP5, HDAC9 (includes EG:9734), ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, PIK3CD, POU2AF1, PRDM1, PTPRC, TLR4, TLR7, TNFSF13B	17
Cellular Development	differe ntiation	differentiation of thymocytes	1,06E-07	APAF1, CD2, CD28, CD86, CD3E, CD8B, IKZF1, IL2RG, LCP2, TRA@	10
Cellular Development	differe ntiation	differentiation of antigen presenting cells	1,36E-07	C1QC, CD47, CSF1R, CSF2RB, DUSP5, GIMAP5, HGF, IKZF1, IRF4, IRF8, ITGB6, LYN, PRDM1, RGS10, SOCS3, TLR4	16
Cellular Development	differe ntiation	differentiation of osteocytes	4,82E-07	CCL2, CCL5, CD47, CD300LF, CSF1R, FAS, FCER1G, FHL2, IFI16, IGHG1, PTGER4, RBL1, RGS10, RUNX2, SOCS3, STAT1, TLR4, TYROBP	18
Cellular Development	differe ntiation	differentiation of plasma cells	1,68E-06	CXCR4, DUSP5, ICOS, IRF4, POU2AF1, PRDM1, TNFSF13B	7
Cellular Development	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Cellular Development	cell death	cell death of natural killer	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6

		cells				
Cellular Development	growth	growth of blood cells	3,57E-21	AHR, BTK, CBL, CCL2, CCL4, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CSF1R, CTLA4, FAS, HGF, HIF1A, ICOS, IGHM, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, RUNX1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	37	
Cellular Development	growth	growth of leukocytes	9,23E-19	AHR, BTK, CBL, CCL2, CCR6, CD2, CD28, CD86, CD244, CD3E, CSF1R, CTLA4, HGF, HIF1A, ICOS, IGHM, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	32	
Cellular Development	growth	growth of lymphocytes	4,93E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, HIF1A, ICOS, IGHM, IL2RB, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	25	
Cellular Development	expansion	expansion of blood cells	3,15E-18	AHR, BTK, CBL, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CTLA4, ICOS, IGHM, IL10RA, IL7R, IRF1, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, RUNX1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	29	
Cellular Development	expansion	expansion of leukocytes	9,08E-17	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IL10RA, IL7R, IRF1, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	26	
Cellular Development	expansion	expansion of lymphocytes	2,02E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	23	
Cellular Development	expansion	expansion of T lymphocytes	6,68E-15	AHR, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	21	
Cellular Development	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32	
Cellular Development	maturation	maturation of leukocytes	1,89E-14	AHR, BTK, CCL5, CCL19, CCL21, CCR2, CD28, CD86, CD247, FAS, HIF1A, IGHM, IRF1, IRF8, ITGAM, ITK, LCK, PTPRC, RUNX1, RUNX3, STAT1, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFSF13B, TYROBP, VAV1	28	
Cellular Development	maturation	maturation of blood cells	5,32E-14	AHR, BTK, CCL5, CCL19, CCL21, CCND2, CCR2, CD28, CD86, CD247, FAS, HIF1A, IGHM, IRF1, IRF8, ITGAM, ITK, LCK, PTPRC, RUNX1, RUNX3, STAT1, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFSF13B, TYROBP, VAV1	29	
Cellular Development	maturation	maturation of cells	4,84E-11	AHR, BTK, CCL5, CCL19, CCL21, CCND2, CCR2, CD28, CD86, CD247, FAS, FHL2, HIF1A, IGHM, IRF1, IRF8, ITGAM, ITK, LCK, PRKCB, PTPRC, RBL1, RUNX1, RUNX2, RUNX3, STAT1, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFSF13B, TYROBP, VAV1	33	
Cellular Development	maturation	maturation of mononuclear leukocytes	4,13E-09	AHR, BTK, CD28, CD86, CD247, HIF1A, IGHM, ITGAM, ITK, LCK, PTPRC, RUNX1, RUNX3, TBX21, TNFSF13B, VAV1	16	
Cellular Development	maturation	maturation of lymphocytes	1,80E-08	AHR, BTK, CD28, CD86, CD247, HIF1A, IGHM, ITK, LCK, PTPRC, RUNX1, RUNX3, TBX21, TNFSF13B, VAV1	15	
Cellular Development	maturation	maturation of dendritic cells	3,29E-07	CCL5, CCL19, CCL21, CCR2, FAS, IRF1, IRF8, RUNX3, STAT1, TLR4, TLR7, TLR8 (includes EG:51311), TYROBP	13	
Cellular Development	shape change	shape change of blood cells	2,46E-12	CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, FCGR2A, GNA13, GZMB, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	17	
Cellular Development	shape change	shape change of leukocytes	2,30E-10	CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	14	
Cellular Development	shape change	shape change of eukaryotic cells	5,13E-09	BASP1, CBL, CCL2, CCL5, CCR2, CD47, CD247, CD3E, CDC42SE2, CORO1A, CSF1R, DOCK2, FAS, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, PLD1, RBL1, RUNX2, SERPINA3, TNC	30	
Cellular Development	shape change	shape change of normal cells	9,09E-09	BASP1, CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, LYN, RUNX2, SERPINA3	21	
Cellular Development	shape change	shape change of granulocytes	9,29E-08	CCL2, CCL5, CCR2, CORO1A, HCK, ITGAM, ITGB2, LYN	8	
Cellular Development	selection	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12	
Cellular Development	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15	
Cellular Development	generation	generation of helper T	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7	

		lymphocytes				
Cellular Development	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21		5
Cellular Development	cell spreading	cell spreading of blood cells	7,48E-10	CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN		12
Cellular Development	cell spreading	cell spreading of leukocytes	2,41E-08	CD47, CD247, CD3E, CORO1A, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN		10
Cellular Development	cell spreading	cell spreading of normal cells	3,31E-08	CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, LYN, SERPINA3		14
Cellular Development	cell spreading	cell spreading of eukaryotic cells	6,16E-07	CBL, CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, SERPINA3, TNC		18
Cellular Development	activation-induced cell death	activation-induced cell death of T lymphocytes	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1		10
Cellular Development	polarization	polarization of T lymphocytes	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1		11
Cellular Development	morphogenesis	morphogenesis of cells	2,34E-08	BASP1, CBL, CCL2, CCL4, CCL5, CCR2, CD47, CD247, CD3E, CD3G, CDC42SE2, CORO1A, CSF1R, DOCK2, FAS, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, IL7R, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, PLD1, RAC2, RBL1, RUNX2, SERPINA3, STK4, TNC		35
Hematological System Development and Function	development	development of lymphocytes	3,56E-48	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1		94
Hematological System Development and Function	development	development of leukocytes	7,69E-48	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1		95
Hematological System Development and Function	development	T cell development	2,65E-45	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1		88
Hematological System Development and Function	development	development of thymocytes	4,63E-12	CD3D, CD3E, CD3G, CXCR4, ETS1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCP2, PTPRC, SIT1, TRA@, TRAT1		16
Hematological System Development and Function	development	development of helper T lymphocytes	8,61E-11	AHR, CASP1, CD28, CD86, ICOS, IL12RB1, IRF1, ITGB2, ITK, SOCS3, STAT1, STAT4, TBX21		13

Hematological System Development and Function	development	development of B lymphocytes	3,12E-10	BTK, CBL, CD69, CXCR4, DCK, HIF1A, IGHM, IL2RG, IL7R, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, TNFSF13B, VAV1	16
Hematological System Development and Function	development	arrest in development of lymphocytes	1,73E-07	BTK, CBL, CD3D, CXCR4, LCK, LCP2	6
Hematological System Development and Function	development	NK cell development	6,40E-07	CD2, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	11
Hematological System Development and Function	development	arrest in development of T lymphocytes	1,02E-06	CBL, CD3D, CXCR4, LCK, LCP2	5
Hematological System Development and Function	development	development of gamma-delta T lymphocytes	1,76E-06	CD3D, CD3G, IL2RG, JAK3	4
Hematological System Development and Function	hematopoiesis	hematopoiesis	1,07E-46	AHR, APAF1, BCL11B, BCL2A1, BTK, C1QC, CASP1, CBL, CCL4, CCL5, CCL19, CCR2, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LTF, LYN, MAP4K1, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, STK4, TBX21, TLR4, TLR7, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	105
Hematological System Development and Function	homeostasis	T cell homeostasis	5,21E-46	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CORO1A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	89
Hematological System Development and Function	activation	activation of leukocytes	1,47E-45	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	86
Hematological System Development and Function	activation	activation of blood cells	6,41E-44	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GNA13, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	87
Hematological System Development	activation	activation of mononuclear leukocytes	1,22E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A,	69

and Function				GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	
Hematological System Development and Function	activation	activation of lymphocytes	3,94E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	67
Hematological System Development and Function	activation	activation of T lymphocytes	3,31E-31	C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, PIK3CD, PRF1, PTPRC, SIRPG, SIT1, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF1B, TYROBP, VAV1	52
Hematological System Development and Function	activation	activation of antigen presenting cells	1,93E-12	CCL2, CCL4, CCL5, CD86, CD1D, CSF1R, FAS, FCER1G, FCGR1A, FCGR2A, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, ITGB6, LTF, PSMB9, PTGES, STAT1, STAT4, TLR4, TLR7, TNFRSF1B	25
Hematological System Development and Function	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Hematological System Development and Function	activation	activation of natural killer cells	3,15E-10	CCL5, CD2, CD28, CD244, CD1D, FCGR2A, IL12RB1, IL2RB, ITGAL, ITGB2, KLRD1, KLRK1, LTF, PRF1, SLAMF6, STAT4, TYROBP	17
Hematological System Development and Function	activation	activation of mast cells	1,71E-08	CCL5, CCR2, CD48, CD300A, FCER1G, FCGR2A, FYB, ITGAM, LCP2, TLR7, TLR8 (includes EG:51311)	11
Hematological System Development and Function	activation	activation of cytotoxic T cells	8,02E-07	CCR2, CD28, CD86, CD247, CTLA4, FAS, GZMA, GZMB, PRF1	9
Hematological System Development and Function	quantity	quantity of leukocytes	1,59E-44	AHR, BCL2A1, BTK, C1QA, CCL2, CCL5, CCL19, CCL21, CCR2, CCR6, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CFH, CIITA, CSF1R, CSF2RB, CTLA4, CTSS, CXCR4, CXCR6 (includes EG:10663), CYTIP, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HGF, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PTGES, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	86
Hematological System Development and Function	quantity	quantity of blood cells	5,67E-42	AHR, BCL2A1, BTK, C1QA, CBL, CCL2, CCL5, CCL19, CCL21, CCR2, CCR6, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CFH, CIITA, CSF1R, CSF2RB, CTLA4, CTSS, CXCR4, CXCR6 (includes EG:10663), CYTIP, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HGF, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PTGES, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	87
Hematological System Development and Function	quantity	quantity of lymphocytes	2,59E-39	AHR, BCL2A1, BTK, CCL19, CCL21, CCR2, CCR6, CD28, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTLA4, CTSS, CXCR4, CYTIP, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, POU2AF1, PRDM1, PRF1, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1,	70

				SOCS3, STAT1, STAT4, TAP1, TBX21, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	
Hematological System Development and Function	quantity	quantity of T lymphocytes	8,24E-28	AHR, BCL2A1, CCL19, CCL21, CCR2, CCR6, CD28, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTLA4, CTSS, CXCR4, ETS1, FAS, FLI1, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITK, JAK3, LCK, LCP2, PTPRC, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, TAP1, TBX21, TNFRSF1B, TNFSF13B, TOX, TRA@, VAV1	49
Hematological System Development and Function	quantity	quantity of B lymphocytes	1,56E-16	AHR, BCL2A1, BTK, CCR6, CD28, CD69, CXCR4, FCER1G, FCGR1A, FCGR2A, GNA13, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, RAC2, TNFRSF1B, TNFSF13B, TRA@, VAV1	29
Hematological System Development and Function	quantity	quantity of antigen presenting cells	3,51E-13	CCL2, CCL19, CCL21, CCR2, CCR6, CD47, CSF1R, CTLA4, CTSS, CXCR6 (includes EG:10663), FAS, IKZF1, IL12RB1, IRF1, IRF4, IRF8, ITGB2, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4, TYROBP	24
Hematological System Development and Function	quantity	quantity of granulocytes	3,82E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IRF8, ITGB2, JAK3, LYN, PLSR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	22
Hematological System Development and Function	quantity	quantity of myeloid cells	7,21E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IKZF1, IRF8, ITGB2, JAK3, LYN, PLSR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	23
Hematological System Development and Function	quantity	quantity of phagocytes	1,16E-11	AHR, C1QA, CCL2, CCR2, CCR6, CD1D, CFH, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, FCGR1A, IL12RB1, ITGB2, ITGB6, JAK3, PLSR1, PTGES, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	24
Hematological System Development and Function	quantity	quantity of natural killer cells	1,30E-11	CD86, CD244, ETS1, ICOS, IL2RB, IL2RG, IRF1, JAK3, PIK3CD, PRF1, PTPRC, TBX21, TYROBP	13
Hematological System Development and Function	quantity	quantity of natural killer T lymphocytes	1,68E-10	CD1D, CD3E, CSF2RB, ETS1, IKZF1, IL2RB, IL2RG, PTPRC, TBX21, VAV1	10
Hematological System Development and Function	quantity	quantity of thymocytes	3,70E-10	CD86, CD244, CD247, CD3E, CTLA4, ETS1, FAS, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1, RUNX3, TOX, TRA@	17
Hematological System Development and Function	quantity	quantity of dendritic cells	5,54E-10	CCL19, CCL21, CCR2, CCR6, CD47, CTLA4, IKZF1, IRF1, IRF4, IRF8, ITGB2, TLR4, TYROBP	13
Hematological System Development and Function	quantity	quantity of intraepithelial T lymphocytes	5,78E-10	CCR6, IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1	7
Hematological System Development and Function	quantity	quantity of neutrophils	3,31E-08	AHR, C1QA, CD1D, CFH, FAS, FCGR1A, ITGB2, JAK3, PLSR1, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B	14
Hematological System Development and Function	quantity	quantity of plasma cells	1,29E-07	ICOS, IL7R, ITGB2, PRDM1, RAC2, TNFRSF1B, TNFSF13B	7
Hematological System Development and Function	quantity	quantity of macrophages	1,07E-06	CCL2, CCR2, CCR6, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, IL12RB1, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4	14
Hematological System Development and Function	hematological process	hematological process	1,26E-43	AHR, APAF1, BCL11B, BCL2A1, BTK, C1QC, CASP1, CBL, CCL4, CCL5, CCL19, CCR2, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, FLI1, GIMAP5, GNA13, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1,	108

Hematologica I System Development and Function	prolifer ation	proliferation of leukocytes	2,92E-42	IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LTF, LYN, MAP4K1, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAB27A, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, STK4, TBX21, TLR4, TLR7, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	88
Hematologica I System Development and Function	prolifer ation	proliferation of mononuclear leukocytes	2,10E-41	BTK, CBL, CCL4, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HCK, HGF, HIF1A, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRDM1, PRKCB, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, VAV1, XCL1	85
Hematologica I System Development and Function	prolifer ation	proliferation of lymphocytes	1,33E-40	BTK, CBL, CCL4, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HCK, HIF1A, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRDM1, PRKCB, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, VAV1, XCL1	84
Hematologica I System Development and Function	prolifer ation	proliferation of T lymphocytes	1,20E-29	CBL, CCL4, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HLA-E, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL2RB, IL2RG, IL7R, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, PIK3CD, PRDM1, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, VAV1, XCL1	64
Hematologica I System Development and Function	prolifer ation	proliferation of B lymphocytes	6,03E-18	BTK, CBL, CCND2, CD86, CD244, CD3E, CD8A, FAS, HCK, HIF1A, IGHM, IGKC, IL2RG, IL7R, IRF4, IRF8, LEF1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRKCB, PTPRC, SASH3, SLAMF7, STAT1, TLR4, TLR7, TNFRSF17, TNFSF13B, VAV1	33
Hematologica I System Development and Function	prolifer ation	proliferation of leukocyte cell lines	2,74E-08	CD28, CD1D, CD3E, CD8A, CLEC7A, CSF1R, CSF2RB, DCK, HCK, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, JAK3, PTGER4, PTPRC, RUNX1, SOCS3, TNFRSF1B	20
Hematologica I System Development and Function	differe ntiation	differentiation of leukocytes	2,18E-37	AHR, APAF1, BCL2A1, C1QC, CCL2, CCL19, CD2, CD28, CD47, CD86, CD1D, CD300A, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RGS10, RUNX1, RUNX2, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	75
Hematologica I System Development and Function	differe ntiation	differentiation of blood cells	1,65E-36	AHR, APAF1, BCL2A1, C1QC, CCL2, CCL19, CD2, CD28, CD47, CD86, CD1D, CD300A, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, FLI1, GIMAP5, HCLS1, HDAC9 (includes EG:9734), HELLS, HGF, HIF1A, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, PLSCR1, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RGS10,	79

				RUNX1, RUNX2, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	
Hematological System Development and Function	differentiation	differentiation of mononuclear leukocytes	8,74E-34	AHR, APAF1, BCL2A1, CCL2, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CSF1R, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	65
Hematological System Development and Function	differentiation	differentiation of lymphocytes	2,36E-32	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	61
Hematological System Development and Function	differentiation	differentiation of T lymphocytes	3,33E-26	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3E, CD8A, CD8B, CTLA4, ETS1, GIMAP5, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, TOX, TRA@, VAV1	48
Hematological System Development and Function	differentiation	differentiation of helper T lymphocytes	3,76E-14	AHR, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, TNFSF13B, VAV1	23
Hematological System Development and Function	differentiation	differentiation of Th2 cells	3,55E-12	CD28, CD86, CTLA4, ICOS, IGHG1, IRF1, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, VAV1	15
Hematological System Development and Function	differentiation	differentiation of Th1 cells	1,08E-08	CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, PIK3CD, STAT1, STAT4, TBX21	13
Hematological System Development and Function	differentiation	differentiation of B lymphocytes	3,90E-08	CXCR4, DUSP5, HDAC9 (includes EG:9734), ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, PIK3CD, POU2AF1, PRDM1, PTPRC, TLR4, TLR7, TNFSF13B	17
Hematological System Development and Function	differentiation	differentiation of thymocytes	1,06E-07	APAF1, CD2, CD28, CD86, CD3E, CD8B, IKZF1, IL2RG, LCP2, TRA@	10
Hematological System Development and Function	differentiation	differentiation of antigen presenting cells	1,36E-07	C1QC, CD47, CSF1R, CSF2RB, DUSP5, GIMAP5, HGF, IKZF1, IRF4, IRF8, ITGB6, LYN, PRDM1, RGS10, SOCS3, TLR4	16
Hematological System Development and Function	differentiation	differentiation of plasma cells	1,68E-06	CXCR4, DUSP5, ICOS, IRF4, POU2AF1, PRDM1, TNFSF13B	7
Hematological System Development and Function	binding	binding of leukocytes	2,71E-25	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD48, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FCGR1A, FCGR2A, FCGR3B, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LTF, LYN, PTPRC, SELPLG, STK4, TLR4, TNC	38
Hematological System Development and Function	binding	binding of mononuclear leukocytes	7,65E-22	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	28
Hematological System Development and Function	binding	binding of lymphocytes	2,04E-20	CCL4, CCL5, CCL19, CCL21, CD2, CD47, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	25
Hematological System Development and Function	binding	binding of T lymphocytes	9,76E-20	CCL4, CCL5, CCL21, CD2, CD47, CD69, CD86, CLEC10A, CTLA4, CXCL9, FAS, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	22

Hematological System Development and Function	binding	binding of phagocytes	2,76E-09	CD2, CD69, CLEC10A, FCGR1A, FCGR2A, FCGR3B, HCK, ITGAL, ITGAM, ITGB2, LYN, PTPRC, SELPLG, TLR4	14
Hematological System Development and Function	binding	binding of red blood cells	1,73E-07	CD2, FCGR2A, FCGR3B, ITGAM, ITGB2, LTF	6
Hematological System Development and Function	binding	binding of leukocyte cell lines	6,48E-07	CD2, CD47, FYB, IGKC, ITGAL, ITGB2, LYN, STK4, TNC	9
Hematological System Development and Function	binding	binding of granulocytes	6,53E-07	CCL5, FCGR2A, FCGR3B, HCK, ITGAM, ITGB2, LTF, LYN, SELPLG, TLR4	10
Hematological System Development and Function	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Hematological System Development and Function	cell death	cell death of natural killer cells	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6
Hematological System Development and Function	cell movement	cell movement of leukocytes	1,39E-20	CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD86, CFH, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LYN, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	56
Hematological System Development and Function	cell movement	cell movement of phagocytes	4,85E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CFH, CORO1A, CSF1R, CX3CR1, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, HIF1A, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	36
Hematological System Development and Function	cell movement	cell movement of myeloid cells	9,97E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, PTPRC, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	35
Hematological System Development and Function	cell movement	cell movement of granulocytes	5,63E-15	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	34
Hematological System Development and Function	cell movement	cell movement of mononuclear leukocytes	2,05E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD47, CD86, CTLA4, CTSS, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGAL, ITGAX, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Hematological System Development and Function	cell movement	cell movement of neutrophils	2,82E-13	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD28, CD47, CFH, CORO1A, CXCL6, FAS, FCER1G, FCGR2A, HCK, HGF, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	28
Hematological System Development and Function	cell movement	cell movement of lymphocytes	1,59E-12	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PTGDR, PTGES, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	28
Hematological System Development and Function	cell movement	cell movement of antigen presenting cells	8,60E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD86, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, TLR4	21
Hematological System Development and Function	cell movement	cell movement of T lymphocytes	8,64E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, ITGB2, ITK, PRF1, SELPLG, SOCS3, TLR4, XCL1	20
Hematological System	cell movement	cell movement of B	5,22E-08	CCL19, CCL21, CCR2, CXCL9, PIK3CD, POU2AF1, RAC2, RGS1, SELPLG, TLR4	10

Development and Function Hematological System	ent	lymphocytes				
Development and Function Hematological System	cell movement	cell movement of macrophages	6,26E-08	CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGES, RAC2	16	
Development and Function Hematological System	cell movement	cell movement of memory T lymphocytes	1,29E-07	CCL2, CCL5, CCL19, CCL21, CD28, CXCL9, ITGB2	7	
Development and Function Hematological System	cell movement	cell movement of eosinophils	1,67E-07	CCL2, CCL5, CCL21, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK, RUNX3	13	
Development and Function Hematological System	cell movement	cell movement of mononuclear cells	1,63E-06	CCL2, CCL4, CCR2, CCR5, CIITA, ICOS, JAK3, NFKBIZ	8	
Development and Function Hematological System	interaction	interaction of T lymphocytes	2,57E-19	CCL4, CCL5, CCL21, CCR5, CD2, CD28, CD47, CD69, CD86, CLEC10A, CTLA4, CXCL9, FAS, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	24	
Development and Function Hematological System	adhesion	adhesion of leukocytes	5,56E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCGR2A, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, VAV1	34	
Development and Function Hematological System	adhesion	adhesion of mononuclear leukocytes	1,35E-16	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELPLG, TLR4, VAV1	26	
Development and Function Hematological System	adhesion	adhesion of lymphocytes	5,88E-14	BTK, CCL2, CCL4, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELPLG, TLR4	21	
Development and Function Hematological System	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17	
Development and Function Hematological System	adhesion	adhesion of neutrophils	4,19E-08	CORO1A, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	11	
Development and Function Hematological System	adhesion	adhesion of granulocytes	3,07E-07	CORO1A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	12	
Development and Function Hematological System	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32	
Development and Function Hematological System	function	function of lymphocytes	3,81E-16	AHR, CD28, CD86, CTLA4, FCGR2A, ICOS, IL10RA, JAK3, KLRK1, LAX1, PIK3CD, PRF1, SH2D1A, STAT4, TLR4, TLR8 (includes EG:51311), TNFSF13B, TRA@, VAV1	19	
Development and Function Hematological System	function	function of T lymphocytes	1,75E-11	CD28, CTLA4, ICOS, IL10RA, JAK3, LAX1, PIK3CD, PRF1, SH2D1A, STAT4, TLR4, TLR8 (includes EG:51311), TRA@, VAV1	14	
Development and Function Hematological System	expansion	expansion of lymphocytes	2,02E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	23	
Development and Function Hematological System	expansion	expansion of T lymphocytes	6,68E-15	AHR, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	21	

and Function

Hematological System Development and Function	growth	growth of lymphocytes	4,93E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, HIF1A, ICOS, IGHM, IL2RB, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	25
Hematological System Development and Function	survival	survival of lymphocytes	7,96E-15	BTK, CD28, CD86, CD3E, CD8A, CHEK2, FAS, HCK, ICOS, IL2RB, IL2RG, JAK3, LAX1, LEF1, NCF2, PIK3CD, PRKCB, PTPRC, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@	24
Hematological System Development and Function	survival	survival of T lymphocytes	5,54E-11	CD28, CD86, CD3E, CD8A, CHEK2, FAS, ICOS, IL2RB, IL2RG, JAK3, LAX1, PTPRC, STAT1, STAT4, TNFRSF1B, TRA@	16
Hematological System Development and Function	survival	survival of mast cells	1,20E-08	BCL2A1, BTK, CD300A, FCER1A, FCER1G, LAX1, LYN, RAC2	8
Hematological System Development and Function	survival	survival of neutrophils	8,80E-07	BCL2A1, CCL4, CSF2RB, FAS, HIF1A, LYN	6
Hematological System Development and Function	homing	homing of leukocytes	2,52E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IGHG1, IL12RB1, ITGAL, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Hematological System Development and Function	homing	homing of lymphocytes	3,18E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, PIK3CD, PTGDR, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	19
Hematological System Development and Function	homing	homing of mononuclear leukocytes	3,40E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, ITGAL, PIK3CD, PRKCB, PTGDR, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	22
Hematological System Development and Function	homing	homing of B lymphocytes	1,83E-07	CCL19, CCL21, CCR2, CXCL9, PIK3CD, RAC2, RGS1, TLR4	8
Hematological System Development and Function	recruitment	recruitment of leukocytes	2,05E-13	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A, HIF1A, IGHG1, ITGAM, ITGB2, LYZ, PIK3CD, SELPLG, TLR4, TLR7	26
Hematological System Development and Function	recruitment	recruitment of T lymphocytes	7,48E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CXCL9, CXCR4, ETS1, FCER1A	12
Hematological System Development and Function	recruitment	recruitment of phagocytes	1,94E-09	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD28, CD8A, CX3CR1, ETS1, ITGAM, ITGB2, LYZ, PIK3CD, TLR4	17
Hematological System Development and Function	recruitment	recruitment of lymphocytes	3,35E-09	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A	13
Hematological System Development and Function	recruitment	recruitment of antigen presenting cells	1,07E-08	C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	12
Hematological System Development and Function	recruitment	recruitment of granulocytes	1,10E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, CXCL9, IGHG1, ITGAM, LYZ, PIK3CD, TLR4	16
Hematological System Development and Function	recruitment	recruitment of neutrophils	2,45E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, ITGAM, LYZ, PIK3CD, TLR4	14

Hematologica I System Development and Function	recruit ment	recruitment of macrophages	3,06E-07	C3AR1, CCL2, CCL4, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	10
Hematologica I System Development and Function	chemot axis	chemotaxis of leukocytes	2,49E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	32
Hematologica I System Development and Function	chemot axis	chemotaxis of mononuclear leukocytes	1,60E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, ITGAL, PRKCB, PTGDR, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	19
Hematologica I System Development and Function	chemot axis	chemotaxis of lymphocytes	1,63E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, PTGDR, RAC2, RGS1, SOCS3, TLR4, XCL1	16
Hematologica I System Development and Function	chemot axis	chemotaxis of phagocytes	2,48E-08	CCL2, CCL4, CCL5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, IL12RB1, ITGAM, ITGB2, PIK3CD, RAC2, XCL1	17
Hematologica I System Development and Function	chemot axis	chemotaxis of myeloid cells	1,27E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, PTPRC, RAC2, XCL1	15
Hematologica I System Development and Function	chemot axis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13
Hematologica I System Development and Function	chemot axis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7
Hematologica I System Development and Function	respon se	response of lymphocytes	2,46E-12	CCL19, CCL21, CD28, CD86, CD1D, CD3E, CTLA4, CXCL9, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21	19
Hematologica I System Development and Function	respon se	T cell response	2,11E-11	CCL19, CCL21, CD28, CD86, CD1D, CD3E, CTLA4, CXCL9, ICOS, IL10RA, IL12RB1, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21	17
Hematologica I System Development and Function	generat ion	generation of lymphocytes	1,15E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	17
Hematologica I System Development and Function	generat ion	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15
Hematologica I System Development and Function	generat ion	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7
Hematologica I System Development and Function	generat ion	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5
Hematologica I System Development and Function	selectio n	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12
Hematologica I System Development and Function	accumu lation	accumulation of leukocytes	1,48E-11	CCL2, CCL5, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CTLA4, CX3CR1, CXCL9, CYBB, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, RUNX3, SELPLG, SH2D2A, TLR4	24
Hematologica	accumu	accumulation	2,17E-10	CCL5, CCL21, CCR5, CD28, CD86, CD1D, CTLA4, FAS, ICOS, IL10RA, IL2RG,	15

I System Development and Function	lation	of lymphocytes		ITGAL, ITGB2, RUNX3, SH2D2A	
Hematologica I System Development and Function	accumulation	accumulation of T lymphocytes	4,33E-10	CCL5, CCL21, CCR5, CD28, CD86, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A	13
Hematologica I System Development and Function	accumulation	accumulation of macrophages	8,02E-07	CCL2, CCL5, CCR2, CD28, CX3CR1, FAS, ITGAM, ITGAX, TLR4	9
Hematologica I System Development and Function	transmigration	transmigration of leukocytes	7,97E-11	CCL2, CCL4, CCL5, CCL19, CD28, CD47, CD86, CTSS, CXCL9, CXCR4, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	17
Hematologica I System Development and Function	transmigration	transmigration of mononuclear leukocytes	1,71E-08	CCL2, CCL4, CCL5, CD28, CD47, CD86, CTSS, CXCR4, ITGAL, ITGAX, ITGB2	11
Hematologica I System Development and Function	transmigration	transmigration of granulocytes	6,48E-07	CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	9
Hematologica I System Development and Function	transmigration	transmigration of neutrophils	7,77E-07	CD47, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	8
Hematologica I System Development and Function	phagocytosis	phagocytosis of myeloid cells	6,32E-10	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	10
Hematologica I System Development and Function	phagocytosis	phagocytosis of neutrophils	4,30E-09	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	9
Hematologica I System Development and Function	phagocytosis	phagocytosis of red blood cells	4,43E-07	FCGR1A, FCGR2A, HCK, ITGAM, ITGB2, LYN, RAC2	7
Hematologica I System Development and Function	activation-induced cell death	activation-induced cell death of T lymphocytes	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1	10
Hematologica I System Development and Function	aggregation	aggregation of blood cells	5,16E-09	BTK, CCL5, CD47, CXCL9, FCER1G, FCGR2A, GNA13, HCLS1, HIF1A, IGHM, ITGAL, ITGAM, ITGB2, LCK, LCP2, LYN, PTGER4, SELPLG, TLR4, VAV1	20
Hematologica I System Development and Function	aggregation	aggregation of leukocyte cell lines	1,99E-06	CD2, CD47, ITGAL, ITGAM, ITGB2	5
Hematologica I System Development and Function	attraction	attraction of T lymphocytes	9,44E-09	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CXCL9, TLR4, XCL1	9
Hematologica I System Development and Function	infiltration	infiltration by neutrophils	9,60E-09	CASP1, CCL4, CCL21, CCR2, CFH, FAS, FCER1G, HGF, ITGAL, ITGAM, ITGB2, RAC2, SOCS3, TLR4, TNFRSF1B, XCL1	16
Hematologica I System Development and Function	infiltration	infiltration of leukocytes	3,61E-08	CCL2, CCL4, CCL19, CCL21, CCR2, CCR5, CD86, CSF1R, CTLA4, FAS, HIF1A, ITGAM, ITK, PRF1, PTGES, SELPLG, STAT1, TLR4, TNFRSF1B, XCL1	20
Hematologica I System Development and Function	infiltration	infiltration by	1,38E-07	CCL19, CCL21, CCR2, CCR5, CD86, CTLA4, FAS, ITK, PRF1, SELPLG, XCL1	11

I System Development and Function	ion	T lymphocytes				
Hematologica I System Development and Function	polarization	polarization of T lymphocytes	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1	11	
Hematologica I System Development and Function	maturati on	maturation of lymphocytes	1,80E-08	AHR, BTK, CD28, CD86, CD247, HIF1A, IGHM, ITK, LCK, PTPRC, RUNX1, RUNX3, TBX21, TNFSF13B, VAV1	15	
Hematologica I System Development and Function	chemo attracti on	chemoattracti on of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7	
Hematologica I System Development and Function	chemo attracti on	chemoattracti on of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5	
Hematologica I System Development and Function	trafficki ng	trafficking of leukocytes	4,51E-07	CCL4, CCL5, CCL19, CCR2, CCR5, ITGB2, TLR4, TNFRSF1B	8	
Hematologica I System Development and Function	extrava sation	extravasati on of antigen presenting cells	4,61E-07	CCL2, CCL4, CCL5, CCR2, CCR5	5	
Hematologica I System Development and Function	signalin g	signaling of T lymphocytes	5,39E-07	IL2RB, IL2RG, ITGB2, LCP2, PIK3CD, SH2D1A	6	
Hematologica I System Development and Function	presen ce	presence of leukocytes	6,36E-07	CCL19, CCL21, CCR6, CXCR4, HCK, ITGAM, JAK3	7	
Hematologica I System Development and Function	presen ce	presence of mononuclear leukocytes	8,80E-07	CCL19, CCL21, CCR6, CXCR4, ITGAM, JAK3	6	
Hematologica I System Development and Function	stimula ti on	stimulation of T lymphocytes	6,53E-07	CD2, CD28, CD86, CD1D, FAS, ICOS, KLRD1, KLRK1, PTPRC, TNFSF13B	10	
Hematopoiesi s	develo pment	development of lymphocytes	3,56E-48	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	94	
Hematopoiesi s	develo pment	development of leukocytes	7,69E-48	AHR, APAF1, BCL11B, BCL2A1, BTK, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CTLA4, CXCR4, DCK, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	95	
Hematopoiesi s	develo pment	T cell development	2,65E-45	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B,	88	

				CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	
Hematopoiesis	development	development of thymocytes	4,63E-12	CD3D, CD3E, CD3G, CXCR4, ETS1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCP2, PTPRC, SIT1, TRA@, TRAT1	16
Hematopoiesis	development	development of helper T lymphocytes	8,61E-11	AHR, CASP1, CD28, CD86, ICOS, IL12RB1, IRF1, ITGB2, ITK, SOCS3, STAT1, STAT4, TBX21	13
Hematopoiesis	development	development of B lymphocytes	3,12E-10	BTK, CBL, CD69, CXCR4, DCK, HIF1A, IGHM, IL2RG, IL7R, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, TNFSF13B, VAV1	16
Hematopoiesis	development	arrest in development of lymphocytes	1,73E-07	BTK, CBL, CD3D, CXCR4, LCK, LCP2	6
Hematopoiesis	development	NK cell development	6,40E-07	CD2, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	11
Hematopoiesis	development	arrest in development of T lymphocytes	1,02E-06	CBL, CD3D, CXCR4, LCK, LCP2	5
Hematopoiesis	development	development of gamma-delta T lymphocytes	1,76E-06	CD3D, CD3G, IL2RG, JAK3	4
Hematopoiesis	hematopoiesis	hematopoiesis	1,07E-46	AHR, APAF1, BCL11B, BCL2A1, BTK, C1QC, CASP1, CBL, CCL4, CCL5, CCL19, CCR2, CCR5, CD2, CD28, CD47, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, DOCK2, DUSP5, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HELLS, HIF1A, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, LTF, LYN, MAP4K1, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, STK4, TBX21, TLR4, TLR7, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	105
Hematopoiesis	differentiation	differentiation of leukocytes	2,18E-37	AHR, APAF1, BCL2A1, C1QC, CCL2, CCL19, CD2, CD28, CD47, CD86, CD1D, CD300A, CD3D, CD3E, CD8A, CD8B, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LEF1, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RGS10, RUNX1, RUNX2, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	75
Hematopoiesis	differentiation	differentiation of mononuclear leukocytes	8,74E-34	AHR, APAF1, BCL2A1, CCL2, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CSF1R, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HGF, HLA-DOA, HLA-DQA1, ICOS, IFI16, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	65
Hematopoiesis	differentiation	differentiation of lymphocytes	2,36E-32	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3D, CD3E, CD8A, CD8B, CTLA4, CXCR4, DOCK2, DUSP5, ETS1, FAS, GIMAP5, HDAC9 (includes EG:9734), HELLS, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, POU2AF1, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TNFSF13B, TOX, TRA@, TRAT1, VAV1	61

Hematopoiesis	differentiation	differentiation of T lymphocytes	3,33E-26	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3E, CD8A, CD8B, CTLA4, ETS1, GIMAP5, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, TOX, TRA@, VAV1	48
Hematopoiesis	differentiation	differentiation of helper T lymphocytes	3,76E-14	AHR, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, TNFSF13B, VAV1	23
Hematopoiesis	differentiation	differentiation of Th2 cells	3,55E-12	CD28, CD86, CTLA4, ICOS, IGHG1, IRF1, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, VAV1	15
Hematopoiesis	differentiation	differentiation of Th1 cells	1,08E-08	CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, PIK3CD, STAT1, STAT4, TBX21	13
Hematopoiesis	differentiation	differentiation of B lymphocytes	3,90E-08	CXCR4, DUSP5, HDAC9 (includes EG:9734), ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, PIK3CD, POU2AF1, PRDM1, PTPRC, TLR4, TLR7, TNFSF13B	17
Hematopoiesis	differentiation	differentiation of thymocytes	1,06E-07	APAF1, CD2, CD28, CD86, CD3E, CD8B, IKZF1, IL2RG, LCP2, TRA@	10
Hematopoiesis	differentiation	differentiation of antigen presenting cells	1,36E-07	C1QC, CD47, CSF1R, CSF2RB, DUSP5, GIMAP5, HGF, IKZF1, IRF4, IRF8, ITGB6, LYN, PRDM1, RGS10, SOCS3, TLR4	16
Hematopoiesis	differentiation	differentiation of plasma cells	1,68E-06	CXCR4, DUSP5, ICOS, IRF4, POU2AF1, PRDM1, TNFSF13B	7
Hematopoiesis	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Hematopoiesis	cell death	cell death of natural killer cells	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6
Hematopoiesis	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32
Hematopoiesis	selection	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12
Hematopoiesis	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15
Hematopoiesis	generation	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7
Hematopoiesis	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5
Hematopoiesis	migration	migration of bone marrow cells	1,12E-10	CCL4, CCL5, CD47, CXCL6, CXCL9, CXCR4, FAS, FHL2, HCK, HIF1A, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	20
Hematopoiesis	migration	migration of granulocytes	7,42E-09	CCL4, CCL5, CD47, CXCL6, CXCL9, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	17
Hematopoiesis	migration	migration of neutrophils	3,31E-08	CCL5, CD47, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, TLR4	14
Hematopoiesis	quantity	quantity of thymocytes	3,70E-10	CD86, CD244, CD247, CD3E, CTLA4, ETS1, FAS, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1, RUNX3, TOX, TRA@	17
Hematopoiesis	activation-induced cell death	activation-induced cell death of T lymphocytes	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1	10
Hematopoiesis	polarization	polarization of T lymphocytes	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1	11
Hematopoiesis	binding	binding of red blood cells	1,73E-07	CD2, FCGR2A, FCGR3B, ITGAM, ITGB2, LTF	6
Hematopoiesis	cell movement	cell movement of bone marrow cells	4,66E-07	CCL2, CCL4, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	11

Hematopoiesis	transmigration	transmigration of granulocytes	6,48E-07	CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	9
Hematopoiesis	transmigration	transmigration of neutrophils	7,77E-07	CD47, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	8
Cell-mediated Immune Response	homeostasis	T cell homeostasis	5,21E-46	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CORO1A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	89
Cell-mediated Immune Response	development	T cell development	2,65E-45	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	88
Cell-mediated Immune Response	development	development of thymocytes	4,63E-12	CD3D, CD3E, CD3G, CXCR4, ETS1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCP2, PTPRC, SIT1, TRA@, TRAT1	16
Cell-mediated Immune Response	development	development of helper T lymphocytes	8,61E-11	AHR, CASP1, CD28, CD86, ICOS, IL12RB1, IRF1, ITGB2, ITK, SOCS3, STAT1, STAT4, TBX21	13
Cell-mediated Immune Response	development	NK cell development	6,40E-07	CD2, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	11
Cell-mediated Immune Response	development	arrest in development of T lymphocytes	1,02E-06	CBL, CD3D, CXCR4, LCK, LCP2	5
Cell-mediated Immune Response	development	development of gamma-delta T lymphocytes	1,76E-06	CD3D, CD3G, IL2RG, JAK3	4
Cell-mediated Immune Response	differentiation	differentiation of T lymphocytes	3,33E-26	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3E, CD8A, CD8B, CTLA4, ETS1, GIMAP5, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, TOX, TRA@, VAV1	48
Cell-mediated Immune Response	differentiation	differentiation of helper T lymphocytes	3,76E-14	AHR, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, TNFSF13B, VAV1	23
Cell-mediated Immune Response	differentiation	differentiation of Th2 cells	3,55E-12	CD28, CD86, CTLA4, ICOS, IGHG1, IRF1, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, VAV1	15
Cell-mediated Immune Response	differentiation	differentiation of Th1 cells	1,08E-08	CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, PIK3CD, STAT1, STAT4, TBX21	13
Cell-mediated Immune Response	differentiation	differentiation of thymocytes	1,06E-07	APAF1, CD2, CD28, CD86, CD3E, CD8B, IKZF1, IL2RG, LCP2, TRA@	10
Cell-mediated Immune Response	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Cell-mediated	cell	cell death of	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6

Immune Response	death	natural killer cells				
Cell-mediated Immune Response	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32	
Cell-mediated Immune Response	migration	T cell migration	2,66E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD69, CD86, CTLA4, CXCL9, CXCR4, DOCK2, FAS, FYB, HGF, ICOS, ITGB2, ITK, LCK, PRF1, SELPLG, SOCS3, TLR4, XCL1	27	
Cell-mediated Immune Response	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17	
Cell-mediated Immune Response	selection	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12	
Cell-mediated Immune Response	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15	
Cell-mediated Immune Response	generation	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7	
Cell-mediated Immune Response	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5	
Cell-mediated Immune Response	recruitment	recruitment of T lymphocytes	7,48E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CXCL9, CXCR4, ETS1, FCER1A	12	
Cell-mediated Immune Response	cell movement	cell movement of T lymphocytes	8,64E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, ITGB2, ITK, PRF1, SELPLG, SOCS3, TLR4, XCL1	20	
Cell-mediated Immune Response	cell movement	cell movement of memory T lymphocytes	1,29E-07	CCL2, CCL5, CCL19, CCL21, CD28, CXCL9, ITGB2	7	
Cell-mediated Immune Response	activation-induced cell death	activation-induced cell death of T lymphocytes	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1	10	
Cell-mediated Immune Response	polarization	polarization of T lymphocytes	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1	11	
Cell-mediated Immune Response	infiltration	infiltration by T lymphocytes	1,38E-07	CCL19, CCL21, CCR2, CCR5, CD86, CTLA4, FAS, ITK, PRF1, SELPLG, XCL1	11	
Cellular Function and Maintenance	homeostasis	T cell homeostasis	5,21E-46	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CORO1A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	89	
Cellular Function and Maintenance	homeostasis	homeostasis of leukocytes	6,67E-46	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CORO1A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, TYROBP, VAV1, XCL1	90	
Cellular Function and Maintenance	development	T cell	2,65E-45	AHR, APAF1, BCL11B, BCL2A1, CASP1, CBL, CCL4, CCL5, CCL19, CCR5,	88	

Function and Maintenance	development	development		CD2, CD28, CD47, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, DOCK2, EOMES, ETS1, FAS, FCGR1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, LCP2, LEF1, MAP4K1, PIK3CD, PRDM1, PRF1, PSMB9, PTPN22, PTPRC, RAC2, RASSF5, RUNX1, RUNX2, RUNX3, SH2D1A, SH2D2A, SIT1, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRAT1, VAV1, XCL1	
Cellular Function and Maintenance	development	development of thymocytes	4,63E-12	CD3D, CD3E, CD3G, CXCR4, ETS1, IL2RB, IL2RG, IL7R, IRF1, LAT2, LAX1, LCP2, PTPRC, SIT1, TRA@, TRAT1	16
Cellular Function and Maintenance	development	development of helper T lymphocytes	8,61E-11	AHR, CASP1, CD28, CD86, ICOS, IL12RB1, IRF1, ITGB2, ITK, SOCS3, STAT1, STAT4, TBX21	13
Cellular Function and Maintenance	development	NK cell development	6,40E-07	CD2, CD1D, EOMES, FAS, FCGR2A, IKZF1, IRF1, ITGAL, JAK3, KLRD1, TBX21	11
Cellular Function and Maintenance	development	arrest in development of T lymphocytes	1,02E-06	CBL, CD3D, CXCR4, LCK, LCP2	5
Cellular Function and Maintenance	development	development of gamma-delta T lymphocytes	1,76E-06	CD3D, CD3G, IL2RG, JAK3	4
Cellular Function and Maintenance	differentiation	differentiation of T lymphocytes	3,33E-26	AHR, APAF1, BCL2A1, CCL19, CD2, CD28, CD86, CD1D, CD3E, CD8A, CD8B, CTLA4, ETS1, GIMAP5, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LEF1, PIK3CD, PRDM1, PTPN22, PTPRC, RASSF5, RUNX1, SH2D1A, SOCS3, STAT1, STAT4, TBX21, TNFSF13B, TOX, TRA@, VAV1	48
Cellular Function and Maintenance	differentiation	differentiation of helper T lymphocytes	3,76E-14	AHR, CD28, CD86, CTLA4, ETS1, ICOS, IGHG1, IL12RB1, IL2RB, IRF1, IRF8, ITGAL, ITGB2, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, TNFSF13B, VAV1	23
Cellular Function and Maintenance	differentiation	differentiation of Th2 cells	3,55E-12	CD28, CD86, CTLA4, ICOS, IGHG1, IRF1, ITK, JAK3, PIK3CD, RUNX1, SH2D1A, STAT1, STAT4, TBX21, VAV1	15
Cellular Function and Maintenance	differentiation	differentiation of Th1 cells	1,08E-08	CD86, CTLA4, ICOS, IL12RB1, IRF1, IRF8, ITGAL, ITGB2, JAK3, PIK3CD, STAT1, STAT4, TBX21	13
Cellular Function and Maintenance	differentiation	differentiation of thymocytes	1,06E-07	APAF1, CD2, CD28, CD86, CD3E, CD8B, IKZF1, IL2RG, LCP2, TRA@	10
Cellular Function and Maintenance	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Cellular Function and Maintenance	cell death	cell death of natural killer cells	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6
Cellular Function and Maintenance	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32
Cellular Function and Maintenance	function	function of lymphocytes	3,81E-16	AHR, CD28, CD86, CTLA4, FCGR2A, ICOS, IL10RA, JAK3, KLRK1, LAX1, PIK3CD, PRF1, SH2D1A, STAT4, TLR4, TLR8 (includes EG:51311), TNFSF13B, TRA@, VAV1	19
Cellular Function and Maintenance	function	function of leukocytes	2,06E-14	AHR, CD28, CD86, CTLA4, FCGR2A, ICOS, IL10RA, IRF1, JAK3, KLRK1, LAX1, PIK3CD, PRF1, SH2D1A, STAT4, TLR4, TLR8 (includes EG:51311), TNFSF13B, TRA@, VAV1	20
Cellular Function and Maintenance	function	function of cells	1,56E-12	AHR, CD28, CD47, CD86, CTLA4, FCGR2A, ICOS, IL10RA, IRF1, JAK3, KLRK1, LAX1, LTF, PIK3CD, PRF1, SH2D1A, STAT4, TBX21, TLR4, TLR8 (includes EG:51311), TNFSF13B, TRA@, VAV1	23
Cellular Function and Maintenance	function	function of T	1,75E-11	CD28, CTLA4, ICOS, IL10RA, JAK3, LAX1, PIK3CD, PRF1, SH2D1A, STAT4,	14

Function and Maintenance Cellular	n	lymphocytes		TLR4, TLR8 (includes EG:51311), TRA@, VAV1	
Function and Maintenance Cellular	function	function of normal cells	2,24E-11	AHR, CD28, CD47, CD86, CTLA4, FCGR2A, ICOS, IL10RA, IRF1, JAK3, KLRK1, LAX1, PIK3CD, PRF1, SH2D1A, STAT4, TLR4, TLR8 (includes EG:51311), TNFSF13B, TRA@, VAV1	21
Function and Maintenance Cellular	phagocytosis	phagocytosis	4,72E-13	C1QA, CD47, CLEC7A, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, ICOS, IGHG1, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	24
Function and Maintenance Cellular	phagocytosis	phagocytosis of cells	1,68E-11	C1QA, CD47, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	21
Function and Maintenance Cellular	phagocytosis	phagocytosis of blood cells	2,67E-10	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, RAC2, SELPLG, TLR4	15
Function and Maintenance Cellular	phagocytosis	phagocytosis of myeloid cells	6,32E-10	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	10
Function and Maintenance Cellular	phagocytosis	phagocytosis of eukaryotic cells	1,94E-09	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	17
Function and Maintenance Cellular	phagocytosis	phagocytosis of neutrophils	4,30E-09	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	9
Function and Maintenance Cellular	phagocytosis	phagocytosis of leukocytes	1,66E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	11
Function and Maintenance Cellular	phagocytosis	phagocytosis of red blood cells	4,43E-07	FCGR1A, FCGR2A, HCK, ITGAM, ITGB2, LYN, RAC2	7
Function and Maintenance Cellular	phagocytosis	phagocytosis of phagocytes	6,53E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	10
Function and Maintenance Cellular	selection	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12
Function and Maintenance Cellular	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15
Function and Maintenance Cellular	generation	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7
Function and Maintenance Cellular	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5
Function and Maintenance Cellular	engulfment	engulfment of cells	8,55E-11	C1QA, CBL, CD47, CD163, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	23
Function and Maintenance Cellular	respiratory burst	respiratory burst of leukocytes	1,15E-10	CCL2, FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	13
Function and Maintenance Cellular	respiratory burst	respiratory burst of myeloid cells	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	11
Function and Maintenance Cellular	respiratory burst	respiratory burst of phagocytes	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	11
Function and Maintenance Cellular	respiratory burst	respiratory burst of neutrophils	7,59E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	10
Function and Maintenance Cellular	activation-induced cell death	activation-induced cell death of T lymphocytes	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1	10
Cellular	polarization	polarization of	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21,	11

Function and Maintenance Cellular Function and Maintenance Cellular Function and Maintenance Cellular Function and Maintenance Cellular	ation presen ce presen ce presen ce	T lymphocytes presence of normal cells presence of blood cells presence of leukocytes presence of mononuclear leukocytes		VAV1 2,50E-07 2,50E-07 6,36E-07 8,80E-07	CCL19, CCL21, CCR6, CXCR4, FCGR2A, HCK, HGF, ITGAM, JAK3, SOCS3 CCL19, CCL21, CCR6, CXCR4, FCGR2A, HCK, ITGAM, JAK3 CCL19, CCL21, CCR6, CXCR4, HCK, ITGAM, JAK3 CCL19, CCL21, CCR6, CXCR4, ITGAM, JAK3	10 8 7 6
Cell-To-Cell Signaling and Interaction	activati on	activation of leukocytes	1,47E-45	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	86	
Cell-To-Cell Signaling and Interaction	activati on	activation of cells	6,05E-44	ACSL5, BCL2A1, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR6, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GNA13, GZMA, GZMB, HCK, HGF, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP, VAV1	101	
Cell-To-Cell Signaling and Interaction	activati on	activation of blood cells	6,41E-44	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, CXCR4, CYBB, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GNA13, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	87	
Cell-To-Cell Signaling and Interaction	activati on	activation of normal cells	5,05E-43	BCL2A1, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR6, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GNA13, GZMA, GZMB, HCK, HGF, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	95	
Cell-To-Cell Signaling and Interaction	activati on	activation of eukaryotic cells	4,71E-42	ACSL5, BCL2A1, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR6, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GNA13, GZMA, GZMB, HCK, HGF, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4,	97	

Cell-To-Cell Signaling and Interaction	activation	activation of mononuclear leukocytes	1,22E-39	TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP, VAV1	69
Cell-To-Cell Signaling and Interaction	activation	activation of lymphocytes	3,94E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	67
Cell-To-Cell Signaling and Interaction	activation	activation of T lymphocytes	3,31E-31	C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, PIK3CD, PRF1, PTPRC, SIRPG, SIT1, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF1B, TYROBP, VAV1	52
Cell-To-Cell Signaling and Interaction	activation	activation of antigen presenting cells	1,93E-12	CCL2, CCL4, CCL5, CD86, CD1D, CSF1R, FAS, FCER1G, FCGR1A, FCGR2A, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, ITGB6, LTF, PSMB9, PTGES, STAT1, STAT4, TLR4, TLR7, TNFRSF1B	25
Cell-To-Cell Signaling and Interaction	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Cell-To-Cell Signaling and Interaction	activation	activation of natural killer cells	3,15E-10	CCL5, CD2, CD28, CD244, CD1D, FCGR2A, IL12RB1, IL2RB, ITGAL, ITGB2, KLRD1, KLRK1, LTF, PRF1, SLAMF6, STAT4, TYROBP	17
Cell-To-Cell Signaling and Interaction	activation	activation of mast cells	1,71E-08	CCL5, CCR2, CD48, CD300A, FCER1G, FCGR2A, FYB, ITGAM, LCP2, TLR7, TLR8 (includes EG:51311)	11
Cell-To-Cell Signaling and Interaction	activation	activation of cytotoxic T cells	8,02E-07	CCR2, CD28, CD86, CD247, CTLA4, FAS, GZMA, GZMB, PRF1	9
Cell-To-Cell Signaling and Interaction	binding	binding of leukocytes	2,71E-25	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD48, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FCGR1A, FCGR2A, FCGR3B, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LTF, LYN, PTPRC, SELPLG, STK4, TLR4, TNC	38
Cell-To-Cell Signaling and Interaction	binding	binding of blood cells	1,14E-23	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FCGR1A, FCGR2A, FCGR3B, FYB, HCK, HGF, ICOS, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LTF, LYN, PTPRC, SELPLG, STK4, TLR4, TNC	40
Cell-To-Cell Signaling and Interaction	binding	binding of mononuclear leukocytes	7,65E-22	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	28
Cell-To-Cell Signaling and Interaction	binding	binding of lymphocytes	2,04E-20	CCL4, CCL5, CCL19, CCL21, CD2, CD47, CD69, CD86, CD3E, CLEC10A, CTLA4, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	25
Cell-To-Cell Signaling and Interaction	binding	binding of T lymphocytes	9,76E-20	CCL4, CCL5, CCL21, CD2, CD47, CD69, CD86, CLEC10A, CTLA4, CXCL9, FAS, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	22
Cell-To-Cell Signaling and Interaction	binding	binding of cells	1,53E-17	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD28, CD47, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CLEC7A, CTLA4, CXCL9, CXCR4, FAS, FCGR1A, FCGR2A, FCGR3B, FHL2, FYB, GZMB, HCK, HGF, ICOS, IGKC, IL2RG, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LTF, LY96, LYN, PLD1, PTPRC, SELPLG, STK4, TLR4, TNC, TNFRSF17	51
Cell-To-Cell Signaling and Interaction	binding	binding of eukaryotic cells	6,45E-16	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD47, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CLEC7A, CTLA4, CXCL9, CXCR4, FAS, FCGR1A, FCGR2A, FCGR3B, FHL2, FYB, HCK, HGF, ICOS, IGKC, IL2RG,	47

				IRF8, ITGAL, ITGAM, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LTF, LYN, PLD1, PTPRC, SELPLG, STK4, TLR4, TNC	
Cell-To-Cell Signaling and Interaction	binding	binding of cell lines	1,08E-09	CBL, CCR5, CD2, CD47, CD48, CLEC7A, CXCL9, CXCR4, FAS, FCGR2A, FHL2, FYB, HGF, IGKC, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, KLRK1, LCK, LTF, LYN, PLD1, SELPLG, STK4, TLR4, TNC	28
Cell-To-Cell Signaling and Interaction	binding	binding of leukemia cell lines	1,41E-09	CCR5, CD47, CXCR4, FAS, FYB, ITGAL, ITGAM, ITGB2, KLRK1, LCK, PLD1, SELPLG, TNC	13
Cell-To-Cell Signaling and Interaction	binding	binding of phagocytes	2,76E-09	CD2, CD69, CLEC10A, FCGR1A, FCGR2A, FCGR3B, HCK, ITGAL, ITGAM, ITGB2, LYN, PTPRC, SELPLG, TLR4	14
Cell-To-Cell Signaling and Interaction	binding	binding of tumor cell lines	7,04E-09	CBL, CCR5, CD47, CLEC7A, CXCL9, CXCR4, FAS, FCGR2A, FYB, HGF, ITGAL, ITGAM, ITGB2, KLRK1, LCK, LTF, PLD1, SELPLG, TLR4, TNC	20
Cell-To-Cell Signaling and Interaction	binding	binding of red blood cells	1,73E-07	CD2, FCGR2A, FCGR3B, ITGAM, ITGB2, LTF	6
Cell-To-Cell Signaling and Interaction	binding	binding of lymphatic system cells	5,47E-07	CCL5, CD47, FCGR2A, FCGR3B, HCK, ITGAM, ITGB2, LTF, LYN, SELPLG, TLR4	11
Cell-To-Cell Signaling and Interaction	binding	binding of leukocyte cell lines	6,48E-07	CD2, CD47, FYB, IGKC, ITGAL, ITGB2, LYN, STK4, TNC	9
Cell-To-Cell Signaling and Interaction	binding	binding of granulocytes	6,53E-07	CCL5, FCGR2A, FCGR3B, HCK, ITGAM, ITGB2, LTF, LYN, SELPLG, TLR4	10
Cell-To-Cell Signaling and Interaction	interaction	interaction of T lymphocytes	2,57E-19	CCL4, CCL5, CCL21, CCR5, CD2, CD28, CD47, CD69, CD86, CLEC10A, CTLA4, CXCL9, FAS, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, STK4, TNC	24
Cell-To-Cell Signaling and Interaction	interaction	interaction of cells	4,40E-17	CCL4, CCL5, CCL21, CCR5, CD2, CD28, CD47, CD69, CD86, CLEC10A, CTLA4, CXCL9, FAS, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, PCDH10, SELPLG, STK4, TNC	25
Cell-To-Cell Signaling and Interaction	response	response of leukocytes	4,02E-17	CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CTLA4, CXCL9, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, ITGAM, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21, TLR7	26
Cell-To-Cell Signaling and Interaction	response	response of normal cells	2,69E-16	CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CTLA4, CXCL9, DAPP1, FAS, GZMB, ICOS, IL10RA, IL12RB1, ITGAM, ITK, LAX1, PSMB10, RBL1, SELPLG, STAT4, TBX21, TLR7	28
Cell-To-Cell Signaling and Interaction	response	response of eukaryotic cells	5,55E-16	CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CTLA4, CXCL9, DAPP1, FAS, GZMB, ICOS, IL10RA, IL12RB1, ITGAM, ITK, LAX1, LY96, PSMB10, RBL1, SELPLG, STAT4, TBX21, TLR7	29
Cell-To-Cell Signaling and Interaction	response	response of cells	7,52E-16	BTK, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD86, CD1D, CD3E, CLEC2D (includes EG:29121), CLEC7A, CSF2RB, CTLA4, CX3CR1, CXCL9, DAPP1, FAS, GZMB, ICOS, IL10RA, IL12RB1, ITGAM, ITK, KLRC2, LAX1, LY96, MND4, NCF2, PRF1, PSMB10, RBL1, SELPLG, SOCS3, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TRAT1, TYROBP	44
Cell-To-Cell Signaling and Interaction	response	response of mononuclear leukocytes	6,46E-15	CCL19, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CD3E, CLEC7A, CTLA4, CXCL9, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21	22
Cell-To-Cell Signaling and Interaction	response	response of lymphocytes	2,46E-12	CCL19, CCL21, CD28, CD86, CD1D, CD3E, CTLA4, CXCL9, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21	19
Cell-To-Cell Signaling and Interaction	response	T cell response	2,11E-11	CCL19, CCL21, CD28, CD86, CD1D, CD3E, CTLA4, CXCL9, ICOS, IL10RA, IL12RB1, ITK, LAX1, PSMB10, SELPLG, STAT4, TBX21	17
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of blood cells	4,66E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, VAV1	37
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of leukocytes	5,56E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCGR2A, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, VAV1	34
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of cells	8,88E-17	AMICA1, BTK, C1ORF38, C1QA, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD96, CD8A, CLEC7A,	66

Interaction				CORO1A, CX3CR1, CXCL9, CXCR4, CYTIP, EMB, ETS1, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHA1, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LCP1, LTF, LYN, MAP3K1, MYO1F, PARVG, PCDH10, PIK3CD, PLD1, PTPRC, RAC2, RASSF5, RGS1, SELPLG, ST8SIA4, STAT1, STK4, TLR4, TNC, VAV1, VCAN	
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of normal cells	1,07E-16	AMICA1, BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CD8A, CORO1A, CXCL9, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, MAP3K1, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, TNC, VAV1	42
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of mononuclear leukocytes	1,35E-16	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELPLG, TLR4, VAV1	26
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of eukaryotic cells	1,34E-15	AMICA1, BTK, C1QA, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CD8A, CORO1A, CXCL9, CXCR4, CYTIP, ETS1, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTF, LYN, MAP3K1, PARVG, PIK3CD, PLD1, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, TNC, VAV1, VCAN	50
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of lymphocytes	5,88E-14	BTK, CCL2, CCL4, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELPLG, TLR4	21
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of neutrophils	4,19E-08	CORO1A, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	11
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of granulocytes	3,07E-07	CORO1A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	12
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of cells	3,65E-14	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A, HGF, HIF1A, IGHG1, ITGAM, ITGB2, LYN, LYZ, PIK3CD, SELPLG, TLR4, TLR7, TNFRSF1B	29
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of normal cells	1,19E-13	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A, HGF, HIF1A, IGHG1, ITGAM, ITGB2, LYN, LYZ, PIK3CD, SELPLG, TLR4, TLR7	28
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of leukocytes	2,05E-13	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A, HIF1A, IGHG1, ITGAM, ITGB2, LYZ, PIK3CD, SELPLG, TLR4, TLR7	26
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of T lymphocytes	7,48E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CXCL9, CXCR4, ETS1, FCER1A	12
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of phagocytes	1,94E-09	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD28, CD8A, CX3CR1, ETS1, ITGAM, ITGB2, LYZ, PIK3CD, TLR4	17
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of lymphocytes	3,35E-09	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A	13
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of antigen presenting cells	1,07E-08	C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	12
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of granulocytes	1,10E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, CXCL9, IGHG1, ITGAM, LYZ, PIK3CD, TLR4	16
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of neutrophils	2,45E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, ITGAM, LYZ, PIK3CD, TLR4	14
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of macrophages	3,06E-07	C3AR1, CCL2, CCL4, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	10
Cell-To-Cell Signaling and Interaction	selection	selection of T lymphocytes	1,38E-11	CD28, CD1D, CD3D, CD3E, DOCK2, FAS, HLA-DOA, ITK, PTPRC, SIT1, TRAT1, VAV1	12
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of cells	1,68E-11	C1QA, CD47, CORO1A, CSF2RB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGAX, ITGB2, LY75, LYN, PRKCB, RAC2, SELPLG, TLR4,	21

Interaction				VAV1	
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of blood cells	2,67E-10	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, RAC2, SELPLG, TLR4	15
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of myeloid cells	6,32E-10	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	10
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of eukaryotic cells	1,94E-09	CD47, CORO1A, CSF2RB, FAS, FCGR1A, FCGR2A, FCGR3B, HCK, IRF8, ITGAM, ITGB2, LYN, PRKCB, RAC2, SELPLG, TLR4, VAV1	17
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of neutrophils	4,30E-09	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	9
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of leukocytes	1,66E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, IRF8, ITGAM, ITGB2, SELPLG, TLR4	11
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of red blood cells	4,43E-07	FCGR1A, FCGR2A, HCK, ITGAM, ITGB2, LYN, RAC2	7
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of phagocytes	6,53E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	10
Cell-To-Cell Signaling and Interaction	signaling	signaling of blood cells	2,81E-09	CBL, CLEC7A, IL2RB, IL2RG, ITGAM, ITGB2, LCP2, PIK3CD, SH2D1A	9
Cell-To-Cell Signaling and Interaction	signaling	signaling of leukocytes	1,20E-08	CLEC7A, IL2RB, IL2RG, ITGAM, ITGB2, LCP2, PIK3CD, SH2D1A	8
Cell-To-Cell Signaling and Interaction	signaling	signaling of T lymphocytes	5,39E-07	IL2RB, IL2RG, ITGB2, LCP2, PIK3CD, SH2D1A	6
Cell-To-Cell Signaling and Interaction	attraction	attraction of T lymphocytes	9,44E-09	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CXCL9, TLR4, XCL1	9
Cell-To-Cell Signaling and Interaction	attraction	attraction of leukocytes	9,45E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CXCL6, CXCL9, IL12RB1, TLR4, XCL1	11
Cell-To-Cell Signaling and Interaction	attraction	attraction of antigen presenting cells	1,83E-07	CCL2, CCL4, CCL5, CCL19, CCL21, CXCL9, IL12RB1, TLR4	8
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of T lymphocytes	6,53E-07	CD2, CD28, CD86, CD1D, FAS, ICOS, KLRD1, KLRK1, PTPRC, TNFSF13B	10
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of eukaryotic cells	8,50E-07	CCL5, CCND2, CD2, CD28, CD86, CD1D, CD8A, FAS, HGF, ICOS, IL2RB, KLRD1, KLRK1, LTF, PTPRC, TLR4, TNFSF13B	17
Cell-To-Cell Signaling and Interaction	cell-cell contact	cell-cell contact of leukocytes	1,76E-06	ITGAL, ITGAM, ITGAX, ITGB2	4
Immune Cell Trafficking	activation	activation of leukocytes	1,47E-45	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CFH, CLEC4C, CLEC7A, CORO1A, CSF1R, CTLA4, CXCL6, CXCL9, DOCK2, FAS, FCER1G, FCGR1A, FCGR2A, FYB, GIMAP5, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LCP2, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PSMB9, PTGES, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4,	86

Immune Cell Trafficking	activation	activation of mononuclear leukocytes	1,22E-39	TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	69
Immune Cell Trafficking	activation	activation of lymphocytes	3,94E-39	BTK, C1QA, C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD163, CD244, CD247, CD1B, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, FCGR2A, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IGHM, IL12RB1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAT2, LAX1, LCK, LTF, LY96, LYN, PIK3CD, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF6, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1	67
Immune Cell Trafficking	activation	activation of T lymphocytes	3,31E-31	C3AR1, CCL2, CCL4, CCL5, CCR2, CD2, CD28, CD47, CD48, CD86, CD244, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CTLA4, DOCK2, FAS, FCER1G, GIMAP5, GZMA, GZMB, HLA-DRA, ICOS, IGHG1, IL2RB, ITGAL, ITGB2, ITK, JAK3, KLRD1, LAT2, LAX1, LCK, PIK3CD, PRF1, PTPRC, SIRPG, SIT1, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNC, TNFRSF1B, TYROBP, VAV1	52
Immune Cell Trafficking	activation	activation of antigen presenting cells	1,93E-12	CCL2, CCL4, CCL5, CD86, CD1D, CSF1R, FAS, FCER1G, FCGR1A, FCGR2A, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, ITGB6, LTF, PSMB9, PTGES, STAT1, STAT4, TLR4, TLR7, TNFRSF1B	25
Immune Cell Trafficking	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Immune Cell Trafficking	activation	activation of natural killer cells	3,15E-10	CCL5, CD2, CD28, CD244, CD1D, FCGR2A, IL12RB1, IL2RB, ITGAL, ITGB2, KLRD1, KLRK1, LTF, PRF1, SLAMF6, STAT4, TYROBP	17
Immune Cell Trafficking	activation	activation of mast cells	1,71E-08	CCL5, CCR2, CD48, CD300A, FCER1G, FCGR2A, FYB, ITGAM, LCP2, TLR7, TLR8 (includes EG:51311)	11
Immune Cell Trafficking	activation	activation of cytotoxic T cells	8,02E-07	CCR2, CD28, CD86, CD247, CTLA4, FAS, GZMA, GZMB, PRF1	9
Immune Cell Trafficking	migration	migration of leukocytes	6,11E-28	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FCER1G, FCGR2A, FYB, GNA13, HCK, HGF, ICOS, IL10RA, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, LTF, LUM, LYN, MMP7, PIK3CD, PRF1, PRKCB, PTGDR, PTPRC, RAC2, RASSF5, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	65
Immune Cell Trafficking	migration	migration of mononuclear leukocytes	2,65E-22	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CTLA4, CTSS, CX3CR1, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FYB, GNA13, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, PRF1, RASSF5, SELPLG, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	45
Immune Cell Trafficking	migration	Lymphocyte migration	3,97E-21	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CTLA4, CX3CR1, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FYB, GNA13, HGF, ICOS, ITGAL, ITGB2, ITK, LCK, PRF1, RASSF5, SELPLG, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	42
Immune Cell Trafficking	migration	T cell migration	2,66E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD69, CD86, CTLA4, CXCL9, CXCR4, DOCK2, FAS, FYB, HGF, ICOS, ITGB2, ITK, LCK, PRF1, SELPLG, SOCS3, TLR4, XCL1	27
Immune Cell Trafficking	migration	migration of bone marrow cells	1,12E-10	CCL4, CCL5, CD47, CXCL6, CXCL9, CXCR4, FAS, FHL2, HCK, HIF1A, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	20
Immune Cell Trafficking	migration	migration of phagocytes	4,42E-09	CCL2, CCL5, CD47, CSF1R, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, RAC2, TLR4	17
Immune Cell Trafficking	migration	migration of granulocytes	7,42E-09	CCL4, CCL5, CD47, CXCL6, CXCL9, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	17

Immune Cell Trafficking	migration	migration of neutrophils	3,31E-08	CCL5, CD47, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, TLR4	14
Immune Cell Trafficking	migration	migration of antigen presenting cells	9,83E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CSF1R, CXCL9, CXCR4, IL10RA, PTGDR, RAC2, RUNX3	15
Immune Cell Trafficking	migration	migration of dendritic cells	1,26E-07	CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CXCL9, CXCR4, IL10RA, PTGDR, RAC2, RUNX3	13
Immune Cell Trafficking	cell movement	cell movement of leukocytes	1,39E-20	CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD86, CFH, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LYN, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	56
Immune Cell Trafficking	cell movement	cell movement of phagocytes	4,85E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CFH, CORO1A, CSF1R, CX3CR1, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, HIF1A, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	36
Immune Cell Trafficking	cell movement	cell movement of myeloid cells	9,97E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, PTPRC, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	35
Immune Cell Trafficking	cell movement	cell movement of granulocytes	5,63E-15	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	34
Immune Cell Trafficking	cell movement	cell movement of mononuclear leukocytes	2,05E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD47, CD86, CTLA4, CTSS, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGAL, ITGAX, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Immune Cell Trafficking	cell movement	cell movement of neutrophils	2,82E-13	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD28, CD47, CFH, CORO1A, CXCL6, FAS, FCER1G, FCGR2A, HCK, HGF, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	28
Immune Cell Trafficking	cell movement	cell movement of lymphocytes	1,59E-12	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PTGDR, PTGES, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	28
Immune Cell Trafficking	cell movement	cell movement of antigen presenting cells	8,60E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD86, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, TLR4	21
Immune Cell Trafficking	cell movement	cell movement of T lymphocytes	8,64E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, ITGB2, ITK, PRF1, SELPLG, SOCS3, TLR4, XCL1	20
Immune Cell Trafficking	cell movement	cell movement of B lymphocytes	5,22E-08	CCL19, CCL21, CCR2, CXCL9, PIK3CD, POU2AF1, RAC2, RGS1, SELPLG, TLR4	10
Immune Cell Trafficking	cell movement	cell movement of macrophages	6,26E-08	CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGES, RAC2	16
Immune Cell Trafficking	cell movement	cell movement of memory T lymphocytes	1,29E-07	CCL2, CCL5, CCL19, CCL21, CD28, CXCL9, ITGB2	7
Immune Cell Trafficking	cell movement	cell movement of eosinophils	1,67E-07	CCL2, CCL5, CCL21, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK, RUNX3	13
Immune Cell Trafficking	cell movement	cell movement of bone marrow cells	4,66E-07	CCL2, CCL4, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	11
Immune Cell Trafficking	cell movement	cell movement of mononuclear cells	1,63E-06	CCL2, CCL4, CCR2, CCR5, CIITA, ICOS, JAK3, NFKBIZ	8
Immune Cell Trafficking	adhesion	adhesion of leukocytes	5,56E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCGR2A, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1,	34

SELPLG, TLR4, VAV1

Immune Cell Trafficking	adhesion	adhesion of mononuclear leukocytes	1,35E-16	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELPLG, TLR4, VAV1	26
Immune Cell Trafficking	adhesion	adhesion of lymphocytes	5,88E-14	BTK, CCL2, CCL4, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELPLG, TLR4	21
Immune Cell Trafficking	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17
Immune Cell Trafficking	adhesion	adhesion of neutrophils	4,19E-08	CORO1A, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	11
Immune Cell Trafficking	adhesion	adhesion of granulocytes	3,07E-07	CORO1A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	12
Immune Cell Trafficking	homing	homing of leukocytes	2,52E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IGHG1, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Immune Cell Trafficking	homing	homing of lymphocytes	3,18E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, PIK3CD, PTGDR, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	19
Immune Cell Trafficking	homing	homing of mononuclear leukocytes	3,40E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, ITGAL, PIK3CD, PRKCB, PTGDR, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	22
Immune Cell Trafficking	homing	homing of B lymphocytes	1,83E-07	CCL19, CCL21, CCR2, CXCL9, PIK3CD, RAC2, RGS1, TLR4	8
Immune Cell Trafficking	recruitment	recruitment of leukocytes	2,05E-13	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A, HIF1A, IGHG1, ITGAM, ITGB2, LYZ, PIK3CD, SELPLG, TLR4, TLR7	26
Immune Cell Trafficking	recruitment	recruitment of T lymphocytes	7,48E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CXCL9, CXCR4, ETS1, FCER1A	12
Immune Cell Trafficking	recruitment	recruitment of phagocytes	1,94E-09	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD28, CD8A, CX3CR1, ETS1, ITGAM, ITGB2, LYZ, PIK3CD, TLR4	17
Immune Cell Trafficking	recruitment	recruitment of lymphocytes	3,35E-09	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CX3CR1, CXCL9, CXCR4, ETS1, FCER1A	13
Immune Cell Trafficking	recruitment	recruitment of antigen presenting cells	1,07E-08	C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	12
Immune Cell Trafficking	recruitment	recruitment of granulocytes	1,10E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, CXCL9, IGHG1, ITGAM, LYZ, PIK3CD, TLR4	16
Immune Cell Trafficking	recruitment	recruitment of neutrophils	2,45E-08	AHR, C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CD28, CD8A, CX3CR1, ITGAM, LYZ, PIK3CD, TLR4	14
Immune Cell Trafficking	recruitment	recruitment of macrophages	3,06E-07	C3AR1, CCL2, CCL4, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	10
Immune Cell Trafficking	chemotaxis	chemotaxis of leukocytes	2,49E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	32
Immune Cell Trafficking	chemotaxis	chemotaxis of mononuclear leukocytes	1,60E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, ITGAL, PRKCB, PTGDR, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	19
Immune Cell Trafficking	chemotaxis	chemotaxis of lymphocytes	1,63E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, PTGDR, RAC2, RGS1, SOCS3, TLR4, XCL1	16
Immune Cell Trafficking	chemotaxis	chemotaxis of phagocytes	2,48E-08	CCL2, CCL4, CCL5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, IL12RB1, ITGAM, ITGB2, PIK3CD, RAC2, XCL1	17
Immune Cell Trafficking	chemotaxis	chemotaxis of myeloid cells	1,27E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, PTPRC, RAC2, XCL1	15
Immune Cell Trafficking	chemotaxis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13
Immune Cell Trafficking	chemotaxis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7
Immune Cell Trafficking	accumulation	accumulation of leukocytes	1,48E-11	CCL2, CCL5, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CTLA4, CX3CR1, CXCL9, CYBB, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, RUNX3, SELPLG, SH2D2A, TLR4	24
Immune Cell Trafficking	accumulation	accumulation of lymphocytes	2,17E-10	CCL5, CCL21, CCR5, CD28, CD86, CD1D, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SH2D2A	15

Immune Cell Trafficking	accumulation	accumulation of T lymphocytes	4,33E-10	CCL5, CCL21, CCR5, CD28, CD86, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A	13
Immune Cell Trafficking	accumulation	accumulation of macrophages	8,02E-07	CCL2, CCL5, CCR2, CD28, CX3CR1, FAS, ITGAM, ITGAX, TLR4	9
Immune Cell Trafficking	transmigration	transmigration of leukocytes	7,97E-11	CCL2, CCL4, CCL5, CCL19, CD28, CD47, CD86, CTSS, CXCL9, CXCR4, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	17
Immune Cell Trafficking	transmigration	transmigration of mononuclear leukocytes	1,71E-08	CCL2, CCL4, CCL5, CD28, CD47, CD86, CTSS, CXCR4, ITGAL, ITGAX, ITGB2	11
Immune Cell Trafficking	transmigration	transmigration of granulocytes	6,48E-07	CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	9
Immune Cell Trafficking	transmigration	transmigration of neutrophils	7,77E-07	CD47, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	8
Immune Cell Trafficking	infiltration	infiltration by neutrophils	9,60E-09	CASP1, CCL4, CCL21, CCR2, CFH, FAS, FCER1G, HGF, ITGAL, ITGAM, ITGB2, RAC2, SOCS3, TLR4, TNFRSF1B, XCL1	16
Immune Cell Trafficking	infiltration	infiltration of leukocytes	3,61E-08	CCL2, CCL4, CCL19, CCL21, CCR2, CCR5, CD86, CSF1R, CTLA4, FAS, HIF1A, ITGAM, ITK, PRF1, PTGES, SELPLG, STAT1, TLR4, TNFRSF1B, XCL1	20
Immune Cell Trafficking	infiltration	infiltration by T lymphocytes	1,38E-07	CCL19, CCL21, CCR2, CCR5, CD86, CTLA4, FAS, ITK, PRF1, SELPLG, XCL1	11
Immune Cell Trafficking	chemoattraction	chemoattraction of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7
Immune Cell Trafficking	chemoattraction	chemoattraction of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5
Immune Cell Trafficking	trafficking	trafficking of leukocytes	4,51E-07	CCL4, CCL5, CCL19, CCR2, CCR5, ITGB2, TLR4, TNFRSF1B	8
Tissue Morphology	quantity	quantity of leukocytes	1,59E-44	AHR, BCL2A1, BTK, C1QA, CCL2, CCL5, CCL19, CCL21, CCR2, CCR6, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CFH, CIITA, CSF1R, CSF2RB, CTLA4, CTSS, CXCR4, CXCR6 (includes EG:10663), CYTIP, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HGF, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PTGES, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	86
Tissue Morphology	quantity	quantity of blood cells	5,67E-42	AHR, BCL2A1, BTK, C1QA, CBL, CCL2, CCL5, CCL19, CCL21, CCR2, CCR6, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CFH, CIITA, CSF1R, CSF2RB, CTLA4, CTSS, CXCR4, CXCR6 (includes EG:10663), CYTIP, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HGF, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, PLSCR1, POU2AF1, PRDM1, PRF1, PTGES, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	87
Tissue Morphology	quantity	quantity of lymphocytes	2,59E-39	AHR, BCL2A1, BTK, CCL19, CCL21, CCR2, CCR6, CD28, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTLA4, CTSS, CXCR4, CYTIP, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LCP2, LYN, PIK3CD, POU2AF1, PRDM1, PRF1, PTPRC, RAC2, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, STAT4, TAP1, TBX21, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	70
Tissue Morphology	quantity	quantity of cells	5,80E-34	AHR, APAF1, ARNTL2, BCL2A1, BMP8B, BTK, C1QA, CBL, CCL2, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CCR6, CD28, CD47, CD69, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CFH, CIITA, CSF1R, CSF2RB, CTLA4, CTSS, CX3CR1, CXCR4, CXCR6 (includes EG:10663), CYBB, CYTIP, DCK, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FLI1, GNA13,	108

				HGF, HIF1A, HLA-DQA1, ICOS, IGHG1, IGHM, IGJ, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KIF5C, LCK, LCP2, LEF1, LYN, MMP7, PIK3CD, PLSR1, POU2AF1, PRDM1, PRF1, PSMB10, PTGES, PTPRC, RAC2, RBL1, RGS10, RUNX1, RUNX2, RUNX3, SELPLG, SH2D1A, SIT1, SOCS3, SRGN, ST8SIA4, STAT1, STAT4, TAP1, TBX21, TLR4, TNC, TNFRSF1B, TNFSF13B, TOX, TRA@, TYROBP, VAV1	
Tissue Morphology	quantity	quantity of T lymphocytes	8,24E-28	AHR, BCL2A1, CCL19, CCL21, CCR2, CCR6, CD28, CD86, CD244, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTLA4, CTSS, CXCR4, ETS1, FAS, FLI1, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, ITGAM, ITGB2, ITK, JAK3, LCK, LCP2, PTPRC, RUNX1, RUNX2, RUNX3, SELPLG, SIT1, SOCS3, STAT1, TAP1, TBX21, TNFRSF1B, TNFSF13B, TOX, TRA@, VAV1	49
Tissue Morphology	quantity	quantity of B lymphocytes	1,56E-16	AHR, BCL2A1, BTK, CCR6, CD28, CD69, CXCR4, FCER1G, FCGR1A, FCGR2A, GNA13, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, RAC2, TNFRSF1B, TNFSF13B, TRA@, VAV1	29
Tissue Morphology	quantity	quantity of antigen presenting cells	3,51E-13	CCL2, CCL19, CCL21, CCR2, CCR6, CD47, CSF1R, CTLA4, CTSS, CXCR6 (includes EG:10663), FAS, IKZF1, IL12RB1, IRF1, IRF4, IRF8, ITGB2, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4, TYROBP	24
Tissue Morphology	quantity	quantity of granulocytes	3,82E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IRF8, ITGB2, JAK3, LYN, PLSR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	22
Tissue Morphology	quantity	quantity of myeloid cells	7,21E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IKZF1, IRF8, ITGB2, JAK3, LYN, PLSR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	23
Tissue Morphology	quantity	quantity of phagocytes	1,16E-11	AHR, C1QA, CCL2, CCR2, CCR6, CD1D, CFH, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, FCGR1A, IL12RB1, ITGB2, ITGB6, JAK3, PLSR1, PTGES, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	24
Tissue Morphology	quantity	quantity of natural killer cells	1,30E-11	CD86, CD244, ETS1, ICOS, IL2RB, IL2RG, IRF1, JAK3, PIK3CD, PRF1, PTPRC, TBX21, TYROBP	13
Tissue Morphology	quantity	quantity of lymphatic system cells	1,67E-11	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, ETS1, FAS, FCER1A, FCGR1A, FLI1, IKZF1, IRF8, ITGB2, JAK3, LYN, PLSR1, PSMB10, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	25
Tissue Morphology	quantity	quantity of natural killer T lymphocytes	1,68E-10	CD1D, CD3E, CSF2RB, ETS1, IKZF1, IL2RB, IL2RG, PTPRC, TBX21, VAV1	10
Tissue Morphology	quantity	quantity of thymocytes	3,70E-10	CD86, CD244, CD247, CD3E, CTLA4, ETS1, FAS, IL2RG, IL7R, ITK, JAK3, LCK, LCP2, RUNX1, RUNX3, TOX, TRA@	17
Tissue Morphology	quantity	quantity of dendritic cells	5,54E-10	CCL19, CCL21, CCR2, CCR6, CD47, CTLA4, IKZF1, IRF1, IRF4, IRF8, ITGB2, TLR4, TYROBP	13
Tissue Morphology	quantity	quantity of intraepithelial T lymphocytes	5,78E-10	CCR6, IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1	7
Tissue Morphology	quantity	quantity of neutrophils	3,31E-08	AHR, C1QA, CD1D, CFH, FAS, FCGR1A, ITGB2, JAK3, PLSR1, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B	14
Tissue Morphology	quantity	quantity of plasma cells	1,29E-07	ICOS, IL7R, ITGB2, PRDM1, RAC2, TNFRSF1B, TNFSF13B	7
Tissue Morphology	quantity	quantity of macrophages	1,07E-06	CCL2, CCR2, CCR6, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, IL12RB1, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4	14
Cellular Growth and Proliferation	proliferation	proliferation of blood cells	1,36E-42	BTK, CBL, CCL4, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FLI1, FYB, HCK, HGF, HIF1A, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, MLLT3, PIK3CD, PRDM1, PRKCB, PTPRC, RAC2, RUNX1, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, TYROBP, VAV1, XCL1	91
Cellular Growth and Proliferation	proliferation	proliferation of leukocytes	2,92E-42	BTK, CBL, CCL4, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HCK, HGF, HIF1A, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL2RB,	88

Cellular Growth and Proliferation	proliferation	proliferation of mononuclear leukocytes	2,10E-41	IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRDM1, PRKCB, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, TYROBP, VAV1, XCL1	85
Cellular Growth and Proliferation	proliferation	proliferation of lymphocytes	1,33E-40	BTK, CBL, CCL4, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HCK, HIF1A, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRDM1, PRKCB, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, VAV1, XCL1	84
Cellular Growth and Proliferation	proliferation	proliferation of normal cells	3,92E-31	AHR, AIF1, BCL2A1, BTK, C3AR1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CXCL9, CXCR4, DOCK2, FAS, FCER1G, FLI1, FYB, GABBR1, GBP1 (includes EG:2633), GZMB, HCK, HGF, HIF1A, HLA-DPB1, HLA-E, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, MLLT3, MMP7, PIK3CD, PRDM1, PRKCB, PTGES, PTPRC, RAC2, RBL1, RUNX1, RUNX2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNC, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, TYROBP, VAV1, VCAN, XCL1	113
Cellular Growth and Proliferation	proliferation	proliferation of T lymphocytes	1,20E-29	CBL, CCL4, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CRTAM, CSF2RB, CTLA4, CXCR4, DOCK2, FAS, FYB, HLA-E, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL2RB, IL2RG, IL7R, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, PIK3CD, PRDM1, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SOCS3, SRGN, STAT1, STAT4, TLR4, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, VAV1, XCL1	64
Cellular Growth and Proliferation	proliferation	proliferation of eukaryotic cells	1,56E-27	AHR, AIF1, APAF1, BCL2A1, BTK, C3AR1, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CHEK2, CIITA, CLEC10A, CLEC7A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CTSS, CXCL9, CXCR4, CYBB, DCK, DOCK2, ETS1, FAS, FCER1G, FLI1, FYB, GABBR1, GBP1 (includes EG:2633), GZMB, HCK, HGF, HIF1A, HLA-DPB1, HLA-E, ICOS, IDO1, IFI16, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, MLLT3, MMP7, PIK3CD, PLAC8, PLSCR1, PRDM1, PRKCB, PTGER4, PTGES, PTPRA, PTPRC, PTPRE, RAC2, RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF7, SOCS3, SRGN, STAT1, STAT4, TLR4, TLR7, TNC, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, TYROBP, VAV1, VCAN, XCL1	129
Cellular Growth and Proliferation	proliferation	proliferation of cells	4,90E-24	AHR, AIF1, APAF1, BCL11B, BCL2A1, BTK, C3AR1, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD86, CD244, CD247, CD1D, CD3E, CD3G, CD8A, CDC7, CHEK2, CIITA, CLEC10A, CLEC7A, CORO1A, CRTAM, CSF1R, CSF2RB, CTLA4, CTSS, CXCL9, CXCR4, CYBB, DCK, DOCK2, ETS1, FAS, FCER1G, FLI1, FYB, GABBR1, GBP1 (includes EG:2633), GZMB, HCK, HCL51, HGF, HIF1A, HLA-DPB1, HLA-E, ICOS, IDO1, IFI16, IFITM1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGAL,	140

				ITGAM, ITGAX, ITGB2, ITK, JAK3, KLRD1, KLRK1, LAMP3, LCK, LCP2, LEF1, LST1, LY75, LY86, LY96, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NAP1L1, PIK3CD, PLAC8, PLD1, PLSCR1, PRDM1, PRKCB, PTGER4, PTGES, PTPRA, PTPRC, PTPRE, RAC2, RARRES1, RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SASH3, SH2D1A, SH2D2A, SIRPG, SLAMF7, SOCS3, SRGN, STAT1, STAT4, STK4, TLR4, TLR7, TNC, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TRA@, TRD@, TYROBP, VAV1, VCAN, XCL1	
Cellular Growth and Proliferation	proliferation	proliferation of B lymphocytes	6,03E-18	BTK, CBL, CCND2, CD86, CD244, CD3E, CD8A, FAS, HCK, HIF1A, IGHM, IGKC, IL2RG, IL7R, IRF4, IRF8, LEF1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRKCB, PTPRC, SASH3, SLAMF7, STAT1, TLR4, TLR7, TNFRSF17, TNFSF13B, VAV1	33
Cellular Growth and Proliferation	proliferation	proliferation of leukocyte cell lines	2,74E-08	CD28, CD1D, CD3E, CD8A, CLEC7A, CSF1R, CSF2RB, DCK, HCK, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, JAK3, PTGER4, PTPRC, RUNX1, SOCS3, TNFRSF1B	20
Cellular Growth and Proliferation	growth	growth of blood cells	3,57E-21	AHR, BTK, CBL, CCL2, CCL4, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CSF1R, CTLA4, FAS, HGF, HIF1A, ICOS, IGHM, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, RUNX1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	37
Cellular Growth and Proliferation	growth	growth of leukocytes	9,23E-19	AHR, BTK, CBL, CCL2, CCR6, CD2, CD28, CD86, CD244, CD3E, CSF1R, CTLA4, HGF, HIF1A, ICOS, IGHM, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	32
Cellular Growth and Proliferation	growth	growth of normal cells	2,25E-17	AHR, AIF1, BTK, CBL, CCL2, CCL4, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CDC7, CSF1R, CTLA4, FAS, FHL2, HGF, HIF1A, ICOS, IGHG1, IGHM, IL10RA, IL2RB, IL7R, IRF1, IRF8, JAK3, LCP2, LYN, MAP3K1, MLLT3, MYCL1, PIK3CD, PRF1, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, SRGN, STAT1, STAT4, TNFRSF1B, TNFSF13B, TOX, VAV1	49
Cellular Growth and Proliferation	growth	growth of eukaryotic cells	2,38E-15	ACSL5, AHR, AIF1, ARNTL2, BTK, CASP1, CBL, CCL2, CCL4, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CDC7, CSF1R, CSF2RB, CTLA4, CXCR4, DUSP5, ETS1, FAS, FCER1A, FCER1G, FHL2, FLI1, GABRP, GBP2, GZMB, HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF8, JAK3, LCP1, LCP2, LEF1, LUM, LYN, MAP3K1, MLLT3, MMP7, MYCL1, PIK3CD, PLAC8, PLSCR1, PRDM1, PRF1, PRKCB, PTPN22, PTPRA, PYHIN1 (includes EG:149628), RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, SRGN, STAT1, STAT4, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TTF1, VAV1	82
Cellular Growth and Proliferation	growth	growth of lymphocytes	4,93E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, HIF1A, ICOS, IGHM, IL2RB, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	25
Cellular Growth and Proliferation	growth	growth of cells	2,11E-10	ACSL5, AHR, AIF1, ARNTL2, BCL2A1, BTK, CASP1, CBL, CCL2, CCL4, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CDC7, CORO1A, CSF1R, CSF2RB, CTLA4, CXCR4, DUSP5, ETS1, FAS, FCER1A, FCER1G, FHL2, FLI1, GABRP, GBP2, GZMB, HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF8, ITGB6, JAK3, LCP1, LCP2, LEF1, LTF, LUM, LYN, MAP3K1, MLLT3, MMP7, MYCL1, PIK3CD, PLAC8, PLSCR1, PRDM1, PRF1, PRKCB, PSMB10, PTPN22, PTPRA, PYHIN1 (includes EG:149628), RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, SRGN, STAT1, STAT4, TAP1, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TTF1, UBE2L6, VAV1, VCAN	90
Cellular Growth and Proliferation	expansion	expansion of blood cells	3,15E-18	AHR, BTK, CBL, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CTLA4, ICOS, IGHM, IL10RA, IL7R, IRF1, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, RUNX1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	29
Cellular Growth and Proliferation	expansion	expansion of leukocytes	9,08E-17	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IL10RA, IL7R, IRF1, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	26
Cellular Growth and Proliferation	expansion	expansion of normal cells	3,05E-16	AHR, BTK, CBL, CCND2, CCR6, CD2, CD28, CD86, CD163, CD244, CD3E, CTLA4, ICOS, IGHM, IL10RA, IL7R, IRF1, JAK3, LCP2, LYN, MLLT3, PIK3CD, PRF1, RBL1, RUNX1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	30
Cellular Growth and Proliferation	expansion	expansion of lymphocytes	2,02E-15	AHR, BTK, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IL7R, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	23
Cellular Growth and Proliferation	expansion	expansion of T lymphocytes	6,68E-15	AHR, CBL, CCR6, CD2, CD28, CD86, CD244, CD3E, CTLA4, ICOS, IGHM, IRF1, JAK3, LCP2, PIK3CD, PRF1, SRGN, STAT4, TNFRSF1B, TNFSF13B, TOX	21
Cellular Growth and Proliferation	generation	generation of	2,46E-12	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, IL7R, IRF4, IRF8,	19

Growth and Proliferation	ion	leukocytes		ITK, JAK3, LYN, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	
Cellular Growth and Proliferation	generation	generation of lymphocytes	1,15E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	17
Cellular Growth and Proliferation	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15
Cellular Growth and Proliferation	generation	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7
Cellular Growth and Proliferation	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5
Cellular Growth and Proliferation	stimulation	stimulation of T lymphocytes	6,53E-07	CD2, CD28, CD86, CD1D, FAS, ICOS, KLRD1, KLRK1, PTPRC, TNFSF13B	10
Cellular Growth and Proliferation	stimulation	stimulation of eukaryotic cells	8,50E-07	CCL5, CCND2, CD2, CD28, CD86, CD1D, CD8A, FAS, HGF, ICOS, IL2RB, KLRD1, KLRK1, LTF, PTPRC, TLR4, TNFSF13B	17
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mice	2,46E-33	AOAH, BTK, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CCR6, CD2, CD28, CD69, CD86, CD1D, CFH, CIITA, CTLA4, CTSS, CX3CR1, CXCR4, CYBB, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, GZMB, HCK, HGF, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IGHM, IGKC, IL10RB, IL2RB, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LTF, LYN, MMP7, MX2, PIK3CD, PRF1, PTGER4, PTPRC, RUNX3, SH2D1A, SH2D2A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TRA@, TYROBP, VAV1	69
Inflammatory Disease	inflammatory disorder	inflammatory disorder of rodents	4,83E-33	AOAH, BTK, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CCR6, CD2, CD28, CD69, CD86, CD1D, CFH, CIITA, CTLA4, CTSS, CX3CR1, CXCR4, CYBB, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, GZMB, HCK, HGF, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IGHM, IGKC, IL10RB, IL2RB, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, LTF, LUM, LYN, MMP7, MX2, PIK3CD, PRF1, PTGER4, PTPRC, RUNX3, SH2D1A, SH2D2A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B, TRA@, TYROBP, VAV1	70
Inflammatory Disease	inflammatory disorder	inflammatory disorder	1,91E-21	AHR, AIF1, AOAH, APAF1, ARNTL2, BCL2A1, BIRC3, BTK, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD48, CD52, CD53, CD69, CD86, CD163, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CDC7, CDC42SE2, CELF2, CFH, CHEK2, CIITA, CLEC7A, CSF2RB, CSMD2, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DAPP1, DCK, DOCK2, DUSP5, ERAP2, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, HLA-F, ICOS, IDO1, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL10RB, IL2RB, IL2RG, IL7R, IRF4, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, JAKMIP1, KLRB1, LCK, LCP1, LCP2, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MMP7, MNDA, MS4A7, MX2, NCF4, NFKBIZ, NLRP3, P2RY13, PIK3CD, PLD1, POLE4, PRDM1, PRF1, PRKCB, PSMB9, PTGDR, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SH2D1A, SH2D2A, SLC4A7, SNX20, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TDO2, TLR4, TLR7, TLR8 (includes EG:51311), TMEM156, TNC, TNFRSF1B, TNFSF13B, TNIP3, TOX, TRA@, TYROBP, UBE2L6, VAV1, VNN2, XCL1	169
Inflammatory Disease	inflammatory disorder	inflammatory disorder of organ	1,31E-08	CCL21, CD28, CD8A, CTLA4, FCER1G, HCK, ICOS, LCP2, LYN, MMP7, NFKBIZ, STAT1, TLR4, TNFSF13B	14
Inflammatory Disease	rheumatic disease	rheumatic disease	8,79E-16	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-	111

				E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, JAKMIP1, LCK, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SH2D1A, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TLR7, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	
Inflammatory Disease	rheumatic disease of rodents	rheumatic disease of rodents	1,12E-14	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	27
Inflammatory Disease	rheumatic disease of mice	rheumatic disease of mice	1,23E-13	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	25
Inflammatory Disease	arthritis	arthritis	3,35E-15	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	107
Inflammatory Disease	arthritis	arthritis of rodents	1,11E-12	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, PTGER4, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	24
Inflammatory Disease	arthritis	arthritis of mice	1,20E-11	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, PTGER4, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	22
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	3,18E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	23
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of mice	6,84E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	22
Inflammatory Disease	dermatitis	dermatitis	7,10E-12	CASP1, CCL5, CD2, CD52, CD1D, CXCR4, DUSP5, FCER1A, FCER1G, HDAC9 (includes EG:9734), HLA-DQA1, HLA-DRA, IGHM, IGKC, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, NFKBIZ, PIK3CD, SOCS3, STAT1, TLR4	24
Inflammatory Disease	encephalitis	encephalitis	1,16E-11	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HIF1A, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	24
Inflammatory Disease	rheumatoid arthritis	rheumatoid arthritis	1,26E-11	AIF1, C12ORF35, C1QA, C3AR1, CARD8, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CXCL6, CXCL9, CXCR4, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LY75, LYZ, MLLT3, MS4A7, NCF4, P2RY13, PLD1, PRDM1, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TLR4, TMEM156, TNFRSF1B, TNFSF13B, UBE2L6, XCL1	90
Inflammatory Disease	colitis	colitis	5,53E-11	CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CTLA4, FAS, FCER1A, IGHM, IL10RB, MMP7, PTGER4, RUNX3, SOCS3, STAT4, TLR4, TRA@	20
Inflammatory Disease	experimentally	experimentally	1,81E-10	CCL4, CCR2, CCR5, CD69, CTLA4, CTSS, FAS, FCGR1A, FCGR2A, ICOS,	19

Disease	mentally-induced arthritis	-induced arthritis		IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	
Inflammatory Disease	experimentally-induced arthritis	experimentally-induced arthritis of mice	8,77E-10	CCR2, CD69, CTSS, FAS, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	16
Inflammatory Disease	collagen-induced arthritis	collagen-induced arthritis of mice	1,05E-09	CCR2, CD69, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	14
Inflammatory Disease	collagen-induced arthritis	collagen-induced arthritis	1,22E-09	CCR2, CD69, CTLA4, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	15
Inflammatory Disease	glomerulonephritis	glomerulonephritis of mice	1,66E-09	C1QA, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A	12
Inflammatory Disease	glomerulonephritis	glomerulonephritis	1,11E-07	C1QA, CCL4, CCL5, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TNFSF13B	15
Inflammatory Disease	nephritis	nephritis of animal	1,77E-09	C1QA, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TLR4	13
Inflammatory Disease	nephritis	nephritis	2,02E-09	C1QA, CCL4, CCL5, CD2, CD28, CD1D, CD8A, CFH, CTLA4, FAS, HLA-DQB1, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TLR4, TNFSF13B	18
Inflammatory Disease	airway hyperresponsiveness	airway hyperresponsiveness of organism	1,89E-09	C3AR1, CD86, CD1D, CXCR4, HGF, ICOS, IGHG1, IL2RB, ITK, RUNX3, SOCS3, STAT4, TBX21, TLR4	14
Inflammatory Disease	airway hyperresponsiveness	airway hyperresponsiveness of mice	5,02E-09	CD86, CD1D, CXCR4, HGF, ICOS, IGHG1, IL2RB, ITK, RUNX3, SOCS3, STAT4, TBX21, TLR4	13
Inflammatory Disease	inflammatory bowel disease	inflammatory bowel disease of mammalia	8,05E-08	CASP1, CCR2, CCR5, CTLA4, FAS, FCER1A, IGHM, MMP7, PIK3CD, PTGER4, STAT4, TLR4, TRA@	13
Inflammatory Disease	systemic lupus erythematosus	systemic lupus erythematosus	8,70E-08	C1QA, CD86, FAS, FCGR2A, HLA-DRA, ICOS, IL7R, ITGAM, LYN, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	15
Inflammatory Disease	psoriatic arthritis	psoriatic arthritis	1,66E-07	APAF1, CXCL9, HLA-E, IGHG1, IGHM, IGKC, ITGAL, LYN, MAP4K1, PRKCB, RUNX3, TNFRSF1B	12
Inflammatory Disease	lupus nephritis	lupus nephritis of mice	5,39E-07	CD1D, CTLA4, FAS, ICOS, LYN, PTPRC	6
Inflammatory Disease	ulcerative colitis	ulcerative colitis	7,80E-07	CD86, CD247, CD3D, CD3E, CD3G, FAS, PTGER4, RUNX3, SOCS3, TLR4	10
Inflammatory Disease	contact dermatitis	contact dermatitis	1,00E-06	CD1D, FCER1G, IGHM, IGKC, ITGB2, LCP2, PIK3CD, TLR4	8

Immunological Disease	immunological disorder	immunological disorder of mammalia	5,34E-33	AHR, AOA, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD86, CD1D, CD3E, CFH, CIITA, CTLA4, CX3CR1, CXCL9, CYBB, DSG1, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IGHM, IGKC, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, JAK3, LCP2, LYN, NCF2, PIK3CD, PRF1, PTGER4, RUNX1, RUNX3, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TLR7, TYROBP, VAV1	63
Immunological Disease	immunological disorder	immunological disorder of mice	1,79E-32	AHR, AOA, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD86, CD1D, CD3E, CFH, CIITA, CTLA4, CX3CR1, CYBB, DSG1, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHM, IGKC, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, JAK3, LCP2, LYN, PIK3CD, PRF1, PTGER4, RUNX1, RUNX3, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TLR7, TYROBP, VAV1	60
Immunological Disease	immunological disorder	immunological disorder of rodents	2,03E-32	AHR, AOA, BTK, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD86, CD1D, CD3E, CFH, CIITA, CTLA4, CX3CR1, CYBB, DSG1, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IGHM, IGKC, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGB2, JAK3, LCP2, LYN, PIK3CD, PRF1, PTGER4, RUNX1, RUNX3, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TLR7, TYROBP, VAV1	61
Immunological Disease	immunological disorder	immunological disorder	4,82E-27	AHR, AIF1, AMICA1, AOA, APAF1, APOBEC3G, BTK, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD52, CD53, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CDC7, CELF2, CFH, CHEK2, CIITA, CLEC2D (includes EG:29121), CSF1R, CSF2RB, CSMD2, CTLA4, CTSS, CUX2, CX3CR1, CXCL6, CXCL9, CXCR4, CYBB, DCK, DSG1, ETS1, FAM49B, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GNA13, GPSM3, GZMA, GZMB, HCK, HCLS1, HGF, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, HLA-F, ICOS, IDO1, IFITM1, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL10RB, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, JAKMIP1, KLRB1, LCK, LCP1, LCP2, LST1, LTF, LY75, LYN, LYZ, MAP3K1, MLLT3, MS4A7, NCF2, NCF4, NFKBIZ, P2RY13, PIK3CD, PLD1, PRDM1, PRF1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RAB27A, RAC2, RBL1, RNF213, RRM1 (includes EG:6240), RUNX1, RUNX3, SERPINA3, SFMBT2, SH2D1A, SIRPG, SOCS3, SP140, STAT1, STAT4, STK10, STX11, TAGAP, TAP1, TBX21, THEMIS, TLR4, TLR7, TLR8 (includes EG:51311), TMEM156, TNFRSF17, TNFRSF1B, TNFRSF13B, TOX, TYROBP, UBE2L6, VAV1, VCAN, XCL1	165
Immunological Disease	immunological disorder	immunological disorder of humans	1,83E-08	CASP1, CCR5, CTLA4, CYBB, FAS, HLA-DQB1, ICOS, JAK3, NCF2, TLR4	10
Immunological Disease	immunological disorder	immunological disorder of organ	1,78E-06	CD86, FCER1A, FCER1G, ICOS, ITK, LCP2, NFKBIZ, PIK3CD, TLR4	9
Immunological Disease	autoimmune disease	autoimmune disease of mice	7,72E-23	BTK, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD86, CD1D, CFH, CIITA, CTLA4, CX3CR1, DSG1, FAS, FCGR1A, FCGR2A, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IL7R, IRF4, ITGAL, JAK3, LYN, PTGER4, RUNX1, SH2D1A, STAT1, STAT4, TAP1, TBX21, TLR4, TYROBP	40
Immunological Disease	autoimmune disease	autoimmune disease of rodents	9,97E-23	BTK, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD86, CD1D, CFH, CIITA, CTLA4, CX3CR1, DSG1, FAS, FCGR1A, FCGR2A, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IDO1, IGHG1, IL7R, IRF4, ITGAL, JAK3, LYN, PTGER4, RUNX1, SH2D1A, STAT1, STAT4, TAP1, TBX21, TLR4, TYROBP	41
Immunological Disease	autoimmune disease	autoimmune disease	2,40E-17	AIF1, AMICA1, APAF1, BTK, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD53, CD69, CD86, CD1D, CD3D, CDC7, CELF2, CFH, CHEK2, CIITA, CLEC2D (includes EG:29121), CSF2RB, CSMD2, CTLA4, CUX2, CX3CR1, CXCL6, CXCL9, CXCR4, DSG1, ETS1, FAS, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GNA13, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, HLA-F, ICOS, IDO1, IFITM1, IGHG1, IGHM,	131

Immunologic al Disease	immunodeficiency	immunodeficiency	5,41E-13	IGL@, IKZF1, IL10RA, IL10RB, IL2RB, IL7R, IRF1, IRF4, ITGAL, ITGAM, ITGB2, JAK3, JAKMIP1, KLRB1, LCP1, LST1, LTF, LY75, LYN, LYZ, MAP3K1, MLLT3, MS4A7, NCF4, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RBL1, RNF213, RUNX1, SERPINA3, SFMBT2, SH2D1A, SIRPG, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, THEMIS, TLR4, TLR7, TLR8 (includes EG:51311), TMEM156, TNFRSF17, TNFRSF1B, TNFSF13B, TOX, TYROBP, UBE2L6, VCAN, XCL1	16
Immunologic al Disease	graft-vs-host disease	graft-vs-host disease	1,93E-12	CCR5, CD2, CD52, CD247, CD3D, CD3E, CD3G, CSF2RB, FAS, ICOS, IL2RB, IL2RG, PRF1, RRM1 (includes EG:6240)	14
Immunologic al Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	3,18E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	23
Immunologic al Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of mice	6,84E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	22
Immunologic al Disease	rheumatoid arthritis	rheumatoid arthritis	1,26E-11	AIF1, C12ORF35, C1QA, C3AR1, CARD8, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CXCL6, CXCL9, CXCR4, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LY75, LYZ, MLLT3, MS4A7, NCF4, P2RY13, PLD1, PRDM1, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TLR4, TMEM156, TNFRSF1B, TNFSF13B, UBE2L6, XCL1	90
Immunologic al Disease	Sjogren's syndrome	Sjogren's syndrome	6,88E-11	CCL4, CCL5, CCL19, CCL21, CCR5, CXCL6, FAS, IFITM1, IRF1, ITGAL, MAP3K1, SOCS3, STAT1, TLR4, TLR8 (includes EG:51311), TNFRSF17, TNFSF13B, XCL1	18
Immunologic al Disease	hypersensitive reaction	hypersensitive reaction	3,19E-10	CCL4, CCL5, CD2, CD86, CD1D, CXCR4, FCER1A, FCER1G, FCGR1A, FCGR2A, HLA-DQA1, HLA-DRA, IGHM, IGKC, ITGAL, ITGB2, LCP2, LYN, NFKBIZ, PIK3CD, RUNX3, SOCS3, TLR4, VAV1	24
Immunologic al Disease	hypersensitive reaction	hypersensitive reaction of mice	7,24E-08	CCL4, CD1D, FCER1G, FCGR2A, IGHM, IGKC, ITGB2, LCP2, LYN, PIK3CD, RUNX3, VAV1	12
Immunologic al Disease	severe combined immunodeficiency	severe combined immunodeficiency	4,37E-09	BTK, CD247, CD3D, CXCR4, IL2RG, IL7R, JAK3, PTPRC	8
Immunologic al Disease	lymphocytic leukemia	lymphocytic leukemia	1,10E-08	CCL4, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, DCK, FAS, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RRM1 (includes EG:6240), RUNX1, TLR7	21
Immunologic al Disease	autoimmune hemolytic anemia	autoimmune hemolytic anemia of mice	1,67E-08	CD28, CD47, CTLA4, FCGR1A, FCGR2A, IL7R	6
Immunologic	disease	disease of	2,91E-08	BTK, CASP1, CCL5, CCR2, CCR5, CD86, CXCR4, ICOS, IRF1, ITGAM, LTF,	12

al Disease		leukocytes		RBL1	
Immunologic al Disease	systemic lupus erythematosus	systemic lupus erythematosus	8,70E-08	C1QA, CD86, FAS, FCGR2A, HLA-DRA, ICOS, IL7R, ITGAM, LYN, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	15
Immunologic al Disease	eosinophilia	eosinophilia	3,44E-07	CD86, CD247, CD3G, CTSS, CXCL9, CXCR4, FCER1A, HGF, IL2RG, IRF8, ITGB6, ITK, LCK, LY75, PRF1	15
Immunologic al Disease	acute lymphocytic leukemia	acute lymphocytic leukemia	8,90E-07	CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, FAS, IKZF1, LCK, RRM1 (includes EG:6240), RUNX1	13
Immunologic al Disease	contact dermatitis	contact dermatitis	1,00E-06	CD1D, FCER1G, IGHM, IGKC, ITGB2, LCP2, PIK3CD, TLR4	8
Immunologic al Disease	leukopenia	leukopenia	1,24E-06	ETS1, ICOS, IL7R, JAK3, PIK3CD, TLR4, TLR7	7
Cell Death	cell death	cell death of leukocytes	2,36E-30	APAF1, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, FCER1A, FCER1G, GIMAP5, GZMA, GZMB, HIF1A, ICOS, IDO1, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, LCK, LTF, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	62
Cell Death	cell death	cell death of blood cells	1,35E-29	APAF1, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD69, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, FCER1A, FCER1G, FLI1, GIMAP5, GZMA, GZMB, HIF1A, ICOS, IDO1, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, LCK, LTF, LYN, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	63
Cell Death	cell death	cell death of mononuclear leukocytes	9,72E-25	APAF1, BCL2A1, BTK, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, FCER1A, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITGAL, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PRKCB, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	49
Cell Death	cell death	cell death of lymphocytes	2,90E-24	APAF1, BCL2A1, BTK, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITGAL, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, POU2AF1, PRDM1, PRF1, PRKCB, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	48
Cell Death	cell death	cell death of T lymphocytes	5,52E-23	APAF1, BCL2A1, CASP1, CCL4, CCL5, CCL19, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CLEC10A, CTLA4, CXCR4, EOMES, FAS, GIMAP5, GZMA, GZMB, ICOS, IDO1, IGHM, IL2RG, IL7R, ITK, JAK3, KLRD1, LCK, MAP4K1, PIK3CD, PRDM1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TBX21, TNFRSF1B, XCL1	42
Cell Death	cell death	cell death of normal cells	7,42E-21	AHR, APAF1, APOL1, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCL19, CCR2, CCR5, CD2, CD28, CD47, CD69, CD247, CD1D, CD3E, CDC7, CFH, CHEK2, CIITA, CLEC10A, CSF1R, CTLA4, CTSS, CXCR4, CYBB, EOMES, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FLI1, GABBR1, GIMAP5, GZMA, GZMB, HDAC9 (includes EG:9734), HGF, HIF1A, ICOS, IDO1, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, LCK, LTF, LYN, MAP3K1, MAP4K1, MMP7, NCF2, NLRP3, PIK3CD, PLD1, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RAC2, RASSF5, RBL1, RUNX1, RUNX2, RUNX3, SERPINA3, SH2D2A, SOCS3, STAT1, STK4, TBX21, TLR4, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, XAF1, XCL1	94
Cell Death	cell death	cell death of eukaryotic cells	7,25E-19	AHR, APAF1, APOL1, BCL2A1, BIRC3, BTK, C1QA, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD69, CD247, CD1D, CD3E, CD8A, CDC7, CFH, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CSTA, CTLA4, CTSS, CXCR4, CYBB, DSG1, EOMES, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FHL2, FLI1, GABBR1, GIMAP5, GLIPR1, GPR65, GZMA, GZMB, GZMH, GZMK, HCK, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF4,	126

				IRF8, ITGAL, ITGAM, ITGB2, ITK, JAK3, KLRD1, LCK, LEF1, LTF, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NCF2, NFKBIZ, NLRP3, PIK3CD, PLAC8, PLD1, PLSCR1, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RBL1, RGS10, RTN1, RUNX1, RUNX2, RUNX3, SERPINA3, SERPINB9, SH2D2A, SOCS3, STAT1, STK4, TBX21, TLR4, TMEM123, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1, XCL1	
Cell Death	cell death	cell death	7,32E-19	AHR, AIF1, APAF1, APOL1, BCL11B, BCL2A1, BIRC3, BTK, C1QA, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD53, CD69, CD247, CD1D, CD3E, CD3G, CD8A, CDC7, CFH, CHEK2, CIITA, CLEC10A, CSF1R, CSF2RB, CSTA, CTLA4, CTSS, CX3CR1, CXCR4, CYBB, DSG1, EOMES, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FHL2, FLI1, GABBR1, GABRP, GIMAP5, GLIPR1, GNA13, GPR65, GZMA, GZMB, GZMH, GZMK, HCK, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, ITK, JAK3, KLRD1, LCK, LEF1, LTF, LY86, LYN, LYZ, MAP3K1, MAP4K1, MLLT3, MMP7, NCF2, NFKBIZ, NLRP3, PIK3CD, PLAC8, PLD1, PLSCR1, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RBL1, RGS10, RTN1, RUNX1, RUNX2, RUNX3, SERPINA3, SERPINB9, SH2D2A, SLC2A3, SOCS3, SRGN, ST8SIA4, STAT1, STAT4, STK4, TBX21, TLR4, TMEM123, TNC, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TTF1, TYROBP, VAV1, VCAN, XAF1, XCL1	142
Cell Death	cell death	cell death of tumor cell lines	2,01E-13	AHR, APAF1, APOL1, BCL2A1, BIRC3, BTK, CARD8, CASP1, CCL2, CD28, CD47, CD48, CDC7, CFH, CHEK2, CSF1R, CSF2RB, CSTA, DSG1, ETS1, FAS, FCER1A, FLI1, GIMAP5, GLIPR1, GPR65, GZMB, GZMH, GZMK, HCK, HCLS1, HGF, HIF1A, IDO1, IFI16, IGHG1, IGHM, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKBIZ, NLRP3, PRDM1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RTN1, RUNX1, RUNX3, SOCS3, STAT1, STK4, TLR4, TMEM123, TNFAIP8, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1	75
Cell Death	cell death	cell death of cell lines	1,50E-12	AHR, APAF1, APOL1, BCL2A1, BIRC3, BTK, CARD8, CASP1, CCL2, CCL5, CCND2, CCR5, CD2, CD28, CD47, CD48, CD3E, CD8A, CDC7, CFH, CHEK2, CSF1R, CSF2RB, CSTA, CTLA4, DSG1, ETS1, FAS, FCER1A, FHL2, FLI1, GIMAP5, GLIPR1, GPR65, GZMB, GZMH, GZMK, HCK, HCLS1, HGF, HIF1A, IDO1, IFI16, IGHG1, IGHM, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKBIZ, NLRP3, PLAC8, PLD1, PLSCR1, PRDM1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RBL1, RGS10, RTN1, RUNX1, RUNX3, SOCS3, STAT1, STK4, TLR4, TMEM123, TNFAIP8, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1	88
Cell Death	cell death	cell death of leukemia cell lines	3,73E-12	APAF1, BCL2A1, CARD8, CD28, CD47, CSF2RB, FAS, FCER1A, GIMAP5, GZMB, GZMH, GZMK, HCLS1, HGF, IL2RG, ITGAM, LCK, LYN, MLLT3, NLRP3, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX1, STK4, TMEM123, VAV1	29
Cell Death	cell death	cell death of lymphoma cell lines	1,36E-10	BCL2A1, BIRC3, BTK, CARD8, CD48, CHEK2, FAS, FCER1A, GPR65, GZMH, IDO1, IGHM, IRF8, JAK3, LEF1, MAP4K1, PRDM1, PRKCB, PTPN22, PTPRC, RUNX1, TNFSF13B	22
Cell Death	cell death	cell death of natural killer cells	8,80E-07	CD2, EOMES, FAS, ITGAL, KLRD1, TBX21	6
Cell Death	cytotoxicity	cytotoxicity of cells	9,20E-30	CASP1, CCL2, CCL5, CD2, CD28, CD48, CD69, CD96, CD244, CD1D, CD300A, CYBB, FAS, FCER1G, FCGR1A, FCGR2A, FCGR3B, GIMAP5, GZMA, GZMB, HCK, HCST, IGHG1, ITGAL, ITGAM, ITGB2, ITK, KLRD1, KLRK1, LCK, LYN, PRF1, PTGDR, PTPRC, RAB27A, SH2D1A, SLAMF6, SLAMF7, STAT1, STAT4, TAP1, TBX21, TNFRSF1B, TYROBP, VAV1	45
Cell Death	cytotoxicity	cytotoxicity of leukocytes	1,27E-26	CASP1, CCL2, CCL5, CD2, CD48, CD69, CD96, CD244, CD1D, CD300A, CYBB, FAS, FCGR1A, FCGR2A, FCGR3B, GZMA, GZMB, HCK, ITGAL, ITGAM, ITGB2, ITK, KLRD1, KLRK1, LCK, LYN, PRF1, PTGDR, PTPRC, RAB27A, SLAMF6, STAT1, STAT4, TBX21, TYROBP, VAV1	36
Cell Death	cytotoxicity	cytotoxicity of eukaryotic cells	1,22E-24	CASP1, CCL2, CCL5, CD2, CD28, CD48, CD69, CD96, CD244, CD1D, CD300A, CYBB, FAS, FCGR1A, FCGR2A, FCGR3B, GZMA, GZMB, HCK, IGHG1, ITGAL, ITGAM, ITGB2, ITK, KLRD1, KLRK1, LCK, LYN, PRF1, PTGDR, PTPRC, RAB27A, SLAMF6, STAT1, STAT4, TBX21, TYROBP, VAV1	38
Cell Death	cytotoxicity	cytotoxicity of	5,58E-22	CCL2, CCL5, CD2, CD48, CD69, CD96, CD244, CD1D, CD300A, FAS,	31

	icity	lymphocytes		FCGR1A, FCGR2A, FCGR3B, GZMA, GZMB, ITGAL, ITGB2, ITK, KLRD1, KLRK1, LCK, PRF1, PTGDR, PTPRC, RAB27A, SLAMF6, STAT1, STAT4, TBX21, TYROBP, VAV1	
Cell Death	cytotoxicity	cytotoxicity of natural killer cells	3,82E-20	CCL2, CD2, CD48, CD69, CD96, CD244, CD300A, FAS, FCGR1A, FCGR2A, FCGR3B, ITGAL, ITGB2, ITK, KLRD1, KLRK1, LCK, PRF1, PTGDR, SLAMF6, STAT1, STAT4, TBX21, TYROBP, VAV1	25
Cell Death	cytotoxicity	cytotoxicity of T lymphocytes	1,80E-06	CCL5, CD1D, GZMA, GZMB, KLRD1, KLRK1, PRF1, PTPRC, RAB27A, STAT4	10
Cell Death	apoptosis	apoptosis of leukocytes	1,92E-24	BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD69, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, FCER1A, FCER1G, GIMAP5, GZMA, GZMB, HIF1A, ICOS, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, LTF, LYN, MAP4K1, PIK3CD, POU2AF1, PRF1, PRKCB, PTGER4, PTPRC, RAC2, STAT1, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	52
Cell Death	apoptosis	apoptosis of blood cells	6,53E-24	BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD69, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, FCER1A, FCER1G, FLI1, GIMAP5, GZMA, GZMB, HIF1A, ICOS, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, LTF, LYN, MAP4K1, PIK3CD, POU2AF1, PRF1, PRKCB, PTGER4, PTPRC, RAC2, STAT1, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	53
Cell Death	apoptosis	apoptosis of mononuclear leukocytes	1,61E-18	BCL2A1, BTK, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, FCER1A, GIMAP5, GZMA, GZMB, ICOS, IGHM, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, STAT1, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	39
Cell Death	apoptosis	apoptosis of lymphocytes	4,14E-18	BCL2A1, BTK, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IGHM, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, STAT1, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1	38
Cell Death	apoptosis	apoptosis of normal cells	1,08E-17	AHR, APAF1, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL4, CCL5, CCR2, CCR5, CD2, CD28, CD47, CD69, CD247, CD1D, CD3E, CFH, CHEK2, CIITA, CSF1R, CTLA4, CTSS, CXCR4, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FLI1, GABBR1, GIMAP5, GZMA, GZMB, HGF, HIF1A, ICOS, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, LTF, LYN, MAP3K1, MAP4K1, MMP7, NLRP3, PIK3CD, PLD1, POU2AF1, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RAC2, RBL1, RUNX2, RUNX3, SERPINA3, SOCS3, STAT1, STK4, TLR4, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, XAF1, XCL1	78
Cell Death	apoptosis	apoptosis of eukaryotic cells	2,00E-17	AHR, APAF1, BCL2A1, BIRC3, BTK, C1QA, CARD8, CASP1, CCL4, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD69, CD247, CD1D, CD3E, CD8A, CDC7, CFH, CHEK2, CIITA, CSF1R, CSF2RB, CSTA, CTLA4, CTSS, CXCR4, DSG1, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FHL2, FLI1, GABBR1, GIMAP5, GLIPR1, GPR65, GZMA, GZMB, HCK, HCLS1, HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITK, JAK3, LCK, LEF1, LTF, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKB1Z, NLRP3, PIK3CD, PLAC8, PLD1, PLSCR1, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RBL1, RTN1, RUNX1, RUNX2, RUNX3, SERPINA3, SOCS3, STAT1, STK4, TLR4, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1, XCL1	109
Cell Death	apoptosis	apoptosis of T lymphocytes	3,12E-16	BCL2A1, CASP1, CCL4, CCL5, CCR5, CD2, CD28, CD47, CD247, CD3E, CHEK2, CIITA, CTLA4, CXCR4, FAS, GIMAP5, GZMA, GZMB, ICOS, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PIK3CD, PRF1, PTPRC, RAC2, STAT1, TNFRSF1B, XCL1	32
Cell Death	apoptosis	apoptosis	4,51E-16	AHR, APAF1, BCL11B, BCL2A1, BIRC3, BTK, C1QA, CARD8, CASP1, CCL4, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD53, CD69, CD247, CD1D, CD3E, CD3G, CD8A, CDC7, CFH, CHEK2, CIITA, CSF1R, CSF2RB, CSTA, CTLA4, CTSS, CX3CR1, CXCR4, DSG1, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FHL2, FLI1, GABBR1, GIMAP5, GLIPR1, GNA13, GPR65, GZMA, GZMB, HCK, HCLS1, HGF, HIF1A, ICOS, IDO1, IFI16, IGHG1, IGHM, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGAM, ITGB2, ITGB6, ITK, JAK3, LCK, LEF1, LTF, LY86, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKB1Z, NLRP3, PIK3CD, PLAC8, PLD1, PLSCR1, POU2AF1, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPN22, PTPRC, PTPRE, RAC2, RASSF5, RBL1, RTN1, RUNX1, RUNX2, RUNX3, SERPINA3, SLC2A3, SOCS3, SRGN, ST8SIA4, STAT1, STAT4, STK4, TLR4, TNC, TNFAIP8, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TTF1,	121

				VAV1, VCAN, XAF1, XCL1	
Cell Death	apoptosis	apoptosis of cell lines	1,53E-13	AHR, APAF1, BCL2A1, BIRC3, BTK, CARD8, CASP1, CCL5, CCND2, CCR5, CD2, CD28, CD47, CD48, CD3E, CD8A, CDC7, CFH, CHEK2, CSF1R, CSF2RB, CSTA, CTLA4, DSG1, ETS1, FAS, FCER1A, FHL2, FLI1, GIMAP5, GLIPR1, GPR65, GZMB, HCK, HCLS1, HGF, HIF1A, IDO1, IFI16, IGHM, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LEF1, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKBIZ, PLAC8, PLD1, PLSCR1, PRDM1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RBL1, RTN1, RUNX1, RUNX3, SOCS3, STAT1, STK4, TLR4, TNFAIP8, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1	80
Cell Death	apoptosis	apoptosis of tumor cell lines	3,36E-13	AHR, APAF1, BCL2A1, BIRC3, BTK, CARD8, CASP1, CD28, CD47, CD48, CDC7, CFH, CHEK2, CSF1R, CSF2RB, CSTA, DSG1, ETS1, FAS, FCER1A, FLI1, GIMAP5, GLIPR1, GPR65, GZMB, HCK, HCLS1, HGF, HIF1A, IDO1, IFI16, IGHM, IL2RG, IRF1, IRF4, IRF8, ITGAM, JAK3, LCK, LYN, MAP3K1, MAP4K1, MLLT3, MMP7, NFKBIZ, PRDM1, PRF1, PRKCB, PTPN22, PTPRC, PTPRE, RASSF5, RTN1, RUNX1, RUNX3, SOCS3, STAT1, STK4, TLR4, TNFAIP8, TNFRSF1B, TNFSF13B, TRA@, TTF1, VAV1, VCAN, XAF1	67
Cell Death	apoptosis	apoptosis of leukemia cell lines	1,87E-10	APAF1, BCL2A1, CARD8, CD28, CD47, CSF2RB, FAS, FCER1A, GIMAP5, GZMB, HCLS1, HGF, IL2RG, ITGAM, LCK, LYN, MLLT3, PRF1, PRKCB, PTPRC, PTPRE, RASSF5, RUNX1, STK4, VAV1	25
Cell Death	apoptosis	apoptosis of lymphoma cell lines	4,70E-10	BCL2A1, BIRC3, BTK, CARD8, CD48, CHEK2, FAS, FCER1A, GPR65, IDO1, IGHM, IRF8, JAK3, MAP4K1, PRDM1, PRKCB, PTPN22, PTPRC, RUNX1, TNFSF13B	20
Cell Death	apoptosis	apoptosis of leukocyte cell lines	1,08E-09	APAF1, BCL2A1, BIRC3, CCL5, CCND2, CCR5, CD2, CD3E, CD8A, CTLA4, FAS, FCER1A, GZMB, HCLS1, HGF, IGHM, IRF4, PLAC8, PRDM1, PTPRC, RUNX1, TNFRSF1B, TRA@	23
Cell Death	apoptosis	apoptosis of B lymphocytes	1,54E-08	BCL2A1, BTK, CASP1, CD47, FAS, GZMB, IGHM, PIK3CD, POU2AF1, PRF1, PRKCB, PTPRC, TNFRSF17, TNFSF13B	14
Cell Death	apoptosis	apoptosis of lymphoblasts	8,80E-07	CCL4, CCL5, CD3E, FAS, GZMB, PRF1	6
Cell Death	apoptosis	apoptosis of phagocytes	1,96E-06	BCL2A1, BIRC3, C1QA, CASP1, CCL5, CXCR4, FAS, HIF1A, IRF1, ITGB2, LTF, TLR4, TNFRSF1B	13
Cell Death	survival	survival of leukocytes	9,27E-24	BCL2A1, BTK, CCL4, CD28, CD86, CD300A, CD3E, CD8A, CHEK2, CSF1R, CSF2RB, FAS, FCER1A, FCER1G, HCK, HIF1A, ICOS, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LEF1, LYN, NCF2, PIK3CD, PRKCB, PTPRC, RAC2, STAT1, STAT4, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP	37
Cell Death	survival	survival of blood cells	6,29E-23	BCL2A1, BTK, CCL4, CD28, CD86, CD300A, CD3E, CD8A, CHEK2, CSF1R, CSF2RB, FAS, FCER1A, FCER1G, HCK, HIF1A, ICOS, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LEF1, LYN, NCF2, PIK3CD, PRKCB, PTPRC, RAC2, RUNX1, STAT1, STAT4, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP	38
Cell Death	survival	survival of lymphocytes	7,96E-15	BTK, CD28, CD86, CD3E, CD8A, CHEK2, FAS, HCK, ICOS, IL2RB, IL2RG, JAK3, LAX1, LEF1, NCF2, PIK3CD, PRKCB, PTPRC, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@	24
Cell Death	survival	survival of normal cells	1,67E-13	BCL2A1, BTK, CCL4, CCL5, CCL21, CD28, CD86, CD300A, CD3E, CD8A, CHEK2, CSF1R, CSF2RB, CXCL9, FAS, FCER1A, FCER1G, HCK, HGF, HIF1A, ICOS, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LEF1, LYN, MAP3K1, NCF2, PIK3CD, PRKCB, PTPRC, RAC2, RUNX1, STAT1, STAT4, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP	43
Cell Death	survival	survival of T lymphocytes	5,54E-11	CD28, CD86, CD3E, CD8A, CHEK2, FAS, ICOS, IL2RB, IL2RG, JAK3, LAX1, PTPRC, STAT1, STAT4, TNFRSF1B, TRA@	16
Cell Death	survival	survival of cells	1,06E-10	APAF1, BCL2A1, BTK, CBL, CCL2, CCL4, CCL5, CCL21, CD28, CD48, CD86, CD300A, CD3E, CD8A, CHEK2, CSF1R, CSF2RB, CXCL9, CXCR4, DUSP5, FAS, FCER1A, FCER1G, FLI1, GZMB, HCK, HGF, HIF1A, ICOS, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LCK, LEF1, LYN, LYZ, MAP3K1, NCF2, PIK3CD, PLAC8, PLSCR1, PRKCB, PTPN7, PTPN9, PTPN22, PTBRA, PTPRC, RAC2, RUNX1, STAT1, STAT4, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP	59
Cell Death	survival	survival of eukaryotic cells	5,11E-10	APAF1, BCL2A1, BTK, CCL2, CCL4, CCL5, CCL21, CD28, CD86, CD300A, CD3E, CD8A, CHEK2, CSF1R, CSF2RB, CXCL9, DUSP5, FAS, FCER1A, FCER1G, FLI1, HCK, HGF, HIF1A, ICOS, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LCK, LEF1, LYN, MAP3K1, NCF2, PIK3CD, PLAC8, PLSCR1, PRKCB, PTPN7, PTPN9, PTPN22, PTBRA, PTPRC, RAC2, RUNX1, STAT1, STAT4, TLR4, TNFRSF17, TNFRSF1B, TNFSF13B, TRA@, TYROBP	54
Cell Death	survival	survival of mast cells	1,20E-08	BCL2A1, BTK, CD300A, FCER1A, FCER1G, LAX1, LYN, RAC2	8

Cell Death	survival	survival of phagocytes	1,93E-08	BCL2A1, CCL4, CSF1R, CSF2RB, FAS, HIF1A, LYN, TLR4, TYROBP	9
Cell Death	survival	survival of neutrophils	8,80E-07	BCL2A1, CCL4, CSF2RB, FAS, HIF1A, LYN	6
Cell Death	cytolysis	cytolysis	1,31E-13	APOL1, CD48, CD244, CD247, CX3CR1, FAS, FCER1A, FCGR1A, FCGR2A, GZMA, GZMB, IGHG1, IGKC, ITGB2, KLRD1, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	21
Cell Death	cytolysis	cytolysis of cells	6,79E-11	CD48, CD244, CX3CR1, FAS, FCGR2A, GZMA, GZMB, IGHG1, ITGB2, KLRD1, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	16
Cell Death	cytolysis	cytolysis of eukaryotic cells	8,95E-10	CD48, CD244, CX3CR1, FAS, FCGR2A, GZMB, ITGB2, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	13
Cell Death	killing	killing of lymphocytes	4,45E-13	CD47, CD48, CD244, CD1D, CIITA, FAS, KLRK1, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1, TRA@	14
Cell Death	killing	killing of cells	3,70E-12	CD47, CD48, CD244, CD1D, CIITA, CTLA4, CYBB, ETS1, FAS, GZMB, HIF1A, KLRK1, LTF, LY9, LYZ, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1, TRA@	21
Cell Death	killing	killing of normal cells	2,92E-11	CD47, CD48, CD244, CD1D, CIITA, ETS1, FAS, KLRK1, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1, TRA@	15
Cell Death	killing	killing of eukaryotic cells	9,54E-11	CD47, CD48, CD244, CD1D, CIITA, CTLA4, CYBB, ETS1, FAS, KLRK1, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1, TRA@	17
Cell Death	killing	killing of natural killer cells	6,75E-10	CD48, CD244, CD1D, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1	9
Cell Death	killing	killing of hematopoietic cells	8,83E-08	CD48, KLRK1, LY9, SH2D1A, SLAMF6, SLAMF7	6
Cell Death	killing	killing of T lymphocytes	1,68E-06	CD47, CD244, CIITA, FAS, PRF1, SH2D1A, TRA@	7
Cell Death	lysis	lysis of cells	3,57E-11	CASP1, CD48, CD244, CD1D, CD8A, CX3CR1, FAS, FCGR2A, GZMA, GZMB, IGHG1, ITGB2, KLRD1, KLRK1, LCK, PRF1, PTPRC, TLR4, TNFRSF1B, VAV1	20
Cell Death	lysis	lysis of eukaryotic cells	2,28E-09	CD48, CD244, CD1D, CX3CR1, FAS, FCGR2A, GZMB, ITGB2, KLRD1, KLRK1, LCK, PRF1, PTPRC, TLR4, TNFRSF1B, VAV1	16
Cell Death	lysis	lysis of cell lines	1,47E-06	CD48, CD244, CX3CR1, FAS, ITGB2, KLRD1, KLRK1, PRF1, TLR4	9
Cell Death	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated cytotoxic reaction	5,78E-10	CD247, FCER1A, FCGR1A, FCGR2A, IGHG1, IGKC, VAV1	7
Cell Death	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated cytotoxic reaction of eukaryotic cells	1,76E-07	CD247, FCER1A, FCGR2A, IGKC, VAV1	5
Cell Death	activation-induced cell death	activation-induced cell death	8,95E-10	CCR5, CD28, CD3E, CIITA, CTLA4, FAS, IRF4, ITK, MAP4K1, PRF1, RAC2, STAT1, TNFRSF1B	13
Cell Death	activation-induced cell death	activation-induced cell death	9,83E-10	CCR5, CD28, CD3E, CIITA, CTLA4, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1, TNFRSF1B	12

Cell Death	induced cell death	death of eukaryotic cells	1,39E-09	CCR5, CD28, CD3E, CIITA, FAS, ITK, MAP4K1, PRF1, RAC2, STAT1	10
Cell Death	activation-induced cell death	activation-induced cell death of T lymphocytes	4,51E-07	AHR, CCR2, CFH, FAS, ITGB2, SOCS3, TLR4, TNFRSF1B	8
Cell Death	necrosis	necrosis of liver cells	7,18E-07	AHR, BCL2A1, CASP1, CCR2, CFH, FAS, HGF, ITGB2, PRKCB, SOCS3, TLR4, TNFRSF1B	12
Cellular Movement	migration	migration of leukocytes	6,11E-28	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FCER1G, FCGR2A, FYB, GNA13, HCK, HGF, ICOS, IL10RA, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, LTF, LUM, LYN, MMP7, PIK3CD, PRF1, PRKCB, PTGDR, PTPRC, RAC2, RASSF5, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	65
Cellular Movement	migration	migration of mononuclear leukocytes	2,65E-22	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CTLA4, CTSS, CX3CR1, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FYB, GNA13, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCK, PRF1, RASSF5, SELPLG, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	45
Cellular Movement	migration	Lymphocyte migration	3,97E-21	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CTLA4, CX3CR1, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FYB, GNA13, HGF, ICOS, ITGAL, ITGB2, ITK, LCK, PRF1, RASSF5, SELPLG, SOCS3, TLR4, TNFRSF1B, TNFSF13B, XCL1	42
Cellular Movement	migration	migration of normal cells	2,08E-20	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FCER1G, FCGR2A, FHL2, FYB, GNA13, HCK, HGF, HIF1A, ICOS, IGHG1, IL10RA, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LTF, LUM, LYN, MAP3K1, MMP7, PIK3CD, PRF1, PRKCB, PTGDR, PTGER4, PTPRA, PTPRC, RAC2, RASSF5, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, ST8SIA4, TLR4, TNC, TNFRSF1B, TNFSF13B, VCAN, XCL1	76
Cellular Movement	migration	migration of cells	2,65E-19	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF2RB, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FCER1G, FCGR2A, FHL2, FPR3, FYB, GNA13, GZMB, HCK, HGF, HIF1A, ICOS, IGHG1, IL10RA, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, KLRK1, LCK, LTF, LUM, LYN, MAP3K1, MMP7, MYO1F, PIK3CD, PLD1, PRF1, PRKCB, PTGDR, PTGER4, PTPRA, PTPRC, RAC2, RARRES1, RASSF5, RGS1, RGS18, RUNX2, RUNX3, SELPLG, SERPINA3, SH2D2A, SOCS3, SP100, ST8SIA4, STAT1, TLR4, TNC, TNFAIP8, TNFRSF1B, TNFSF13B, VCAN, XCL1, XCL2	90
Cellular Movement	migration	migration of eukaryotic cells	1,95E-18	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF2RB, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CYTIP, DOCK2, ETS1, FAS, FCER1A, FCER1G, FCGR2A, FHL2, FPR3, FYB, GNA13, GZMB, HCK, HGF, HIF1A, ICOS, IGHG1, IL10RA, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, KLRK1, LCK, LTF, LUM, LYN, MAP3K1, MMP7, PIK3CD, PLD1, PRF1, PRKCB, PTGDR, PTGER4, PTPRA, PTPRC, RAC2, RARRES1, RASSF5, RGS1, RUNX3, SELPLG, SERPINA3, SH2D2A, SOCS3, SP100, ST8SIA4, TLR4, TNC, TNFAIP8, TNFRSF1B, TNFSF13B, VCAN, XCL1	85
Cellular Movement	migration	T cell migration	2,66E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD69, CD86, CTLA4, CXCL9, CXCR4, DOCK2, FAS, FYB, HGF, ICOS, ITGB2, ITK, LCK, PRF1, SELPLG, SOCS3, TLR4, XCL1	27
Cellular Movement	migration	migration of lymphatic system cells	5,88E-11	CCL4, CCL5, CD47, CXCL6, CXCL9, CXCR4, FAS, FHL2, HCK, HGF, HIF1A, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	21
Cellular Movement	migration	migration of bone marrow cells	1,12E-10	CCL4, CCL5, CD47, CXCL6, CXCL9, CXCR4, FAS, FHL2, HCK, HIF1A, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	20

Cellular Movement	migration	migration of phagocytes	4,42E-09	CCL2, CCL5, CD47, CSF1R, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, RAC2, TLR4	17
Cellular Movement	migration	migration of granulocytes	7,42E-09	CCL4, CCL5, CD47, CXCL6, CXCL9, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LUM, MMP7, PIK3CD, PTGDR, TLR4	17
Cellular Movement	migration	migration of neutrophils	3,31E-08	CCL5, CD47, CXCL6, FAS, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LUM, MMP7, PIK3CD, PTGDR, TLR4	14
Cellular Movement	migration	migration of antigen presenting cells	9,83E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CSF1R, CXCL9, CXCR4, IL10RA, PTGDR, RAC2, RUNX3	15
Cellular Movement	migration	migration of dendritic cells	1,26E-07	CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CXCL9, CXCR4, IL10RA, PTGDR, RAC2, RUNX3	13
Cellular Movement	migration	migration of leukemia cell lines	2,03E-07	CCL2, CCL5, CCR2, CD47, GNA13, ITGAL, ITGB2, KLRK1, LCK, SH2D2A	10
Cellular Movement	cell movement	cell movement of blood cells	4,00E-23	CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD86, CFH, CIITA, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, ICOS, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LYN, NFKBIZ, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	60
Cellular Movement	cell movement	cell movement of normal cells	1,19E-20	CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD86, CFH, CIITA, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, ICOS, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCP2, LYN, MAP3K1, NFKBIZ, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRA, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	64
Cellular Movement	cell movement	cell movement of leukocytes	1,39E-20	CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD86, CFH, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LYN, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	56
Cellular Movement	cell movement	cell movement	2,84E-18	ARPC1B, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CFH, CIITA, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, CXCR6 (includes EG:10663), DOCK2, FAS, FCER1G, FCGR2A, FPR3, GNA13, HCK, HGF, HIF1A, ICOS, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LYN, MAP3K1, NFKBIZ, PCDH10, PIK3CD, PLD1, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRA, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, VCAN, VNN2, XCL1	75
Cellular Movement	cell movement	cell movement of eukaryotic cells	2,86E-18	ARPC1B, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD47, CD48, CD69, CD86, CFH, CIITA, CORO1A, CSF1R, CTLA4, CTSS, CX3CR1, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR2A, GNA13, HCK, HGF, HIF1A, ICOS, IGHG1, IL12RB1, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LYN, MAP3K1, NFKBIZ, PCDH10, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, PTPRA, PTPRC, RAC2, RGS1, RUNX3, SELPLG, SERPINA3, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	69
Cellular Movement	cell movement	cell movement of lymphatic system cells	6,65E-17	CASP1, CBL, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP2, PIK3CD, PTGDR, PTPRC, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	37
Cellular Movement	cell movement	cell movement of phagocytes	4,85E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CFH, CORO1A, CSF1R, CX3CR1, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, HIF1A, IL12RB1, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	36
Cellular Movement	cell movement	cell movement of myeloid cells	9,97E-16	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL, ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, PTPRC, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	35
Cellular Movement	cell movement	cell movement of	5,63E-15	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD2, CD28, CD47, CD48, CFH, CORO1A, CXCL6, CXCL9, FAS, FCER1G, FCGR2A, HCK, HGF, IL2RB, ITGAL,	34

	ent	granulocytes		ITGAM, ITGAX, ITGB2, ITK, PIK3CD, PTGDR, RAC2, RUNX3, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	
Cellular Movement	cell movement	cell movement of mononuclear leukocytes	2,05E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD47, CD86, CTLA4, CTSS, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGAL, ITGAX, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PRKCB, PTGDR, PTGES, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Cellular Movement	cell movement	cell movement of neutrophils	2,82E-13	CASP1, CCL2, CCL4, CCL5, CCL21, CCR2, CD28, CD47, CFH, CORO1A, CXCL6, FAS, FCER1G, FCGR2A, HCK, HGF, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B, XCL1	28
Cellular Movement	cell movement	cell movement of lymphocytes	1,59E-12	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, GNA13, IGHG1, ITGB2, ITK, PIK3CD, POU2AF1, PRF1, PTGDR, PTGES, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	28
Cellular Movement	cell movement	cell movement of antigen presenting cells	8,60E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD86, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGDR, PTGES, RAC2, TLR4	21
Cellular Movement	cell movement	cell movement of T lymphocytes	8,64E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD86, CTLA4, CXCL9, CXCR4, FAS, ITGB2, ITK, PRF1, SELPLG, SOCS3, TLR4, XCL1	20
Cellular Movement	cell movement	cell movement of B lymphocytes	5,22E-08	CCL19, CCL21, CCR2, CXCL9, PIK3CD, POU2AF1, RAC2, RGS1, SELPLG, TLR4	10
Cellular Movement	cell movement	cell movement of macrophages	6,26E-08	CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGES, RAC2	16
Cellular Movement	cell movement	cell movement of memory T lymphocytes	1,29E-07	CCL2, CCL5, CCL19, CCL21, CD28, CXCL9, ITGB2	7
Cellular Movement	cell movement	cell movement of eosinophils	1,67E-07	CCL2, CCL5, CCL21, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK, RUNX3	13
Cellular Movement	cell movement	cell movement of bone marrow cells	4,66E-07	CCL2, CCL4, CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	11
Cellular Movement	cell movement	cell movement of mononuclear cells	1,63E-06	CCL2, CCL4, CCR2, CCR5, CIITA, ICOS, JAK3, NFKBIZ	8
Cellular Movement	homing	homing of leukocytes	2,52E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IGHG1, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	34
Cellular Movement	homing	homing of cells	7,48E-14	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CD69, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, CXCR6 (includes EG:10663), FCER1G, FCGR2A, GNA13, HCK, HGF, IGHG1, IL12RB1, ITGAL, ITGAM, ITGB2, LCK, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRA, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	43
Cellular Movement	homing	homing of normal cells	8,36E-14	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, HGF, IGHG1, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRA, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	37
Cellular Movement	homing	homing of eukaryotic cells	1,38E-13	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD47, CD69, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, HGF, IGHG1, IL12RB1, ITGAL, ITGAM, ITGB2, LCK, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRA, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	41
Cellular Movement	homing	homing of lymphocytes	3,18E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, PIK3CD, PTGDR, RAC2, RGS1, SELPLG, SOCS3, TLR4, XCL1	19
Cellular Movement	homing	homing of mononuclear leukocytes	3,40E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, IGHG1, ITGAL, PIK3CD, PRKCB, PTGDR, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	22
Cellular Movement	homing	homing of B lymphocytes	1,83E-07	CCL19, CCL21, CCR2, CXCL9, PIK3CD, RAC2, RGS1, TLR4	8
Cellular Movement	chemotaxis	chemotaxis	6,44E-14	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CD69, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, DOCK2, FCER1G,	43

				FCGR2A, FPR3, GNA13, HCK, HGF, IL12RB1, ITGAL, ITGAM, ITGB2, LCK, LYN, MAP3K1, PIK3CD, PLD1, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	
Cellular Movement	chemotaxis	chemotaxis of leukocytes	2,49E-13	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	32
Cellular Movement	chemotaxis	chemotaxis of eukaryotic cells	4,60E-13	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CD47, CD69, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, HGF, IL12RB1, ITGAL, ITGAM, ITGB2, LCK, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	39
Cellular Movement	chemotaxis	chemotaxis of cells	9,00E-13	CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD47, CD69, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, HGF, IL12RB1, ITGAL, ITGAM, ITGB2, LCK, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SELPLG, SERPINA3, SOCS3, TLR4, XCL1	40
Cellular Movement	chemotaxis	chemotaxis of normal cells	2,26E-12	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, CXCR4, FCER1G, FCGR2A, GNA13, HCK, HGF, IL12RB1, ITGAL, ITGAM, ITGB2, LYN, MAP3K1, PIK3CD, PRKCB, PTGDR, PTPRC, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	34
Cellular Movement	chemotaxis	chemotaxis of mononuclear leukocytes	1,60E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, ITGAL, PRKCB, PTGDR, RAC2, RGS1, SERPINA3, SOCS3, TLR4, XCL1	19
Cellular Movement	chemotaxis	chemotaxis of lymphocytes	1,63E-08	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CXCL9, CXCR4, GNA13, PTGDR, RAC2, RGS1, SOCS3, TLR4, XCL1	16
Cellular Movement	chemotaxis	chemotaxis of phagocytes	2,48E-08	CCL2, CCL4, CCL5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, IL12RB1, ITGAM, ITGB2, PIK3CD, RAC2, XCL1	17
Cellular Movement	chemotaxis	chemotaxis of myeloid cells	1,27E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, PTPRC, RAC2, XCL1	15
Cellular Movement	chemotaxis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13
Cellular Movement	chemotaxis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7
Cellular Movement	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17
Cellular Movement	infiltration	infiltration of cells	1,78E-11	CBL, CCL2, CCL4, CCL19, CCL21, CCR2, CCR5, CD86, CIITA, CSF1R, CTLA4, FAS, HIF1A, ICOS, ITGAM, ITK, JAK3, LCP2, NFKBIZ, PRF1, PTGES, SELPLG, SOCS3, STAT1, TLR4, TNFRSF1B, XCL1	27
Cellular Movement	infiltration	infiltration by neutrophils	9,60E-09	CASP1, CCL4, CCL21, CCR2, CFH, FAS, FCER1G, HGF, ITGAL, ITGAM, ITGB2, RAC2, SOCS3, TLR4, TNFRSF1B, XCL1	16
Cellular Movement	infiltration	infiltration of leukocytes	3,61E-08	CCL2, CCL4, CCL19, CCL21, CCR2, CCR5, CD86, CSF1R, CTLA4, FAS, HIF1A, ITGAM, ITK, PRF1, PTGES, SELPLG, STAT1, TLR4, TNFRSF1B, XCL1	20
Cellular Movement	infiltration	infiltration by T lymphocytes	1,38E-07	CCL19, CCL21, CCR2, CCR5, CD86, CTLA4, FAS, ITK, PRF1, SELPLG, XCL1	11
Cellular Movement	transmigration	transmigration of leukocytes	7,97E-11	CCL2, CCL4, CCL5, CCL19, CD28, CD47, CD86, CTSS, CXCL9, CXCR4, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	17
Cellular Movement	transmigration	transmigration of mononuclear leukocytes	1,71E-08	CCL2, CCL4, CCL5, CD28, CD47, CD86, CTSS, CXCR4, ITGAL, ITGAX, ITGB2	11
Cellular Movement	transmigration	transmigration of granulocytes	6,48E-07	CD47, CXCL9, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	9
Cellular Movement	transmigration	transmigration of neutrophils	7,77E-07	CD47, ITGAL, ITGAM, ITGAX, ITGB2, PIK3CD, PTGDR, TLR4	8
Cellular Movement	recruitment	recruitment of T lymphocytes	7,48E-10	CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR6, CD8A, CXCL9, CXCR4, ETS1, FCER1A	12
Cellular Movement	trafficking	trafficking of cells	2,09E-09	CCL4, CCL5, CCL19, CCR2, CCR5, CX3CR1, CXCR4, CXCR6 (includes EG:10663), ITGB2, TLR4, TNFRSF1B	11
Cellular Movement	trafficking	trafficking of leukocytes	4,51E-07	CCL4, CCL5, CCL19, CCR2, CCR5, ITGB2, TLR4, TNFRSF1B	8
Cellular Movement	chemoattraction	chemoattraction of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7

Cellular Movement	chemo attracti on	chemoattracti on of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5
Cellular Movement	extrava sation	extravasation of antigen presenting cells	4,61E-07	CCL2, CCL4, CCL5, CCR2, CCR5	5
Cell Signaling	mobiliz ation	mobilization of calcium	1,73E-23	BTK, C3AR1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FCRL3, GNA13, ITGB2, ITK, KLRC2, KLRD1, KLRK1, LAT2, LCK, LCP2, LYN, PLSR1, PTGDR, PTPRC, RAC2, SH2D2A, TRA@, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2	50
Cell Signaling	mobiliz ation	mobilization of Ca2+	1,56E-12	BTK, CBL, CCL2, CCL4, CCL5, CCL21, CD247, CD3D, CD3E, CD3G, CLEC4C, CXCL9, CXCR4, FCGR2A, ITGB2, KLRK1, LCK, PTGDR, TRA@, TRAT1, TYROBP, VAV1, XCL1	23
Cell Signaling	flux	flux of calcium	6,56E-18	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD3E, CD8A, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FPR3, HCK, ICOS, IGHM, ITGB2, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PRF1, PRKCB, RAC2, VAV1	36
Cell Signaling	flux	flux of Ca2+	3,14E-07	CCL2, CCL4, CCL5, CCR5, CD28, CD3E, CXCR4, FAS, ICOS, ITGB2, LYN, PRF1, PRKCB, VAV1	14
Cell Signaling	tyrosin e phosph orylation	tyrosine phosphorylati on of protein	4,28E-17	CBL, CCL4, CCL5, CD2, CD28, CD47, CD48, CD244, CD247, CD3E, CD8A, CLEC4C, CSF1R, CTLA4, FAS, FCER1A, FCER1G, FCGR2A, FCRL3, HCK, IGHM, ITGAM, ITGB2, JAK3, LAX1, LCK, LYN, PTPN22, PTPRA, PTPRC, SH2D1A, TYROBP	32
Cell Signaling	cell surface recepto r linked signal transdu ction	cell surface receptor linked signal transduction	1,41E-12	BIRC3, CBL, CCR2, CD2, CD28, CD247, CD3E, CD3G, CD8A, CLEC2D (includes EG:29121), CX3CR1, FCER1A, FCER1G, FCGR1A, FCGR2A, IFITM1, IL12RB1, IL2RB, IL7R, ITGAL, JAK3, KLRB1, KLRD1, LCK, LCP2, LY96, PIK3CD, PTPRC, PTPRE, RUNX2, STAT1, STAT4, TNFRSF1B	33
Cell Signaling	quantit y	quantity of calcium	4,81E-11	BTK, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD28, CD247, CD3E, CD8A, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR2A, FCGR3B, GNA13, HGF, IGHM, IGKC, ITGAM, LAT2, LCK, LCP2, LYN, LYZ, PIK3CD, PLD1, PRKCB, PTPRC, RGS1, VAV1	37
Cell Signaling	quantit y	quantity of Ca2+	1,68E-06	BTK, C3AR1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD52, CXCL9, CXCR4, GNA13, HGF, JAK3, LCK, LYN, LYZ, PIK3CD, PRKCB, PTPRC, RGS1, VAV1	23
Cell Signaling	secreti on	secretion of nitric oxide	3,15E-07	CASP1, CD8A, PTPRC, SOCS3, STAT1, TLR4	6
Cell Signaling	influx	influx of calcium	3,80E-07	BTK, CCL4, CCL5, CCR5, CD28, CD300A, CXCR4, FAS, FCER1A, FCGR2A, FCGR3B, IGHM, ITK, LYN, PIK3CD, PRKCB	16
Cell Signaling	release	release of calcium	4,82E-07	CCL4, CCL5, CCR5, CD28, CSF1R, FCER1G, FCGR1A, FCGR2A, FPR3, HCST, IGHM, ITK, LCK, PTPRA, PTPRC, RGS1, VAV1, XCL1	18
Molecular Transport	mobiliz ation	mobilization of calcium	1,73E-23	BTK, C3AR1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FCRL3, GNA13, ITGB2, ITK, KLRC2, KLRD1, KLRK1, LAT2, LCK, LCP2, LYN, PLSR1, PTGDR, PTPRC, RAC2, SH2D2A, TRA@, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2	50
Molecular Transport	mobiliz ation	mobilization of Ca2+	1,56E-12	BTK, CBL, CCL2, CCL4, CCL5, CCL21, CD247, CD3D, CD3E, CD3G, CLEC4C, CXCL9, CXCR4, FCGR2A, ITGB2, KLRK1, LCK, PTGDR, TRA@, TRAT1, TYROBP, VAV1, XCL1	23
Molecular Transport	flux	flux of calcium	6,56E-18	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD3E, CD8A, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FPR3, HCK, ICOS, IGHM, ITGB2, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PRF1, PRKCB, RAC2, VAV1	36
Molecular Transport	flux	flux of Ca2+	3,14E-07	CCL2, CCL4, CCL5, CCR5, CD28, CD3E, CXCR4, FAS, ICOS, ITGB2, LYN, PRF1, PRKCB, VAV1	14
Molecular Transport	quantit y	quantity of calcium	4,81E-11	BTK, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD28, CD247, CD3E, CD8A, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR2A, FCGR3B, GNA13, HGF, IGHM, IGKC, ITGAM, LAT2, LCK, LCP2, LYN, LYZ, PIK3CD, PLD1, PRKCB, PTPRC, RGS1, VAV1	37
Molecular Transport	quantit y	quantity of	1,68E-06	BTK, C3AR1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD52, CXCL9,	23

Transport	y	Ca2+		CXCR4, GNA13, HGF, JAK3, LCK, LYN, LYZ, PIK3CD, PRKCB, PTPRC, RGS1, VAV1	
Molecular Transport	secretion	secretion of nitric oxide	3,15E-07	CASP1, CD8A, PTPRC, SOCS3, STAT1, TLR4	6
Molecular Transport	influx	influx of calcium	3,80E-07	BTK, CCL4, CCL5, CCR5, CD28, CD300A, CXCR4, FAS, FCER1A, FCGR2A, FCGR3B, IGHM, ITK, LYN, PIK3CD, PRKCB	16
Molecular Transport	release	release of calcium	4,82E-07	CCL4, CCL5, CCR5, CD28, CSF1R, FCER1G, FCGR1A, FCGR2A, FPR3, HCST, IGHM, ITK, LCK, PTPRA, PTPRC, RGS1, VAV1, XCL1	18
Molecular Transport	release	release of superoxide	1,00E-06	CCL2, CYBB, FCER1G, FCGR2A, HCK, ITGB2, LYN, NCF2	8
Vitamin and Mineral Metabolism	mobilization	mobilization of calcium	1,73E-23	BTK, C3AR1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD2, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FCRL3, GNA13, ITGB2, ITK, KLRC2, KLRD1, KLRK1, LAT2, LCK, LCP2, LYN, PLSCR1, PTGDR, PTPRC, RAC2, SH2D2A, TRA@, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2	50
Vitamin and Mineral Metabolism	mobilization	mobilization of Ca2+	1,56E-12	BTK, CBL, CCL2, CCL4, CCL5, CCL21, CD247, CD3D, CD3E, CD3G, CLEC4C, CXCL9, CXCR4, FCGR2A, ITGB2, KLRK1, LCK, PTGDR, TRA@, TRAT1, TYROBP, VAV1, XCL1	23
Vitamin and Mineral Metabolism	flux	flux of calcium	6,56E-18	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD247, CD300A, CD3E, CD8A, CXCR4, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FPR3, HCK, ICOS, IGHM, ITGB2, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PRF1, PRKCB, RAC2, VAV1	36
Vitamin and Mineral Metabolism	flux	flux of Ca2+	3,14E-07	CCL2, CCL4, CCL5, CCR5, CD28, CD3E, CXCR4, FAS, ICOS, ITGB2, LYN, PRF1, PRKCB, VAV1	14
Vitamin and Mineral Metabolism	quantity	quantity of calcium	4,81E-11	BTK, C3AR1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR5, CD2, CD28, CD247, CD3E, CD8A, CX3CR1, CXCL9, CXCR4, FAS, FCER1A, FCER1G, FCGR2A, FCGR3B, GNA13, HGF, IGHM, IGKC, ITGAM, LAT2, LCK, LCP2, LYN, LYZ, PIK3CD, PLD1, PRKCB, PTPRC, RGS1, VAV1	37
Vitamin and Mineral Metabolism	quantity	quantity of Ca2+	1,68E-06	BTK, C3AR1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD52, CXCL9, CXCR4, GNA13, HGF, JAK3, LCK, LYN, LYZ, PIK3CD, PRKCB, PTPRC, RGS1, VAV1	23
Vitamin and Mineral Metabolism	influx	influx of calcium	3,80E-07	BTK, CCL4, CCL5, CCR5, CD28, CD300A, CXCR4, FAS, FCER1A, FCGR2A, FCGR3B, IGHM, ITK, LYN, PIK3CD, PRKCB	16
Vitamin and Mineral Metabolism	release	release of calcium	4,82E-07	CCL4, CCL5, CCR5, CD28, CSF1R, FCER1G, FCGR1A, FCGR2A, FPR3, HCST, IGHM, ITK, LCK, PTPRA, PTPRC, RGS1, VAV1, XCL1	18
Humoral Immune Response	proliferation	proliferation of B lymphocytes	6,03E-18	BTK, CBL, CCND2, CD86, CD244, CD3E, CD8A, FAS, HCK, HIF1A, IGHM, IGKC, IL2RG, IL7R, IRF4, IRF8, LEF1, LY75, LY86, LY96, LYN, MAP3K1, PIK3CD, PRKCB, PTPRC, SASH3, SLAMF7, STAT1, TLR4, TLR7, TNFRSF17, TNFSF13B, VAV1	33
Humoral Immune Response	quantity	quantity of B lymphocytes	1,56E-16	AHR, BCL2A1, BTK, CCR6, CD28, CD69, CXCR4, FCER1G, FCGR1A, FCGR2A, GNA13, HIF1A, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, RAC2, TNFRSF1B, TNFSF13B, TRA@, VAV1	29
Humoral Immune Response	quantity	quantity of plasma cells	1,29E-07	ICOS, IL7R, ITGB2, PRDM1, RAC2, TNFRSF1B, TNFSF13B	7
Humoral Immune Response	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Humoral Immune Response	development	development of B lymphocytes	3,12E-10	BTK, CBL, CD69, CXCR4, DCK, HIF1A, IGHM, IL2RG, IL7R, JAK3, LYN, PIK3CD, POU2AF1, PRDM1, TNFSF13B, VAV1	16
Humoral Immune Response	formation	formation of germinal center	2,41E-08	CD28, ICOS, KLHL6, LAX1, PIK3CD, POU2AF1, PRDM1, SH2D1A, TNFSF13B, VAV1	10
Humoral Immune Response	differentiation	differentiation of B lymphocytes	3,90E-08	CXCR4, DUSP5, HDAC9 (includes EG:9734), ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, PIK3CD, POU2AF1, PRDM1, PTPRC, TLR4, TLR7, TNFSF13B	17
Humoral Immune Response	differentiation	differentiation of plasma cells	1,68E-06	CXCR4, DUSP5, ICOS, IRF4, POU2AF1, PRDM1, TNFSF13B	7
Humoral Immune Response	cell	cell movement	5,22E-08	CCL19, CCL21, CCR2, CXCL9, PIK3CD, POU2AF1, RAC2, RGS1, SELPLG,	10

Immune Response	movement	of B lymphocytes		TLR4	
Humoral Immune Response	homing	homing of B lymphocytes	1,83E-07	CCL19, CCL21, CCR2, CXCL9, PIK3CD, RAC2, RGS1, TLR4	8
Humoral Immune Response	chemotaxis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7
Hematological Disease	hematological disorder	hematological disorder	3,71E-17	AHR, BTK, C1QA, CASP1, CBL, CCL2, CCL4, CCL5, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD52, CD86, CD247, CD3D, CD3E, CD3G, CFH, CHEK2, CSF1R, CSF2RB, CTLA4, CTSS, CX3CR1, CXCL9, CXCR4, DCK, ETS1, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, FCGR3B, FYB, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ITGB2, ITGB6, ITK, JAK3, KLRK1, LCK, LY75, LYN, MMP7, PIK3CD, PLD1, PLSCR1, POLE4, PRF1, PRKCB, PTGER4, RAB27A, RAC2, RRM1 (includes EG:6240), RUNX1, RUNX2, SOCS3, STAT4, STX11, TLR4, TLR7, TNFRSF1B, VAV1	79
Hematological Disease	hematological disorder	hematological disorder of mammalia	5,02E-12	CASP1, CCND2, CD28, CD47, CD3E, CTLA4, CX3CR1, CXCL9, CXCR4, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, HCLS1, HIF1A, ICOS, IKZF1, IL2RB, IL2RG, IL7R, IRF8, ITGB2, JAK3, LYN, PLSCR1, PRF1, RAC2, RUNX1, SOCS3, STAT4, TLR4, TLR7, TNFRSF1B, VAV1	35
Hematological Disease	hematological disorder	hematological disorder of mice	1,29E-11	CASP1, CCND2, CD28, CD47, CD3E, CTLA4, CX3CR1, CXCR4, ETS1, FAS, FCER1G, FCGR1A, FCGR2A, HCLS1, HIF1A, IKZF1, IL2RB, IL2RG, IL7R, IRF8, ITGB2, JAK3, LYN, PLSCR1, PRF1, RAC2, RUNX1, SOCS3, STAT4, TLR4, TLR7, TNFRSF1B, VAV1	33
Hematological Disease	lymphocytic leukemia	lymphocytic leukemia	1,10E-08	CCL4, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, DCK, FAS, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RRM1 (includes EG:6240), RUNX1, TLR7	21
Hematological Disease	hematologic cancer	hematologic cancer	1,18E-08	CBL, CCL4, CD2, CD52, CD86, CD247, CD3D, CD3E, CD3G, CHEK2, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, FAS, HDAC9 (includes EG:9734), IKZF1, IL2RB, IL2RG, IRF4, ITGB2, JAK3, KLRK1, LCK, POLE4, PRKCB, RRM1 (includes EG:6240), RUNX1, RUNX2, TLR7	31
Hematological Disease	autoimmune hemolytic anemia	autoimmune hemolytic anemia of mice	1,67E-08	CD28, CD47, CTLA4, FCGR1A, FCGR2A, IL7R	6
Hematological Disease	disease	disease of leukocytes	2,91E-08	BTK, CASP1, CCL5, CCR2, CCR5, CD86, CXCR4, ICOS, IRF1, ITGAM, LTF, RBL1	12
Hematological Disease	leukemia	leukemia	4,60E-08	CBL, CCL4, CD2, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, FAS, HDAC9 (includes EG:9734), IKZF1, IL2RB, IL2RG, IRF4, ITGB2, JAK3, LCK, POLE4, PRKCB, RRM1 (includes EG:6240), RUNX1, TLR7	28
Hematological Disease	hemolytic anemia	hemolytic anemia	2,59E-07	CD28, CD47, CFH, CTLA4, CX3CR1, FAS, FCGR1A, FCGR2A, IL7R	9
Hematological Disease	eosinophilia	eosinophilia	3,44E-07	CD86, CD247, CD3G, CTSS, CXCL9, CXCR4, FCER1A, HGF, IL2RG, IRF8, ITGB6, ITK, LCK, LY75, PRF1	15
Hematological Disease	acute lymphocytic leukemia	acute lymphocytic leukemia	8,90E-07	CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, FAS, IKZF1, LCK, RRM1 (includes EG:6240), RUNX1	13
Hematological Disease	leukopenia	leukopenia	1,24E-06	ETS1, ICOS, IL7R, JAK3, PIK3CD, TLR4, TLR7	7
Post-Translational Modification	tyrosine phosphorylation	tyrosine phosphorylation of protein	4,28E-17	CBL, CCL4, CCL5, CD2, CD28, CD47, CD48, CD244, CD247, CD3E, CD8A, CLEC4C, CSF1R, CTLA4, FAS, FCER1A, FCER1G, FCGR2A, FCRL3, HCK, IGHM, ITGAM, ITGB2, JAK3, LAX1, LCK, LYN, PTPN22, PTPRA, PTPRC, SH2D1A, TYROBP	32
Post-Translational Modification	phosphorylation	phosphorylation of protein	4,23E-15	AHR, CBL, CCL4, CCL5, CCND2, CD2, CD28, CD47, CD48, CD244, CD247, CD3E, CD8A, CLEC4C, CSF1R, CTLA4, FAS, FCER1A, FCER1G, FCGR2A, FCRL3, HCK, IGHM, ITGAM, ITGB2, JAK3, LAX1, LCK, LYN, PTPN22, PTPRA, PTPRC, SH2D1A, SOCS3, STAT1, TYROBP	36

Post-Translational Modification	moiety attachment	moiety attachment of protein	1,86E-08	AHR, CBL, CCL4, CCL5, CCND2, CD2, CD28, CD47, CD48, CD244, CD247, CD3E, CD8A, CLEC4C, CSF1R, CTLA4, FAS, FCER1A, FCER1G, FCGR2A, FCRL3, HCK, IGHM, ITGAM, ITGB2, JAK3, LAX1, LCK, LYN, MAP3K1, PTPN22, PTPRA, PTPRC, SH2D1A, SOCS3, STAT1, TYROBP	37
Post-Translational Modification	modification	modification of protein	1,58E-06	AHR, CASP1, CBL, CCL4, CCL5, CCND2, CD2, CD28, CD47, CD48, CD244, CD247, CD3E, CD8A, CLEC4C, CSF1R, CTLA4, CYBB, DUSP5, FAS, FCER1A, FCER1G, FCGR2A, FCRL3, HCK, HS3ST3B1, IGHM, ITGAM, ITGB2, JAK3, LAX1, LCK, LYN, MAP3K1, PTPN7, PTPN9, PTPN22, PTPRA, PTPRC, PTPRE, SH2D1A, SOCS3, STAT1, TYROBP, UBE2L6	45
Tissue Development	adhesion	adhesion of blood cells	4,66E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, VAV1	37
Tissue Development	adhesion	adhesion of leukocytes	5,56E-17	BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CORO1A, CXCL9, FAS, FCGR2A, FYB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, VAV1	34
Tissue Development	adhesion	adhesion of cells	8,88E-17	AMICA1, BTK, C1ORF38, C1QA, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD2, CD28, CD47, CD48, CD84, CD96, CD8A, CLEC7A, CORO1A, CX3CR1, CXCL9, CXCR4, CYTIP, EMB, ETS1, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHA1, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITGB6, ITK, LCK, LCP1, LTF, LYN, MAP3K1, MYO1F, PARVG, PCDH10, PIK3CD, PLD1, PTPRC, RAC2, RASSF5, RGS1, SELPLG, ST8SIA4, STAT1, STK4, TLR4, TNC, VAV1, VCAN	66
Tissue Development	adhesion	adhesion of normal cells	1,07E-16	AMICA1, BTK, C1QA, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CD8A, CORO1A, CXCL9, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LYN, MAP3K1, PIK3CD, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, TNC, VAV1	42
Tissue Development	adhesion	adhesion of mononuclear leukocytes	1,35E-16	BTK, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELPLG, TLR4, VAV1	26
Tissue Development	adhesion	adhesion of eukaryotic cells	1,34E-15	AMICA1, BTK, C1QA, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CD2, CD28, CD47, CD48, CD8A, CORO1A, CXCL9, CXCR4, CYTIP, ETS1, FAS, FCER1G, FCGR2A, FYB, GZMB, HCK, HGF, HIF1A, ICOS, IGHM, ITGAL, ITGAM, ITGAX, ITGB2, ITK, LCP1, LTF, LYN, MAP3K1, PARVG, PIK3CD, PLD1, PTPRC, RAC2, RASSF5, RGS1, SELPLG, TLR4, TNC, VAV1, VCAN	50
Tissue Development	adhesion	adhesion of lymphocytes	5,88E-14	BTK, CCL2, CCL4, CCL19, CCL21, CD2, CD28, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELPLG, TLR4	21
Tissue Development	adhesion	adhesion of T lymphocytes	7,51E-12	CCL4, CCL19, CCL21, CD2, CD47, CD48, CXCL9, FAS, FYB, HGF, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELPLG, TLR4	17
Tissue Development	adhesion	adhesion of neutrophils	4,19E-08	CORO1A, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	11
Tissue Development	adhesion	adhesion of granulocytes	3,07E-07	CORO1A, HCK, ITGAL, ITGAM, ITGAX, ITGB2, LCP1, LYN, PIK3CD, SELPLG, TLR4, VAV1	12
Tissue Development	generation	generation of leukocytes	2,46E-12	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, IL7R, IRF4, IRF8, ITK, JAK3, LYN, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	19
Tissue Development	generation	generation of lymphocytes	1,15E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	17
Tissue Development	generation	generation of T lymphocytes	2,92E-11	CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL2RG, ITK, JAK3, PSMB9, SOCS3, STAT4, TBX21, TLR4, TNFSF13B	15
Tissue Development	generation	generation of helper T lymphocytes	6,36E-07	CD28, IL12RB1, JAK3, SOCS3, STAT4, TBX21, TNFSF13B	7
Tissue Development	generation	generation of Th1 cells	1,02E-06	CD28, IL12RB1, JAK3, STAT4, TBX21	5
Tissue Development	accumulation	accumulation of leukocytes	1,48E-11	CCL2, CCL5, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CTLA4, CX3CR1, CXCL9, CYBB, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, RUNX3, SELPLG, SH2D2A, TLR4	24
Tissue Development	accumulation	accumulation of cells	7,61E-11	AHR, CCL2, CCL5, CCL21, CCR2, CCR5, CD28, CD86, CD1D, CTLA4, CX3CR1, CXCL9, CYBB, FAS, HGF, ICOS, IFI16, IL10RA, IL2RG, ITGAL, ITGAM, ITGAX, ITGB2, RAC2, RUNX3, SELPLG, SH2D2A, TLR4	28
Tissue Development	accumulation	accumulation of lymphocytes	2,17E-10	CCL5, CCL21, CCR5, CD28, CD86, CD1D, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SH2D2A	15
Tissue Development	accumulation	accumulation	4,33E-10	CCL5, CCL21, CCR5, CD28, CD86, CTLA4, FAS, ICOS, IL10RA, IL2RG, ITGAL,	13

Development	lation	of T lymphocytes		RUNX3, SH2D2A	
Tissue Development	accumulation	accumulation of macrophages	8,02E-07	CCL2, CCL5, CCR2, CD28, CX3CR1, FAS, ITGAM, ITGAX, TLR4	9
Tissue Development	aggregation	aggregation of cells	1,09E-10	BTK, CCL5, CD2, CD47, CP, CXCL9, FCER1G, FCGR2A, GNA13, HCLS1, HGF, HIF1A, IGHM, ITGAL, ITGAM, ITGB2, LCK, LCP2, LTF, LYN, MMP7, PCDH10, PTGER4, PTPRC, RUNX2, SELPLG, TLR4, VAV1	28
Tissue Development	aggregation	aggregation of blood cells	5,16E-09	BTK, CCL5, CD47, CXCL9, FCER1G, FCGR2A, GNA13, HCLS1, HIF1A, IGHM, ITGAL, ITGAM, ITGB2, LCK, LCP2, LYN, PTGER4, SELPLG, TLR4, VAV1	20
Tissue Development	aggregation	aggregation of leukocyte cell lines	1,99E-06	CD2, CD47, ITGAL, ITGAM, ITGB2	5
Tissue Development	cell-cell contact	cell-cell contact of leukocytes	1,76E-06	ITGAL, ITGAM, ITGAX, ITGB2	4
Connective Tissue Disorders	rheumatic disease	rheumatic disease	8,79E-16	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, JAKMIP1, LCK, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SH2D1A, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TLR7, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	111
Connective Tissue Disorders	rheumatic disease	rheumatic disease of rodents	1,12E-14	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	27
Connective Tissue Disorders	rheumatic disease	rheumatic disease of mice	1,23E-13	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	25
Connective Tissue Disorders	connective tissue disorder	connective tissue disorder	1,57E-15	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD96, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, JAKMIP1, LCK, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MMP7, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SAMD9, SERPINA3, SH2D1A, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TLR7, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	114
Connective Tissue Disorders	connective tissue disorder	connective tissue disorder of rodents	3,39E-15	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTLA4, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	28
Connective Tissue Disorders	connective tissue disorder	connective tissue disorder of mice	3,73E-14	CASP1, CCL2, CCR2, CD69, CIITA, CTLA4, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	26
Connective Tissue Disorders	arthritis	arthritis	3,35E-15	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL,	107

Connective Tissue Disorders	arthritis	arthritis of rodents	1,11E-12	ITGB2, JAKMIP1, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	24
Connective Tissue Disorders	arthritis	arthritis of mice	1,20E-11	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, PTGER4, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	22
Connective Tissue Disorders	rheumatoid arthritis	rheumatoid arthritis	1,26E-11	AIF1, C12ORF35, C1QA, C3AR1, CARD8, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CXCL6, CXCL9, CXCR4, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LY75, LYZ, MLLT3, MS4A7, NCF4, P2RY13, PLD1, PRDM1, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TLR4, TMEM156, TNFRSF1B, TNFSF13B, UBE2L6, XCL1	90
Connective Tissue Disorders	experimentally induced arthritis	experimentally induced arthritis	1,81E-10	CCL4, CCR2, CCR5, CD69, CTLA4, CTSS, FAS, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	19
Connective Tissue Disorders	experimentally induced arthritis	experimentally induced arthritis of mice	8,77E-10	CCR2, CD69, CTSS, FAS, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	16
Connective Tissue Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	1,05E-09	CCR2, CD69, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	14
Connective Tissue Disorders	collagen-induced arthritis	collagen-induced arthritis	1,22E-09	CCR2, CD69, CTLA4, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	15
Connective Tissue Disorders	systemic lupus erythematosus	systemic lupus erythematosus	8,70E-08	C1QA, CD86, FAS, FCGR2A, HLA-DRA, ICOS, IL7R, ITGAM, LYN, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	15
Connective Tissue Disorders	psoriatic arthritis	psoriatic arthritis	1,66E-07	APAF1, CXCL9, HLA-E, IGHG1, IGHM, IGKC, ITGAL, LYN, MAP4K1, PRKCB, RUNX3, TNFRSF1B	12
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease	8,79E-16	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGAM, ITGB2, JAKMIP1, LCK, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1,	111

				PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SH2D1A, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TLR7, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of rodents	1,12E-14	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	27
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of mice	1,23E-13	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LYN, PTGER4, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	25
Skeletal and Muscular Disorders	arthritis	arthritis	3,35E-15	AIF1, APAF1, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, ICOS, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LUM, LY75, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, RUNX3, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TMEM156, TNFRSF1B, TNFSF13B, TRA@, UBE2L6, XCL1	107
Skeletal and Muscular Disorders	arthritis	arthritis of rodents	1,11E-12	CASP1, CCL2, CCL5, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, LUM, PTGER4, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	24
Skeletal and Muscular Disorders	arthritis	arthritis of mice	1,20E-11	CASP1, CCL2, CCR2, CD69, CIITA, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, LTF, PTGER4, SOCS3, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	22
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder of rodents	1,83E-13	CASP1, CCL2, CCL5, CCR2, CD69, CD86, CIITA, CSF1R, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, FHL2, ICOS, IGHG1, IL2RB, ITGB2, LTF, LUM, LYN, PTGER4, RUNX2, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	32
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder of mice	9,74E-13	CASP1, CCL2, CCR2, CD69, CD86, CIITA, CSF1R, CTSS, FAS, FCER1G, FCGR1A, FCGR2A, FHL2, ICOS, IGHG1, IL2RB, ITGB2, LTF, LYN, PTGER4, RUNX2, SH2D1A, SOCS3, STAT1, STAT4, TAP1, TBX21, TLR4, TNFRSF1B, TNFSF13B	30
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder	5,46E-10	AIF1, APAF1, BASP1, BCL11B, BTK, C12ORF35, C1QA, C3AR1, CARD8, CASP1, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD52, CD53, CD69, CD86, CD96, CD1E, CD3D, CDC7, CELF2, CHEK2, CIITA, CP, CSF1R, CSF2RB, CSMD2, CTLA4, CTSS, CXCL6, CXCL9, CXCR4, CYTH4, DCK, DUSP5, EVI2B, FAS, FCER1G, FCGR1A, FCGR2A, FCN1, FCRL3, FHL2, FLI1, GABBR1, GABRP, GBP2, GBP1 (includes EG:2633), GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-E, HLA-F, ICOS, IDO1, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL10RA, IL2RB, IL7R, IRF8, ITGAL, ITGAM, ITGB2, ITGB6, JAKMIP1, KIAA1199, KLRB1, LCK, LCP1, LST1, LTF, LUM, LY75, LY96, LYN, LYZ, MAP4K1, MCTP2, MLLT3, MS4A7, NCF4, NLRP3, P2RY13, PLD1, PRDM1, PRKCB, PSMB9, PTGDR, PTGER4, PTPN22, PTPRC, RNF213, RTN1, RUNX1, RUNX2, RUNX3, SERPINA3, SH2D1A, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP, TAP1, TBX21, TLR4, TLR7, TMEM156, TNFRSF1B, TNFSF13B, TNIP3, TOX, TRA@, UBE2L6, VCAN, XCL1	138
Skeletal and Muscular Disorders	rheumatoid arthritis	rheumatoid arthritis	1,26E-11	AIF1, C12ORF35, C1QA, C3AR1, CARD8, CCL2, CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CCR6, CD28, CD53, CD69, CD86, CD3D, CDC7, CELF2, CHEK2, CIITA, CSF2RB, CSMD2, CTLA4, CXCL6, CXCL9, CXCR4, FCGR2A, FCN1, FCRL3, FLI1, GABBR1, GABRP, GBP2, GIMAP2, GPSM3, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL10RA, IL2RB, IL7R, ITGAL, ITGB2, JAKMIP1, LCP1, LST1, LTF, LY75, LYZ, MLLT3, MS4A7, NCF4, P2RY13, PLD1, PRDM1, PSMB9, PTGER4, PTPN22, PTPRC, RNF213, RUNX1, SERPINA3, SOCS3, SP140, STAT1, STAT4, STK10, TAGAP,	90

				TAP1, TLR4, TMEM156, TNFRSF1B, TNFSF13B, UBE2L6, XCL1	
Skeletal and Muscular Disorders	experimentally-induced arthritis	experimentally-induced arthritis	1,81E-10	CCL4, CCR2, CCR5, CD69, CTLA4, CTSS, FAS, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	19
Skeletal and Muscular Disorders	experimentally-induced arthritis	experimentally-induced arthritis of mice	8,77E-10	CCR2, CD69, CTSS, FAS, FCGR1A, FCGR2A, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	16
Skeletal and Muscular Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	1,05E-09	CCR2, CD69, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	14
Skeletal and Muscular Disorders	collagen-induced arthritis	collagen-induced arthritis	1,22E-09	CCR2, CD69, CTLA4, CTSS, FAS, ICOS, IGHG1, IL2RB, PTGER4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B	15
Skeletal and Muscular Disorders	systemic lupus erythematosus	systemic lupus erythematosus	8,70E-08	C1QA, CD86, FAS, FCGR2A, HLA-DRA, ICOS, IL7R, ITGAM, LYN, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	15
Skeletal and Muscular Disorders	psoriatic arthritis	psoriatic arthritis	1,66E-07	APAF1, CXCL9, HLA-E, IGHG1, IGHM, IGKC, ITGAL, LYN, MAP4K1, PRKCB, RUNX3, TNFRSF1B	12
Dermatological Diseases and Conditions	dermatological disorder	dermatological disorder	1,81E-15	AHR, APAF1, CASP1, CCL4, CCL5, CCR6, CD2, CD28, CD47, CD52, CD86, CD1B, CD1D, CSF1R, CSF2RB, CTLA4, CXCL9, CXCR4, DSG1, DUSP5, FAS, FCER1A, FCER1G, FCGR1A, FCGR2A, GABBR1, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DQA1, HLA-DRA, HLA-E, IGHG1, IGHM, IGK@, IGKC, IGL@, IL12RB1, IL2RB, IL2RG, ITGAL, ITGB2, LCK, LCP2, LEF1, LY86, LYN, MAP4K1, MMP7, NFKBIZ, PIK3CD, PRKCB, RGS1, RUNX3, SOCS3, STAT1, STAT4, TLR4, TLR7, TMC8, TNFRSF17, TNFRSF1B	62
Dermatological Diseases and Conditions	dermatological disorder	dermatological disorder of mammalia	4,99E-07	CASP1, CD1D, CTLA4, DSG1, FCGR1A, FCGR2A, IGHG1, IGHM, IGKC, ITGAL, ITGB2, PIK3CD, STAT4, TNFRSF1B	14
Dermatological Diseases and Conditions	dermatitis	dermatitis	7,10E-12	CASP1, CCL5, CD2, CD52, CD1D, CXCR4, DUSP5, FCER1A, FCER1G, HDAC9 (includes EG:9734), HLA-DQA1, HLA-DRA, IGHM, IGKC, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, NFKBIZ, PIK3CD, SOCS3, STAT1, TLR4	24
Dermatological Diseases and Conditions	leprosy	leprosy	1,80E-10	CCL4, CCR6, CD28, CD47, CD1B, FCER1A, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, TNFRSF17	16
Dermatological Diseases and Conditions	lepromatous leprosy	lepromatous leprosy	1,35E-08	CCL4, CD47, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	11
Dermatological Diseases and Conditions	psoriatic arthritis	psoriatic arthritis	1,66E-07	APAF1, CXCL9, HLA-E, IGHG1, IGHM, IGKC, ITGAL, LYN, MAP4K1, PRKCB, RUNX3, TNFRSF1B	12
Dermatological Diseases	contact dermat	contact dermatitis	1,00E-06	CD1D, FCER1G, IGHM, IGKC, ITGB2, LCP2, PIK3CD, TLR4	8

and Conditions	itis					
Cellular Compromise	degranulation	degranulation of eukaryotic cells	3,78E-15	BTK, C3AR1, CCL4, CD300A, CTLA4, FCER1A, FCER1G, FCGR2A, FCGR3B, HCK, ITGAM, ITGB2, ITK, KLRK1, LAT2, LAX1, LCP2, LYN, PIK3CD, PLD1, PLSCR1, RAB27A, RAC2, VAV1	24	
Cellular Compromise	degranulation	degranulation of mast cells	4,03E-13	BTK, C3AR1, CD300A, CTLA4, FCER1A, FCER1G, HCK, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PLD1, RAC2, VAV1	16	
Cellular Compromise	respiratory burst	respiratory burst	7,54E-12	CCL2, CYBB, FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LTF, LYN, NCF2, PTPRC, TYROBP	16	
Cellular Compromise	respiratory burst	respiratory burst of leukocytes	1,15E-10	CCL2, FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	13	
Cellular Compromise	respiratory burst	respiratory burst of myeloid cells	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, PTPRC, TYROBP	11	
Cellular Compromise	respiratory burst	respiratory burst of phagocytes	2,09E-09	FCER1A, FCER1G, HCK, IGHA1, IRF8, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	11	
Cellular Compromise	respiratory burst	respiratory burst of neutrophils	7,59E-09	FCER1A, FCER1G, HCK, IGHA1, ITGAL, ITGAM, ITGAX, ITGB2, LYN, TYROBP	10	
Cellular Compromise	depletion	depletion of mononuclear leukocytes	1,56E-07	CCR2, CTLA4, CXCR4, EOMES, FAS, IL2RB, TBX21, TNFRSF1B, TNFSF13B	9	
Cellular Compromise	depletion	depletion of lymphocytes	1,63E-06	CTLA4, CXCR4, EOMES, FAS, IL2RB, TBX21, TNFRSF1B, TNFSF13B	8	
Cellular Compromise	deletion	deletion of cells	2,50E-07	CD2, CD28, CD86, CD244, CTLA4, FAS, ICOS, IRF4	8	
Respiratory Disease	respiratory disorder	respiratory disorder of mice	2,34E-14	CCL2, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CD1D, CIITA, CTSS, CXCR4, CYBB, GZMB, HGF, HLA-DRA, ICOS, IGHG1, IL2RB, ITGB6, ITK, MX2, RUNX3, SOCS3, STAT1, STAT4, TBX21, TLR4	27	
Respiratory Disease	respiratory disorder	respiratory disorder	1,09E-12	ARL4C, C3AR1, CASP1, CCL2, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CD247, CD1D, CD3E, CD8A, CIITA, CSF2RB, CTSS, CX3CR1, CXCR4, CYBB, GZMB, HCK, HGF, HIF1A, HLA-DRA, ICOS, IGHG1, IGJ, IL10RA, IL2RB, IRF8, ITGAM, ITGB2, ITGB6, ITK, LCK, LEF1, LTF, LYZ, MMP7, MNDA, MX2, PTGDR, PTGER4, PTPRC, RUNX3, SLC2A3, SOCS3, STAT1, STAT4, TBX21, TLR4, TXNDC3	53	
Respiratory Disease	airway hyperresponsiveness	airway hyperresponsiveness of organism	1,89E-09	C3AR1, CD86, CD1D, CXCR4, HGF, ICOS, IGHG1, IL2RB, ITK, RUNX3, SOCS3, STAT4, TBX21, TLR4	14	
Respiratory Disease	airway hyperresponsiveness	airway hyperresponsiveness of mice	5,02E-09	CD86, CD1D, CXCR4, HGF, ICOS, IGHG1, IL2RB, ITK, RUNX3, SOCS3, STAT4, TBX21, TLR4	13	
Respiratory Disease	severe acute respiratory syndrome	severe acute respiratory syndrome	2,48E-07	ARL4C, C3AR1, CD247, CD3E, CSF2RB, IL10RA, IRF8, ITGAM, ITK, LCK, LEF1, LTF, MNDA, SLC2A3, STAT4	15	
Respiratory Disease	disease	disease of lung	1,67E-06	AHR, CCR2, CD86, CD8A, FAS, HCK, ICOS, IRF1, ITGB6, ITK, LYZ, MMP7, PRF1, STAT1, TLR4	15	
Organismal Survival	survival	survival of organism	3,50E-14	AHR, BCL2A1, CCL2, CCL21, CCND2, CCR2, CCR5, CD2, CD48, CDC7, CHEK2, CTLA4, CXCL9, CYBB, FAS, FLI1, GNA13, HGF, HLA-DRA, IDO1, IFI16, IGHM, IGK@, IKZF1, IL7R, ITGAL, ITGAM, ITGB6, ITK, LY96, LYZ, NLRP3, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RBL1, SOCS3, STAT1, STAT4, TAP1, TLR4, TNFRSF1B	44	
Organismal Survival	survival	survival of rodents	1,12E-12	BCL2A1, CCL2, CCL21, CCND2, CCR2, CCR5, CD2, CDC7, CHEK2, CTLA4, CXCL9, CYBB, FAS, FLI1, GNA13, HGF, HLA-DRA, IDO1, IFI16, IGHM, IGK@, IKZF1, IL7R, ITGAL, ITGAM, ITK, LY96, NLRP3, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RBL1, SOCS3, STAT1, STAT4, TAP1, TLR4, TNFRSF1B	40	

Organismal Survival	survival	survival of mammalia	1,33E-12	BCL2A1, CCL2, CCL21, CCND2, CCR2, CCR5, CD2, CDC7, CHEK2, CTLA4, CXCL9, CYBB, FAS, FLI1, GNA13, HGF, HLA-DRA, IDO1, IFI16, IGHM, IGK@, IKZF1, IL7R, ITGAL, ITGAM, ITGB6, ITK, LY96, NLRP3, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RBL1, SOCS3, STAT1, STAT4, TAP1, TLR4, TNFRSF1B	41
Organismal Survival	survival	survival of mice	2,55E-12	BCL2A1, CCL2, CCL21, CCND2, CCR2, CCR5, CD2, CDC7, CHEK2, CTLA4, CXCL9, CYBB, FAS, FLI1, GNA13, HGF, HLA-DRA, IDO1, IFI16, IGHM, IKZF1, IL7R, ITGAL, ITGAM, ITK, LY96, NLRP3, PRF1, PRKCB, PTGER4, PTGES, PTPRC, RBL1, SOCS3, STAT1, STAT4, TAP1, TLR4, TNFRSF1B	39
Organismal Survival	death	death of mice	3,52E-07	AHR, APAF1, BCL2A1, C3AR1, CASP1, CBL, CCND2, CCR2, CCR5, CD28, CD3E, CD8A, CDC7, CTLA4, CX3CR1, CXCL9, CXCR4, CYBB, ETS1, FAS, FCER1G, FLI1, GNA13, GZMA, GZMB, HGF, HIF1A, ICOS, IGHG1, IL12RB1, IL2RB, IRF8, ITGAM, LCP2, LY96, LYN, LYZ, MAP3K1, PRF1, PTGES, PTPRC, RBL1, RUNX2, SOCS3, ST8SIA4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TNFSF13B, VAV1	52
Infectious Disease	infectious disorder	infectious disorder of mammalia	1,18E-13	AHR, BIRC3, C1QA, CASP1, CCL2, CCR2, CCR5, CD1D, CX3CR1, CYBB, FAS, HCK, HLA-DQB1, ICOS, IGHM, IRF8, ITGB2, ITK, LUM, PRF1, STAT1, STAT4, TBX21, TLR4, TLR7, VAV1	26
Infectious Disease	infectious disorder	infectious disorder of mice	1,91E-13	AHR, BIRC3, C1QA, CASP1, CCL2, CCR2, CCR5, CD1D, CX3CR1, CYBB, FAS, HCK, HLA-DQB1, IGHM, IRF8, ITGB2, ITK, LUM, PRF1, STAT1, STAT4, TBX21, TLR4, TLR7, VAV1	25
Infectious Disease	infectious disorder	infectious disorder	2,51E-13	AHR, APOBEC3G, APOL1, ARL4C, BIRC3, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CD28, CD47, CD69, CD86, CD163, CD247, CD1B, CD1D, CD3E, CELF2, CSF2RB, CTLA4, CTSS, CX3CR1, CXCL9, CXCR4, CYBB, DOCK10, FAM49B, FAS, FCER1A, FCER1G, FCGR2A, GABBR1, GABRP, HCK, HGF, HLA-DOA, HLA-DQB1, ICOS, IGHM, IGK@, IGL@, IL10RA, IL10RB, IL12RB1, IL2RB, IL2RG, IL7R, IRF1, IRF8, ITGAL, ITGAM, ITGB2, ITK, KLRC2, KLRD1, LAPTM5, LCK, LCP2, LEF1, LTF, LUM, LY86, LY96, LYN, LYZ, MNDA, MS4A4A, MYO1F, PRF1, PTPRC, SAMD9, SELPLG, SLC2A3, SLC4A7, STAT1, STAT4, TBX21, TLR4, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, UBE2Z, VAV1, XCL1	91
Infectious Disease	leprosy	leprosy	1,80E-10	CCL4, CCR6, CD28, CD47, CD1B, FCER1A, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, TNFRSF17	16
Infectious Disease	lepromatous leprosy	lepromatous leprosy	1,35E-08	CCL4, CD47, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	11
Infectious Disease	severe acute respiratory syndrome	severe acute respiratory syndrome	2,48E-07	ARL4C, C3AR1, CD247, CD3E, CSF2RB, IL10RA, IRF8, ITGAM, ITK, LCK, LEF1, LTF, MNDA, SLC2A3, STAT4	15
Infectious Disease	infection	infection of mammalia	4,46E-07	CASP1, CCR2, CCR5, CD1D, CX3CR1, ICOS, IGHM, ITGB2, ITK, PRF1, STAT1, TBX21, TLR4, TLR7	14
Infectious Disease	infection	infection of mice	1,12E-06	CASP1, CCR2, CCR5, CD1D, CX3CR1, IGHM, ITGB2, ITK, PRF1, STAT1, TBX21, TLR4, TLR7	13
Hypersensitivity Response	degranulation	degranulation of mast cells	4,03E-13	BTK, C3AR1, CD300A, CTLA4, FCER1A, FCER1G, HCK, ITK, LAT2, LAX1, LCP2, LYN, PIK3CD, PLD1, RAC2, VAV1	16
Hypersensitivity Response	activation	activation of mast cells	1,71E-08	CCL5, CCR2, CD48, CD300A, FCER1G, FCGR2A, FYB, ITGAM, LCP2, TLR7, TLR8 (includes EG:51311)	11
Hypersensitivity Response	cell movement	cell movement of eosinophils	1,67E-07	CCL2, CCL5, CCL21, CD2, CD47, CD48, CXCL9, IL2RB, ITGAL, ITGAM, ITGB2, ITK, RUNX3	13
Antigen Presentation	activation	activation of antigen presenting cells	1,93E-12	CCL2, CCL4, CCL5, CD86, CD1D, CSF1R, FAS, FCER1G, FCGR1A, FCGR2A, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, ITGB6, LTF, PSMB9, PTGES, STAT1, STAT4, TLR4, TLR7, TNFRSF1B	25
Antigen Presentation	activation	activation of B lymphocytes	7,97E-11	BTK, C1QA, CD86, CD8A, FAS, IGHG1, IGHM, LAT2, LAX1, LYN, PIK3CD, POU2AF1, PTPRC, TLR4, TNFRSF17, TNFSF13B, VAV1	17
Antigen Presentation	quantity	quantity of dendritic cells	5,54E-10	CCL19, CCL21, CCR2, CCR6, CD47, CTLA4, IKZF1, IRF1, IRF4, IRF8, ITGB2, TLR4, TYROBP	13
Antigen Presentation	quantity	quantity of macrophages	1,07E-06	CCL2, CCR2, CCR6, CSF1R, CTSS, CXCR6 (includes EG:10663), FAS, IL12RB1, ITGB6, PTGES, SELPLG, SOCS3, STAT4, TLR4	14

Antigen Presentation	phagocytosis	phagocytosis of neutrophils	4,30E-09	CD47, CORO1A, CSF2RB, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	9
Antigen Presentation	phagocytosis	phagocytosis of phagocytes	6,53E-07	CD47, CORO1A, CSF2RB, FAS, FCGR2A, FCGR3B, ITGAM, ITGB2, SELPLG, TLR4	10
Antigen Presentation	recruitment	recruitment of antigen presenting cells	1,07E-08	C3AR1, CCL2, CCL4, CCL5, CCL19, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	12
Antigen Presentation	recruitment	recruitment of macrophages	3,06E-07	C3AR1, CCL2, CCL4, CCR2, CCR5, CD8A, CX3CR1, ETS1, ITGB2, TLR4	10
Antigen Presentation	chemotaxis	chemotaxis of phagocytes	2,48E-08	CCL2, CCL4, CCL5, CD28, CORO1A, CX3CR1, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, IL12RB1, ITGAM, ITGB2, PIK3CD, RAC2, XCL1	17
Antigen Presentation	chemotaxis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13
Antigen Presentation	chemotaxis	chemotaxis of B lymphocytes	1,68E-06	CCL19, CCL21, CCR2, CXCL9, RAC2, RGS1, TLR4	7
Antigen Presentation	cell movement	cell movement of macrophages	6,26E-08	CCL2, CCL4, CCL5, CCR2, CCR5, CCR6, CSF1R, CX3CR1, CXCL9, HGF, HIF1A, IL12RB1, ITGB2, PIK3CD, PTGES, RAC2	16
Antigen Presentation	migration	migration of dendritic cells	1,26E-07	CCL4, CCL5, CCL19, CCL21, CCR2, CCR5, CD86, CXCL9, CXCR4, IL10RA, PTGDR, RAC2, RUNX3	13
Antigen Presentation	chemoattraction	chemoattraction of antigen presenting cells	1,29E-07	CCL2, CCL4, CCL5, CCL19, CXCL9, IL12RB1, TLR4	7
Antigen Presentation	chemoattraction	chemoattraction of macrophages	1,02E-06	CCL2, CCL4, CCL5, CXCL9, IL12RB1	5
Antigen Presentation	processing	processing of antigen	4,43E-07	ERAP2, FCER1G, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRA	7
Antigen Presentation	accumulation	accumulation of macrophages	8,02E-07	CCL2, CCL5, CCR2, CD28, CX3CR1, FAS, ITGAM, ITGAX, TLR4	9
Cancer	cancer	cancer	2,35E-12	ACSL5, AHR, APAF1, ARL4C, BIRC3, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD52, CD69, CD86, CD163, CD247, CD3D, CD3E, CD3G, CD8A, CDC7, CFH, CHEK2, CLEC10A, CLEC2D (includes EG:29121), CP, CSF1R, CSF2RB, CST7, CTLA4, CTSS, CXCL9, CXCR4, CXCR6 (includes EG:10663), CYTIP, DCK, DUSP5, ERAP2, ETS1, FAS, FCGR2A, FHL2, FLI1, GABBR1, GABRP, GBP2, GBP1 (includes EG:2633), GNA13, GPR65, GZMA, GZMB, GZMK, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DOA, HLA-DRA, HLA-E, ICOS, IDO1, IFI44, IFITM1, IGHM, IGJ, IGKC, IGL@, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, ISG20, ITGB2, ITGB6, ITK, IVD, JAK3, KCNK6, KIAA1199, KLRK1, LCK, LEF1, LIMD2, LOC96610, LTF, LYN, LYZ, MALAT1, MAP3K1, MAP4K1, MIR155HG, MMP7, MYCL1, NLRP7, POLE4, PRDM1, PRF1, PRKCB, PSMB9, PTGER4, PTGES, PTPRA, PTPRC, PTPRE, PYHIN1 (includes EG:149628), RARRES1, RASSF5, RBL1, RGS1, RRM1 (includes EG:6240), RTN1, RUNX1, RUNX2, RUNX3, SECTM1, SERPINA3, SERPINB9, SLC2A3, SLC40A1, SOCS3, STAT1, STK4, TDO2, TLR4, TLR7, TNC, TNFRSF1B, TRA@, TRAT1, TYROBP, VCAN, XAF1, ZNF217	143
Cancer	tumorigenesis	tumorigenesis	6,54E-12	ACSL5, AHR, APAF1, ARL4C, BIRC3, BTK, CASP1, CBL, CCL2, CCL4, CCL5, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD52, CD69, CD86, CD163, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CD8B, CDC7, CFH, CHEK2, CLEC10A, CLEC2D (includes EG:29121), CP, CSF1R, CSF2RB, CST7, CTLA4, CTSS, CXCL9, CXCR4, CXCR6 (includes EG:10663), CYTIP, DCK, DUSP5, ERAP2, ETS1, FAS, FCER1A, FCGR2A, FHL2, FLI1, GABBR1, GABRP, GBP2, GBP1 (includes EG:2633), GNA13, GPR65, GZMA, GZMB, GZMK, HCLS1, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DOA, HLA-DRA, HLA-E, ICOS, IDO1, IFI44, IFITM1, IGHG1, IGHM, IGJ, IGKC, IGL@, IKZF1, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF8, ISG20, ITGB2, ITGB6, ITK, IVD, JAK3, KCNK6, KIAA1199, KLRK1, LCK, LEF1, LIMD2, LOC96610, LTF, LYN, LYZ, MALAT1, MAP3K1, MAP4K1, MIR155HG, MMP7, MYCL1, NLRP7, POLE4, PRDM1, PRF1, PRKCB, PSMB9, PTGER4, PTGES, PTPRA, PTPRC, PTPRE, PYHIN1 (includes EG:149628), RARRES1, RASSF5, RBL1, RGS1, RRM1 (includes EG:6240), RTN1, RUNX1, RUNX2,	151

Cancer	tumor	tumor	7,39E-11	RUNX3, SECTM1, SERPINA3, SERPINB9, SLC2A3, SLC40A1, SOCS3, STAT1, STK4, TDO2, TLR4, TLR7, TNC, TNFRSF1B, TNFSF13B, TRA@, TRAT1, TYROBP, VAV1, VCAN, XAF1, ZNF217	111
Cancer	malignant tumor	malignant tumor	6,44E-10	AHR, ARL4C, CASP1, CBL, CCL2, CCL4, CCL19, CCL21, CCND2, CCR2, CCR5, CD2, CD28, CD47, CD48, CD52, CD86, CD163, CD3D, CD8A, CD8B, CDC7, CFH, CHEK2, CLEC10A, CLEC2D (includes EG:29121), CP, CSF1R, CSF2RB, CST7, CTLA4, CTSS, CXCL9, CXCR4, CXCR6 (includes EG:10663), ETS1, FAS, FCGR2A, FHL2, FLI1, GABBR1, GABRP, GBP2, GBP1 (includes EG:2633), GNA13, GPR65, GZMB, GZMK, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DRA, HLA-E, ICOS, IDO1, IFI44, IFITM1, IGHG1, IKZF1, IL2RB, IL2RG, IRF1, IRF8, ITGB6, KCNK6, LCK, LEF1, LIMD2, LTF, LYN, LYZ, MALAT1, MAP4K1, MIR155HG, MMP7, MYCL1, NLRP7, POLE4, PRDM1, PRF1, PRKCB, PSMB9, PTGER4, PTGES, PTPRC, PTPRE, PYHIN1 (includes EG:149628), RARRES1, RASSF5, RBL1, RRM1 (includes EG:6240), RUNX1, RUNX2, RUNX3, SERPINB9, SLC40A1, SOCS3, STAT1, STK4, TDO2, TLR4, TLR7, TNC, TNFRSF1B, TNFSF13B, TRA@, TRAT1, TYROBP, VAV1, VCAN, XAF1	89
Cancer	prostate cancer	prostate cancer	2,77E-09	AHR, ARL4C, CASP1, CCL2, CCL4, CCL19, CCR2, CCR5, CD2, CD48, CD52, CD163, CD3D, CD8A, CFH, CHEK2, CLEC10A, CP, CSF1R, CSF2RB, CST7, CTLA4, CTSS, CXCL9, CXCR4, ETS1, FAS, FCGR2A, FHL2, FLI1, GABBR1, GABRP, GBP2, GBP1 (includes EG:2633), GPR65, GZMB, GZMK, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-DRA, HLA-E, ICOS, IDO1, IFI44, IFITM1, IKZF1, IL2RB, IL2RG, IRF1, KCNK6, LCK, LEF1, LIMD2, LTF, LYZ, MALAT1, MAP4K1, MIR155HG, MMP7, MYCL1, NLRP7, POLE4, PRDM1, PRF1, PRKCB, PTGER4, PTGES, PTPRC, PTPRE, PYHIN1 (includes EG:149628), RARRES1, RASSF5, RBL1, RRM1 (includes EG:6240), RUNX2, RUNX3, SERPINB9, SLC40A1, SOCS3, STAT1, STK4, TDO2, TLR7, TNC, TNFRSF1B, TRAT1, TYROBP, VCAN	41
Cancer	lymphocytic leukemia	lymphocytic leukemia	1,10E-08	CCL2, CCL5, CCR2, CD52, CFH, CHEK2, CSF1R, CSF2RB, CTLA4, CXCR4, CYTIP, FAS, FHL2, GBP2, GZMA, HDAC9 (includes EG:9734), IDO1, IGHM, IGL, IGKC, IGL@, IL7R, IRF1, ITK, LCK, LEF1, LOC96610, LTF, LYZ, MMP7, PRKCB, PTPRC, RARRES1, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, STAT1, STK4, VCAN	21
Cancer	hematologic cancer	hematologic cancer	1,18E-08	CCL4, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, DCK, FAS, IKZF1, IL2RB, IL2RG, IRF4, ITGB2, LCK, PRKCB, RRM1 (includes EG:6240), RUNX1, TLR7	31
Cancer	leukemia	leukemia	4,60E-08	CBL, CCL4, CD2, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CTLA4, CXCR4, DCK, FAS, HDAC9 (includes EG:9734), IKZF1, IL2RB, IL2RG, IRF4, ITGB2, JAK3, LCK, POLE4, PRKCB, RRM1 (includes EG:6240), RUNX1, TLR7	28
Cancer	melanoma	melanoma	6,18E-08	CASP1, CCL4, CCL19, CD2, CD163, CD3D, CD8A, CSF1R, CSF2RB, CTLA4, CXCR4, GBP2, GBP1 (includes EG:2633), GZMB, GZMK, HDAC9 (includes EG:9734), HGF, HIF1A, HLA-E, IL2RB, IL2RG, IRF1, LCK, TRAT1	24
Cancer	pancreatic carcinoma	pancreatic carcinoma	4,74E-07	AHR, CSF1R, CTSS, GABRP, HIF1A, HLA-DRA, IFITM1, MIR155HG, MMP7, POLE4, PTGES, RRM1 (includes EG:6240)	12
Cancer	endocrine gland tumor	endocrine gland tumor	5,55E-07	AHR, CD48, CSF1R, CST7, CTSS, CXCR4, ETS1, GABRP, HIF1A, HLA-DRA, IFITM1, LIMD2, MIR155HG, MMP7, POLE4, PTGES, PTPRC, RRM1 (includes EG:6240), RUNX2	19
Cancer	lymphomagenesis	lymphomagenesis	7,17E-07	CD52, CD163, CSF2RB, CTLA4, CXCL9, CXCR4, FAS, FCGR2A, HDAC9 (includes EG:9734), HGF, HIF1A, IKZF1, IL2RB, IL2RG, IRF1, LCK, MAP4K1, MYCL1, PRF1, PRKCB, PTPRC, RRM1 (includes EG:6240)	22
Cancer	acute lymphocytic leukemia	acute lymphocytic leukemia	8,90E-07	CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCR4, FAS, IKZF1, LCK, RRM1 (includes EG:6240), RUNX1	13
Cancer	developmental	developmental	1,12E-06	AHR, CASP1, CCL2, CCL21, CCR2, CD86, CTLA4, CTSS, FAS, HGF, HIF1A,	23

	pment l process	process of tumor		ICOS, IGHG1, IRF1, IRF8, ITGB6, LCK, PTGES, PTPRC, RBL1, RUNX1, RUNX2, TRA@	
Cell Morphology	shape change	shape change of blood cells	2,46E-12	CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, FCGR2A, GNA13, GZMB, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	17
Cell Morphology	shape change	shape change of leukocytes	2,30E-10	CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	14
Cell Morphology	shape change	shape change of eukaryotic cells	5,13E-09	BASP1, CBL, CCL2, CCL5, CCR2, CD47, CD247, CD3E, CDC42SE2, CORO1A, CSF1R, DOCK2, FAS, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, PLD1, RBL1, RUNX2, SERPINA3, TNC	30
Cell Morphology	shape change	shape change of normal cells	9,09E-09	BASP1, CCL2, CCL5, CCR2, CD47, CD247, CD3E, CORO1A, DOCK2, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, LYN, RUNX2, SERPINA3	21
Cell Morphology	shape change	shape change of granulocytes	9,29E-08	CCL2, CCL5, CCR2, CORO1A, HCK, ITGAM, ITGB2, LYN	8
Cell Morphology	shape change	shape change	4,44E-07	BASP1, CBL, CCL2, CCL4, CCL5, CCR2, CCR5, CD47, CD247, CD3E, CD3G, CDC42SE2, CORO1A, CSF1R, DOCK2, EMB, FAS, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, ITGB6, KLRK1, LYN, PARVG, PLD1, RBL1, RUNX2, SERPINA3, TNC	35
Cell Morphology	polariz ation	polarization of cells	5,39E-12	CCL2, CCL5, CCL19, CCL21, CCR5, CD28, CD47, CTLA4, CXCL9, GNA13, ICOS, IL12RB1, IRF4, ITGB2, LCK, RASSF5, STAT4, STK4, TBX21, VAV1	20
Cell Morphology	polariz ation	polarization of eukaryotic cells	1,77E-11	CCL5, CCL19, CCL21, CCR5, CD28, CD47, CTLA4, CXCL9, GNA13, ICOS, IL12RB1, IRF4, ITGB2, LCK, RASSF5, STAT4, STK4, TBX21, VAV1	19
Cell Morphology	polariz ation	polarization of blood cells	3,97E-10	CCL5, CCL19, CCL21, CD28, CTLA4, CXCL9, ICOS, IL12RB1, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1	15
Cell Morphology	polariz ation	polarization of lymphocytes	8,95E-10	CCL19, CCL21, CD28, CTLA4, ICOS, IL12RB1, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1	13
Cell Morphology	polariz ation	polarization of leukocytes	2,76E-09	CCL5, CCL19, CCL21, CD28, CTLA4, ICOS, IL12RB1, IRF4, ITGB2, LCK, RASSF5, STAT4, TBX21, VAV1	14
Cell Morphology	polariz ation	polarization of T lymphocytes	1,71E-08	CCL19, CD28, CTLA4, ICOS, IL12RB1, IRF4, LCK, RASSF5, STAT4, TBX21, VAV1	11
Cell Morphology	polariz ation	polarization of membrane rafts	1,76E-07	CD2, CD28, CD86, DOCK2, VAV1	5
Cell Morphology	cell spreadi ng	cell spreading of blood cells	7,48E-10	CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	12
Cell Morphology	cell spreadi ng	cell spreading of leukocytes	2,41E-08	CD47, CD247, CD3E, CORO1A, HCK, ICOS, ITGAL, ITGAM, ITGB2, LYN	10
Cell Morphology	cell spreadi ng	cell spreading of normal cells	3,31E-08	CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, LYN, SERPINA3	14
Cell Morphology	cell spreadi ng	cell spreading	3,11E-07	CBL, CCL5, CCR5, CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, SERPINA3, TNC	20
Cell Morphology	cell spreadi ng	cell spreading of eukaryotic cells	6,16E-07	CBL, CD47, CD247, CD3E, CORO1A, FCGR2A, GZMB, HCK, HGF, ICOS, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, SERPINA3, TNC	18
Cell Morphology	morph ogenesi s	morphogenesi s of cells	2,34E-08	BASP1, CBL, CCL2, CCL4, CCL5, CCR2, CD47, CD247, CD3E, CD3G, CDC42SE2, CORO1A, CSF1R, DOCK2, FAS, FCGR2A, GNA13, GZMB, HCK, HGF, ICOS, IL7R, ITGAL, ITGAM, ITGB2, KLRK1, LYN, PARVG, PLD1, RAC2, RBL1, RUNX2, SERPINA3, STK4, TNC	35
Neurological Disease	experi mental autoim mune enceph alomye litis	experimental autoimmune encephalomye litis of rodents	3,18E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	23
Neurological Disease	experi mental autoim	experimental autoimmune encephalomye	6,84E-12	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	22

	mune enceph alomye litis	litis of mice				
Neurological Disease	enceph alitis	encephalitis	1,16E-11	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, FAS, HIF1A, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	24	
Neurological Disease	enceph alopath y	encephalopath y of mice	1,73E-10	C3AR1, CASP1, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CX3CR1, CYBB, FAS, GABBR1, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IRF4, ITGAL, LYN, STAT1, STAT4, TBX21, TLR4, TYROBP	24	
Neurological Disease	neurolo gical disorde r	neurological disorder of mice	6,04E-07	C1QA, C3AR1, CASP1, CCL21, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CTSS, CX3CR1, CYBB, FAS, GABBR1, HIF1A, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IRF4, ITGAL, LYN, PTGES, ST8SIA4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TRA@, TYROBP	32	
Neurological Disease	neurolo gical disorde r	neurological disorder of rodents	8,55E-07	C1QA, C3AR1, CASP1, CCL21, CCR2, CCR6, CD28, CD86, CD1D, CTLA4, CTSS, CX3CR1, CYBB, FAS, GABBR1, HIF1A, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IRF4, ITGAL, LYN, PTGES, ST8SIA4, STAT1, STAT4, TBX21, TLR4, TNFRSF1B, TRA@, TYROBP	33	
Lymphoid Tissue Structure and Development	quantit y	quantity of granulocytes	3,82E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IRF8, ITGB2, JAK3, LYN, PLSCR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	22	
Lymphoid Tissue Structure and Development	quantit y	quantity of myeloid cells	7,21E-12	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, FAS, FCER1A, FCGR1A, FLI1, IKZF1, IRF8, ITGB2, JAK3, LYN, PLSCR1, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	23	
Lymphoid Tissue Structure and Development	quantit y	quantity of lymphatic system cells	1,67E-11	AHR, C1QA, CCR6, CD1D, CD8A, CFH, CSF2RB, ETS1, FAS, FCER1A, FCGR1A, FLI1, IKZF1, IRF8, ITGB2, JAK3, LYN, PLSCR1, PSMB10, RAC2, SELPLG, SOCS3, STAT4, TLR4, TNFRSF1B	25	
Lymphoid Tissue Structure and Development	quantit y	quantity of neutrophils	3,31E-08	AHR, C1QA, CD1D, CFH, FAS, FCGR1A, ITGB2, JAK3, PLSCR1, RAC2, SELPLG, SOCS3, TLR4, TNFRSF1B	14	
Lymphoid Tissue Structure and Development	formati on	formation of lymphatic system component	3,36E-10	CCL21, CD28, HGF, ICOS, KLHL6, LAX1, PIK3CD, POU2AF1, PRDM1, SH2D1A, TNFRSF1B, TNFSF13B, VAV1	13	
Lymphoid Tissue Structure and Development	formati on	formation of germinal center	2,41E-08	CD28, ICOS, KLHL6, LAX1, PIK3CD, POU2AF1, PRDM1, SH2D1A, TNFSF13B, VAV1	10	
Lymphoid Tissue Structure and Development	chemot axis	chemotaxis of myeloid cells	1,27E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, CXCL9, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, PTPRC, RAC2, XCL1	15	
Lymphoid Tissue Structure and Development	chemot axis	chemotaxis of neutrophils	1,41E-06	CCL2, CCL4, CCL5, CD28, CORO1A, CXCL6, FCER1G, FCGR2A, HCK, ITGAM, ITGB2, RAC2, XCL1	13	
Gastrointesti nal Disease	colitis	colitis	5,53E-11	CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CTLA4, FAS, FCER1A, IGHM, IL10RB, MMP7, PTGER4, RUNX3, SOCS3, STAT4, TLR4, TRA@	20	
Gastrointesti nal Disease	inflam matory bowel disease	inflammatory bowel disease of mamma lia	8,05E-08	CASP1, CCR2, CCR5, CTLA4, FAS, FCER1A, IGHM, MMP7, PIK3CD, PTGER4, STAT4, TLR4, TRA@	13	
Gastrointesti nal Disease	digestiv e system disorde r	digestive system disorder of mice	3,14E-07	CASP1, CCR2, CCR5, CTLA4, FAS, FCER1A, IGHM, IL10RB, MMP7, PIK3CD, PTGER4, STAT4, TLR4, TRA@	14	
Gastrointesti nal Disease	pancre atic carcino	pancreatic carcinoma	4,74E-07	AHR, CSF1R, CTSS, GABRP, HIF1A, HLA-DRA, IFITM1, MIR155HG, MMP7, POLE4, PTGES, RRM1 (includes EG:6240)	12	

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Gastrointestinal Disease	ulcerative colitis	ulcerative colitis	7,80E-07	CD86, CD247, CD3D, CD3E, CD3G, FAS, PTGER4, RUNX3, SOCS3, TLR4	10	
Genetic Disorder	colitis	colitis	5,53E-11	CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CTLA4, FAS, FCER1A, IGHM, IL10RB, MMP7, PTGER4, RUNX3, SOCS3, STAT4, TLR4, TRA@	20	
Genetic Disorder	leprosy	leprosy	1,80E-10	CCL4, CCR6, CD28, CD47, CD1B, FCER1A, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, TNFRSF17	16	
Genetic Disorder	prostate cancer	prostate cancer	2,77E-09	CCL2, CCL5, CCR2, CD52, CFH, CHEK2, CSF1R, CSF2RB, CTLA4, CXCR4, CYTIP, FAS, FHL2, GBP2, GZMA, HDAC9 (includes EG:9734), IDO1, IGHM, IGJ, IGKC, IGL@, IL7R, IRF1, ITK, LCK, LEF1, LOC96610, LTF, LYZ, MMP7, PRKCB, PTPRC, RARRES1, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, STAT1, STK4, VCAN	41	
Genetic Disorder	severe combined immunodeficiency	severe combined immunodeficiency	4,37E-09	BTK, CD247, CD3D, CXCR4, IL2RG, IL7R, JAK3, PTPRC	8	
Genetic Disorder	lepromatous leprosy	lepromatous leprosy	1,35E-08	CCL4, CD47, FCER1G, FCGR2A, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	11	
Genetic Disorder	genetic disorder	genetic disorder of mice	7,40E-08	AHR, CASP1, CBL, CCL5, CCR2, CCR5, CD86, CYBB, FAS, FCER1A, FCER1G, FCGR2A, FHL2, GZMB, HCK, ICOS, IGHG1, IGHM, ITGAM, ITGB2, JAK3, LCP2, LYN, MMP7, PIK3CD, PTGER4, RGS10, RUNX1, SOCS3, STAT4, TBX21, TLR4, TNFRSF1B, TRA@, TYROBP, VAV1	36	
Genetic Disorder	inflammatory bowel disease	inflammatory bowel disease of mammalia	8,05E-08	CASP1, CCR2, CCR5, CTLA4, FAS, FCER1A, IGHM, MMP7, PIK3CD, PTGER4, STAT4, TLR4, TRA@	13	
Genetic Disorder	psoriatic arthritis	psoriatic arthritis	1,66E-07	APAF1, CXCL9, HLA-E, IGHG1, IGHM, IGKC, ITGAL, LYN, MAP4K1, PRKCB, RUNX3, TNFRSF1B	12	
Genetic Disorder	pancreatic carcinoma	pancreatic carcinoma	4,74E-07	AHR, CSF1R, CTSS, GABRP, HIF1A, HLA-DRA, IFITM1, MIR155HG, MMP7, POLE4, PTGES, RRM1 (includes EG:6240)	12	
Genetic Disorder	ulcerative colitis	ulcerative colitis	7,80E-07	CD86, CD247, CD3D, CD3E, CD3G, FAS, PTGER4, RUNX3, SOCS3, TLR4	10	
Reproductive System Disease	endometriosis	endometriosis	7,21E-11	AHR, BMP8B, C10ORF10, CASP1, CCL2, CCL4, CCL19, CCL21, CD163, CSF1R, CXCL9, CXCR4, CXCR6 (includes EG:10663), GZMA, HGF, HIF1A, IGL@, IL2RB, IL2RG, ISG20, ITGAL, ITGAM, KIAA1199, LTF, MMP7, PIK3CD, PRKCB, PTPN22, RARRES1, RRM1 (includes EG:6240), SLC2A3, TNFRSF17, TNFRSF1B, TNFSF13B, XCL1, XCL2	36	
Reproductive System Disease	prostate cancer	prostate cancer	2,77E-09	CCL2, CCL5, CCR2, CD52, CFH, CHEK2, CSF1R, CSF2RB, CTLA4, CXCR4, CYTIP, FAS, FHL2, GBP2, GZMA, HDAC9 (includes EG:9734), IDO1, IGHM, IGJ, IGKC, IGL@, IL7R, IRF1, ITK, LCK, LEF1, LOC96610, LTF, LYZ, MMP7, PRKCB, PTPRC, RARRES1, RBL1, RUNX1, RUNX2, RUNX3, SOCS3, STAT1, STK4, VCAN	41	
Renal and Urological Disease	renal and urological disorder	renal and urological disorder of mice	1,20E-10	AHR, C1QA, CASP1, CCL5, CD2, CD28, CD1D, CFH, CTLA4, FAS, FCER1G, FLI1, HGF, HIF1A, ICOS, IGHG1, ITGAL, LYN, PTPRC, SH2D1A, SH2D2A, TLR4, TNFSF13B	23	
Renal and Urological Disease	renal and urological disorder	renal and urological disorder	2,54E-07	AHR, C1QA, CASP1, CCL2, CCL4, CCL5, CCND2, CD2, CD28, CD52, CD1D, CD8A, CFH, CTLA4, CX3CR1, FAS, FCER1G, FLI1, HGF, HIF1A, HLA-DQB1, ICOS, IGHG1, ITGAL, LYN, NCF2, PRKCB, PTPRC, SERPINA3, SH2D1A, SH2D2A, TLR4, TNFRSF1B, TNFSF13B	34	

Renal and Urological Disease	glomerulonephritis	glomerulonephritis of mice	1,66E-09	C1QA, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A	12
Renal and Urological Disease	glomerulonephritis	glomerulonephritis	1,11E-07	C1QA, CCL4, CCL5, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TNFSF13B	15
Renal and Urological Disease	nephritis	nephritis of animal	1,77E-09	C1QA, CD2, CD28, CD1D, CFH, CTLA4, FAS, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TLR4	13
Renal and Urological Disease	nephritis	nephritis	2,02E-09	C1QA, CCL4, CCL5, CD2, CD28, CD1D, CD8A, CFH, CTLA4, FAS, HLA-DQB1, ICOS, ITGAL, LYN, PTPRC, SH2D2A, TLR4, TNFSF13B	18
Renal and Urological Disease	lupus nephritis	lupus nephritis of mice	5,39E-07	CD1D, CTLA4, FAS, ICOS, LYN, PTPRC	6
Antimicrobial Response	antiviral response	antiviral response	6,41E-09	APOBEC3G, CCL4, CCL5, CCL19, CXCR4, IFI44, IRF1, ISG20, MX2, SOCS3, STAT1, TLR7, TLR8 (includes EG:51311), TRIM22, VAV1	15
Antimicrobial Response	antiviral response	antiviral response of organism	1,95E-07	CCL4, CCL5, CCL19, CXCR4, IFI44, ISG20, MX2, STAT1, TLR7, TLR8 (includes EG:51311), TRIM22, VAV1	12
Organismal Injury and Abnormalities	damage	damage of organ	2,15E-08	AHR, C1QA, CASP1, CCL2, CCR2, CCR5, CFH, CYBB, FAS, FCGR1A, FCGR2A, HCK, HIF1A, ITGAL, ITGB2, ITGB6, KLRD1, NLRP3, PRF1, STAT1, STAT4, TLR4, TNFRSF1B	23
Organismal Injury and Abnormalities	injury	injury of organ	9,15E-08	AHR, CASP1, CCL2, CFH, CYBB, FAS, FCGR1A, FCGR2A, ITGAL, ITGB2, ITGB6, KLRD1, NLRP3, STAT1, STAT4, TLR4, TNFRSF1B	17
Organismal Injury and Abnormalities	fibrosis	fibrosis	1,64E-06	AHR, CCL2, CCR2, CCR5, CCR6, CXCL6, CXCL9, CXCR4, ETS1, FAS, HCK, HGF, HIF1A, HLA-DRA, IFITM1, IGHG1, LCK, MMP7, PLSCR1, PRKCB, PSMB9, STAT1, STK4, TLR4, TNFRSF1B	25
Free Radical Scavenging	production	production of reactive oxygen species	2,74E-08	CCL5, CD28, CD47, CD52, CTLA4, CYBB, FAS, FCER1A, GZMA, GZMB, GZMK, LCP2, LYN, NCF2, NFE2L3, PRF1, PRKCB, RAC2, SELPLG, TLR4	20
Free Radical Scavenging	release	release of superoxide	1,00E-06	CCL2, CYBB, FCER1G, FCGR2A, HCK, ITGB2, LYN, NCF2	8
Infection Mechanism	infectivity	infectivity of HIV-1	4,40E-08	APOBEC3G, CCL2, CCL4, CCL5, CCR5, CXCR4, HCK, IRF8	8
Infection Mechanism	infectivity	infectivity of virus	1,21E-06	APOBEC3G, CCL2, CCL4, CCL5, CCR5, CLEC10A, CXCR4, HCK, IRF8	9
Infection Mechanism	replication	replication of HIV	1,92E-07	APOBEC3G, CCL4, CCL5, CCR5, CD28, CIITA, CXCR4, HCK, IGKC, LCK, PLD1, PTPRC, TLR4	13
Infection Mechanism	replication	replication of HIV-1	1,95E-07	APOBEC3G, CCL4, CCL5, CCR5, CD28, CIITA, CXCR4, HCK, IGKC, LCK, PLD1, PTPRC	12
Infection Mechanism	replication	replication of virus	1,50E-06	AHR, APOBEC3G, CCL2, CCL4, CCL5, CCR5, CD28, CD48, CIITA, CTSW, CXCR4, CXCR6 (includes EG:10663), FERMT3, HCK, IFITM1, IGKC, IL10RA, IL12RB1, ISG20, LCK, MX2, PLD1, PTPRC, RUNX1, SELPLG, SOCS3, STAT1, STAT4, TLR4, TRA@, VNN2	31
Cell Cycle	cell division process	cell division process of leukocytes	1,32E-07	BTK, CD28, CD3E, CTLA4, HIF1A, IGHM, IL2RB, ITGAL, LEF1, RBL1, STAT1, STAT4, TNFSF13B, VAV1	14
Cell Cycle	cell division process	cell division process of lymphocytes	1,92E-07	BTK, CD28, CD3E, CTLA4, HIF1A, IGHM, IL2RB, ITGAL, LEF1, STAT1, STAT4, TNFSF13B, VAV1	13
Gene Expression	activation	activation of synthetic promoter	1,62E-07	AHR, CBL, CD2, CD28, CSF2RB, CXCL6, CYTIP, ETS1, FAS, FCGR2A, FLI1, GNA13, GPR65, HGF, HIF1A, IRF1, IRF4, IRF8, LCK, LCP2, LEF1, LTF, NFKBIZ, NLRP3, POU2AF1, PTPN22, RBL1, RGS1, RUNX1, RUNX2, SH2D1A, SOCS3, SP100, SP140, STAT1, TLR4, TNFRSF1B, TNFSF13B	38
Gene Expression	activation	activation of Nfat binding site	8,80E-07	CBL, CD28, CD247, CD3E, LCK, VAV1	6
Gene Expression	binding	binding of DNA	1,14E-06	AHR, BTK, CD28, CD3E, CTLA4, FAS, FYB, HGF, IFI16, IL2RB, JAK3, LCP2, MAP3K1, NFKBIZ, RUNX1, SOCS3, STAT1, STAT4, TNFRSF1B, TNFSF13B, VAV1	21

Cellular Assembly and Organization	polarization	polarization of membrane rafts	1,76E-07	CD2, CD28, CD86, DOCK2, VAV1	5
Small Molecule Biochemistry	secretion	secretion of nitric oxide	3,15E-07	CASP1, CD8A, PTPRC, SOCS3, STAT1, TLR4	6
Connective Tissue Development and Function	differentiation	differentiation of osteocytes	4,82E-07	CCL2, CCL5, CD47, CD300LF, CSF1R, FAS, FCER1G, FHL2, IFI16, IGHG1, PTGER4, RBL1, RGS10, RUNX2, SOCS3, STAT1, TLR4, TYROBP	18

SUPPLEMENTAL TABLE 3

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601 probeset list enrichment analysis (biological functions)

Category	Function	Function Annotation	p-value	Molecules	# Molecules
Inflammatory Response	immune response	immune response	1,35E-91	ADA, AIM2, APOBEC3G, BTK, C3, C1QA, C1QB, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD69, CD84, CD86, CD96, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD79A, CD8A, CIITA, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CSF3R, CST7, CTSS, CTSW, CXCL1, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CYBB, CYSLTR1, DEF6, DOCK2, ERAP2, FCER1G, FCGR3B, FGB, FPR1, FYB, GBP2, GNLY, GPR65, GPR183, GPSM3, GZMA, GZMB, GZMH, HCK, HCP5, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IL16, IL10RA, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF7, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRA1, LILRB1, LSP1, LTB, LTF, LY96, MMP7, MS4A1, NCF1, NCF4, NCF1C, NOD2, POU2AF1, PRF1, PSMB9, PTPRC, RGS1, RNASE6, SECTM1, SELL, SELPLG, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, SP140, STAT1, STAT4, TAC1, TAP1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UNC93B1, VAV1, WAS, ZAP70	153
Inflammatory Response	immune response	immune response of T lymphocytes	4,09E-10	C3AR1, CASP1, CCL3, CD28, CD69, CD1D, CD8A, HLA-DQB1, ICOS, IL7R, ITK, PTPRC, TNFRSF1B	13
Inflammatory Response	activation	activation of leukocytes	7,25E-61	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL6, CXCL9, CXCL10, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	99
Inflammatory Response	activation	activation of mononuclear leukocytes	1,47E-49	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, LY96, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	77
Inflammatory Response	activation	activation of lymphocytes	7,12E-47	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD19, CD22, CD27, CD28, CD48, CD86, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	73
Inflammatory Response	activation	activation of T lymphocytes	1,78E-36	ADA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD28, CD48, CD86, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IL1B, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LILRB1, NCF1C, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TYROBP, VAV1, WAS	56
Inflammatory Response	activation	activation of granulocytes	3,31E-17	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD14, CXCL1, CXCL6, CXCL9, FPR1, IL16, IL18RAP, IL1B, IL1RN, ITGB2, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	22
Inflammatory Response	activation	activation of neutrophils	1,03E-14	C3, CCL2, CCL3, CCL4, CCL5, CD14, CXCL1, CXCL6, FPR1, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	18
Inflammatory Response	activation	activation of	9,47E-14	CCL2, CCL3, CCL4, CCL5, CD4, CD86, CD1D, CSF1R, CXCL10, FCER1G, HCK,	26

ory Response		antigen presenting cells		HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, IL1B, LTB, LTF, PSMB9, SLPI, STAT1, STAT4, TAC1, TLR7, TNFRSF1B	
Inflammatory Response	activation	activation of phagocytes	1,23E-13	C3, CCL2, CCL3, CCL4, CCL5, CD4, CD14, CSF1R, CXCL1, CXCL6, CXCL10, FCER1G, FPR1, HCK, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, STAT1, STAT4, TAC1, VAV1	25
Inflammatory Response	activation	activation of natural killer cells	1,63E-12	CCL5, CD2, CD4, CD27, CD28, CD1D, IL12RB1, IL1B, IL1RN, IL2RB, ITGAL, ITGB2, KLRK1, LTF, PRF1, SLAMF6, STAT4, TAC1, TYROBP	19
Inflammatory Response	activation	activation of mast cells	4,94E-11	C3, CCL3, CCL5, CCR2, CD48, CD300A, FCER1G, FYB, IL27RA, LCP2, TAC1, TLR7, TLR8 (includes EG:51311)	13
Inflammatory Response	activation	activation of B lymphocytes	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16
Inflammatory Response	inflammatory response	inflammatory response	2,85E-39	ADA, AIF1, ALOX5, AOA, C3, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD28, CLEC5A, CORO1A, CSF1R, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYBB, CYSLTR1, DARC, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL10RA, IL12RB1, IL18RAP, IL1B, IL1RN, ITGAL, ITGB2, LCN2, LSP1, LTF, LY96, LYZ, NCF1, NCF1C, NOD2, PLA2G7, PLA2G2D, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELL, SELPLG, SERPINA3, STAT1, STAT4, TAC1, TLR7, TLR8 (includes EG:51311), TNFRSF1B, VAV1, XCL1	79
Inflammatory Response	chemotaxis	chemotaxis of leukocytes	3,08E-27	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SERPINA3, TAC1, XCL1	47
Inflammatory Response	chemotaxis	chemotaxis of myeloid cells	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, XCL1	28
Inflammatory Response	chemotaxis	chemotaxis of mononuclear leukocytes	8,38E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SERPINA3, TAC1, XCL1	30
Inflammatory Response	chemotaxis	chemotaxis of phagocytes	3,97E-18	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, XCL1	27
Inflammatory Response	chemotaxis	chemotaxis of granulocytes	7,31E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	27
Inflammatory Response	chemotaxis	chemotaxis of lymphocytes	9,70E-18	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IL16, RAC2, RGS1, SAA1, TAC1, XCL1	25
Inflammatory Response	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23
Inflammatory Response	chemotaxis	chemotaxis of antigen presenting cells	2,54E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CXCL9, CXCR3, FPR1, GNLY, IL16, IL12RB1, IL1B, SAA1, TAC1	18
Inflammatory Response	chemotaxis	chemotaxis of dendritic cells	2,22E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, FPR1, GNLY, IL16, IL1B, TAC1	14
Inflammatory Response	chemotaxis	chemotaxis of T lymphocytes	2,84E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16	16
Inflammatory Response	chemotaxis	chemotaxis of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CXCL9, CXCL10, FPR1, GNLY, IL1B, ITGAL, PRKCB, SERPINA3	14
Inflammatory Response	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9
Inflammatory Response	chemotaxis	chemotaxis	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9

ory Response Inflammat ory Response	is cell movemen t	of eosinophils cell movement of phagocytes	1,13E-24	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CCR5, CD28, CORO1A, CSF1R, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, DARC, FCER1G, FGR, FPR1, HCK, IL16, IL12RB1, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SAA1, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	45
Inflammat ory Response	cell movemen t	cell movement of neutrophils	4,52E-22	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	37
Inflammat ory Response	cell movemen t	cell movement of macrophage s	1,01E-11	C3, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CSF1R, CXCL9, CXCL10, CXCR3, DARC, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL	20
Inflammat ory Response	cell movemen t	cell movement of bone marrow cells	1,97E-11	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, SLPI	15
Inflammat ory Response	accumula tion	accumulatio n of leukocytes	2,07E-22	ALOX5, CCL2, CCL5, CCL11, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL9, CXCL10, CXCR3, CYBB, DEF6, GRN, ICOS, IL10RA, IL1B, IL1RN, IL2RG, ITGAL, ITGAX, ITGB2, PTGDS, RUNX3, S100A8, SELL, SELPLG, SH2D2A, SLPI, TIMP1, TNFRSF25	35
Inflammat ory Response	accumula tion	accumulatio n of mononuclea r leukocytes	1,31E-16	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, PTGDS, RUNX3, SELL, SH2D2A, TNFRSF25	21
Inflammat ory Response	accumula tion	accumulatio n of lymphocytes	3,50E-15	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SELL, SH2D2A, TNFRSF25	19
Inflammat ory Response	accumula tion	accumulatio n of T lymphocytes	5,82E-14	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A, TNFRSF25	16
Inflammat ory Response	accumula tion	accumulatio n of phagocytes	6,34E-11	CCL2, CCL5, CCL11, CCR2, CD28, CXCL2, CXCL10, GRN, IL1B, IL1RN, ITGAX, ITGB2, S100A8, SELPLG, SLPI, TIMP1	16
Inflammat ory Response	accumula tion	accumulatio n of granulocyte s	2,59E-10	ALOX5, CCL2, CCL5, CCL11, CXCL2, CXCL9, CXCL10, GRN, IL1B, IL1RN, ITGB2, PTGDS, S100A8, SELPLG, SLPI	15
Inflammat ory Response	homing	homing of phagocytes	4,11E-19	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, WAS, XCL1	28
Inflammat ory Response	homing	homing of neutrophils	1,56E-17	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	24
Inflammat ory Response	recruitme nt	recruitment of phagocytes	7,71E-18	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, ITGB2, LSP1, LYZ, SLPI, UCP2	25
Inflammat ory Response	recruitme nt	recruitment of neutrophils	4,34E-17	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, LSP1, LYZ, SLPI	22
Inflammat ory Response	recruitme nt	recruitment of dendritic cells	4,81E-10	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10	8
Inflammat ory Response	recruitme nt	recruitment of macrophage s	1,71E-08	C3AR1, CCL2, CCL3, CCL4, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	11
Inflammat ory Response	inflamma tion	inflammatio n	1,85E-17	ADA, ALOX5, C3, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL18, CCR2, CCR5, CD14, CD86, CTSS, CXCL2, CXCL10, DARC, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RG, IL7R, ITGB2, ITK, NCF1, PLA2G7, PRF1, PTPRC, PTTG1, S100A8, SELL, SLPI, STAT1, STAT4, TAC1, TLR8 (includes EG:51311),	41

TNFRSF1B, TNFSF13B

Inflammatory Response	inflammation	inflammation of organ	1,05E-12	ADA, CASP1, CCL4, CCL18, CCR2, CCR5, CD14, CTSS, CXCL2, DARC, ICOS, IGHG1, IL1B, IL1RN, IL27RA, ITGB2, ITK, NCF1, PRF1, SLPI, STAT1, STAT4, TAC1, TLR8 (includes EG:51311), TNFRSF1B, TNFSF13B	26
Inflammatory Response	inflammation	inflammation of organism	1,31E-09	CASP1, CCL2, CCL5, CD14, CXCL10, FCER1G, IL1B, IL1RN, IL2RG, IL7R, ITGB2, PLA2G7, SELL, STAT1, STAT4, TAC1, TNFRSF1B	17
Inflammatory Response	inflammation	inflammation of respiratory system component	3,35E-09	ADA, C3, C3AR1, CASP1, CCL18, CCR2, CCR5, CD14, CD86, CTSS, DARC, ICOS, IL1B, ITK, NCF1, TAC1	16
Inflammatory Response	inflammation	inflammation of animal	5,84E-08	CASP1, CCL2, CCL5, CD14, CXCL10, FCER1G, IL1B, IL1RN, ITGB2, PLA2G7, SELL, STAT4, TAC1, TNFRSF1B	14
Inflammatory Response	chemoattraction	chemoattraction of leukocytes	2,34E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, XCL1	16
Inflammatory Response	chemoattraction	chemoattraction of lymphocytes	3,48E-12	CCL2, CCL3, CCL4, CCL5, CCL18, CXCL9, CXCL10, CXCL13, CXCR3, IL16	10
Inflammatory Response	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9
Inflammatory Response	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7
Inflammatory Response	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9
Inflammatory Response	migration	migration of phagocytes	3,90E-15	CCL2, CCL3, CCL5, CSF1R, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, RAC2, S100A8, SAA1, SELL, SLPI	23
Inflammatory Response	migration	migration of neutrophils	1,41E-14	CCL3, CCL5, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	20
Inflammatory Response	antibody response	antibody response	4,34E-15	BTK, C3, CCL2, CCL5, CCR2, CD19, CD28, CR2, DARC, GPR183, ICOS, IGHG1, LCP2, LTF, LY86, POU2AF1, PSMB10, PTPRC, SH2D1A, TNFSF13B, VAV1	21
Inflammatory Response	antibody response	antibody response of animal	2,10E-09	BTK, C3, CD19, CD28, CR2, DARC, ICOS, IGHG1, PTPRC, SH2D1A, TNFSF13B, VAV1	12
Inflammatory Response	antibody response	antibody response of mice	5,54E-08	BTK, C3, CD19, CR2, DARC, ICOS, PTPRC, SH2D1A, TNFSF13B, VAV1	10
Inflammatory Response	respiratory burst	respiratory burst	1,81E-14	C3, CCL2, CCL11, CD14, CXCL1, CYBB, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, LTF, NCF1, PTPRC, TYROBP	18
Inflammatory Response	respiratory burst	respiratory burst of cells	5,61E-13	C3, CCL2, CCL11, CD14, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	15
Inflammatory Response	respiratory burst	respiratory burst of myeloid cells	3,65E-12	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	13
Inflammatory Response	respiratory burst	respiratory burst of leukocytes	3,91E-12	C3, CCL2, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	14
Inflammatory Response	respiratory burst	respiratory burst of granulocytes	5,23E-11	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	12

Inflammatory Response	respiratory burst	respiratory burst of neutrophils	2,62E-10	C3, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	11
Inflammatory Response	binding	binding of phagocytes	6,86E-14	C3, CD2, CD14, CD69, CLEC10A, CXCL2, CXCL10, FCGR3B, FGR, FPR1, HCK, ITGAL, ITGB2, LSP1, PTPN6, PTPRC, SELL, SELPLG	18
Inflammatory Response	binding	binding of neutrophils	7,08E-10	C3, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, PTPN6, SELL, SELPLG	11
Inflammatory Response	phagocytosis	phagocytosis	1,79E-13	C3, C1QA, CD4, CD14, CLEC7A, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCER1G, FCGR3B, FGR, HCK, ICOS, IGHG1, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	24
Inflammatory Response	phagocytosis	phagocytosis of cells	7,23E-12	C3, C1QA, CD4, CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCER1G, FCGR3B, FGR, HCK, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	21
Inflammatory Response	phagocytosis	phagocytosis of eukaryotic cells	7,62E-09	CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCGR3B, FGR, HCK, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	16
Inflammatory Response	infiltration	infiltration by neutrophils	8,14E-12	C2, C3, CASP1, CCL3, CCL4, CCL21, CCR2, CXCL2, CXCL10, FCER1G, IL1B, IL1RN, ITGAL, ITGB2, NCF1, RAC2, SELL, TNFRSF1B, XCL1	19
Inflammatory Response	antiviral response	antiviral response	3,96E-11	APOBEC3G, CCL4, CCL5, CCL11, CCL19, CCR7, FGR, IRF1, IRF7, ISG20, LCN2, LILRB1, RARRES3, STAT1, TLR7, TLR8 (includes EG:51311), VAV1	17
Inflammatory Response	antiviral response	antiviral response of organism	1,29E-09	CCL4, CCL5, CCL11, CCL19, FGR, IRF7, ISG20, LCN2, LILRB1, RARRES3, STAT1, TLR7, TLR8 (includes EG:51311), VAV1	14
Inflammatory Response	degranulation	degranulation of eukaryotic cells	9,77E-11	BTK, C3, C3AR1, CCL3, CCL4, CD300A, FCER1G, FCGR3B, FPR1, HCK, ITGB2, ITK, KLRK1, LAX1, LCP2, RAC2, SLA, TAC1, VAV1	19
Inflammatory Response	degranulation	degranulation of mast cells	8,80E-08	BTK, C3, C3AR1, CD300A, FCER1G, HCK, ITK, LAX1, LCP2, RAC2, VAV1	11
Inflammatory Response	quantity	quantity of phagocytes	2,02E-10	ADA, C1QA, CCL2, CCL3, CCR2, CD1D, CSF1R, CSF3R, CTSS, CXCL10, CXCR6 (includes EG:10663), IL12RB1, IL1B, ITGB2, JAK3, LSP1, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF1B	22
Inflammatory Response	adhesion	adhesion of neutrophils	2,10E-09	CORO1A, CSF3R, CXCL2, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	12
Inflammatory Response	transmigration	transmigration of granulocytes	2,32E-09	CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, ITGAL, ITGAX, ITGB2, LSP1, SLPI	11
Inflammatory Response	transmigration	transmigration of dendritic cells	1,11E-08	CCL3, CCL4, CCL5, CCL19, CCR7, ICAM2, IL1B	7
Inflammatory Response	CD4 T-cell response	CD4 T-cell response	4,34E-09	CASP1, CCR5, CD86, CLEC7A, CXCL10, CXCR3, ICOS, IL1B, IL27RA, IRF1, ITK, NCF1, STAT4	13
Inflammatory Response	TH1 immune response	TH1 immune response of animal	6,40E-09	CCR5, CLEC7A, CXCL10, CXCR3, IL1B, IL27RA, IRF1, ITK, STAT4	9
Inflammatory Response	TH1 immune response	TH1 immune response	8,73E-08	CCR5, CLEC7A, CXCL10, CXCR3, IL1B, IL27RA, IRF1, ITK, NCF1, STAT4	10
Inflammatory Response	processsing	processing of antigen	1,34E-08	ERAP2, FCER1G, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, UNC93B1	8
Cell-To-Cell Signaling	activation	activation of leukocytes	7,25E-61	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2,	99

and Interaction				CSF1R, CXCL1, CXCL6, CXCL9, CXCL10, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	
Cell-To-Cell Signaling and Interaction	activation	activation of cells	4,03E-56	ADA, BCL2A1, BTK, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CYBB, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICAM2, ICOS, IGHG1, IGHM, IGK@, IGL@, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IMPDH1, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SAA1, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70	112
Cell-To-Cell Signaling and Interaction	activation	activation of normal cells	2,66E-54	ADA, BCL2A1, BTK, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CYBB, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SAA1, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	105
Cell-To-Cell Signaling and Interaction	activation	activation of eukaryotic cells	3,60E-52	ADA, BCL2A1, BTK, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CYBB, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SAA1, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70	106
Cell-To-Cell Signaling and Interaction	activation	activation of mononuclear leukocytes	1,47E-49	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, LY96, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	77
Cell-To-Cell Signaling and Interaction	activation	activation of lymphocytes	7,12E-47	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD19, CD22, CD27, CD28, CD48, CD86, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	73
Cell-To-Cell Signaling and Interaction	activation	activation of T lymphocytes	1,78E-36	ADA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD28, CD48, CD86, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IL1B, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LILRB1, NCF1C, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TYROBP, VAV1, WAS	56
Cell-To-Cell	activation	activation of lymphatic	3,05E-17	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD14, CXCL1, CXCL6, CXCL9, FPR1, IL16, IL18RAP, IL1B, IL1RN, ITGB2, LCN2, LTF, NCF1C, PRF1, SELL, TAC1, VAV1	23

Signaling and Interaction		system cells				
Cell-To-Cell Signaling and Interaction	activation	activation of granulocytes	3,31E-17	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD14, CXCL1, CXCL6, CXCL9, FPR1, IL16, IL18RAP, IL1B, IL1RN, ITGB2, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	22	
Cell-To-Cell Signaling and Interaction	activation	activation of neutrophils	1,03E-14	C3, CCL2, CCL3, CCL4, CCL5, CD14, CXCL1, CXCL6, FPR1, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	18	
Cell-To-Cell Signaling and Interaction	activation	activation of antigen presenting cells	9,47E-14	CCL2, CCL3, CCL4, CCL5, CD4, CD86, CD1D, CSF1R, CXCL10, FCER1G, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, IL1B, LTB, LTF, PSMB9, SLPI, STAT1, STAT4, TAC1, TLR7, TNFRSF1B	26	
Cell-To-Cell Signaling and Interaction	activation	activation of phagocytes	1,23E-13	C3, CCL2, CCL3, CCL4, CCL5, CD4, CD14, CSF1R, CXCL1, CXCL6, CXCL10, FCER1G, FPR1, HCK, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, STAT1, STAT4, TAC1, VAV1	25	
Cell-To-Cell Signaling and Interaction	activation	activation of natural killer cells	1,63E-12	CCL5, CD2, CD4, CD27, CD28, CD1D, IL12RB1, IL1B, IL1RN, IL2RB, ITGAL, ITGB2, KLRK1, LTF, PRF1, SLAMF6, STAT4, TAC1, TYROBP	19	
Cell-To-Cell Signaling and Interaction	activation	activation of mast cells	4,94E-11	C3, CCL3, CCL5, CCR2, CD48, CD300A, FCER1G, FYB, IL27RA, LCP2, TAC1, TLR7, TLR8 (includes EG:51311)	13	
Cell-To-Cell Signaling and Interaction	activation	activation of B lymphocytes	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16	
Cell-To-Cell Signaling and Interaction	binding	binding of leukocytes	3,85E-34	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD48, CD69, CD86, CD3E, CLEC10A, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FCGR3B, FGR, FPR1, FYB, HCK, ICOS, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, PTPN6, PTPRC, SELL, SELPLG, TAC1	45	
Cell-To-Cell Signaling and Interaction	binding	binding of blood cells	6,86E-32	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCGR3B, FGR, FPR1, FYB, HCK, ICOS, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, PTPN6, PTPRC, SELL, SELPLG, TAC1	47	
Cell-To-Cell Signaling and Interaction	binding	binding of mononuclear leukocytes	1,82E-27	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD69, CD86, CD3E, CLEC10A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELL, SELPLG, TAC1	32	
Cell-To-Cell Signaling and Interaction	binding	binding of normal cells	1,96E-26	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCGR3B, FGR, FPR1, FYB, HCK, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, PTPN6, PTPRC, SELL, SELPLG, TAC1	50	
Cell-To-Cell Signaling and Interaction	binding	binding of cells	4,59E-26	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD28, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CLEC7A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCGR3B, FGR, FPR1, FYB, GZMB, HCK, HS3ST1, ICOS, IGKC, IL18RAP, IL1B, IL27RA, IL2RG, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, LY96, PTPN6, PTPRC, RHOH, SELL, SELPLG, TAC1, TNFRSF17	61	
Cell-To-Cell Signaling and Interaction	binding	binding of	1,78E-23	CCL4, CCL5, CCL19, CCL20, CCL21, CD2, CD6, CD69, CD86, CD3E, CLEC10A,	27	

Cell Signaling and Interaction		lymphocytes		CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELL, SELPLG, TAC1	
Cell-To-Cell Signaling and Interaction	binding	binding of eukaryotic cells	1,15E-22	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD48, CD69, CD84, CD86, CD3E, CLEC10A, CLEC7A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCGR3B, FGR, FPR1, FYB, HCK, ICOS, IGKC, IL1B, IL27RA, IL2RG, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, PTPN6, PTPRC, RHOH, SELL, SELPLG, TAC1	55
Cell-To-Cell Signaling and Interaction	binding	binding of T lymphocytes	3,71E-20	CCL4, CCL5, CCL21, CD2, CD6, CD69, CD86, CLEC10A, CXCL9, CXCL10, CXCL11, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, TAC1	22
Cell-To-Cell Signaling and Interaction	binding	binding of phagocytes	6,86E-14	C3, CD2, CD14, CD69, CLEC10A, CXCL2, CXCL10, FCGR3B, FGR, FPR1, HCK, ITGAL, ITGB2, LSP1, PTPN6, PTPRC, SELL, SELPLG	18
Cell-To-Cell Signaling and Interaction	binding	binding of granulocytes	1,69E-11	C3, CCL5, CCL11, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, LTF, PTPN6, SELL, SELPLG	14
Cell-To-Cell Signaling and Interaction	binding	binding of lymphatic system cells	2,49E-11	C3, CCL5, CCL11, CR2, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, LTF, PTPN6, SELL, SELPLG	15
Cell-To-Cell Signaling and Interaction	binding	binding of neutrophils	7,08E-10	C3, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, PTPN6, SELL, SELPLG	11
Cell-To-Cell Signaling and Interaction	binding	binding of antigen presenting cells	1,71E-08	CD2, CD4, CD6, CD14, CD69, CLEC10A, FPR1, FYB, ITGAL, LCK, PTPRC	11
Cell-To-Cell Signaling and Interaction	binding	binding of tumor cell lines	1,05E-07	CCR5, CD4, CD14, CLEC7A, CXCL9, CXCL10, CXCR3, FYB, IL1B, IL27RA, ITGAL, ITGB2, KLRK1, LCK, LTF, RHOH, SELL, SELPLG	18
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of blood cells	7,03E-27	BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, VAV1	47
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of leukocytes	3,38E-24	BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CORO1A, CSF3R, CXCL2, CXCL9, CXCL11, CXCR3, FGR, FYB, HCK, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SELL, SELPLG, TAC1, VAV1	41
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of normal cells	3,88E-23	AMICA1, BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CD8A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, VAV1	49
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of mononuclear leukocytes	1,46E-22	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELL, SELPLG, TAC1, VAV1	31
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of	6,00E-21	ADAM8, AMICA1, BTK, C3, C1ORF38, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11,	71

Cell Signaling and Interaction		cells		CCL19, CCL20, CCL21, CCR2, CCR5, CD2, CD4, CD19, CD28, CD48, CD84, CD96, CD8A, CLEC7A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, CYTIP, EMB, EMR1, FCER1G, FGB, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHA1, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, LCP1, LTF, MYO1F, PARVG, PCDH10, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, ST8SIA4, STAT1, TAC1, TIMP1, VAV1, ZAP70	
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of lymphocytes	5,86E-20	BTK, CCL2, CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELL, SELPLG, TAC1	26
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of eukaryotic cells	6,87E-20	AMICA1, BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD4, CD19, CD28, CD48, CD8A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, CYTIP, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, LTF, PARVG, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, TIMP1, VAV1, ZAP70	55
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of T lymphocytes	9,88E-17	CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, TAC1	21
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of granulocytes	1,87E-11	C3, CCL11, CORO1A, CSF3R, CXCL2, FGR, HCK, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	16
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of neutrophils	2,10E-09	CORO1A, CSF3R, CXCL2, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	12
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of endothelial cells	4,78E-08	AMICA1, C1QA, CCL2, CCL3, CCL4, CCL5, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, SELL, SELPLG	13
Cell-To-Cell Signaling and Interaction	adhesion	adhesion of lymphoma cell lines	1,07E-07	CCL2, CCL21, CD4, CR2, CXCL2, ITGAL, ITGAX, ITGB2, PARVG	9
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of leukocytes	6,53E-26	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCR3, DARC, IGHG1, IL1B, IL1RN, ITGB2, LSP1, LYZ, SELL, SELPLG, SLPI, TAC1, TLR7, UCP2	38
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of cells	3,25E-25	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, CXCR3, DARC, IGHG1, IL1B, IL1RN, ITGB2, LSP1, LYZ, SELL, SELPLG, SLPI, TAC1, TLR7, TNFRSF1B, UCP2	40
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of normal cells	1,14E-24	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, CXCR3, DARC, IGHG1, IL1B, IL1RN, ITGB2, LSP1, LYZ, SELL, SELPLG, SLPI, TAC1, TLR7, UCP2	39
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of lymphatic system cells	3,62E-21	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, DARC, IGHG1, IL1B, IL1RN, LSP1, LYZ, SLPI	28
Cell-To-Cell Signaling	recruitment	recruitment of granulocyte	2,47E-20	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, DARC, IGHG1, IL1B, IL1RN, LSP1, LYZ, SLPI	27

and Interaction		s				
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of phagocytes	7,71E-18	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, ITGB2, LSP1, LYZ, SLPI, UCP2	25	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of neutrophils	4,34E-17	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, LSP1, LYZ, SLPI	22	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of lymphocytes	5,29E-14	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10, CXCR3, IL1B, SELL	17	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of T lymphocytes	1,48E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10	14	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of antigen presenting cells	3,76E-11	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	14	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of dendritic cells	4,81E-10	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10	8	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of monocytes	6,40E-09	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10, IL1B	9	
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of macrophages	1,71E-08	C3AR1, CCL2, CCL3, CCL4, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	11	
Cell-To-Cell Signaling and Interaction	interaction	interaction of mononuclear leukocytes	1,73E-24	CCL4, CCL5, CCL11, CCL21, CCR5, CCR7, CD2, CD4, CD6, CD14, CD28, CD69, CD86, CLEC10A, CXCL9, CXCL10, CXCL11, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, TAC1	28	
Cell-To-Cell Signaling and Interaction	interaction	interaction of T lymphocytes	1,25E-23	CCL4, CCL5, CCL11, CCL21, CCR5, CCR7, CD2, CD4, CD6, CD28, CD69, CD86, CLEC10A, CXCL9, CXCL10, CXCL11, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, TAC1	27	
Cell-To-Cell Signaling and Interaction	interaction	interaction of cells	4,05E-22	CCL4, CCL5, CCL11, CCL21, CCR5, CCR7, CD2, CD4, CD6, CD14, CD28, CD69, CD86, CLEC10A, CXCL9, CXCL10, CXCL11, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, PCDH10, SELPLG, TAC1	29	
Cell-To-Cell Signaling and Interaction	response	response of leukocytes	2,10E-24	CCL3, CCL5, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD22, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CXCL9, CXCL11, DAPP1, FPR1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, RARRES3, SELPLG, STAT4, TLR7	32	
Cell-To-Cell Signaling	response	response of cells	8,86E-23	BTK, CCL3, CCL5, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD19, CD22, CD28, CD86, CD1D, CD3E, CD5L, CLEC5A, CLEC7A, CSF2RB, CXCL9, CXCL11, DAPP1, FAIM3, FPR1, GNLY, GZMA, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1,	52	

and Interaction				LSP1, LTB, LY96, MND A, NCF1, NOD2, PRF1, PSMB10, RARRES3, S100A8, SELPLG, STAT1, STAT4, TCIRG1, TLR7, TLR8 (includes EG:51311), TRAT1, TYROBP, UNC93B1	
Cell-To-Cell Signaling and Interaction	response	response of eukaryotic cells	1,70E-22	CCL3, CCL5, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD22, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CXCL9, CXCL11, DAPP1, FPR1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, LY96, NOD2, PSMB10, RARRES3, S100A8, SELPLG, STAT4, TLR7	35
Cell-To-Cell Signaling and Interaction	response	response of normal cells	6,04E-22	CCL3, CCL5, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD22, CD28, CD86, CD1D, CD3E, CLEC7A, CSF2RB, CXCL9, CXCL11, DAPP1, FPR1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, RARRES3, S100A8, SELPLG, STAT4, TLR7	33
Cell-To-Cell Signaling and Interaction	response	response of mononuclear leukocytes	7,65E-20	CCL19, CCL21, CCR2, CCR5, CD4, CD22, CD28, CD86, CD1D, CD3E, CLEC7A, CXCL9, CXCL11, DAPP1, FPR1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, SELPLG, STAT4	26
Cell-To-Cell Signaling and Interaction	response	response of lymphocytes	6,71E-16	CCL19, CCL21, CD4, CD22, CD28, CD86, CD1D, CD3E, CXCL9, CXCL11, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, SELPLG, STAT4	22
Cell-To-Cell Signaling and Interaction	response	T cell response	7,24E-14	CCL19, CCL21, CD4, CD28, CD86, CD1D, CD3E, CXCL9, CXCL11, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, SELPLG, STAT4	19
Cell-To-Cell Signaling and Interaction	attraction	attraction of leukocytes	7,92E-22	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL1, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, IL16, IL12RB1, IL1B, XCL1	22
Cell-To-Cell Signaling and Interaction	attraction	attraction of mononuclear leukocytes	4,31E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, IL16, IL1B, XCL1	17
Cell-To-Cell Signaling and Interaction	attraction	attraction of lymphocytes	1,36E-18	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, IL16, XCL1	16
Cell-To-Cell Signaling and Interaction	attraction	attraction of antigen presenting cells	8,03E-15	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CXCL9, CXCL10, CXCL11, CXCR3, IL12RB1, IL1B	13
Cell-To-Cell Signaling and Interaction	attraction	attraction of phagocytes	8,03E-15	CCL2, CCL3, CCL4, CCL5, CCL11, CXCL1, CXCL6, CXCL9, CXCL10, CXCR3, IL12RB1, IL1B, XCL1	13
Cell-To-Cell Signaling and Interaction	attraction	attraction of T lymphocytes	3,00E-13	CCL2, CCL4, CCL5, CCL11, CCL19, CCL21, CCR5, CXCL9, CXCL10, CXCL11, IL16, XCL1	12
Cell-To-Cell Signaling and Interaction	attraction	attraction of macrophages	3,94E-11	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1, IL1B	8
Cell-To-Cell	attraction	attraction of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCL10, IL1B	7

Signaling and Interaction Cell-To-Cell Signaling and Interaction	attraction	attraction of granulocytes	2,91E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CXCL1, CXCL6, CXCL10, XCL1	9
Cell-To-Cell Signaling and Interaction	attraction	attraction of memory T lymphocytes	4,36E-09	CCL4, CCL5, CCL11, CXCL9, CXCL10, CXCL11	6
Cell-To-Cell Signaling and Interaction	attraction	attraction of dendritic cells	3,57E-08	CCL5, CCL19, CCL20, CCL21, CXCL9, CXCL10, CXCL11	7
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of leukocytes	2,34E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, XCL1	16
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of normal cells	4,58E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, IL1B, XCL1	17
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of lymphocytes	3,48E-12	CCL2, CCL3, CCL4, CCL5, CCL18, CXCL9, CXCL10, CXCL13, CXCR3, IL16	10
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9
Cell-To-Cell Signaling and Interaction	selection	selection of lymphocytes	2,34E-16	CD4, CD19, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	16
Cell-To-Cell Signaling and Interaction	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Cell-To-Cell Signaling and Interaction	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Cell-To-Cell	phagocytosis	phagocytosis of cells	7,23E-12	C3, C1QA, CD4, CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCER1G, FCGR3B, FGR, HCK, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	21

Signaling and Interaction	Cell-To-Cell	phagocytosis	phagocytosis of eukaryotic cells	7,62E-09	CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCGR3B, FGR, HCK, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	16
Signaling and Interaction	Cell-To-Cell	signaling	signaling of leukocytes	2,65E-10	CD14, CD22, CLEC7A, IL2RB, IL2RG, ITGB2, LCP2, SH2D1A, SLAMF1	9
Signaling and Interaction	Cell-To-Cell	signaling	signaling of cells	6,00E-10	C1QA, CCL3, CCL4, CCL5, CCL18, CCL20, CCL21, CCR5, CD14, CD22, CLEC7A, CSF1R, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, IL10RA, IL1B, IL2RB, IL2RG, ITGB2, LCP2, LTB, SH2D1A, SIRPG, SLAMF1, STAT1, XCL1	29
Signaling and Interaction	Cell-To-Cell	signaling	signaling of lymphocytes	2,05E-08	CD22, IL2RB, IL2RG, ITGB2, LCP2, SH2D1A, SLAMF1	7
Signaling and Interaction	Cell-To-Cell	stimulation	stimulation of eukaryotic cells	4,27E-10	C3, CCL5, CCL11, CCL20, CD2, CD4, CD28, CD86, CD1D, CD8A, FGD3, ICOS, IL1B, IL2RB, KLRK1, LTF, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	21
Signaling and Interaction	Cell-To-Cell	stimulation	stimulation of leukocytes	2,52E-09	C3, CCL5, CCL11, CCL20, CD2, CD28, CD86, CD1D, ICOS, IL1B, KLRK1, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	16
Signaling and Interaction	Cell-To-Cell	stimulation	stimulation of normal cells	2,94E-09	C3, CCL5, CCL11, CCL20, CD2, CD4, CD28, CD86, CD1D, FGD3, ICOS, IL1B, KLRK1, LTF, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	19
Signaling and Interaction	Cell-To-Cell	stimulation	stimulation of T lymphocytes	4,02E-08	C3, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	11
Signaling and Interaction	Cell-To-Cell	stimulation	stimulation of mononuclear leukocytes	5,28E-08	C3, CCL20, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	12
Signaling and Interaction	Cell-To-Cell	positive selection	positive selection of lymphocytes	5,69E-09	CD4, ITK, RHOH, SIT1, TRAT1, VAV1, ZAP70	7
Signaling and Interaction	Cell-To-Cell	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1	6
Signaling and Interaction	Cell-To-Cell	attachment	attachment of leukocytes	1,34E-08	CSF2RB, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, SELL, VAV1	8
Hematological	Cell-To-Cell	activation	activation of leukocytes	7,25E-61	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C,	99

System Development and Function				CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL6, CXCL9, CXCL10, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	
Hematological System Development and Function	activation	activation of mononuclear leukocytes	1,47E-49	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, LY96, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	77
Hematological System Development and Function	activation	activation of lymphocytes	7,12E-47	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD19, CD22, CD27, CD28, CD48, CD86, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	73
Hematological System Development and Function	activation	activation of T lymphocytes	1,78E-36	ADA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD28, CD48, CD86, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IL1B, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LILRB1, NCF1C, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TYROBP, VAV1, WAS	56
Hematological System Development and Function	activation	activation of granulocytes	3,31E-17	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD14, CXCL1, CXCL6, CXCL9, FPR1, IL16, IL18RAP, IL1B, IL1RN, ITGB2, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	22
Hematological System Development and Function	activation	activation of neutrophils	1,03E-14	C3, CCL2, CCL3, CCL4, CCL5, CD14, CXCL1, CXCL6, FPR1, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	18
Hematological System Development and Function	activation	activation of antigen presenting cells	9,47E-14	CCL2, CCL3, CCL4, CCL5, CD4, CD86, CD1D, CSF1R, CXCL10, FCER1G, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, IL1B, LTB, LTF, PSMB9, SLPI, STAT1, STAT4, TAC1, TLR7, TNFRSF1B	26
Hematological System Development and Function	activation	activation of phagocytes	1,23E-13	C3, CCL2, CCL3, CCL4, CCL5, CD4, CD14, CSF1R, CXCL1, CXCL6, CXCL10, FCER1G, FPR1, HCK, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, STAT1, STAT4, TAC1, VAV1	25
Hematological System Development and Function	activation	activation of natural killer cells	1,63E-12	CCL5, CD2, CD4, CD27, CD28, CD1D, IL12RB1, IL1B, IL1RN, IL2RB, ITGAL, ITGB2, KLRK1, LTF, PRF1, SLAMF6, STAT4, TAC1, TYROBP	19
Hematological System Development and Function	activation	activation of mast cells	4,94E-11	C3, CCL3, CCL5, CCR2, CD48, CD300A, FCER1G, FYB, IL27RA, LCP2, TAC1, TLR7, TLR8 (includes EG:51311)	13

Function					
Hematological System Development and Function	activation	activation of B lymphocytes	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16
Hematological System Development and Function	proliferation	proliferation of leukocytes	1,07E-52	ADA, BTK, BTLA, CCL4, CCL20, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, CSF3R, CYSLTR1, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WAS, XCL1, ZAP70	97
Hematological System Development and Function	proliferation	proliferation of mononuclear leukocytes	7,87E-50	ADA, BTK, BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	92
Hematological System Development and Function	proliferation	proliferation of lymphocytes	5,76E-49	ADA, BTK, BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF2RB, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	91
Hematological System Development and Function	proliferation	proliferation of T lymphocytes	1,03E-31	BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CSF2RB, DEF6, DGKA, DOCK2, FYB, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, MYB (includes EG:4602), PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, STAT1, STAT4, TCIRG1, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	65
Hematological System Development and Function	proliferation	proliferation of B lymphocytes	1,89E-21	ADA, BTK, BTLA, CD4, CD19, CD22, CD86, CD3E, CD79A, CD8A, CR2, HCK, IGHM, IGKC, IL1RN, IL2RG, IL7R, IRF4, LY86, LY96, MS4A1, PRKCB, PTPN6, PTPRC, SASH3, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFSF13B, VAV1	36
Hematological System Development and Function	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70	13
Hematological System Development and Function	proliferation	proliferation of leukocyte cell lines	1,30E-08	CD28, CD1D, CD3E, CD8A, CLEC7A, CSF1R, CSF2RB, CSF3R, CYSLTR1, HCK, IL10RA, IL12RB1, IL1B, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602), PTPRC, TNFRSF1B	20
Hematological System Development	quantity	quantity of leukocytes	3,47E-48	ADA, ALOX5, BCL2A1, BTK, BTLA, C3, C1QA, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL2, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP,	88

ent and Function				DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, S100A8, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	
Hematological System Development and Function	quantity	quantity of blood cells	1,52E-45	ADA, ALOX5, BCL2A1, BTK, BTLA, C3, C1QA, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL2, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, MYB (includes EG:4602), POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, S100A8, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	89
Hematological System Development and Function	quantity	quantity of lymphocytes	1,01E-42	BCL2A1, BTK, BTLA, C3, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CIITA, CR2, CSF2RB, CTSS, CXCL10, CXCL13, CXCR3, CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL27RA, IL2RB, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	72
Hematological System Development and Function	quantity	quantity of T lymphocytes	9,72E-27	BCL2A1, BTLA, CCL19, CCL21, CCR2, CCR7, CD4, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTSS, CXCL10, CXCR3, DEF6, IKZF1, IL10RA, IL27RA, IL2RB, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCP2, LTB, PTPRC, RHOH, RUNX3, SELPLG, SIT1, STAT1, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, VAV1, WAS, ZAP70	47
Hematological System Development and Function	quantity	quantity of B lymphocytes	4,98E-19	BCL2A1, BTK, C3, CCR7, CD19, CD22, CD27, CD28, CD69, CD79A, CR2, CXCL13, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, MS4A1, POU2AF1, PTPN6, RAC2, SLA, TNFRSF1B, TNFSF13B, VAV1, WAS, ZC3H12A	31
Hematological System Development and Function	quantity	quantity of antigen presenting cells	1,10E-12	ADA, CCL2, CCL3, CCL19, CCL21, CCR2, CCR7, CSF1R, CTSS, CXCL10, CXCL13, CXCR6 (includes EG:10663), IKZF1, IL12RB1, IL1B, IRF1, IRF4, ITGB2, LSP1, LTB, SELPLG, STAT4, TYROBP	23
Hematological System Development and Function	quantity	quantity of plasma cells	8,00E-11	CD22, ICOS, IL7R, ITGB2, PTPN6, RAC2, TNFRSF1B, TNFSF13B, ZC3H12A	9
Hematological System Development and Function	quantity	quantity of phagocytes	2,02E-10	ADA, C1QA, CCL2, CCL3, CCR2, CD1D, CSF1R, CSF3R, CTSS, CXCL10, CXCR6 (includes EG:10663), IL12RB1, IL1B, ITGB2, JAK3, LSP1, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF1B	22
Hematological System Development and Function	quantity	quantity of natural killer cells	2,32E-09	CD86, ICOS, IL2RB, IL2RG, IRF1, JAK3, LTB, PRF1, PTPRC, TNFRSF25, TYROBP	11
Hematological System Development and Function	quantity	quantity of granulocytes	4,90E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B	18
Hematological	quantity	quantity of myeloid	6,29E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IKZF1, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B	19

System Development and Function		cells				
Hematological System Development and Function	quantity	quantity of intraepithelial T lymphocytes	3,14E-08	IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1		6
Hematological System Development and Function	quantity	quantity of dendritic cells	4,93E-08	CCL19, CCL21, CCR2, CCR7, CXCL13, IKZF1, IRF1, IRF4, ITGB2, LTB, TYROBP		11
Hematological System Development and Function	quantity	quantity of natural killer T lymphocytes	6,58E-08	CD1D, CD3E, CSF2RB, IKZF1, IL2RB, IL2RG, PTPRC, VAV1		8
Hematological System Development and Function	development	development of mononuclear leukocytes	7,26E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70		91
Hematological System Development and Function	development	development of leukocytes	8,10E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70		92
Hematological System Development and Function	development	development of lymphocytes	3,82E-46	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70		90
Hematological System Development and Function	development	T cell development	3,75E-43	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70		84
Hematological System Development	development	development of thymocytes	3,15E-11	CD3D, CD3E, CD3G, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, ZAP70		15

ent and Function Hematological System Development and Function	development	development of helper T lymphocytes	1,08E-08	CASP1, CD28, CD86, ICOS, IL12RB1, IL1B, IRF1, ITGB2, ITK, STAT1, STAT4	11
Hematological System Development and Function	development	development of B lymphocytes	1,15E-07	ADA, BTK, CD19, CD69, CR2, IGHM, IL2RG, IL7R, JAK3, MYB (includes EG:4602), POU2AF1, TNFSF13B, VAV1	13
Hematological System Development and Function	homeostasis	T cell homeostasis	7,23E-44	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	85
Hematological System Development and Function	hematopoiesis	hematopoiesis	2,08E-43	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCN2, LCP2, LTB, LTF, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	99
Hematological System Development and Function	hematological process	hematological process	1,17E-40	ADA, BCL11B, BCL2A1, BTK, C3, CASP1, CCL3, CCL4, CCL5, CCL11, CCL19, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCN2, LCP2, LTB, LTF, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TAC1, TCL1A, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	102
Hematological System Development and Function	cell movement	cell movement of leukocytes	2,18E-40	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD86, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	78
Hematological System Development and Function	cell movement	cell movement of myeloid cells	2,53E-29	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, PTPRC, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	49
Hematological System Development and Function	cell movement	cell movement of granulocytes	2,19E-28	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	48
Hematological System Development and Function	cell	cell	1,57E-26	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2,	47

Hematological System Development and Function	movement	movement of mononuclear leukocytes		CCR5, CCR7, CD28, CD86, CTSS, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FPR1, GNLY, IGHG1, IL16, IL1B, ITGAL, ITGAX, ITGB2, ITK, POU2AF1, PRF1, PRKCB, RAC2, RGS1, SAA1, SELL, SELPLG, SERPINA3, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	
Hematological System Development and Function	cell movement	cell movement of lymphocytes	5,86E-25	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, GNLY, IGHG1, IL16, IL1B, ITGB2, ITK, POU2AF1, PRF1, RAC2, RGS1, SAA1, SELL, SELPLG, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	41
Hematological System Development and Function	cell movement	cell movement of phagocytes	1,13E-24	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CCR5, CD28, CORO1A, CSF1R, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, DARC, FCER1G, FGR, FPR1, HCK, IL16, IL12RB1, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SAA1, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	45
Hematological System Development and Function	cell movement	cell movement of neutrophils	4,52E-22	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	37
Hematological System Development and Function	cell movement	cell movement of T lymphocytes	1,37E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CYSLTR1, DARC, GNLY, IL16, IL1B, ITGB2, ITK, PRF1, SELL, SELPLG, XCL1	29
Hematological System Development and Function	cell movement	cell movement of antigen presenting cells	2,47E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL9, CXCL10, CXCR3, DARC, FPR1, GNLY, ICAM2, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL, TAC1	30
Hematological System Development and Function	cell movement	cell movement of eosinophils	3,31E-17	C3, CCL2, CCL3, CCL5, CCL11, CCL21, CD2, CD48, CXCL9, CXCL10, CXCR3, FPR1, ICAM2, IL1B, IL27RA, IL2RB, ITGAL, ITGB2, ITK, PLA2G7, RUNX3, WAS	22
Hematological System Development and Function	cell movement	cell movement of dendritic cells	1,41E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CD86, FPR1, GNLY, ICAM2, IL16, IL1B, TAC1	16
Hematological System Development and Function	cell movement	cell movement of memory T lymphocytes	1,68E-12	CCL2, CCL5, CCL19, CCL21, CCR7, CD28, CXCL9, CXCL11, GNLY, ITGB2	10
Hematological System Development and Function	cell movement	cell movement of macrophages	1,01E-11	C3, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CSF1R, CXCL9, CXCL10, CXCR3, DARC, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL	20
Hematological System Development and Function	cell movement	cell movement of B lymphocytes	1,39E-10	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, POU2AF1, RAC2, RGS1, SELPLG, ZC3H12A	12

Hematological System Development and Function	cell movement	cell movement of mononuclear cells	2,62E-10	CCL2, CCL3, CCL4, CCL20, CCR2, CCR5, CIITA, ICOS, JAK3, LTB, TCIRG1	11
Hematological System Development and Function	cell movement	cell movement of monocytes	1,72E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CTSS, CXCL9, CXCL10, FPR1, GNLY, IL1B, ITGAL, ITGAX, ITGB2, PRKCB, SERPINA3	17
Hematological System Development and Function	cell movement	cell movement of naive lymphocytes	1,28E-08	CCL18, CCL19, CCL20, CCL21, CCR7, SELL	6
Hematological System Development and Function	cell movement	cell movement of leukocyte cell lines	1,46E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, ITGB2, RGS1, WAS	12
Hematological System Development and Function	binding	binding of leukocytes	3,85E-34	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD14, CD48, CD69, CD86, CD3E, CLEC10A, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FCGR3B, FGR, FPR1, FYB, HCK, ICOS, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCP2, LSP1, LTF, PTPN6, PTPRC, SELL, SELPLG, TAC1	45
Hematological System Development and Function	binding	binding of mononuclear leukocytes	1,82E-27	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD4, CD6, CD69, CD86, CD3E, CLEC10A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELL, SELPLG, TAC1	32
Hematological System Development and Function	binding	binding of lymphocytes	1,78E-23	CCL4, CCL5, CCL19, CCL20, CCL21, CD2, CD6, CD69, CD86, CD3E, CLEC10A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELL, SELPLG, TAC1	27
Hematological System Development and Function	binding	binding of T lymphocytes	3,71E-20	CCL4, CCL5, CCL21, CD2, CD6, CD69, CD86, CLEC10A, CXCL9, CXCL10, CXCL11, CXCR3, FYB, ICOS, ITGAL, ITGB2, ITK, KLRK1, LCK, LCP2, SELPLG, TAC1	22
Hematological System Development and Function	binding	binding of phagocytes	6,86E-14	C3, CD2, CD14, CD69, CLEC10A, CXCL2, CXCL10, FCGR3B, FGR, FPR1, HCK, ITGAL, ITGB2, LSP1, PTPN6, PTPRC, SELL, SELPLG	18
Hematological System Development and Function	binding	binding of granulocytes	1,69E-11	C3, CCL5, CCL11, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, LTF, PTPN6, SELL, SELPLG	14
Hematological System Development and Function	binding	binding of neutrophils	7,08E-10	C3, CXCL2, CXCL10, FCGR3B, FGR, HCK, ITGB2, LSP1, PTPN6, SELL, SELPLG	11

Function					
Hematological System Development and Function	binding	binding of antigen presenting cells	1,71E-08	CD2, CD4, CD6, CD14, CD69, CLEC10A, FPR1, FYB, ITGAL, LCK, PTPRC	11
Hematological System Development and Function	differentiation	differentiation of leukocytes	2,83E-33	ADA, BCL2A1, CCL2, CCL3, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RGS10, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	69
Hematological System Development and Function	differentiation	differentiation of mononuclear leukocytes	4,25E-33	ADA, BCL2A1, CCL2, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	63
Hematological System Development and Function	differentiation	differentiation of blood cells	1,05E-32	ADA, BCL2A1, CCL2, CCL3, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, DEF6, DOCK2, HCLS1, HLA-DOA, HLA-DQA1, ICAM2, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LCP2, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RGS10, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	73
Hematological System Development and Function	differentiation	differentiation of lymphocytes	1,58E-32	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	60
Hematological System Development and Function	differentiation	differentiation of T lymphocytes	3,22E-24	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD28, CD86, CD1D, CD3E, CD8A, DEF6, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, PTPN22, PTPRC, RASSF5, SH2D1A, SLAMF1, STAT1, STAT4, TNFSF13B, VAV1, WAS, ZAP70	45
Hematological System Development and Function	differentiation	differentiation of helper T lymphocytes	9,77E-11	CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	19
Hematological System Development and Function	differentiation	differentiation of B lymphocytes	2,03E-08	CD14, CD27, CD79A, CR2, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, POU2AF1, PTPN6, PTPRC, SPIB, TLR7, TNFSF13B	17
Hematological System Development and Function	differentiation	differentiation of Th2 cells	6,00E-08	CD28, CD86, ICOS, IGHG1, IRF1, ITK, JAK3, SH2D1A, STAT1, STAT4, VAV1	11
Hematological System Development and Function	differentiation	differentiation of thymocytes	6,97E-08	CD2, CD28, CD86, CD3E, IKZF1, IL2RG, LCP2, MYB (includes EG:4602), WAS, ZAP70	10

Function					
Hematological System Development and Function	homing	homing of leukocytes	2,34E-29	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	50
Hematological System Development and Function	homing	homing of mononuclear leukocytes	9,53E-21	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IGHG1, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	33
Hematological System Development and Function	homing	homing of myeloid cells	7,97E-20	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, WAS, XCL1	29
Hematological System Development and Function	homing	homing of lymphocytes	1,37E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IGHG1, IL16, RAC2, RGS1, SAA1, SELPLG, TAC1, WAS, XCL1	28
Hematological System Development and Function	homing	homing of phagocytes	4,11E-19	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, WAS, XCL1	28
Hematological System Development and Function	homing	homing of granulocytes	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	28
Hematological System Development and Function	homing	homing of neutrophils	1,56E-17	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	24
Hematological System Development and Function	homing	homing of T lymphocytes	9,00E-13	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16, SELPLG	18
Hematological System Development and Function	homing	homing of eosinophils	2,60E-09	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1, WAS	10
Hematological System Development and Function	homing	homing of memory T lymphocytes	1,11E-08	CCL2, CCL5, CCL19, CCL21, CCR7, CXCL9, GNLY	7
Hematological System Development	chemotaxis	chemotaxis of leukocytes	3,08E-27	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1,	47

ent and Function				S100A8, SAA1, SERPINA3, TAC1, XCL1	
Hematological System Development and Function	chemotaxis	chemotaxis of myeloid cells	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, XCL1	28
Hematological System Development and Function	chemotaxis	chemotaxis of mononuclear leukocytes	8,38E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SERPINA3, TAC1, XCL1	30
Hematological System Development and Function	chemotaxis	chemotaxis of phagocytes	3,97E-18	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, XCL1	27
Hematological System Development and Function	chemotaxis	chemotaxis of granulocytes	7,31E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	27
Hematological System Development and Function	chemotaxis	chemotaxis of lymphocytes	9,70E-18	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IL16, RAC2, RGS1, SAA1, TAC1, XCL1	25
Hematological System Development and Function	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23
Hematological System Development and Function	chemotaxis	chemotaxis of antigen presenting cells	2,54E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CXCL9, CXCR3, FPR1, GNLY, IL16, IL12RB1, IL1B, SAA1, TAC1	18
Hematological System Development and Function	chemotaxis	chemotaxis of dendritic cells	2,22E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, FPR1, GNLY, IL16, IL1B, TAC1	14
Hematological System Development and Function	chemotaxis	chemotaxis of T lymphocytes	2,84E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16	16
Hematological System Development and Function	chemotaxis	chemotaxis of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CXCL9, CXCL10, FPR1, GNLY, IL1B, ITGAL, PRKCB, SERPINA3	14
Hematological System	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9

Development and Function Hematological System	chemotaxis	chemotaxis of leukocyte cell lines	1,08E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, RGS1, WAS	11
Development and Function Hematological System	chemotaxis	chemotaxis of eosinophils	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9
Development and Function Hematological System	recruitment	recruitment of leukocytes	6,53E-26	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCR3, DARC, IGHG1, IL1B, IL1RN, ITGB2, LSP1, LYZ, SELL, SELPLG, SLPI, TAC1, TLR7, UCP2	38
Development and Function Hematological System	recruitment	recruitment of granulocytes	2,47E-20	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, DARC, IGHG1, IL1B, IL1RN, LSP1, LYZ, SLPI	27
Development and Function Hematological System	recruitment	recruitment of phagocytes	7,71E-18	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, ITGB2, LSP1, LYZ, SLPI, UCP2	25
Development and Function Hematological System	recruitment	recruitment of neutrophils	4,34E-17	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, LSP1, LYZ, SLPI	22
Development and Function Hematological System	recruitment	recruitment of lymphocytes	5,29E-14	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10, CXCR3, IL1B, SELL	17
Development and Function Hematological System	recruitment	recruitment of T lymphocytes	1,48E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10	14
Development and Function Hematological System	recruitment	recruitment of antigen presenting cells	3,76E-11	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	14
Development and Function Hematological System	recruitment	recruitment of dendritic cells	4,81E-10	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10	8
Development and Function Hematological System	recruitment	recruitment of	6,40E-09	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10, IL1B	9

gical System Development and Function	tion	n of mononuclear leukocytes		ICOS, IL10RA, IL2RG, ITGAL, ITGB2, PTGDS, RUNX3, SELL, SH2D2A, TNFRSF25	
Hematological System Development and Function	accumulation	accumulation of lymphocytes	3,50E-15	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SELL, SH2D2A, TNFRSF25	19
Hematological System Development and Function	accumulation	accumulation of T lymphocytes	5,82E-14	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A, TNFRSF25	16
Hematological System Development and Function	accumulation	accumulation of phagocytes	6,34E-11	CCL2, CCL5, CCL11, CCR2, CD28, CXCL2, CXCL10, GRN, IL1B, IL1RN, ITGAX, ITGB2, S100A8, SELPLG, SLPI, TIMP1	16
Hematological System Development and Function	accumulation	accumulation of granulocytes	2,59E-10	ALOX5, CCL2, CCL5, CCL11, CXCL2, CXCL9, CXCL10, GRN, IL1B, IL1RN, ITGB2, PTGDS, S100A8, SELPLG, SLPI	15
Hematological System Development and Function	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Hematological System Development and Function	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33
Hematological System Development and Function	growth	growth of lymphocytes	1,61E-17	BTK, C3, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	27
Hematological System Development and Function	growth	growth of T lymphocytes	4,47E-14	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	21
Hematological System Development and Function	transmigration	transmigration of leukocytes	1,58E-16	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR7, CD28, CD86, CTSS, CXCL2, CXCL9, CXCL10, CXCL11, FPR1, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, LSP1, SLPI	22
Hematological System Development and Function	transmigration	transmigration of mononuclear leukocytes	7,71E-10	CCL2, CCL3, CCL4, CCL5, CCR7, CD28, CD86, CTSS, CXCL11, ITGAL, ITGAX, ITGB2	12

Hematological System Development and Function	transmigration	transmigration of granulocytes	2,32E-09	CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, ITGAL, ITGAX, ITGB2, LSP1, SLPI	11
Hematological System Development and Function	transmigration	transmigration of dendritic cells	1,11E-08	CCL3, CCL4, CCL5, CCL19, CCR7, ICAM2, IL1B	7
Hematological System Development and Function	chemoattraction	chemoattraction of leukocytes	2,34E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, XCL1	16
Hematological System Development and Function	chemoattraction	chemoattraction of lymphocytes	3,48E-12	CCL2, CCL3, CCL4, CCL5, CCL18, CXCL9, CXCL10, CXCL13, CXCR3, IL16	10
Hematological System Development and Function	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9
Hematological System Development and Function	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7
Hematological System Development and Function	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9
Hematological System Development and Function	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Hematological System Development and Function	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Hematological System Development and Function	response	response of lymphocytes	6,71E-16	CCL19, CCL21, CD4, CD22, CD28, CD86, CD1D, CD3E, CXCL9, CXCL11, DAPP1, GZMB, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, SELPLG, STAT4	22
Hematological System Development and	response	T cell response	7,24E-14	CCL19, CCL21, CD4, CD28, CD86, CD1D, CD3E, CXCL9, CXCL11, ICOS, IL10RA, IL12RB1, IL27RA, ITK, LAX1, LTB, PSMB10, SELPLG, STAT4	19

Function					
Hematological System Development and Function	infiltration	infiltration by mononuclear leukocytes	7,26E-15	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	22
Hematological System Development and Function	infiltration	infiltration of leukocytes	3,62E-14	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL10, DARC, FGB, IL16, IL1B, IL1RN, ITK, PRF1, SELPLG, STAT1, TIMP1, TNFRSF1B, UCP2, XCL1, ZC3H12A	27
Hematological System Development and Function	infiltration	infiltration by lymphocytes	1,51E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	20
Hematological System Development and Function	infiltration	infiltration by T lymphocytes	2,03E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, XCL1	16
Hematological System Development and Function	infiltration	infiltration by neutrophils	8,14E-12	C2, C3, CASP1, CCL3, CCL4, CCL21, CCR2, CXCL2, CXCL10, FCER1G, IL1B, IL1RN, ITGAL, ITGB2, NCF1, RAC2, SELL, TNFRSF1B, XCL1	19
Hematological System Development and Function	infiltration	infiltration by eosinophils	6,64E-09	CCL3, CCL5, CCL11, CCL21, CD2, CD48, IL27RA, IL2RB, ITK, PLA2G7, RUNX3	11
Hematological System Development and Function	expansion	expansion of lymphocytes	8,89E-15	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL7R, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	22
Hematological System Development and Function	expansion	expansion of T lymphocytes	4,12E-13	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	19
Hematological System Development and Function	generation	generation of lymphocytes	3,58E-14	C3, CD4, CD28, CD86, CR2, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL1RN, IL27RA, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, STAT4, TNFSF13B	19
Hematological System Development and Function	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Hematological System Development	survival	survival of lymphocytes	2,80E-13	BTK, BTLA, CD19, CD22, CD28, CD86, CD3E, CD8A, HCK, ICOS, IL2RB, IL2RG, JAK3, LAX1, MYB (includes EG:4602), PRKCB, PTPRC, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B	22

Hematological System Development and Function	survival	survival of T lymphocytes	3,14E-10	BTLA, CD28, CD86, CD3E, CD8A, ICOS, IL2RB, IL2RG, JAK3, LAX1, MYB (includes EG:4602), PTPRC, STAT1, STAT4, TNFRSF1B	15
Hematological System Development and Function	attraction	attraction of T lymphocytes	3,00E-13	CCL2, CCL4, CCL5, CCL11, CCL19, CCL21, CCR5, CXCL9, CXCL10, CXCL11, IL16, XCL1	12
Hematological System Development and Function	attraction	attraction of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCL10, IL1B	7
Hematological System Development and Function	attraction	attraction of memory T lymphocytes	4,36E-09	CCL4, CCL5, CCL11, CXCL9, CXCL10, CXCL11	6
Hematological System Development and Function	function	function of lymphocytes	1,21E-11	CD4, CD28, CD86, ICOS, IL10RA, JAK3, KLRK1, LAX1, PRF1, SH2D1A, SLPI, STAT4, TLR8 (includes EG:51311), TNFSF13B, VAV1	15
Hematological System Development and Function	function	function of T lymphocytes	2,65E-08	CD4, CD28, ICOS, IL10RA, JAK3, LAX1, PRF1, SH2D1A, STAT4, TLR8 (includes EG:51311), VAV1	11
Hematological System Development and Function	mobilization	mobilization of leukocytes	1,22E-11	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2	12
Hematological System Development and Function	mobilization	mobilization of blood cells	1,14E-10	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2, SELL	13
Hematological System Development and Function	mobilization	mobilization of myeloid cells	2,07E-08	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL10, FPR1, IL1B	8
Hematological System Development and Function	extravasation	extravasation of phagocytes	1,96E-11	CCL2, CCL3, CCL4, CCL5, CXCL1, IL1B, ITGB2, LSP1, SELL	9
Hematological System Development and Function	extravasation	extravasation of leukocytes	5,78E-11	CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CXCL1, IL1B, ITGB2, LSP1, SELL	11

Development and Function Hematological System	extravasation	extravasation of antigen presenting cells	4,36E-09	CCL2, CCL3, CCL4, CCL5, CCR2, CCR5	6
Development and Function Hematological System	trafficking	trafficking of leukocytes	3,81E-11	CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CXCL10, CXCL13, ITGB2, TNFRSF1B	11
Development and Function Hematological System	presence	presence of leukocytes	7,53E-10	C3, CCL19, CCL21, CCR7, CR2, CXCL13, FGR, HCK, JAK3	9
Development and Function Hematological System	stimulation	stimulation of leukocytes	2,52E-09	C3, CCL5, CCL11, CCL20, CD2, CD28, CD86, CD1D, ICOS, IL1B, KLRK1, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	16
Development and Function Hematological System	stimulation	stimulation of T lymphocytes	4,02E-08	C3, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	11
Development and Function Hematological System	stimulation	stimulation of mononuclear leukocytes	5,28E-08	C3, CCL20, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	12
Development and Function Hematological System	maturation	maturation of lymphocytes	9,91E-09	BTK, BTLA, CD4, CD19, CD28, CD86, CD247, IGHM, ITK, LCK, PTPRC, RHOH, RUNX3, TNFSF13B, VAV1	15
Development and Function Hematological System	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1	11
Development and Function Hematological System	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1	9
Development and Function Hematological System	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1	6
Development and Function Hematological System	aggregation	aggregation of blood	7,98E-08	BTK, CCL5, CCL11, CD4, CXCL9, CXCL10, CXCR3, FCER1G, FPR1, HCLS1, IGHM, ITGAL, ITGB2, LCK, LCP2, SELL, SELPLG, VAV1	18

System Development and Function		cells				
Immune Cell Trafficking	activation	activation of leukocytes	7,25E-61	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD300A, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, CSF1R, CXCL1, CXCL6, CXCL9, CXCL10, DEF6, DOCK2, FCER1G, FPR1, FYB, GNLY, GZMA, GZMB, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IL16, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LILRB1, LTB, LTF, LY96, NCF1C, POU2AF1, PRF1, PSMB9, PTPRC, SELL, SIRPG, SIT1, SLAMF1, SLAMF6, SLPI, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	99	
Immune Cell Trafficking	activation	activation of mononuclear leukocytes	1,47E-49	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD86, CD163, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC5A, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, LY96, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	77	
Immune Cell Trafficking	activation	activation of lymphocytes	7,12E-47	ADA, BTK, C3, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD19, CD22, CD27, CD28, CD48, CD86, CD247, CD1C, CD1D, CD1E, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, CR2, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IGHM, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LILRB1, LTF, NCF1C, POU2AF1, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, SLAMF6, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS	73	
Immune Cell Trafficking	activation	activation of T lymphocytes	1,78E-36	ADA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CD2, CD4, CD28, CD48, CD86, CD247, CD1D, CD3E, CD8A, CLEC4C, CLEC7A, CORO1A, DEF6, DOCK2, FCER1G, GZMA, GZMB, HLA-DRB1, ICOS, IGHG1, IL1B, IL27RA, IL2RB, IMPDH1, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LILRB1, NCF1C, PRF1, PTPRC, SIRPG, SIT1, SLAMF1, STAT1, STAT4, TAC1, TCL1A, TLR7, TLR8 (includes EG:51311), TNFRSF1B, TYROBP, VAV1, WAS	56	
Immune Cell Trafficking	activation	activation of granulocytes	3,31E-17	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD14, CXCL1, CXCL6, CXCL9, FPR1, IL16, IL18RAP, IL1B, IL1RN, ITGB2, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	22	
Immune Cell Trafficking	activation	activation of neutrophils	1,03E-14	C3, CCL2, CCL3, CCL4, CCL5, CD14, CXCL1, CXCL6, FPR1, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	18	
Immune Cell Trafficking	activation	activation of antigen presenting cells	9,47E-14	CCL2, CCL3, CCL4, CCL5, CD4, CD86, CD1D, CSF1R, CXCL10, FCER1G, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, IL1B, LTB, LTF, PSMB9, SLPI, STAT1, STAT4, TAC1, TLR7, TNFRSF1B	26	
Immune Cell Trafficking	activation	activation of phagocytes	1,23E-13	C3, CCL2, CCL3, CCL4, CCL5, CD4, CD14, CSF1R, CXCL1, CXCL6, CXCL10, FCER1G, FPR1, HCK, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, STAT1, STAT4, TAC1, VAV1	25	
Immune Cell Trafficking	activation	activation of natural killer cells	1,63E-12	CCL5, CD2, CD4, CD27, CD28, CD1D, IL12RB1, IL1B, IL1RN, IL2RB, ITGAL, ITGB2, KLRK1, LTF, PRF1, SLAMF6, STAT4, TAC1, TYROBP	19	
Immune Cell Trafficking	activation	activation of mast cells	4,94E-11	C3, CCL3, CCL5, CCR2, CD48, CD300A, FCER1G, FYB, IL27RA, LCP2, TAC1, TLR7, TLR8 (includes EG:51311)	13	
Immune Cell Trafficking	activation	activation of B lymphocytes	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16	
Immune Cell Trafficking	migration	migration of leukocytes	8,60E-44	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FCER1G, FGR, FPR1, FYB, GNLY, HCK, ICAM2, ICOS, IL16, IL10RA, IL12RB1, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, LSP1, LTF, MMP7, PIK3R5, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RASSF5, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI,	81	

				TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	
Immune Cell Trafficking	migration	migration of mononuclear leukocytes	8,88E-33	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CTSS, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FYB, GNLY, ICAM2, ICOS, IL16, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, PRF1, RASSF5, SELL, SELPLG, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	55
Immune Cell Trafficking	migration	Lymphocyte migration	1,14E-32	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FYB, GNLY, ICAM2, ICOS, IL16, IL1B, ITGAL, ITGB2, ITK, LCK, PRF1, RASSF5, SELL, SELPLG, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	53
Immune Cell Trafficking	migration	T cell migration	1,94E-25	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DOCK2, FYB, GNLY, ICOS, IL16, IL1B, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, WAS, XCL1	39
Immune Cell Trafficking	migration	migration of granulocytes	2,47E-21	C3, CCL3, CCL4, CCL5, CCL11, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, DARC, FGR, FPR1, HCK, ICAM2, IL16, IL1B, ITGAL, ITGAX, ITGB2, LSP1, LTF, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	29
Immune Cell Trafficking	migration	migration of antigen presenting cells	2,78E-21	C3, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL1, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, ICAM2, IL16, IL10RA, IL1B, RAC2, RUNX3, TAC1, TIMP1, WAS	28
Immune Cell Trafficking	migration	migration of dendritic cells	3,57E-21	C3, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, ICAM2, IL16, IL10RA, IL1B, RAC2, RUNX3, TAC1, TIMP1, WAS	25
Immune Cell Trafficking	migration	migration of phagocytes	3,90E-15	CCL2, CCL3, CCL5, CSF1R, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, RAC2, S100A8, SAA1, SELL, SLPI	23
Immune Cell Trafficking	migration	migration of neutrophils	1,41E-14	CCL3, CCL5, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	20
Immune Cell Trafficking	migration	migration of eosinophils	2,90E-14	C3, CCL4, CCL5, CCL11, CXCL2, CXCL9, CXCL10, CXCL11, ICAM2, IL16, IL1B, ITGAL, ITGB2, LTF	14
Immune Cell Trafficking	migration	migration of peripheral blood leukocytes	1,21E-09	CCL3, CCL4, CCL5, CCL19, CCL21, CCR5, CCR7, CXCL13, CXCR3	9
Immune Cell Trafficking	migration	migration of B lymphocytes	3,61E-09	CCL19, CCL20, CCL21, CD22, CXCL13, DOCK2, ICOS, TIMP1, TNFRSF1B, TNFSF13B	10
Immune Cell Trafficking	migration	migration of memory T lymphocytes	4,11E-08	CCL21, CD28, CXCL11, CXCL13, ICOS	5
Immune Cell Trafficking	migration	migration of PBMC cells	6,77E-08	CCL3, CCL4, CCL19, CCL21, CCR7, CXCL13	6
Immune Cell Trafficking	migration	NK cell migration	1,07E-07	CCL3, CCL5, CCL21, CXCL9, CXCL10, CXCR3, IL16, SELL, XCL1	9
Immune Cell Trafficking	cell movement	cell movement of leukocytes	2,18E-40	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD86, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	78
Immune Cell Trafficking	cell movement	cell movement of myeloid cells	2,53E-29	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, PTPRC, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	49
Immune Cell	cell movement	cell movement	2,19E-28	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3,	48

Trafficking	t	of granulocytes		FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	
Immune Cell Trafficking	cell movement	cell movement of mononuclear leukocytes	1,57E-26	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CTSS, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FPR1, GNL1, IGHG1, IL16, IL1B, ITGAL, ITGAX, ITGB2, ITK, POU2AF1, PRF1, PRKCB, RAC2, RGS1, SAA1, SELL, SELPLG, SERPINA3, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	47
Immune Cell Trafficking	cell movement	cell movement of lymphocytes	5,86E-25	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, GNL1, IGHG1, IL16, IL1B, ITGB2, ITK, POU2AF1, PRF1, RAC2, RGS1, SAA1, SELL, SELPLG, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	41
Immune Cell Trafficking	cell movement	cell movement of phagocytes	1,13E-24	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CCR5, CD28, CORO1A, CSF1R, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, DARC, FCER1G, FGR, FPR1, HCK, IL16, IL12RB1, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SAA1, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	45
Immune Cell Trafficking	cell movement	cell movement of neutrophils	4,52E-22	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	37
Immune Cell Trafficking	cell movement	cell movement of T lymphocytes	1,37E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CYSLTR1, DARC, GNL1, IL16, IL1B, ITGB2, ITK, PRF1, SELL, SELPLG, XCL1	29
Immune Cell Trafficking	cell movement	cell movement of antigen presenting cells	2,47E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL9, CXCL10, CXCR3, DARC, FPR1, GNL1, ICAM2, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL, TAC1	30
Immune Cell Trafficking	cell movement	cell movement of eosinophils	3,31E-17	C3, CCL2, CCL3, CCL5, CCL11, CCL21, CD2, CD48, CXCL9, CXCL10, CXCR3, FPR1, ICAM2, IL1B, IL27RA, IL2RB, ITGAL, ITGB2, ITK, PLA2G7, RUNX3, WAS	22
Immune Cell Trafficking	cell movement	cell movement of dendritic cells	1,41E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CD86, FPR1, GNL1, ICAM2, IL16, IL1B, TAC1	16
Immune Cell Trafficking	cell movement	cell movement of memory T lymphocytes	1,68E-12	CCL2, CCL5, CCL19, CCL21, CCR7, CD28, CXCL9, CXCL11, GNL1, ITGB2	10
Immune Cell Trafficking	cell movement	cell movement of macrophages	1,01E-11	C3, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CSF1R, CXCL9, CXCL10, CXCR3, DARC, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL	20
Immune Cell Trafficking	cell movement	cell movement of bone marrow cells	1,97E-11	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, SLPI	15
Immune Cell Trafficking	cell movement	cell movement of B lymphocytes	1,39E-10	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, POU2AF1, RAC2, RGS1, SELPLG, ZC3H12A	12
Immune Cell Trafficking	cell movement	cell movement of mononuclear cells	2,62E-10	CCL2, CCL3, CCL4, CCL20, CCR2, CCR5, CIITA, ICOS, JAK3, LTB, TCIRG1	11
Immune Cell Trafficking	cell movement	cell movement of	1,72E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CTSS, CXCL9, CXCL10, FPR1, GNL1, IL1B, ITGAL, ITGAX, ITGB2, PRKCB, SERPINA3	17

		monocytes			
Immune Cell Trafficking	cell movement	cell movement of naive lymphocytes	1,28E-08	CCL18, CCL19, CCL20, CCL21, CCR7, SELL	6
Immune Cell Trafficking	cell movement	cell movement of leukocyte cell lines	1,46E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, ITGB2, RGS1, WAS	12
Immune Cell Trafficking	homing	homing of leukocytes	2,34E-29	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	50
Immune Cell Trafficking	homing	homing of mononuclear leukocytes	9,53E-21	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IGHG1, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	33
Immune Cell Trafficking	homing	homing of myeloid cells	7,97E-20	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, WAS, XCL1	29
Immune Cell Trafficking	homing	homing of lymphocytes	1,37E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IGHG1, IL16, RAC2, RGS1, SAA1, SELPLG, TAC1, WAS, XCL1	28
Immune Cell Trafficking	homing	homing of phagocytes	4,11E-19	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, WAS, XCL1	28
Immune Cell Trafficking	homing	homing of granulocytes	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	28
Immune Cell Trafficking	homing	homing of neutrophils	1,56E-17	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	24
Immune Cell Trafficking	homing	homing of T lymphocytes	9,00E-13	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16, SELPLG	18
Immune Cell Trafficking	homing	homing of eosinophils	2,60E-09	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1, WAS	10
Immune Cell Trafficking	homing	homing of memory T lymphocytes	1,11E-08	CCL2, CCL5, CCL19, CCL21, CCR7, CXCL9, GNLY	7
Immune Cell Trafficking	chemotaxis	chemotaxis of leukocytes	3,08E-27	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SERPINA3, TAC1, XCL1	47
Immune Cell Trafficking	chemotaxis	chemotaxis of myeloid cells	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, XCL1	28
Immune Cell Trafficking	chemotaxis	chemotaxis of mononuclear leukocytes	8,38E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SERPINA3, TAC1, XCL1	30
Immune Cell Trafficking	chemotaxis	chemotaxis of phagocytes	3,97E-18	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, XCL1	27
Immune Cell Trafficking	chemotaxis	chemotaxis of granulocytes	7,31E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	27
Immune Cell Trafficking	chemotaxis	chemotaxis of lymphocytes	9,70E-18	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IL16, RAC2, RGS1, SAA1, TAC1, XCL1	25

Immune Cell Trafficking	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23
Immune Cell Trafficking	chemotaxis	chemotaxis of antigen presenting cells	2,54E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CXCL9, CXCR3, FPR1, GNLY, IL16, IL12RB1, IL1B, SAA1, TAC1	18
Immune Cell Trafficking	chemotaxis	chemotaxis of dendritic cells	2,22E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, FPR1, GNLY, IL16, IL1B, TAC1	14
Immune Cell Trafficking	chemotaxis	chemotaxis of T lymphocytes	2,84E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16	16
Immune Cell Trafficking	chemotaxis	chemotaxis of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CXCL9, CXCL10, FPR1, GNLY, IL1B, ITGAL, PRKCB, SERPINA3	14
Immune Cell Trafficking	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9
Immune Cell Trafficking	chemotaxis	chemotaxis of leukocyte cell lines	1,08E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, RGS1, WAS	11
Immune Cell Trafficking	chemotaxis	chemotaxis of eosinophils	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9
Immune Cell Trafficking	recruitment	recruitment of leukocytes	6,53E-26	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCR3, DARC, IGHG1, IL1B, IL1RN, ITGB2, LSP1, LYZ, SELL, SELPLG, SLPI, TAC1, TLR7, UCP2	38
Immune Cell Trafficking	recruitment	recruitment of granulocytes	2,47E-20	BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, DARC, IGHG1, IL1B, IL1RN, LSP1, LYZ, SLPI	27
Immune Cell Trafficking	recruitment	recruitment of phagocytes	7,71E-18	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, ITGB2, LSP1, LYZ, SLPI, UCP2	25
Immune Cell Trafficking	recruitment	recruitment of neutrophils	4,34E-17	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CD14, CD19, CD28, CD8A, CR2, CXCL1, CXCL2, CXCL10, DARC, IL1B, IL1RN, LSP1, LYZ, SLPI	22
Immune Cell Trafficking	recruitment	recruitment of lymphocytes	5,29E-14	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10, CXCR3, IL1B, SELL	17
Immune Cell Trafficking	recruitment	recruitment of T lymphocytes	1,48E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10	14
Immune Cell Trafficking	recruitment	recruitment of antigen presenting cells	3,76E-11	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	14
Immune Cell Trafficking	recruitment	recruitment of dendritic cells	4,81E-10	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10	8
Immune Cell Trafficking	recruitment	recruitment of monocytes	6,40E-09	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10, IL1B	9
Immune Cell Trafficking	recruitment	recruitment of macrophages	1,71E-08	C3AR1, CCL2, CCL3, CCL4, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	11
Immune Cell Trafficking	adhesion	adhesion of leukocytes	3,38E-24	BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CORO1A, CSF3R, CXCL2, CXCL9, CXCL11, CXCR3, FGR, FYB, HCK, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SELL, SELPLG, TAC1, VAV1	41
Immune Cell	adhesion	adhesion of mononuclea	1,46E-22	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2,	31

Trafficking		r leukocytes		ITK, LCP1, RASSF5, RGS1, SELL, SELPLG, TAC1, VAV1	
Immune Cell Trafficking	adhesion	adhesion of lymphocytes	5,86E-20	BTK, CCL2, CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELL, SELPLG, TAC1	26
Immune Cell Trafficking	adhesion	adhesion of T lymphocytes	9,88E-17	CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, TAC1	21
Immune Cell Trafficking	adhesion	adhesion of granulocytes	1,87E-11	C3, CCL11, CORO1A, CSF3R, CXCL2, FGR, HCK, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	16
Immune Cell Trafficking	adhesion	adhesion of neutrophils	2,10E-09	CORO1A, CSF3R, CXCL2, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	12
Immune Cell Trafficking	accumulation	accumulation of leukocytes	2,07E-22	ALOX5, CCL2, CCL5, CCL11, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL9, CXCL10, CXCR3, CYBB, DEF6, GRN, ICOS, IL10RA, IL1B, IL1RN, IL2RG, ITGAL, ITGAX, ITGB2, PTGDS, RUNX3, S100A8, SELL, SELPLG, SH2D2A, SLPI, TIMP1, TNFRSF25	35
Immune Cell Trafficking	accumulation	accumulation of mononuclear leukocytes	1,31E-16	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, PTGDS, RUNX3, SELL, SH2D2A, TNFRSF25	21
Immune Cell Trafficking	accumulation	accumulation of lymphocytes	3,50E-15	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SELL, SH2D2A, TNFRSF25	19
Immune Cell Trafficking	accumulation	accumulation of T lymphocytes	5,82E-14	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A, TNFRSF25	16
Immune Cell Trafficking	accumulation	accumulation of phagocytes	6,34E-11	CCL2, CCL5, CCL11, CCR2, CD28, CXCL2, CXCL10, GRN, IL1B, IL1RN, ITGAX, ITGB2, S100A8, SELPLG, SLPI, TIMP1	16
Immune Cell Trafficking	accumulation	accumulation of granulocytes	2,59E-10	ALOX5, CCL2, CCL5, CCL11, CXCL2, CXCL9, CXCL10, GRN, IL1B, IL1RN, ITGB2, PTGDS, S100A8, SELPLG, SLPI	15
Immune Cell Trafficking	transmigration	transmigration of leukocytes	1,58E-16	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR7, CD28, CD86, CTSS, CXCL2, CXCL9, CXCL10, CXCL11, FPR1, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, LSP1, SLPI	22
Immune Cell Trafficking	transmigration	transmigration of mononuclear leukocytes	7,71E-10	CCL2, CCL3, CCL4, CCL5, CCR7, CD28, CD86, CTSS, CXCL11, ITGAL, ITGAX, ITGB2	12
Immune Cell Trafficking	transmigration	transmigration of granulocytes	2,32E-09	CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, ITGAL, ITGAX, ITGB2, LSP1, SLPI	11
Immune Cell Trafficking	transmigration	transmigration of dendritic cells	1,11E-08	CCL3, CCL4, CCL5, CCL19, CCR7, ICAM2, IL1B	7
Immune Cell Trafficking	chemoattraction	chemoattraction of leukocytes	2,34E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, XCL1	16
Immune Cell Trafficking	chemoattraction	chemoattraction of lymphocytes	3,48E-12	CCL2, CCL3, CCL4, CCL5, CCL18, CXCL9, CXCL10, CXCL13, CXCR3, IL16	10
Immune Cell Trafficking	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9
Immune Cell Trafficking	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7

Immune Cell Trafficking	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9
Immune Cell Trafficking	infiltration	infiltration by mononuclear leukocytes	7,26E-15	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	22
Immune Cell Trafficking	infiltration	infiltration of leukocytes	3,62E-14	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL10, DARC, FGB, IL16, IL1B, IL1RN, ITK, PRF1, SELPLG, STAT1, TIMP1, TNFRSF1B, UCP2, XCL1, ZC3H12A	27
Immune Cell Trafficking	infiltration	infiltration by lymphocytes	1,51E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	20
Immune Cell Trafficking	infiltration	infiltration by T lymphocytes	2,03E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, XCL1	16
Immune Cell Trafficking	infiltration	infiltration by neutrophils	8,14E-12	C2, C3, CASP1, CCL3, CCL4, CCL21, CCR2, CXCL2, CXCL10, FCER1G, IL1B, IL1RN, ITGAL, ITGB2, NCF1, RAC2, SELL, TNFRSF1B, XCL1	19
Immune Cell Trafficking	infiltration	infiltration by eosinophils	6,64E-09	CCL3, CCL5, CCL11, CCL21, CD2, CD48, IL27RA, IL2RB, ITK, PLA2G7, RUNX3	11
Immune Cell Trafficking	mobilization	mobilization of leukocytes	1,22E-11	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2	12
Immune Cell Trafficking	mobilization	mobilization of myeloid cells	2,07E-08	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL10, FPR1, IL1B	8
Immune Cell Trafficking	trafficking	trafficking of leukocytes	3,81E-11	CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CXCL10, CXCL13, ITGB2, TNFRSF1B	11
Cellular Development	developmental process	developmental process of leukocytes	3,33E-53	ADA, BCL11B, BCL2A1, BTK, BTLA, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD300A, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CXCL10, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RARRES3, RASSF5, RGS10, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WAS, XCL1, ZAP70	111
Cellular Development	developmental process	developmental process of blood cells	9,88E-52	ADA, BCL11B, BCL2A1, BTK, BTLA, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD69, CD86, CD163, CD247, CD1D, CD300A, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CXCL10, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HCL1, HLA-DOA, HLA-DQA1, HLA-DQB1, ICAM2, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCN2, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RARRES3, RASSF5, RGS10, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WAS, XCL1, ZAP70	115
Cellular Development	developmental process	developmental process of mononuclear leukocytes	3,25E-49	ADA, BCL11B, BCL2A1, BTK, BTLA, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	100

Cellular Development	developmental process	developmental process of lymphocytes	2,73E-47	ADA, BCL11B, BCL2A1, BTK, BTLA, C3, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF3R, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	96
Cellular Development	developmental process	developmental process of T lymphocytes	1,62E-43	ADA, BCL11B, BCL2A1, BTLA, C3, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	86
Cellular Development	developmental process	developmental process of thymocytes	1,17E-15	CD2, CD4, CD28, CD86, CD247, CD3D, CD3E, CD3G, IKZF1, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCK, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, WAS, ZAP70	23
Cellular Development	developmental process	developmental process of B lymphocytes	6,46E-12	ADA, BTK, CD14, CD19, CD22, CD27, CD69, CD79A, CR2, ICOS, IGHM, IKZF1, IL1B, IL2RB, IL2RG, IL7R, IRF4, JAK3, MYB (includes EG:4602), POU2AF1, PTPN6, PTPRC, SPIB, TLR7, TNFSF13B, VAV1	26
Cellular Development	developmental process	developmental process of helper T lymphocytes	2,91E-11	CASP1, CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, LCP2, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	21
Cellular Development	developmental process	developmental process of antigen presenting cells	5,50E-10	CCL5, CCL19, CCL21, CCR2, CSF1R, CSF2RB, IKZF1, IL1B, IL1RN, IRF1, IRF4, IRF7, LTB, MYB (includes EG:4602), RARRES3, RGS10, RUNX3, SPIB, STAT1, TIMP1, TLR7, TLR8 (includes EG:51311), TYROBP	23
Cellular Development	developmental process	developmental process of Th1 cells	5,35E-09	CASP1, CCL3, CD86, ICOS, IL12RB1, IL1B, IL27RA, IRF1, ITGAL, ITGB2, JAK3, LCP2, STAT1, STAT4	14
Cellular Development	developmental process	developmental process of Th2 cells	7,62E-09	CD28, CD86, ICOS, IGHG1, IL12RB1, IRF1, ITK, JAK3, LCP2, SH2D1A, STAT1, STAT4, VAV1	13
Cellular Development	developmental process	developmental process of dendritic cells	2,03E-08	CCL5, CCL19, CCL21, CCR2, CSF1R, IKZF1, IL1B, IRF1, IRF4, LTB, RARRES3, RUNX3, SPIB, STAT1, TLR7, TLR8 (includes EG:51311), TYROBP	17
Cellular Development	development	development of mononuclear leukocytes	7,26E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	91
Cellular Development	development	development of leukocytes	8,10E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B,	92

				TRAT1, VAV1, WAS, XCL1, ZAP70	
Cellular Development	development	development of lymphocytes	3,82E-46	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	90
Cellular Development	development	T cell development	3,75E-43	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	84
Cellular Development	development	development of cells	7,59E-29	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, CR2, CSF1R, CSF3R, CXCL2, CXCL11, DEF6, DENND2D, DGKA, DOCK2, EOMES, FCER1G, FGR, GZMA, GZMB, HCK, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, KLRK1, LAX1, LCK, LCN2, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, NCF1C, PARVG, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SELL, SERPINA3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WAS, XCL1, ZAP70	108
Cellular Development	development	development of thymocytes	3,15E-11	CD3D, CD3E, CD3G, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, ZAP70	15
Cellular Development	development	development of helper T lymphocytes	1,08E-08	CASP1, CD28, CD86, ICOS, IL12RB1, IL1B, IRF1, ITGB2, ITK, STAT1, STAT4	11
Cellular Development	development	development of B lymphocytes	1,15E-07	ADA, BTK, CD19, CD69, CR2, IGHM, IL2RG, IL7R, JAK3, MYB (includes EG:4602), POU2AF1, TNFSF13B, VAV1	13
Cellular Development	differentiation	differentiation of leukocytes	2,83E-33	ADA, BCL2A1, CCL2, CCL3, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RGS10, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	69
Cellular Development	differentiation	differentiation of mononuclear leukocytes	4,25E-33	ADA, BCL2A1, CCL2, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	63
Cellular Development	differentiation	differentiation of blood cells	1,05E-32	ADA, BCL2A1, CCL2, CCL3, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, DEF6, DOCK2, HCLS1, HLA-DOA, HLA-DQA1, ICAM2, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LCP2, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RGS10, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	73
Cellular Development	differentiation	differentiation of	1,58E-32	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS,	60

ent		lymphocytes		IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	
Cellular Development	differentiation	differentiation of T lymphocytes	3,22E-24	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD28, CD86, CD1D, CD3E, CD8A, DEF6, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, PTPN22, PTPRC, RASSF5, SH2D1A, SLAMF1, STAT1, STAT4, TNFSF13B, VAV1, WAS, ZAP70	45
Cellular Development	differentiation	differentiation of cells	4,99E-18	ADA, ALOX5, ASCL2, BCL2A1, BTK, CCL2, CCL3, CCL5, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD300LF, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, CSTA, CXCL10, DEF6, DOCK2, EOMES, FCER1G, GABBR1, GRN, GZMB, HCLS1, HLA-DOA, HLA-DQA1, ICAM2, ICOS, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LCP2, LRG1, MAP4K1, MYB (includes EG:4602), NCAPH2, PLAC8, POU2AF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, RARRES3, RASSF5, RGS10, RHOH, RUNX3, S100A8, SH2D1A, SIT1, SLAMF1, SPIB, ST8SIA4, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WAS, ZAP70	96
Cellular Development	differentiation	differentiation of helper T lymphocytes	9,77E-11	CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	19
Cellular Development	differentiation	differentiation of B lymphocytes	2,03E-08	CD14, CD27, CD79A, CR2, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, POU2AF1, PTPN6, PTPRC, SPIB, TLR7, TNFSF13B	17
Cellular Development	differentiation	differentiation of Th2 cells	6,00E-08	CD28, CD86, ICOS, IGHG1, IRF1, ITK, JAK3, SH2D1A, STAT1, STAT4, VAV1	11
Cellular Development	differentiation	differentiation of thymocytes	6,97E-08	CD2, CD28, CD86, CD3E, IKZF1, IL2RG, LCP2, MYB (includes EG:4602), WAS, ZAP70	10
Cellular Development	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Cellular Development	growth	growth of blood cells	7,24E-21	BTK, C3, CCL2, CCL3, CCL4, CCL11, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD163, CD3E, CR2, CSF1R, CXCL10, ICOS, IGHM, IL10RA, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	36
Cellular Development	growth	growth of leukocytes	2,39E-20	BTK, C3, CCL2, CCL3, CCL11, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD3E, CR2, CSF1R, CXCL10, ICOS, IGHM, IL10RA, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	33
Cellular Development	growth	growth of lymphocytes	1,61E-17	BTK, C3, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	27
Cellular Development	growth	growth of T lymphocytes	4,47E-14	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	21
Cellular Development	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33
Cellular Development	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Cellular Development	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Cellular Development	expansion	expansion of lymphocytes	8,89E-15	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL7R, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	22
Cellular Development	expansion	expansion	9,46E-15	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD163, CD3E, CR2, ICOS, IGHM,	25

Development		of blood cells		IL10RA, IL1B, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	
Cellular Development	expansion	expansion of leukocytes	3,51E-14	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL10RA, IL1B, IL7R, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	23
Cellular Development	expansion	expansion of T lymphocytes	4,12E-13	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	19
Cellular Development	shape change	shape change of leukocytes	3,95E-14	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, HCK, ICOS, ITGAL, ITGB2, SELL, WAS	17
Cellular Development	shape change	shape change of blood cells	8,84E-14	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, SELL, WAS	18
Cellular Development	shape change	shape change of granulocytes	1,09E-10	CCL2, CCL3, CCL5, CCL11, CCR2, CORO1A, FGR, HCK, ITGB2, SELL	10
Cellular Development	shape change	shape change of normal cells	1,16E-07	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, SELL, SERPINA3, WAS	19
Cellular Development	maturation	maturation of leukocytes	3,50E-13	BTK, BTLA, CCL5, CCL19, CCL21, CCR2, CD4, CD19, CD28, CD86, CD247, IGHM, IL1B, IRF1, ITK, LCK, PTPRC, RARRES3, RHOH, RUNX3, STAT1, TLR7, TLR8 (includes EG:51311), TNFSF13B, TYROBP, VAV1	26
Cellular Development	maturation	maturation of cells	5,33E-09	BTK, BTLA, CCL5, CCL19, CCL21, CCR2, CD4, CD19, CD28, CD86, CD247, CD5L, IGHM, IL1B, IRF1, ITK, LCK, PRKCB, PTPRC, RARRES3, RGS19, RHOH, RUNX3, STAT1, TLR7, TLR8 (includes EG:51311), TNFSF13B, TYROBP, VAV1	29
Cellular Development	maturation	maturation of lymphocytes	9,91E-09	BTK, BTLA, CD4, CD19, CD28, CD86, CD247, IGHM, ITK, LCK, PTPRC, RHOH, RUNX3, TNFSF13B, VAV1	15
Cellular Development	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Cellular Development	cell spreading	cell spreading of blood cells	6,64E-09	CD19, CD247, CD3E, CORO1A, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, WAS	11
Cellular Development	cell spreading	cell spreading of leukocytes	1,58E-08	CD19, CD247, CD3E, CORO1A, FGR, HCK, ICOS, ITGAL, ITGB2, WAS	10
Cellular Development	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1	11
Cellular Development	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70	13
Cellular Development	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1	9
Cellular Development	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1	6
Cellular Growth and Proliferation	proliferation	proliferation of leukocytes	1,07E-52	ADA, BTK, BTLA, CCL4, CCL20, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, CSF3R, CYSLTR1, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WAS, XCL1, ZAP70	97
Cellular Growth	proliferation	proliferation of blood	5,31E-51	ADA, BTK, BTLA, CCL3, CCL4, CCL20, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E,	98

and Proliferation		cells		CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, CSF3R, CYSLTR1, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WAS, XCL1, ZAP70	
Cellular Growth and Proliferation	proliferation	proliferation of mononuclear leukocytes	7,87E-50	ADA, BTK, BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	92
Cellular Growth and Proliferation	proliferation	proliferation of lymphocytes	5,76E-49	ADA, BTK, BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CLEC10A, CORO1A, CR2, CSF2RB, DEF6, DGKA, DOCK2, FYB, HCK, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, LST1, LY86, LY96, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	91
Cellular Growth and Proliferation	proliferation	proliferation of normal cells	8,89E-42	ADA, AIF1, ASCL2, BCL2A1, BTK, BTLA, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CORO1A, CR2, CSF1R, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL9, CXCL10, CYSLTR1, DEF6, DGKA, DOCK2, FCER1G, FYB, GABBR1, GRN, GZMB, HCK, HLA-DPB1, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL10RA, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCN2, LCP2, LILRB1, LST1, LY86, LY96, MMP7, MS4A1, MYB (includes EG:4602), NCF1, PRKCB, PTGDS, PTPN6, PTPRC, PTTG1, RAC2, RUNX3, SAA1, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WAS, XCL1, ZAP70	125
Cellular Growth and Proliferation	proliferation	proliferation of eukaryotic cells	2,19E-35	ADA, AIF1, AIM2, ASCL2, BCL2A1, BTK, BTLA, C3, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CLEC7A, CORO1A, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL9, CXCL10, CYBB, CYSLTR1, DEF6, DGKA, DOCK2, FCER1G, FYB, GABBR1, GRN, GZMB, HCK, HLA-DPB1, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IKZF1, IL16, IL10RA, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCN2, LCP2, LILRB1, LST1, LY86, LY96, MMP7, MS4A1, MYB (includes EG:4602), NCF1, PLAC8, PRKCB, PTGDS, PTPN6, PTPRC, PTTG1, RAC2, RARRES3, RASSF5, REG1A, RUNX3, S100A8, SAA1, SASH3, SH2D1A, SH2D2A, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WAS, XCL1, ZAP70	138
Cellular Growth and Proliferation	proliferation	proliferation of T lymphocytes	1,03E-31	BTLA, CCL4, CCR2, CCR5, CD2, CD4, CD6, CD14, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD3E, CD3G, CD8A, CLEC10A, CORO1A, CSF2RB, DEF6, DGKA, DOCK2, FYB, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LCK, LCP2, LILRB1, MYB (includes EG:4602), PTPN6, PTPRC, RAC2, RUNX3, SASH3, SH2D1A, SH2D2A, STAT1, STAT4, TCIRG1, TNFRSF1B, TNFSF13B, TRD@, UBASH3A, VAV1, WAS, XCL1, ZAP70	65
Cellular Growth and Proliferation	proliferation	proliferation of cells	3,03E-30	ADA, AIF1, AIM2, ASCL2, BCL11B, BCL2A1, BTK, BTLA, C3, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD37, CD48, CD84, CD86, CD247, CD1D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CLEC7A, CORO1A, CR2,	147

on				CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL9, CXCL10, CYBB, CYSLTR1, DEF6, DGKA, DOCK2, FCER1G, FYB, GABBR1, GRN, GZMB, HCK, HCLS1, HLA-DPB1, HLA-DRB1, ICOS, IDO1, IFITM1, IGHG1, IGHM, IGKC, IKZF1, IL16, IL10RA, IL12RB1, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGAL, ITGAX, ITGB2, ITK, JAK3, KLRK1, LAMP3, LCK, LCN2, LCP2, LILRB1, LST1, LY86, LY96, MAP4K1, MMP7, MS4A1, MYB (includes EG:4602), NCF1, NOD2, PLAC8, PRKCB, PTGDS, PTPN6, PTPRC, PTTG1, RAC2, RARRES3, RASSF5, REG1A, RUNX3, S100A8, SAA1, SASH3, SH2D1A, SH2D2A, SIRPG, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, STAT4, TAC1, TCIRG1, TCL1A, TIMP1, TLR7, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, TRD@, TYROBP, UBASH3A, VAV1, WARS, WAS, XCL1, ZAP70	
Cellular Growth and Proliferation	proliferation	proliferation of B lymphocytes	1,89E-21	ADA, BTK, BTLA, CD4, CD19, CD22, CD86, CD3E, CD79A, CD8A, CR2, HCK, IGHM, IGKC, IL1RN, IL2RG, IL7R, IRF4, LY86, LY96, MS4A1, PRKCB, PTPN6, PTPRC, SASH3, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFSF13B, VAV1	36
Cellular Growth and Proliferation	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70	13
Cellular Growth and Proliferation	proliferation	proliferation of leukocyte cell lines	1,30E-08	CD28, CD1D, CD3E, CD8A, CLEC7A, CSF1R, CSF2RB, CSF3R, CYSLTR1, HCK, IL10RA, IL12RB1, IL1B, IL2RB, IL2RG, IL7R, JAK3, MYB (includes EG:4602), PTPRC, TNFRSF1B	20
Cellular Growth and Proliferation	growth	growth of blood cells	7,24E-21	BTK, C3, CCL2, CCL3, CCL4, CCL11, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD163, CD3E, CR2, CSF1R, CXCL10, ICOS, IGHM, IL10RA, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	36
Cellular Growth and Proliferation	growth	growth of leukocytes	2,39E-20	BTK, C3, CCL2, CCL3, CCL11, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD3E, CR2, CSF1R, CXCL10, ICOS, IGHM, IL10RA, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	33
Cellular Growth and Proliferation	growth	growth of lymphocytes	1,61E-17	BTK, C3, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL2RB, IL7R, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	27
Cellular Growth and Proliferation	growth	growth of normal cells	4,67E-16	AIF1, ALOX5, BTK, C3, CCL2, CCL3, CCL4, CCL11, CD2, CD4, CD14, CD22, CD27, CD28, CD86, CD163, CD3E, CR2, CSF1R, CXCL10, CXCR3, ICOS, IGHG1, IGHM, IL10RA, IL1B, IL1RN, IL2RB, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), PRF1, PTPN6, PTTG1, RUNX3, SLAMF1, STAT1, STAT4, TCL1A, TIMP1, TNFRSF1B, TNFSF13B, VAV1, ZAP70	46
Cellular Growth and Proliferation	growth	growth of T lymphocytes	4,47E-14	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, PTPN6, SLAMF1, STAT4, TCL1A, TNFRSF1B, TNFSF13B, ZAP70	21
Cellular Growth and Proliferation	growth	growth of eukaryotic cells	1,99E-10	AIF1, ALOX5, BTK, C3, CASP1, CCL2, CCL3, CCL4, CCL11, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD86, CD163, CD3E, CR2, CSF1R, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL10, CXCR3, FCER1G, GBP2, GRN, GZMB, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL2RB, IL2RG, IL7R, IRF1, JAK3, LCP1, LCP2, MMP7, MYB (includes EG:4602), PLAC8, PRF1, PRKCB, PTPN6, PTPN22, PTTG1, PYHIN1 (includes EG:149628), RASD1, RASSF5, RUNX3, SLAMF1, STAT1, STAT4, TCL1A, TIMP1, TNFRSF17, TNFRSF1B, TNFSF13B, VAV1, ZAP70	69
Cellular Growth and Proliferation	expansion	expansion of lymphocytes	8,89E-15	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL1B, IL7R, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	22
Cellular Growth and Proliferation	expansion	expansion	9,46E-15	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD163, CD3E, CR2, ICOS, IGHM,	25

Growth and Proliferation		of blood cells		IL10RA, IL1B, IL7R, IRF1, JAK3, LCP2, MYB (includes EG:4602), PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	
Cellular Growth and Proliferation	expansion	expansion of leukocytes	3,51E-14	BTK, C3, CD2, CD4, CD27, CD28, CD86, CD3E, CR2, ICOS, IGHM, IL10RA, IL1B, IL7R, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	23
Cellular Growth and Proliferation	expansion	expansion of T lymphocytes	4,12E-13	C3, CD2, CD4, CD27, CD28, CD86, CD3E, ICOS, IGHM, IL1B, IRF1, JAK3, LCP2, PRF1, SLAMF1, STAT4, TNFRSF1B, TNFSF13B, ZAP70	19
Cellular Growth and Proliferation	generation	generation of lymphocytes	3,58E-14	C3, CD4, CD28, CD86, CR2, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL1RN, IL27RA, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, STAT4, TNFSF13B	19
Cellular Growth and Proliferation	generation	generation of leukocytes	1,00E-13	C3, CD4, CD28, CD86, CR2, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL1RN, IL27RA, IL2RG, IL7R, IRF4, ITK, JAK3, LTB, PSMB9, STAT4, TNFSF13B	20
Cellular Growth and Proliferation	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Cellular Growth and Proliferation	stimulation	stimulation of eukaryotic cells	4,27E-10	C3, CCL5, CCL11, CCL20, CD2, CD4, CD28, CD86, CD1D, CD8A, FGD3, ICOS, IL1B, IL2RB, KLRK1, LTF, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	21
Cellular Growth and Proliferation	stimulation	stimulation of leukocytes	2,52E-09	C3, CCL5, CCL11, CCL20, CD2, CD28, CD86, CD1D, ICOS, IL1B, KLRK1, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	16
Cellular Growth and Proliferation	stimulation	stimulation of normal cells	2,94E-09	C3, CCL5, CCL11, CCL20, CD2, CD4, CD28, CD86, CD1D, FGD3, ICOS, IL1B, KLRK1, LTF, PTPRC, SLAMF1, TAC1, TNFRSF25, TNFSF13B	19
Cellular Growth and Proliferation	stimulation	stimulation of T lymphocytes	4,02E-08	C3, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	11
Cellular Growth and Proliferation	stimulation	stimulation of mononuclear leukocytes	5,28E-08	C3, CCL20, CD2, CD28, CD86, CD1D, ICOS, KLRK1, PTPRC, SLAMF1, TNFRSF25, TNFSF13B	12
Tissue Morphology	quantity	quantity of leukocytes	3,47E-48	ADA, ALOX5, BCL2A1, BTK, BTLA, C3, C1QA, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL2, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, S100A8, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	88
Tissue Morphology	quantity	quantity of blood cells	1,52E-45	ADA, ALOX5, BCL2A1, BTK, BTLA, C3, C1QA, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247,	89

gy				CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL2, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL12RB1, IL1B, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, MYB (includes EG:4602), POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, S100A8, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	
Tissue Morphology	quantity	quantity of lymphocytes	1,01E-42	BCL2A1, BTK, BTLA, C3, CCL19, CCL21, CCR2, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL10, CXCL13, CXCR3, CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IKZF1, IL10RA, IL27RA, IL2RB, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MS4A1, POU2AF1, PRF1, PTPN6, PTPRC, RAC2, RHOH, RUNX3, SELL, SELPLG, SIT1, SLA, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	72
Tissue Morphology	quantity	quantity of cells	2,65E-32	ADA, ALOX5, BCL2A1, BTK, BTLA, C3, C1QA, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD4, CD19, CD22, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYBB, CYTIP, DEF6, FCER1G, HLA-DQA1, ICOS, IGHG1, IGHM, IGJ, IGKC, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, LSP1, LTB, MMP7, MS4A1, MYB (includes EG:4602), POU2AF1, PRF1, PSMB10, PTPN6, PTPRC, PTTG1, RAC2, RARRES3, RGS10, RHOH, RUNX3, S100A8, SELL, SELPLG, SH2D1A, SIT1, SLA, ST8SIA4, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, VAV1, WAS, ZAP70, ZC3H12A	103
Tissue Morphology	quantity	quantity of T lymphocytes	9,72E-27	BCL2A1, BTLA, CCL19, CCL21, CCR2, CCR7, CD4, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CIITA, CSF2RB, CTSS, CXCL10, CXCR3, DEF6, IKZF1, IL10RA, IL27RA, IL2RB, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCP2, LTB, PTPRC, RHOH, RUNX3, SELPLG, SIT1, STAT1, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, VAV1, WAS, ZAP70	47
Tissue Morphology	quantity	quantity of B lymphocytes	4,98E-19	BCL2A1, BTK, C3, CCR7, CD19, CD22, CD27, CD28, CD69, CD79A, CR2, CXCL13, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, MS4A1, POU2AF1, PTPN6, RAC2, SLA, TNFRSF1B, TNFSF13B, VAV1, WAS, ZC3H12A	31
Tissue Morphology	quantity	quantity of antigen presenting cells	1,10E-12	ADA, CCL2, CCL3, CCL19, CCL21, CCR2, CCR7, CSF1R, CTSS, CXCL10, CXCL13, CXCR6 (includes EG:10663), IKZF1, IL12RB1, IL1B, IRF1, IRF4, ITGB2, LSP1, LTB, SELPLG, STAT4, TYROBP	23
Tissue Morphology	quantity	quantity of plasma cells	8,00E-11	CD22, ICOS, IL7R, ITGB2, PTPN6, RAC2, TNFRSF1B, TNFSF13B, ZC3H12A	9
Tissue Morphology	quantity	quantity of phagocytes	2,02E-10	ADA, C1QA, CCL2, CCL3, CCR2, CD1D, CSF1R, CSF3R, CTSS, CXCL10, CXCR6 (includes EG:10663), IL12RB1, IL1B, ITGB2, JAK3, LSP1, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF1B	22
Tissue Morphology	quantity	quantity of natural killer cells	2,32E-09	CD86, ICOS, IL2RB, IL2RG, IRF1, JAK3, LTB, PRF1, PTPRC, TNFRSF25, TYROBP	11
Tissue Morphology	quantity	quantity of granulocytes	4,90E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B	18
Tissue Morphology	quantity	quantity of myeloid cells	6,29E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IKZF1, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B	19
Tissue Morphology	quantity	quantity of lymphatic system cells	7,93E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, CXCL13, IKZF1, IL1B, ITGB2, JAK3, PSMB10, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B	21
Tissue Morphology	quantity	quantity of intraepithelial T lymphocytes	3,14E-08	IKZF1, IL2RG, IL7R, IRF1, PTPRC, TAP1	6
Tissue Morphology	quantity	quantity of dendritic cells	4,93E-08	CCL19, CCL21, CCR2, CCR7, CXCL13, IKZF1, IRF1, IRF4, ITGB2, LTB, TYROBP	11
Tissue Morphology	quantity	quantity of natural killer	6,58E-08	CD1D, CD3E, CSF2RB, IKZF1, IL2RB, IL2RG, PTPRC, VAV1	8

gy		T lymphocytes				
Hematopoiesis	development	development of mononuclear leukocytes	7,26E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	91	
Hematopoiesis	development	development of leukocytes	8,10E-47	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	92	
Hematopoiesis	development	development of lymphocytes	3,82E-46	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CR2, CSF3R, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	90	
Hematopoiesis	development	T cell development	3,75E-43	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	84	
Hematopoiesis	development	development of thymocytes	3,15E-11	CD3D, CD3E, CD3G, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, ZAP70	15	
Hematopoiesis	development	development of helper T lymphocytes	1,08E-08	CASP1, CD28, CD86, ICOS, IL12RB1, IL1B, IRF1, ITGB2, ITK, STAT1, STAT4	11	
Hematopoiesis	development	development of B lymphocytes	1,15E-07	ADA, BTK, CD19, CD69, CR2, IGHM, IL2RG, IL7R, JAK3, MYB (includes EG:4602), POU2AF1, TNFSF13B, VAV1	13	
Hematopoiesis	hematopoiesis	hematopoiesis	2,08E-43	ADA, BCL11B, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL19, CCR2, CCR5, CCR7, CD2, CD4, CD6, CD14, CD19, CD27, CD28, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CXCL11, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCN2, LCP2, LTB, LTF, MAP4K1, MYB (includes EG:4602), NCAPH2, POU2AF1, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TLR7, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	99	
Hematopoiesis	differentiation	differentiation of leukocytes	2,83E-33	ADA, BCL2A1, CCL2, CCL3, CCL11, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD300A, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, CSF2RB, CSF3R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1,	69	

				PTPN6, PTPN22, PTPRC, RASSF5, RGS10, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TIMP1, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	
Hematopoiesis	differentiation	differentiation of mononuclear leukocytes	4,25E-33	ADA, BCL2A1, CCL2, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, CSF1R, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, IRF7, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	63
Hematopoiesis	differentiation	differentiation of lymphocytes	1,58E-32	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD14, CD27, CD28, CD86, CD1D, CD3D, CD3E, CD79A, CD8A, CR2, DEF6, DOCK2, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IGHM, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, POU2AF1, PTPN6, PTPN22, PTPRC, RASSF5, RHOH, SH2D1A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TLR7, TNFRSF25, TNFSF13B, TRAT1, VAV1, WAS, ZAP70	60
Hematopoiesis	differentiation	differentiation of T lymphocytes	3,22E-24	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD28, CD86, CD1D, CD3E, CD8A, DEF6, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, PTPN22, PTPRC, RASSF5, SH2D1A, SLAMF1, STAT1, STAT4, TNFSF13B, VAV1, WAS, ZAP70	45
Hematopoiesis	differentiation	differentiation of helper T lymphocytes	9,77E-11	CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	19
Hematopoiesis	differentiation	differentiation of B lymphocytes	2,03E-08	CD14, CD27, CD79A, CR2, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, POU2AF1, PTPN6, PTPRC, SPIB, TLR7, TNFSF13B	17
Hematopoiesis	differentiation	differentiation of Th2 cells	6,00E-08	CD28, CD86, ICOS, IGHG1, IRF1, ITK, JAK3, SH2D1A, STAT1, STAT4, VAV1	11
Hematopoiesis	differentiation	differentiation of thymocytes	6,97E-08	CD2, CD28, CD86, CD3E, IKZF1, IL2RG, LCP2, MYB (includes EG:4602), WAS, ZAP70	10
Hematopoiesis	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Hematopoiesis	migration	migration of granulocytes	2,47E-21	C3, CCL3, CCL4, CCL5, CCL11, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, DARC, FGR, FPR1, HCK, ICAM2, IL16, IL1B, ITGAL, ITGAX, ITGB2, LSP1, LTF, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	29
Hematopoiesis	migration	migration of neutrophils	1,41E-14	CCL3, CCL5, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	20
Hematopoiesis	migration	migration of eosinophils	2,90E-14	C3, CCL4, CCL5, CCL11, CXCL2, CXCL9, CXCL10, CXCL11, ICAM2, IL16, IL1B, ITGAL, ITGB2, LTF	14
Hematopoiesis	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33
Hematopoiesis	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Hematopoiesis	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Hematopoiesis	cell movement	cell movement of bone marrow cells	1,97E-11	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, SLPI	15
Hematopoiesis	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Hematopoiesis	transmigration	transmigration of granulocyte	2,32E-09	CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, ITGAL, ITGAX, ITGB2, LSP1, SLPI	11

Hematopoiesis	positive selection	positive selection of lymphocytes	5,69E-09	CD4, ITK, RHOH, SIT1, TRAT1, VAV1, ZAP70	7
Hematopoiesis	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1	6
Hematopoiesis	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1	11
Hematopoiesis	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70	13
Hematopoiesis	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1	9
Cellular Movement	cell movement	cell movement of blood cells	1,56E-44	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD86, CIITA, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, ICOS, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, JAK3, LSP1, LTB, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TCIRG1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	83
Cellular Movement	cell movement	cell movement of leukocytes	2,18E-40	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD86, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	78
Cellular Movement	cell movement	cell movement of normal cells	2,54E-38	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD86, CIITA, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DGKA, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, ICOS, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, JAK3, LCP2, LSP1, LTB, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TCIRG1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	85
Cellular Movement	cell movement	cell movement of eukaryotic cells	1,88E-33	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD28, CD48, CD69, CD86, CIITA, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DGKA, FCER1G, FGB, FGR, FPR1, GNLY, HCK, ICAM2, ICOS, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LSP1, LTB, NCF1, PCDH10, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TCIRG1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	89
Cellular Movement	cell movement	cell movement	1,84E-31	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CCR2, CD2, CD4, CD14, CD28, CD48, CD69, CD86, CIITA, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYSLTR1, DARC, DGKA, DOCK2, FCER1G, FGB, FGR, FPR1, FPR3, GNLY, HCK, ICAM2, ICOS, IGHG1, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, JAK3, LCK, LCP1, LCP2, LSP1, LTB, NCF1, PCDH10, PLA2G7, POU2AF1, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, STAT1, TAC1, TCIRG1, TIMP1, TNFRSF1B, UCP2, WAS, XCL1, ZC3H12A	93
Cellular Movement	cell movement	cell movement of lymphatic system cells	1,18E-29	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LCP2, LSP1, NCF1, PLA2G7, PTPN6, PTPRC, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	50

Cellular Movement	cell movement	cell movement of myeloid cells	2,53E-29	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, PTPRC, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	49
Cellular Movement	cell movement	cell movement of granulocytes	2,19E-28	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CCR2, CD2, CD28, CD48, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, ICAM2, IL1B, IL1RN, IL27RA, IL2RB, ITGAL, ITGAX, ITGB2, ITK, LSP1, NCF1, PLA2G7, PTPN6, RAC2, RUNX3, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	48
Cellular Movement	cell movement	cell movement of mononuclear leukocytes	1,57E-26	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CTSS, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, FPR1, GNLY, IGHG1, IL16, IL1B, ITGAL, ITGAX, ITGB2, ITK, POU2AF1, PRF1, PRKCB, RAC2, RGS1, SAA1, SELL, SELPLG, SERPINA3, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	47
Cellular Movement	cell movement	cell movement of lymphocytes	5,86E-25	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, GNLY, IGHG1, IL16, IL1B, ITGB2, ITK, POU2AF1, PRF1, RAC2, RGS1, SAA1, SELL, SELPLG, TAC1, TIMP1, UCP2, WAS, XCL1, ZC3H12A	41
Cellular Movement	cell movement	cell movement of phagocytes	1,13E-24	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CCR5, CD28, CORO1A, CSF1R, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, DARC, FCER1G, FGR, FPR1, HCK, IL16, IL12RB1, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SAA1, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	45
Cellular Movement	cell movement	cell movement of neutrophils	4,52E-22	C2, C3, CASP1, CCL2, CCL3, CCL4, CCL5, CCL21, CCR2, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, NCF1, PTPN6, RAC2, S100A8, SELL, SELPLG, SLPI, TAC1, TNFRSF1B, WAS, XCL1	37
Cellular Movement	cell movement	cell movement of T lymphocytes	1,37E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CYSLTR1, DARC, GNLY, IL16, IL1B, ITGB2, ITK, PRF1, SELL, SELPLG, XCL1	29
Cellular Movement	cell movement	cell movement of antigen presenting cells	2,47E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL9, CXCL10, CXCR3, DARC, FPR1, GNLY, ICAM2, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL, TAC1	30
Cellular Movement	cell movement	cell movement of eosinophils	3,31E-17	C3, CCL2, CCL3, CCL5, CCL11, CCL21, CD2, CD48, CXCL9, CXCL10, CXCR3, FPR1, ICAM2, IL1B, IL27RA, IL2RB, ITGAL, ITGB2, ITK, PLA2G7, RUNX3, WAS	22
Cellular Movement	cell movement	cell movement of dendritic cells	1,41E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CD86, FPR1, GNLY, ICAM2, IL16, IL1B, TAC1	16
Cellular Movement	cell movement	cell movement of memory T lymphocytes	1,68E-12	CCL2, CCL5, CCL19, CCL21, CCR7, CD28, CXCL9, CXCL11, GNLY, ITGB2	10
Cellular Movement	cell movement	cell movement of macrophages	1,01E-11	C3, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CSF1R, CXCL9, CXCL10, CXCR3, DARC, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL	20
Cellular Movement	cell movement	cell movement of bone marrow cells	1,97E-11	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, IL1RN, ITGAL, ITGAX, ITGB2, LSP1, SLPI	15
Cellular Movement	cell movement	cell movement of B lymphocytes	1,39E-10	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, POU2AF1, RAC2, RGS1, SELPLG, ZC3H12A	12
Cellular	cell	cell	1,59E-10	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CCR7, CD28,	32

Movement Cellular Movement	movement cell movement	movement of cell lines cell	2,62E-10	CD69, CSF1R, CXCL1, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, DGKA, FPR1, IL12RB1, ITGB2, LCK, LCP1, PCDH10, RGS1, SELL, SELPLG, WAS, CCL2, CCL3, CCL4, CCL20, CCR2, CCR5, CIITA, ICOS, JAK3, LTB, TCIRG1	11
Cellular Movement	cell movement	movement of mononuclear cells	1,72E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CTSS, CXCL9, CXCL10, FPR1, GNLY, IL1B, ITGAL, ITGAX, ITGB2, PRKCB, SERPINA3	17
Cellular Movement	cell movement	movement of monocytes cell	1,28E-08	CCL18, CCL19, CCL20, CCL21, CCR7, SELL	6
Cellular Movement	cell movement	movement of naive lymphocytes cell	1,46E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, ITGB2, RGS1, WAS	12
Cellular Movement	cell movement	movement of leukocyte cell lines	6,19E-08	CCL2, CCL4, CCL5, CCL11, CCR5, CD69, DARC, SELL, SELPLG	9
Cellular Movement	migration	migration of leukocytes	8,60E-44	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FCER1G, FGR, FPR1, FYB, GNLY, HCK, ICAM2, ICOS, IL16, IL10RA, IL12RB1, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, LSP1, LTF, MMP7, PIK3R5, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RASSF5, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	81
Cellular Movement	migration	migration of mononuclear leukocytes	8,88E-33	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CTSS, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FYB, GNLY, ICAM2, ICOS, IL16, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, PRF1, RASSF5, SELL, SELPLG, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	55
Cellular Movement	migration	Lymphocyte migration	1,14E-32	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FYB, GNLY, ICAM2, ICOS, IL16, IL1B, ITGAL, ITGB2, ITK, LCK, PRF1, RASSF5, SELL, SELPLG, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WAS, XCL1	53
Cellular Movement	migration	migration of normal cells	2,10E-28	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FCER1G, FGR, FPR1, FYB, GNLY, GRN, HCK, ICAM2, ICOS, IGHG1, IL16, IL10RA, IL12RB1, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, LSP1, LTF, MMP7, NCF1, PIK3R5, PRF1, PRKCB, PTPN6, PTPRC, RAC2, RASSF5, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SLPI, ST8SIA4, TAC1, TIMP1, TNFRSF1B, TNFSF13B, WARS, WAS, XCL1	86
Cellular Movement	migration	T cell migration	1,94E-25	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DOCK2, FYB, GNLY, ICOS, IL16, IL1B, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, WAS, XCL1	39
Cellular Movement	migration	migration of cells	7,39E-25	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FCER1G, FGR, FPR1, FPR3, FYB, GNLY, GRN, GZMB, HCK, ICAM2, ICOS, IGHG1, IL16, IL10RA, IL12RB1, IL1B, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LCN2, LSP1, LTF, MMP7, MYO1F, NCF1, PIK3R5, PRF1, PRKCB, PTPN6, PTPRC, PTTG1, RAC2, RASSF5, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SH2D2A, SLPI, ST8SIA4, STAT1, TAC1, TIMP1, TNFRSF25, TNFRSF1B, TNFSF13B, WARS, WAS, XCL1, XCL2	97

Cellular Movement	migration	migration of eukaryotic cells	1,59E-24	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD22, CD28, CD48, CD69, CD86, CD247, CD3E, CD8A, CORO1A, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, CYTIP, DARC, DOCK2, FCER1G, FGR, FPR1, FPR3, FYB, GNLY, GRN, GZMB, HCK, ICAM2, ICOS, IGHG1, IL16, IL10RA, IL12RB1, IL1B, ITGAL, ITGAX, ITGB2, ITK, KLRK1, LCK, LSP1, LTF, MMP7, NCF1, PIK3R5, PRF1, PRKCB, PTPN6, PTPRC, PTTG1, RAC2, RASSF5, RGS1, RUNX3, S100A8, SAA1, SELL, SELPLG, SERPINA3, SH2D2A, SLPI, ST8SIA4, TAC1, TIMP1, TNFRSF25, TNFRSF1B, TNFSF13B, WARS, WAS, XCL1	93
Cellular Movement	migration	migration of granulocytes	2,47E-21	C3, CCL3, CCL4, CCL5, CCL11, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, DARC, FGR, FPR1, HCK, ICAM2, IL16, IL1B, ITGAL, ITGAX, ITGB2, LSP1, LTF, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	29
Cellular Movement	migration	migration of antigen presenting cells	2,78E-21	C3, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL1, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, ICAM2, IL16, IL10RA, IL1B, RAC2, RUNX3, TAC1, TIMP1, WAS	28
Cellular Movement	migration	migration of dendritic cells	3,57E-21	C3, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, ICAM2, IL16, IL10RA, IL1B, RAC2, RUNX3, TAC1, TIMP1, WAS	25
Cellular Movement	migration	migration of phagocytes	3,90E-15	CCL2, CCL3, CCL5, CSF1R, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, RAC2, S100A8, SAA1, SELL, SLPI	23
Cellular Movement	migration	migration of neutrophils	1,41E-14	CCL3, CCL5, CXCL1, CXCL2, CXCL6, DARC, FGR, FPR1, HCK, IL1B, ITGAL, ITGAX, ITGB2, LSP1, MMP7, PIK3R5, S100A8, SAA1, SELL, SLPI	20
Cellular Movement	migration	migration of eosinophils	2,90E-14	C3, CCL4, CCL5, CCL11, CXCL2, CXCL9, CXCL10, CXCL11, ICAM2, IL16, IL1B, ITGAL, ITGB2, LTF	14
Cellular Movement	migration	migration of peripheral blood leukocytes	1,21E-09	CCL3, CCL4, CCL5, CCL19, CCL21, CCR5, CCR7, CXCL13, CXCR3	9
Cellular Movement	migration	migration of B lymphocytes	3,61E-09	CCL19, CCL20, CCL21, CD22, CXCL13, DOCK2, ICOS, TIMP1, TNFRSF1B, TNFSF13B	10
Cellular Movement	migration	migration of leukemia cell lines	1,08E-08	CCL2, CCL5, CCL11, CCR2, CXCL10, ITGAL, ITGB2, KLRK1, LCK, SH2D2A, TIMP1	11
Cellular Movement	migration	migration of memory T lymphocytes	4,11E-08	CCL21, CD28, CXCL11, CXCL13, ICOS	5
Cellular Movement	migration	migration of PBMC cells	6,77E-08	CCL3, CCL4, CCL19, CCL21, CCR7, CXCL13	6
Cellular Movement	migration	NK cell migration	1,07E-07	CCL3, CCL5, CCL21, CXCL9, CXCL10, CXCR3, IL16, SELL, XCL1	9
Cellular Movement	homing	homing of leukocytes	2,34E-29	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	50
Cellular Movement	homing	homing of eukaryotic cells	3,80E-24	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DGKA, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LCK, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	54
Cellular Movement	homing	homing of cells	1,83E-23	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYSLTR1, DARC, DGKA, FCER1G, FGR, FPR1, GNLY, HCK, IGHG1, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LCK, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	55
Cellular Movement	homing	homing of	9,53E-21	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5,	33

Movement		mononuclear leukocytes		CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IGHG1, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	
Cellular Movement	homing	homing of myeloid cells	7,97E-20	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, WAS, XCL1	29
Cellular Movement	homing	homing of lymphocytes	1,37E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IGHG1, IL16, RAC2, RGS1, SAA1, SELPLG, TAC1, WAS, XCL1	28
Cellular Movement	homing	homing of phagocytes	4,11E-19	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, WAS, XCL1	28
Cellular Movement	homing	homing of granulocytes	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	28
Cellular Movement	homing	homing of neutrophils	1,56E-17	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	24
Cellular Movement	homing	homing of T lymphocytes	9,00E-13	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16, SELPLG	18
Cellular Movement	homing	homing of eosinophils	2,60E-09	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1, WAS	10
Cellular Movement	homing	homing of memory T lymphocytes	1,11E-08	CCL2, CCL5, CCL19, CCL21, CCR7, CXCL9, GNLY	7
Cellular Movement	chemotaxis	chemotaxis of leukocytes	3,08E-27	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FCER1G, FGR, FPR1, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SERPINA3, TAC1, XCL1	47
Cellular Movement	chemotaxis	chemotaxis of eukaryotic cells	1,70E-24	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DGKA, FCER1G, FGR, FPR1, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LCK, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	53
Cellular Movement	chemotaxis	chemotaxis	2,26E-24	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CCRL2, CD4, CD28, CD69, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DGKA, DOCK2, FCER1G, FGR, FPR1, FPR3, GNLY, HCK, IL16, IL12RB1, IL1B, ITGAL, ITGB2, LCK, LSP1, PRKCB, PTPN6, PTPRC, RAC2, RGS1, S100A8, SAA1, SELPLG, SERPINA3, TAC1, WAS, XCL1	56
Cellular Movement	chemotaxis	chemotaxis of myeloid cells	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, XCL1	28
Cellular Movement	chemotaxis	chemotaxis of mononuclear leukocytes	8,38E-19	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, GNLY, IL16, IL1B, ITGAL, PRKCB, RAC2, RGS1, SAA1, SERPINA3, TAC1, XCL1	30
Cellular Movement	chemotaxis	chemotaxis of phagocytes	3,97E-18	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, XCL1	27
Cellular Movement	chemotaxis	chemotaxis of granulocytes	7,31E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	27
Cellular Movement	chemotaxis	chemotaxis of lymphocytes	9,70E-18	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, GNLY, IL16, RAC2, RGS1, SAA1, TAC1, XCL1	25
Cellular Movement	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23
Cellular Movement	chemotaxis	chemotaxis	1,41E-13	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CCR7, CD69,	26

Movement	is	of cell lines		CXCL1, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, DGKA, FPR1, IL12RB1, LCK, RGS1, SELPLG, WAS	
Cellular Movement	chemotaxis	chemotaxis of antigen presenting cells	2,54E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CXCL9, CXCR3, FPR1, GNLy, IL16, IL12RB1, IL1B, SAA1, TAC1	18
Cellular Movement	chemotaxis	chemotaxis of dendritic cells	2,22E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, FPR1, GNLy, IL16, IL1B, TAC1	14
Cellular Movement	chemotaxis	chemotaxis of T lymphocytes	2,84E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLy, IL16	16
Cellular Movement	chemotaxis	chemotaxis of monocytes	2,68E-09	CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CXCL9, CXCL10, FPR1, GNLy, IL1B, ITGAL, PRKCB, SERPINA3	14
Cellular Movement	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9
Cellular Movement	chemotaxis	chemotaxis of leukocyte cell lines	1,08E-08	C3, CCL3, CCL5, CCL19, CCL21, CCR7, CXCL11, CXCL13, CXCR3, RGS1, WAS	11
Cellular Movement	chemotaxis	chemotaxis of tumor cell lines	1,12E-08	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR5, CD69, CXCL9, CXCL13, DARC, FPR1, LCK, SELPLG	16
Cellular Movement	chemotaxis	chemotaxis of eosinophils	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9
Cellular Movement	infiltration	infiltration of cells	6,34E-17	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CIITA, CSF1R, CXCL10, DARC, FGB, ICOS, IL16, IL1B, IL1RN, ITK, JAK3, LCP2, LTB, PRF1, SELPLG, STAT1, TCIRG1, TIMP1, TNFRSF1B, UCP2, XCL1, ZC3H12A	33
Cellular Movement	infiltration	infiltration by mononuclear leukocytes	7,26E-15	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	22
Cellular Movement	infiltration	infiltration of leukocytes	3,62E-14	C3, CCL2, CCL3, CCL4, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CSF1R, CXCL10, DARC, FGB, IL16, IL1B, IL1RN, ITK, PRF1, SELPLG, STAT1, TIMP1, TNFRSF1B, UCP2, XCL1, ZC3H12A	27
Cellular Movement	infiltration	infiltration by lymphocytes	1,51E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, TIMP1, UCP2, XCL1, ZC3H12A	20
Cellular Movement	infiltration	infiltration by T lymphocytes	2,03E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, XCL1	16
Cellular Movement	infiltration	infiltration by neutrophils	8,14E-12	C2, C3, CASP1, CCL3, CCL4, CCL21, CCR2, CXCL2, CXCL10, FCER1G, IL1B, IL1RN, ITGAL, ITGB2, NCF1, RAC2, SELL, TNFRSF1B, XCL1	19
Cellular Movement	infiltration	infiltration by eosinophils	6,64E-09	CCL3, CCL5, CCL11, CCL21, CD2, CD48, IL27RA, IL2RB, ITK, PLA2G7, RUNX3	11
Cellular Movement	adhesion	adhesion of T lymphocytes	9,88E-17	CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, TAC1	21
Cellular Movement	transmigration	transmigration of leukocytes	1,58E-16	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR7, CD28, CD86, CTSS, CXCL2, CXCL9, CXCL10, CXCL11, FPR1, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, LSP1, SLPI	22
Cellular Movement	transmigration	transmigration of mononuclear leukocytes	7,71E-10	CCL2, CCL3, CCL4, CCL5, CCR7, CD28, CD86, CTSS, CXCL11, ITGAL, ITGAX, ITGB2	12
Cellular Movement	transmigration	transmigration of granulocytes	2,32E-09	CCL11, CXCL2, CXCL9, CXCL10, FPR1, ICAM2, ITGAL, ITGAX, ITGB2, LSP1, SLPI	11
Cellular Movement	transmigration	transmigration of	1,11E-08	CCL3, CCL4, CCL5, CCL19, CCR7, ICAM2, IL1B	7

t		dendritic cells				
Cellular Movement	chemoattraction	chemoattraction of leukocytes	2,34E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, XCL1	16	
Cellular Movement	chemoattraction	chemoattraction of normal cells	4,58E-16	C3, CCL2, CCL3, CCL4, CCL5, CCL18, CCL19, CCL20, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, IL16, IL12RB1, IL1B, XCL1	17	
Cellular Movement	chemoattraction	chemoattraction of lymphocytes	3,48E-12	CCL2, CCL3, CCL4, CCL5, CCL18, CXCL9, CXCL10, CXCL13, CXCR3, IL16	10	
Cellular Movement	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9	
Cellular Movement	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7	
Cellular Movement	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9	
Cellular Movement	extravasation	extravasation	7,66E-13	BTK, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CXCL1, CYSLTR1, IL1B, ITGB2, ITK, LSP1, SELL, TAC1	15	
Cellular Movement	extravasation	extravasation of phagocytes	1,96E-11	CCL2, CCL3, CCL4, CCL5, CXCL1, IL1B, ITGB2, LSP1, SELL	9	
Cellular Movement	extravasation	extravasation of leukocytes	5,78E-11	CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CXCL1, IL1B, ITGB2, LSP1, SELL	11	
Cellular Movement	extravasation	extravasation of antigen presenting cells	4,36E-09	CCL2, CCL3, CCL4, CCL5, CCR2, CCR5	6	
Cellular Movement	recruitment	recruitment of T lymphocytes	1,48E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10	14	
Cellular Movement	mobilization	mobilization of leukocytes	1,22E-11	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2	12	
Cellular Movement	mobilization	mobilization of normal cells	7,95E-11	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CSF3R, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2, SELL	14	
Cellular Movement	mobilization	mobilization of blood cells	1,14E-10	CCL2, CCL3, CCL4, CCL11, CCL20, CCR5, CXCL2, CXCL10, CXCR3, FPR1, IL1B, ITGB2, SELL	13	
Cellular Movement	mobilization	mobilization of myeloid cells	2,07E-08	CCL2, CCL3, CCL4, CCL11, CXCL2, CXCL10, FPR1, IL1B	8	
Cellular Movement	trafficking	trafficking of leukocytes	3,81E-11	CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CXCL10, CXCL13, ITGB2, TNFRSF1B	11	
Cellular Movement	trafficking	trafficking of cells	7,32E-11	CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CXCL10, CXCL13, CXCR6 (includes EG:10663), ITGB2, TNFRSF1B	12	
Cell-mediated Immune Response	homeostasis	T cell homeostasis	7,23E-44	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25,	85	

				TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	
Cell-mediated Immune Response	development	T cell development	3,75E-43	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	84
Cell-mediated Immune Response	development	development of thymocytes	3,15E-11	CD3D, CD3E, CD3G, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, ZAP70	15
Cell-mediated Immune Response	development	development of helper T lymphocytes	1,08E-08	CASP1, CD28, CD86, ICOS, IL12RB1, IL1B, IRF1, ITGB2, ITK, STAT1, STAT4	11
Cell-mediated Immune Response	migration	T cell migration	1,94E-25	ALOX5, C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD4, CD28, CD69, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DARC, DOCK2, FYB, GNLY, ICOS, IL16, IL1B, ITGB2, ITK, LCK, PRF1, SELL, SELPLG, WAS, XCL1	39
Cell-mediated Immune Response	migration	migration of memory T lymphocytes	4,11E-08	CCL21, CD28, CXCL11, CXCL13, ICOS	5
Cell-mediated Immune Response	migration	NK cell migration	1,07E-07	CCL3, CCL5, CCL21, CXCL9, CXCL10, CXCR3, IL16, SELL, XCL1	9
Cell-mediated Immune Response	differentiation	differentiation of T lymphocytes	3,22E-24	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD28, CD86, CD1D, CD3E, CD8A, DEF6, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, PTPN22, PTPRC, RASSF5, SH2D1A, SLAMF1, STAT1, STAT4, TNFSF13B, VAV1, WAS, ZAP70	45
Cell-mediated Immune Response	differentiation	differentiation of helper T lymphocytes	9,77E-11	CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	19
Cell-mediated Immune Response	differentiation	differentiation of Th2 cells	6,00E-08	CD28, CD86, ICOS, IGHG1, IRF1, ITK, JAK3, SH2D1A, STAT1, STAT4, VAV1	11
Cell-mediated Immune Response	differentiation	differentiation of thymocytes	6,97E-08	CD2, CD28, CD86, CD3E, IKZF1, IL2RG, LCP2, MYB (includes EG:4602), WAS, ZAP70	10
Cell-mediated Immune Response	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Cell-mediated Immune Response	cell movement	cell movement of T lymphocytes	1,37E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CXCL9, CXCL10, CXCL11, CYSLTR1, DARC, GNLY, IL16, IL1B, ITGB2, ITK, PRF1, SELL, SELPLG, XCL1	29
Cell-mediated Immune Response	cell movement	cell movement of memory T lymphocytes	1,68E-12	CCL2, CCL5, CCL19, CCL21, CCR7, CD28, CXCL9, CXCL11, GNLY, ITGB2	10
Cell-mediated Immune Response	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33

Cell-mediated Immune Response	adhesion	adhesion of T lymphocytes	9,88E-17	CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, TAC1	21
Cell-mediated Immune Response	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Cell-mediated Immune Response	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Cell-mediated Immune Response	infiltration	infiltration by T lymphocytes	2,03E-13	C3, CCL3, CCL18, CCL19, CCL21, CCR2, CCR5, CD86, CXCL10, DARC, IL16, IL1B, ITK, PRF1, SELPLG, XCL1	16
Cell-mediated Immune Response	homing	homing of T lymphocytes	9,00E-13	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CCR7, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16, SELPLG	18
Cell-mediated Immune Response	homing	homing of memory T lymphocytes	1,11E-08	CCL2, CCL5, CCL19, CCL21, CCR7, CXCL9, GNLY	7
Cell-mediated Immune Response	recruitment	recruitment of T lymphocytes	1,48E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR7, CD4, CD8A, CXCL9, CXCL10	14
Cell-mediated Immune Response	chemotaxis	chemotaxis of T lymphocytes	2,84E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CXCL9, CXCL10, CXCL11, CYSLTR1, GNLY, IL16	16
Cell-mediated Immune Response	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Cell-mediated Immune Response	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1	11
Cell-mediated Immune Response	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70	13
Cell-mediated Immune Response	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1	9
Cell-mediated Immune Response	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1	6
Cellular Function and Maintenance	homeostasis	homeostasis of T cell	7,23E-44	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	85
Cellular Function and Maintenance	homeostasis	homeostasis of leukocytes	8,27E-44	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, CORO1A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA,	86

ce				IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WAS, XCL1, ZAP70	
Cellular Function and Maintenance	development	T cell development	3,75E-43	ADA, BCL11B, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CCR7, CD2, CD4, CD6, CD27, CD28, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CIITA, CLEC10A, DEF6, DOCK2, EOMES, FCER1G, GZMA, GZMB, HLA-DOA, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IKZF1, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LAX1, LCK, LCP2, LTB, MAP4K1, MYB (includes EG:4602), NCAPH2, PRF1, PSMB9, PTPN6, PTPN22, PTPRC, RAC2, RASSF5, RHOH, RUNX3, SH2D1A, SH2D2A, SIT1, SLAMF1, SPIB, STAT1, STAT4, TCL1A, TNFRSF25, TNFRSF1B, TNFSF13B, TRAT1, VAV1, WAS, XCL1, ZAP70	84
Cellular Function and Maintenance	development	development of thymocytes	3,15E-11	CD3D, CD3E, CD3G, IL2RB, IL2RG, IL7R, IRF1, LAX1, LCP2, MYB (includes EG:4602), PTPRC, SIT1, SPIB, TRAT1, ZAP70	15
Cellular Function and Maintenance	development	development of helper T lymphocytes	1,08E-08	CASP1, CD28, CD86, ICOS, IL12RB1, IL1B, IRF1, ITGB2, ITK, STAT1, STAT4	11
Cellular Function and Maintenance	differentiation	differentiation of T lymphocytes	3,22E-24	ADA, BCL2A1, CCL3, CCL19, CD2, CD4, CD28, CD86, CD1D, CD3E, CD8A, DEF6, HLA-DOA, HLA-DQA1, ICOS, IGHG1, IKZF1, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCP2, MYB (includes EG:4602), NCAPH2, PTPN22, PTPRC, RASSF5, SH2D1A, SLAMF1, STAT1, STAT4, TNFSF13B, VAV1, WAS, ZAP70	45
Cellular Function and Maintenance	differentiation	differentiation of helper T lymphocytes	9,77E-11	CCL3, CD28, CD86, ICOS, IGHG1, IL12RB1, IL1B, IL27RA, IL2RB, IRF1, ITGAL, ITGB2, ITK, JAK3, SH2D1A, STAT1, STAT4, TNFSF13B, VAV1	19
Cellular Function and Maintenance	differentiation	differentiation of Th2 cells	6,00E-08	CD28, CD86, ICOS, IGHG1, IRF1, ITK, JAK3, SH2D1A, STAT1, STAT4, VAV1	11
Cellular Function and Maintenance	differentiation	differentiation of thymocytes	6,97E-08	CD2, CD28, CD86, CD3E, IKZF1, IL2RG, LCP2, MYB (includes EG:4602), WAS, ZAP70	10
Cellular Function and Maintenance	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Cellular Function and Maintenance	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33
Cellular Function and Maintenance	selection	selection of T lymphocytes	3,41E-16	CD4, CD28, CD1D, CD3D, CD3E, DOCK2, HLA-DOA, ITK, PTPRC, RHOH, SIT1, TNFRSF25, TRAT1, VAV1, ZAP70	15
Cellular Function and Maintenance	selection	selection of thymocytes	1,11E-08	CD28, HLA-DOA, ITK, RHOH, SIT1, TNFRSF25, TRAT1	7
Cellular	phagocyt	phagocytosis	1,79E-13	C3, C1QA, CD4, CD14, CLEC7A, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6,	24

Function and Maintenance	osis	s		FCER1G, FCGR3B, FGR, HCK, ICOS, IGHG1, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	
Cellular Function and Maintenance	phagocytosis	phagocytosis of cells	7,23E-12	C3, C1QA, CD4, CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCER1G, FCGR3B, FGR, HCK, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	21
Cellular Function and Maintenance	phagocytosis	phagocytosis of eukaryotic cells	7,62E-09	CD14, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCGR3B, FGR, HCK, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	16
Cellular Function and Maintenance	function	function of leukocytes	1,38E-12	CD4, CD28, CD86, ICOS, IL10RA, IL1B, IRF1, JAK3, KLRK1, LAX1, LTB, PRF1, SH2D1A, SLPI, STAT4, TLR8 (includes EG:51311), TNFSF13B, VAV1	18
Cellular Function and Maintenance	function	function of lymphocytes	1,21E-11	CD4, CD28, CD86, ICOS, IL10RA, JAK3, KLRK1, LAX1, PRF1, SH2D1A, SLPI, STAT4, TLR8 (includes EG:51311), TNFSF13B, VAV1	15
Cellular Function and Maintenance	function	function of cells	1,87E-09	CD4, CD28, CD86, ICOS, IL10RA, IL1B, IRF1, JAK3, KLRK1, LAX1, LTB, LTF, PRF1, SH2D1A, SLPI, STAT4, TLR8 (includes EG:51311), TNFSF13B, VAV1	19
Cellular Function and Maintenance	function	function of T lymphocytes	2,65E-08	CD4, CD28, ICOS, IL10RA, JAK3, LAX1, PRF1, SH2D1A, STAT4, TLR8 (includes EG:51311), VAV1	11
Cellular Function and Maintenance	respiratory burst	respiratory burst of myeloid cells	3,65E-12	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	13
Cellular Function and Maintenance	respiratory burst	respiratory burst of leukocytes	3,91E-12	C3, CCL2, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	14
Cellular Function and Maintenance	respiratory burst	respiratory burst of granulocytes	5,23E-11	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	12
Cellular Function and Maintenance	respiratory burst	respiratory burst of neutrophils	2,62E-10	C3, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	11
Cellular Function and Maintenance	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Cellular Function and Maintenance	engulfment	engulfment of cells	2,26E-10	C3, C1QA, CD4, CD14, CD163, CORO1A, CSF2RB, CSF3R, CXCL10, DEF6, FCER1G, FCGR3B, FGR, HCK, ITGAX, ITGB2, PRKCB, PTPN6, RAC2, SELPLG, VAV1, WAS	22
Cellular Function and Maintenance	presence	presence of	7,53E-10	C3, CCL19, CCL21, CCR7, CR2, CXCL13, FGR, HCK, JAK3	9

Function and Maintenance		leukocytes				
Cellular Function and Maintenance	positive selection	positive selection of lymphocytes	5,69E-09	CD4, ITK, RHOH, SIT1, TRAT1, VAV1, ZAP70		7
Cellular Function and Maintenance	positive selection	positive selection of T lymphocytes	6,77E-08	CD4, ITK, RHOH, SIT1, TRAT1, VAV1		6
Cellular Function and Maintenance	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1		11
Cellular Function and Maintenance	proliferation	proliferation of thymocytes	1,09E-08	CD2, CD28, CD3E, IL1B, IL2RG, ITK, JAK3, LCP2, MYB (includes EG:4602), PTPN6, TNFRSF1B, WAS, ZAP70		13
Cellular Function and Maintenance	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1		9
Cellular Function and Maintenance	compartmentalization	compartmentalization of cells	5,94E-08	CCL11, CCL19, CCR2, CCR5, CXCL13, CXCR3, LTB		7
Immunological Disease	immunological disorder	immunological disorder of mammalia	3,92E-36	AOAH, BTK, BTLA, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CD4, CD14, CD19, CD22, CD28, CD86, CD1D, CD3E, CIITA, CXCL9, CXCL10, CXCR3, CYBB, DEF6, FCER1G, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IL1RN, IL27RA, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, JAK3, LCP2, LTB, NCF1, NCF1C, PRF1, RUNX3, SELL, SH2D1A, STAT1, STAT4, TAP1, TCIRG1, TLR7, TNFRSF25, TYROBP, UBASH3A, UCP2, VAV1, WAS		65
Immunological Disease	immunological disorder	immunological disorder of rodents	1,46E-33	AOAH, BTK, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CD4, CD14, CD19, CD22, CD28, CD86, CD1D, CD3E, CIITA, CXCL10, CXCR3, CYBB, DEF6, FCER1G, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IL1RN, IL27RA, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, JAK3, LCP2, LTB, NCF1, PRF1, RUNX3, SELL, SH2D1A, STAT1, STAT4, TAP1, TCIRG1, TLR7, TNFRSF25, TYROBP, UBASH3A, UCP2, VAV1, WAS		61
Immunological Disease	immunological disorder	immunological disorder of mice	1,27E-32	AOAH, BTK, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CD4, CD14, CD19, CD22, CD28, CD86, CD1D, CD3E, CIITA, CXCL10, CYBB, DEF6, FCER1G, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHM, IGKC, IL1RN, IL27RA, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, JAK3, LCP2, LTB, NCF1, PRF1, RUNX3, SELL, SH2D1A, STAT1, STAT4, TAP1, TCIRG1, TLR7, TNFRSF25, TYROBP, UBASH3A, UCP2, VAV1, WAS		59
Immunological Disease	immunological disorder	immunological disorder	1,06E-28	ADA, ADAM8, AG2, AIF1, ALOX5, AMICA1, AOA, APOBEC3G, BTK, BTLA, BTN3A2, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCRL2, CD2, CD4, CD6, CD14, CD19, CD22, CD28, CD52, CD53, CD69, CD86, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CFP, CIITA, CPA3, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, CXCR3, CYBB, CYSLTR1, DEF6, FCER1G, FCN1, FCRL3, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HCP5, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-F, ICOS, IDO1, IFITM1, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, KLRB1, LCK, LCP1, LCP2, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, MYB (includes EG:4602), NCF1, NCF4,		163

Immunological Disease	immunological disorder	immunological disorder of humans	1,20E-08	NCF1C, NOD2, P2RY13, PLA2G7, PRF1, PRKCB, PSMB9, PTPN22, PTPRC, RAC2, RUNX3, S100A8, SAA1, SELL, SERPINA3, SH2D1A, SIRPG, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TCIRG1, THEMIS, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UCP2, VAV1, WARS, WAS, XCL1, ZAP70	10
Immunological Disease	autoimmune disease	autoimmune disease of mammalia	1,52E-23	C2, CASP1, CCR5, CYBB, HLA-DQB1, HLA-DRB1, ICOS, IL1RN, JAK3, NCF1C	42
Immunological Disease	autoimmune disease	autoimmune disease of rodents	1,65E-22	BTK, BTLA, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CD4, CD22, CD28, CD86, CD1D, CIITA, CXCL10, CXCR3, DEF6, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IL7R, IRF4, ITGAL, JAK3, LTB, NCF1, SELL, SH2D1A, STAT1, STAT4, TAP1, TYROBP, UBASH3A, UCP2	40
Immunological Disease	autoimmune disease	autoimmune disease of mice	1,17E-20	BTK, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL5, CCR2, CCR5, CD4, CD22, CD28, CD86, CD1D, CIITA, CXCL10, DEF6, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL1RN, IL27RA, IL7R, IRF4, ITGAL, JAK3, NCF1, SELL, SH2D1A, STAT1, STAT4, TAP1, TYROBP, UBASH3A, UCP2	37
Immunological Disease	autoimmune disease	autoimmune disease	2,67E-18	ADAM8, AG2, AIF1, ALOX5, AMICA1, BTK, BTLA, BTN3A2, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR2, CCR5, CCRL2, CD2, CD4, CD6, CD19, CD22, CD28, CD53, CD69, CD86, CD1D, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, CXCR3, DEF6, FCN1, FCRL3, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HCP5, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-F, ICOS, IDO1, IFITM1, IGHG1, IGHM, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, IRF1, IRF4, ITGAL, ITGB2, JAK3, KLRB1, LCP1, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, NCF1, NCF4, NOD2, P2RY13, PRKCB, PSMB9, PTPN22, PTPRC, S100A8, SAA1, SELL, SERPINA3, SH2D1A, SIRPG, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, THEMIS, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UCP2, WARS, XCL1	129
Immunological Disease	Sjogren's syndrome	Sjogren's syndrome	2,06E-16	C3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL20, CCL21, CCR5, CD6, CXCL6, CXCL10, CXCL13, IFITM1, IRF1, ITGAL, MS4A1, STAT1, TIMP1, TLR8 (includes EG:51311), TNFRSF17, TNFSF13B, XCL1	23
Immunological Disease	graft-vs-host disease	graft-vs-host disease	2,16E-15	ADA, CCR5, CD2, CD52, CD247, CD3D, CD3E, CD3G, CSF2RB, CSF3R, ICOS, IL1RN, IL2RB, IL2RG, MS4A1, PRF1	16
Immunological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of organism	4,41E-15	BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	26
Immunological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,54E-13	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	24
Immunological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of mice	2,82E-12	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	22
Immunological Disease	rheumatoid arthritis	rheumatoid arthritis	5,51E-15	ADAM8, AG2, AIF1, ALOX5, C2, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCN1, FCRL3, GABBR1, GBP2, GNLY,	95

Immunological Disease	immunodeficiency	immunodeficiency	2,72E-13	GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, NCF4, NOD2, P2RY13, PSMB9, PTPN22, PTPRC, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	16
Immunological Disease	lymphocytic leukemia	lymphocytic leukemia	3,53E-12	ADA, CCL3, CCL4, CD14, CD19, CD22, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCL13, IKZF1, IL1B, IL2RB, IL2RG, IRF4, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	25
Immunological Disease	hypersensitive reaction	hypersensitive reaction	2,11E-11	CCL4, CCL5, CD2, CD4, CD86, CD1D, CYSLTR1, FCER1G, HLA-DQA1, HLA-DRB1, IGHM, IGKC, IL16, IL1RN, IL27RA, ITGAL, ITGB2, LCP2, LTB, MS4A1, NCF1, PLA2G7, RUNX3, TCIRG1, VAV1	25
Immunological Disease	hypersensitive reaction	hypersensitive reaction of mice	3,87E-10	CCL4, CD4, CD1D, FCER1G, IGHM, IGKC, IL27RA, ITGB2, LCP2, LTB, NCF1, RUNX3, TCIRG1, VAV1	14
Immunological Disease	B-cell leukemia	B-cell leukemia	7,38E-10	ADA, CCL3, CCL4, CD19, CD22, CD52, CD86, CD3E, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	17
Immunological Disease	disease	disease of leukocytes	1,58E-09	BTK, CASP1, CCL3, CCL5, CCR2, CCR5, CD4, CD86, FPR1, ICOS, IRF1, LTF, RARRES3	13
Immunological Disease	disease	disease of mononuclear leukocytes	6,19E-08	BTK, CCL3, CCL5, CCR2, CCR5, CD4, CD86, FPR1, ICOS	9
Immunological Disease	severe combined immunodeficiency	severe combined immunodeficiency	3,08E-09	ADA, BTK, CD247, CD3D, IL2RG, IL7R, JAK3, PTPRC	8
Immunological Disease	systemic lupus erythematosus	systemic lupus erythematosus	6,67E-09	C2, C1QA, CD19, CD22, CD86, CR2, ICOS, IL16, IL7R, MS4A1, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	16
Immunological Disease	chronic B-cell leukemia	chronic B-cell leukemia	8,59E-09	ADA, CCL3, CCL4, CD22, CD52, CD86, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	15
Immunological Disease	juvenile rheumatoid arthritis	juvenile rheumatoid arthritis	8,59E-09	ALOX5, CCL3, CCL4, CCL5, CD69, CD86, GNLY, GZMA, IL1B, IL1RN, NCF4, P2RY13, PTPRC, S100A8, TNFSF13B	15
Immunological Disease	infection	infection of leukocytes	1,20E-08	CASP1, CCL3, CCL5, CCR2, CCR5, CD4, FPR1, IRF1, LTF, RARRES3	10
Immunological Disease	eosinophilia	eosinophilia	3,00E-08	ALOX5, CCL3, CCL11, CD4, CD86, CD247, CD3G, CPA3, CTSS, CXCL9, CYSLTR1, DEF6, IL2RG, ITK, LCK, PRF1	16
Immunological Disease	contact dermatitis	contact dermatitis	4,65E-08	CD4, CD1D, FCER1G, IGHM, IGKC, IL16, ITGB2, LCP2, LTB	9
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mammalia	3,27E-35	ALOX5, AOA, BTK, BTLA, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD69, CD86, CD1D, CIITA, CR2, CTSS, CXCL10, CXCR3, CYBB, DEF6, FCER1G, GZMB, HCK, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IL1B, IL1RN, IL27RA, IL2RB, IRF4, ITGAL, ITGB2, ITK, JAK3, LTB, LTF, MMP7, NCF1, NCF1C, NOD2, PRF1, PTPRC, RUNX3, SELL, SH2D1A, SH2D2A, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UNC93B1, VAV1, WAS	72
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mice	8,51E-33	ALOX5, AOA, BTK, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD69, CD86, CD1D, CIITA, CR2, CTSS, CXCL10, CYBB, DEF6, FCER1G, GZMB, HCK, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IL1B, IL1RN, IL27RA, IL2RB, IRF4, ITGAL, ITGB2, ITK, JAK3, LTB, LTF, MMP7, NCF1, NCF1C, PRF1, PTPRC, RUNX3, SELL, SH2D1A, SH2D2A, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, VAV1, WAS	67

Inflammatory Disease	inflammatory disorder	inflammatory disorder of rodents	1,53E-32	ALOX5, AOA, BTK, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD69, CD86, CD1D, CIITA, CR2, CTSS, CXCL10, CXCR3, CYBB, DEF6, FCER1G, GZMB, HCK, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IGHM, IGKC, IL1B, IL1RN, IL27RA, IL2RB, IRF4, ITGAL, ITGB2, ITK, JAK3, LTB, LTF, MMP7, NCF1, NCF1C, PRF1, PTPRC, RUNX3, SELL, SH2D1A, SH2D2A, STAT1, STAT4, TAP1, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, VAV1, WAS	68
Inflammatory Disease	inflammatory disorder	inflammatory disorder	1,43E-23	ADA, ADAM8, AG2, AIF1, ALOX5, AOA, BCL2A1, BIRC3, BTK, BTLA, C2, C3, C15ORF48, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCR7, CCRL2, CD2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD48, CD52, CD53, CD69, CD86, CD163, CD247, CD1D, CD3D, CD3E, CD3G, CD79A, CD8A, CIITA, CLEC7A, CPA3, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, CXCR3, CYBB, CYSLTR1, DAPP1, DEF6, DOCK2, EMR1, ERAP2, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-F, ICOS, IDO1, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL18RAP, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF4, ITGAL, ITGB2, ITK, JAK3, KLRB1, LCK, LCP1, LCP2, LST1, LTB, LTF, LYZ, MAP4K1, MMP7, MND, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, OAS2, P2RY13, PLA2G7, PRF1, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SELL, SERPINA3, SH2D1A, SH2D2A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TDO2, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UNC93B1, VAV1, WAS, XCL1	168
Inflammatory Disease	inflammatory disorder	inflammatory disorder of humans	4,65E-08	C2, CASP1, HLA-DRB1, ICOS, IGHG1, IL1RN, STAT1, TNFRSF1B, UNC93B1	9
Inflammatory Disease	rheumatic disease	rheumatic disease	9,52E-20	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD19, CD22, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCK, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SH2D1A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TLR7, TNFRSF1B, TNFSF13B, XCL1	116
Inflammatory Disease	rheumatic disease	rheumatic disease of mammalia	1,87E-17	C2, C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, HLA-DRB1, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	30
Inflammatory Disease	rheumatic disease	rheumatic disease of rodents	4,29E-16	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	28
Inflammatory Disease	rheumatic disease	rheumatic disease of mice	5,69E-16	C3, CASP1, CCL2, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	27
Inflammatory Disease	arthritis	arthritis	1,37E-18	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	111
Inflammatory Disease	arthritis	arthritis of mammalia	1,29E-14	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, HLA-DRB1, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	26
Inflammatory Disease	arthritis	arthritis of rodents	5,19E-14	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	25

Inflammatory Disease	arthritis	arthritis of mice	7,21E-14	C3, CASP1, CCL2, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	24
Inflammatory Disease	encephalitis	encephalitis	1,59E-17	ALOX5, BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, MS4A1, NCF1, SELL, STAT1, STAT4, TIMP1, TYROBP, UBASH3A, UNC93B1	30
Inflammatory Disease	encephalitis	encephalitis of mammalia	7,05E-15	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A, UNC93B1	26
Inflammatory Disease	encephalitis	encephalitis of rodents	3,31E-14	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	25
Inflammatory Disease	encephalitis	encephalitis of mice	6,15E-13	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	23
Inflammatory Disease	encephalomyelitis	encephalomyelitis	9,26E-16	BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TIMP1, TYROBP, UBASH3A	27
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of organism	4,41E-15	BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	26
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,54E-13	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	24
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of mice	2,82E-12	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	22
Inflammatory Disease	rheumatoid arthritis	rheumatoid arthritis	5,51E-15	ADAM8, AG2, AIF1, ALOX5, C2, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCN1, FCRL3, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, NCF4, NOD2, P2RY13, PSMB9, PTPN22, PTPRC, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	95
Inflammatory Disease	dermatitis	dermatitis	2,74E-12	CASP1, CCL5, CD2, CD4, CD52, CD1D, CXCL13, CYSLTR1, FCER1G, HLA-DQA1, HLA-DRB1, IGHM, IGKC, IL16, IL1B, IL1RN, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, LTB, MS4A1, STAT1	24
Inflammatory Disease	colitis	colitis	2,94E-12	ALOX5, CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CXCL10, EMR1, IGHM, IL1B, IL1RN, MMP7, MS4A1, NCF1, RUNX3, S100A8, STAT4, WAS	21
Inflammatory Disease	psoriatic arthritis	psoriatic arthritis	7,74E-12	CD27, CXCL9, IGHD, IGHG1, IGHM, IGKC, ITGAL, MAP4K1, MS4A1, NOD2, PRKCB, PTPN6, RUNX3, S100A8, SAA1, TNFRSF1B	16
Inflammatory Disease	nephritis	nephritis	9,91E-10	C1QA, CCL4, CCL5, CD2, CD19, CD28, CD1D, CD8A, HLA-DQB1, ICOS, IL16, IL1RN, IL27RA, ITGAL, MS4A1, PTPRC, SH2D2A, TNFSF13B	18
Inflammatory Disease	collagen-induced arthritis	collagen-induced arthritis of mice	6,34E-09	CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	13

Inflammatory Disease	systemic lupus erythematosus	systemic lupus erythematosus	6,67E-09	C2, C1QA, CD19, CD22, CD86, CR2, ICOS, IL16, IL7R, MS4A1, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	16
Inflammatory Disease	juvenile rheumatoid arthritis	juvenile rheumatoid arthritis	8,59E-09	ALOX5, CCL3, CCL4, CCL5, CD69, CD86, GNLY, GZMA, IL1B, IL1RN, NCF4, P2RY13, PTPRC, S100A8, TNFSF13B	15
Inflammatory Disease	glomerulonephritis	glomerulonephritis	8,69E-09	C1QA, CCL4, CCL5, CD2, CD19, CD28, CD1D, ICOS, IL16, IL1RN, IL27RA, ITGAL, MS4A1, PTPRC, SH2D2A, TNFSF13B	16
Inflammatory Disease	glomerulonephritis	glomerulonephritis of organism	4,93E-08	C1QA, CD2, CD28, CD1D, ICOS, IL16, IL1RN, IL27RA, ITGAL, PTPRC, SH2D2A	11
Inflammatory Disease	airway hyperresponsiveness	airway hyperresponsiveness of organism	1,09E-08	ALOX5, C3, C3AR1, CD86, CD1D, ICOS, IGHG1, IL1RN, IL27RA, IL2RB, ITK, RUNX3, STAT4	13
Inflammatory Disease	experimentally-induced arthritis	experimentally-induced arthritis	3,37E-08	C3, CCL4, CCR2, CCR5, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	16
Inflammatory Disease	experimentally-induced arthritis	experimentally-induced arthritis of mice	3,37E-08	C3, CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	14
Inflammatory Disease	pneumonitis	pneumonitis	3,78E-08	CCL2, CCL3, CCR2, CCR5, CD4, CD14, CD86, CIITA, CTSS, HLA-DRB1, IL16, IL1B, MS4A1, NOD2, STAT1, TNFRSF25	16
Inflammatory Disease	contact dermatitis	contact dermatitis	4,65E-08	CD4, CD1D, FCER1G, IGHM, IGKC, IL16, ITGB2, LCP2, LTB	9
Cell Signaling	mobilization	mobilization of calcium	9,87E-35	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD19, CD22, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DEF6, FCER1G, FCGR3B, FCRL3, FPR1, IL16, ITGB2, ITK, KLRK1, LCK, LCP2, LILRB1, PTPRC, RAC2, RGS19, SAA1, SELL, SH2D2A, SLA, TAC1, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2, ZAP70	61
Cell Signaling	mobilization	mobilization of Ca2+	5,66E-21	BTK, C3, CCL2, CCL4, CCL5, CCL21, CD4, CD19, CD22, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FPR1, ITGB2, KLRK1, LCK, SELL, TAC1, TRAT1, TYROBP, VAV1, XCL1, ZAP70	31
Cell Signaling	flux	flux of calcium	3,71E-26	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD247, CD300A, CD3E, CD8A, CXCL1, CXCL10, CXCL13, CYSLTR1, DARC, FCER1G, FCGR3B, FGR, FPR1, FPR3, HCK, ICOS, IGHM, IL1B, ITGB2, ITK, LAX1, LCP2, LILRB1, MS4A1, PRF1, PRKCB, RAC2, VAV1	44
Cell Signaling	flux	flux of Ca2+	4,60E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD3E, CXCL1, ICOS, IL1B, ITGB2, MS4A1, PRF1, PRKCB, VAV1	18
Cell Signaling	tyrosine phosphorylation	tyrosine phosphorylation of protein	1,46E-19	CCL3, CCL4, CCL5, CCL11, CD2, CD4, CD19, CD28, CD48, CD247, CD3E, CD79A, CD8A, CLEC4C, CSF1R, FCER1G, FCRL3, FCRL5, HCK, IGHM, IL1B, ITGB2, JAK3, LAX1, LCK, PTPN6, PTPN22, PTPRC, SELL, SH2D1A, SPIB, TAC1, TYROBP, ZAP70	34
Cell Signaling	quantity	quantity of calcium	2,36E-16	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD19, CD22, CD28, CD247, CD3E, CD8A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCER1G, FCGR3B, FPR1, IGHM, IGKC, IL1B, LCK, LCP2, LYZ, PRKCB, PTPN6, PTPRC, RGS1, S100A8, SAA1, SELL, TAC1, VAV1, WAS	44
Cell Signaling	quantity	quantity of Ca2+	5,18E-12	BTK, C3AR1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CCR7, CD19, CD22, CD28, CD52, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, IL1B, JAK3, LCK, LYZ, PRKCB, PTPN6, PTPRC, RGS1, SAA1, TAC1, VAV1	31
Cell Signaling	cell surface receptor linked signal transduction	cell surface receptor linked signal transduction	3,48E-16	BIRC3, BTLA, CCR2, CD2, CD4, CD14, CD19, CD22, CD28, CD247, CD3E, CD3G, CD79A, CD8A, CXCL10, CYSLTR1, FCER1G, IFITM1, IL12RB1, IL18RAP, IL27RA, IL2RB, IL7R, ITGAL, JAK3, KLRB1, LCK, LCP2, LILRA1, LY96, P2RX5, PTPN6, PTPRC, STAT1, STAT4, TNFRSF25, TNFRSF1B	37

	on				
Cell Signaling	release	release of calcium	2,52E-10	CCL3, CCL4, CCL5, CCL11, CCR5, CD4, CD19, CD28, CSF1R, FCER1G, FGB, FPR1, FPR3, HCST, IGHM, IL1B, ITK, LCK, PTPRC, RGS1, VAV1, XCL1	22
Cell Signaling	influx	influx of calcium	3,50E-08	BTK, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD300A, CXCL13, FCGR3B, FPR1, IGHM, IL1B, ITK, PRKCB	17
Cell Signaling	signaling	signaling of calcium	7,28E-08	ADA, CD4, CD3E, CD8A, CXCL9, CXCR3, GABBR1, ITGAL, TRAT1, VAV1, ZAP70	11
Molecular Transport	mobilization	mobilization of calcium	9,87E-35	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD19, CD22, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DEF6, FCER1G, FCGR3B, FCRL3, FPR1, IL16, ITGB2, ITK, KLRK1, LCK, LCP2, LILRB1, PTPRC, RAC2, RGS19, SAA1, SELL, SH2D2A, SLA, TAC1, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2, ZAP70	61
Molecular Transport	mobilization	mobilization of Ca ²⁺	5,66E-21	BTK, C3, CCL2, CCL4, CCL5, CCL21, CD4, CD19, CD22, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FPR1, ITGB2, KLRK1, LCK, SELL, TAC1, TRAT1, TYROBP, VAV1, XCL1, ZAP70	31
Molecular Transport	flux	flux of calcium	3,71E-26	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD247, CD300A, CD3E, CD8A, CXCL1, CXCL10, CXCL13, CYSLTR1, DARC, FCER1G, FCGR3B, FGR, FPR1, FPR3, HCK, ICOS, IGHM, IL1B, ITGB2, ITK, LAX1, LCP2, LILRB1, MS4A1, PRF1, PRKCB, RAC2, VAV1	44
Molecular Transport	flux	flux of inorganic cation	4,04E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD3E, CXCL1, ICOS, IL1B, ITGB2, MS4A1, PRF1, PRKCB, UCP2, VAV1	19
Molecular Transport	flux	flux of Ca ²⁺	4,60E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD3E, CXCL1, ICOS, IL1B, ITGB2, MS4A1, PRF1, PRKCB, VAV1	18
Molecular Transport	quantity	quantity of calcium	2,36E-16	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD19, CD22, CD28, CD247, CD3E, CD8A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCER1G, FCGR3B, FPR1, IGHM, IGKC, IL1B, LCK, LCP2, LYZ, PRKCB, PTPN6, PTPRC, RGS1, S100A8, SAA1, SELL, TAC1, VAV1, WAS	44
Molecular Transport	quantity	quantity of Ca ²⁺	5,18E-12	BTK, C3AR1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CCR7, CD19, CD22, CD28, CD52, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, IL1B, JAK3, LCK, LYZ, PRKCB, PTPN6, PTPRC, RGS1, SAA1, TAC1, VAV1	31
Molecular Transport	release	release of calcium	2,52E-10	CCL3, CCL4, CCL5, CCL11, CCR5, CD4, CD19, CD28, CSF1R, FCER1G, FGB, FPR1, FPR3, HCST, IGHM, IL1B, ITK, LCK, PTPRC, RGS1, VAV1, XCL1	22
Molecular Transport	influx	influx of calcium	3,50E-08	BTK, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD300A, CXCL13, FCGR3B, FPR1, IGHM, IL1B, ITK, PRKCB	17
Vitamin and Mineral Metabolism	mobilization	mobilization of calcium	9,87E-35	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD19, CD22, CD28, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CR2, CXCL1, CXCL2, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, DEF6, FCER1G, FCGR3B, FCRL3, FPR1, IL16, ITGB2, ITK, KLRK1, LCK, LCP2, LILRB1, PTPRC, RAC2, RGS19, SAA1, SELL, SH2D2A, SLA, TAC1, TRAT1, TRD@, TYROBP, VAV1, XCL1, XCL2, ZAP70	61
Vitamin and Mineral Metabolism	mobilization	mobilization of Ca ²⁺	5,66E-21	BTK, C3, CCL2, CCL4, CCL5, CCL21, CD4, CD19, CD22, CD247, CD3D, CD3E, CD3G, CLEC4C, CLEC5A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, FPR1, ITGB2, KLRK1, LCK, SELL, TAC1, TRAT1, TYROBP, VAV1, XCL1, ZAP70	31
Vitamin and Mineral Metabolism	flux	flux of calcium	3,71E-26	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CD2, CD4, CD19, CD22, CD28, CD247, CD300A, CD3E, CD8A, CXCL1, CXCL10, CXCL13, CYSLTR1, DARC, FCER1G, FCGR3B, FGR, FPR1, FPR3, HCK, ICOS, IGHM, IL1B, ITGB2, ITK, LAX1, LCP2, LILRB1, MS4A1, PRF1, PRKCB, RAC2, VAV1	44
Vitamin and Mineral Metabolism	flux	flux of Ca ²⁺	4,60E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD3E, CXCL1, ICOS, IL1B, ITGB2, MS4A1, PRF1, PRKCB, VAV1	18
Vitamin and Mineral Metabolism	quantity	quantity of calcium	2,36E-16	BTK, C3, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR5, CD2, CD19, CD22, CD28, CD247, CD3E, CD8A, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, DARC, FCER1G, FCGR3B, FPR1, IGHM, IGKC, IL1B, LCK, LCP2, LYZ, PRKCB, PTPN6, PTPRC, RGS1, S100A8, SAA1, SELL, TAC1, VAV1, WAS	44
Vitamin and Mineral Metabolism	quantity	quantity of Ca ²⁺	5,18E-12	BTK, C3AR1, CCL2, CCL4, CCL5, CCL11, CCR2, CCR5, CCR7, CD19, CD22, CD28, CD52, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, CYSLTR1, FPR1, IL1B, JAK3,	31

Mineral Metabolism				LCK, LYZ, PRKCB, PTPN6, PTPRC, RGS1, SAA1, TAC1, VAV1	
Vitamin and Mineral Metabolism	release	release of calcium	2,52E-10	CCL3, CCL4, CCL5, CCL11, CCR5, CD4, CD19, CD28, CSF1R, FCER1G, FGB, FPR1, FPR3, HCST, IGHM, IL1B, ITK, LCK, PTPRC, RGS1, VAV1, XCL1	22
Vitamin and Mineral Metabolism	influx	influx of calcium	3,50E-08	BTK, CCL3, CCL4, CCL5, CCL11, CCR5, CD19, CD22, CD28, CD300A, CXCL13, FCGR3B, FPR1, IGHM, IL1B, ITK, PRKCB	17
Vitamin and Mineral Metabolism	signaling	signaling of calcium	7,28E-08	ADA, CD4, CD3E, CD8A, CXCL9, CXCR3, GABBR1, ITGAL, TRAT1, VAV1, ZAP70	11
Cell Death	cell death	cell death of leukocytes	2,32E-33	ADA, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCL19, CCR5, CD2, CD4, CD14, CD22, CD27, CD28, CD69, CD247, CD3E, CD5L, CIITA, CLEC10A, CR2, CXCL1, CXCL2, DEF6, EOMES, FCER1G, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL1RN, IL2RG, IL7R, IRF1, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LTF, MAP4K1, MS4A1, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, WAS, XCL1	64
Cell Death	cell death	cell death of lymphocytes	5,26E-27	ADA, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL11, CCL19, CCR5, CD2, CD4, CD22, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, CR2, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITGAL, ITK, JAK3, LCK, MAP4K1, MS4A1, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, WAS, XCL1	50
Cell Death	cell death	cell death of T lymphocytes	7,64E-22	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCL19, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, CLEC10A, DEF6, EOMES, GZMA, GZMB, ICOS, IDO1, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, SH2D2A, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	40
Cell Death	cell death	cell death of normal cells	2,11E-18	ADA, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCL19, CCR2, CCR5, CD2, CD4, CD14, CD22, CD27, CD28, CD69, CD247, CD1D, CD3E, CD5L, CIITA, CLEC10A, CR2, CSF1R, CTSS, CXCL1, CXCL2, CYBB, DEF6, EOMES, FCER1G, GABBR1, GZMA, GZMB, ICOS, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL27RA, IL2RG, IL7R, IRF1, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LTB, LTF, MAP4K1, MGC29506, MMP7, MS4A1, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTGDS, PTPRC, RAC2, RASSF5, RUNX3, SAA1, SERPINA3, SH2D2A, STAT1, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, UCP2, WAS, XAF1, XCL1	87
Cell Death	cell death	cell death	7,21E-17	ADA, AIF1, AIM2, ALOX5, BCL11B, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR2, CCR5, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD53, CD69, CD247, CD1D, CD3E, CD3G, CD5L, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSF3R, CSTA, CTSS, CXCL1, CXCL2, CXCR3, CYBB, DEF6, EOMES, FAIM3, FCER1G, FGR, GABBR1, GNLY, GPR65, GRN, GZMA, GZMB, GZMH, GZMK, HCK, HCLS1, ICAM2, ICOS, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL27RA, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LSP1, LTB, LTF, LY86, LYZ, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), NCF1, NOD2, PHLDA2, PLA2G7, PLAC8, POU2AF1, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RAC2, RASD1, RASSF5, RGS10, RTN1, RUNX3, S100A8, SAA1, SERPINA3, SH2D2A, SLAMF1, SLC2A3, ST8SIA4, STAT1, STAT4, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, TYROBP, UBASH3A, UCP2, VAV1, WAS, XAF1, XCL1	133
Cell Death	cell death	cell death of eukaryotic cells	1,66E-16	ADA, AIM2, ALOX5, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCR2, CCR5, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD69, CD247, CD1D, CD3E, CD5L, CD8A, CIITA, CLEC10A, CR2, CSF1R, CSF2RB, CSTA, CTSS, CXCL1, CXCL2, CXCR3, CYBB, DEF6, EOMES, FCER1G, FGR, GABBR1, GNLY, GPR65, GRN, GZMA, GZMB, GZMH, GZMK, HCK, HCLS1, ICOS, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL27RA, IL2RG, IL7R, IRF1, IRF4, ITGAL, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LSP1, LTB, LTF, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), NCF1, PLA2G7, PLAC8,	117

				POU2AF1, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RAC2, RASD1, RASSF5, RGS10, RTN1, RUNX3, S100A8, SAA1, SERPINA3, SH2D2A, STAT1, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, UBASH3A, UCP2, VAV1, WAS, XAF1, XCL1	
Cell Death	cell death	cell death of B lymphocytes	4,74E-11	BCL2A1, BTK, CASP1, CCL11, CD22, CD27, CR2, GZMB, IGHM, MS4A1, POU2AF1, PRF1, PRKCB, PTPRC, TCL1A, TNFRSF17, TNFSF13B	17
Cell Death	cell death	cell death of cell lines	8,20E-08	AIM2, ALOX5, BCL2A1, BIRC3, BTK, CASP1, CCL2, CCL5, CCL11, CCR5, CD2, CD4, CD19, CD22, CD28, CD48, CD3E, CD8A, CSF1R, CSF2RB, CSTA, CXCR3, FGR, GNLY, GPR65, GRN, GZMB, GZMH, GZMK, HCK, HCLS1, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL2RG, IRF1, IRF4, JAK3, LCK, LCN2, LSP1, LTB, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), PLA2G7, PLAC8, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RASD1, RASSF5, RGS10, RTN1, RUNX3, S100A8, STAT1, TIMP1, TNFRSF25, TNFRSF1B, TNFSF13B, UBASH3A, UCP2, VAV1, XAF1	73
Cell Death	apoptosis	apoptosis of leukocytes	5,32E-29	ADA, BCL2A1, BIRC3, BTK, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCR5, CD2, CD4, CD14, CD22, CD27, CD28, CD69, CD247, CD3E, CD5L, CIITA, CR2, CXCL1, CXCL2, FCER1G, GZMA, GZMB, ICOS, IGHM, IL1B, IL1RN, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LTF, MAP4K1, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, STAT1, TCL1A, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, WAS, XCL1	56
Cell Death	apoptosis	apoptosis of lymphocytes	2,27E-22	ADA, BCL2A1, BTK, CASP1, CCL3, CCL4, CCL5, CCL11, CCR5, CD2, CD4, CD22, CD27, CD28, CD247, CD3E, CIITA, CR2, GZMA, GZMB, ICOS, IGHM, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, POU2AF1, PRF1, PRKCB, PTPRC, RAC2, STAT1, TCL1A, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, WAS, XCL1	42
Cell Death	apoptosis	apoptosis of T lymphocytes	1,06E-17	ADA, BCL2A1, CASP1, CCL3, CCL4, CCL5, CCR5, CD2, CD4, CD27, CD28, CD247, CD3E, CIITA, GZMA, GZMB, ICOS, IL1B, IL2RG, IL7R, ITK, JAK3, LCK, MAP4K1, PRF1, PTPRC, RAC2, STAT1, TCL1A, TNFRSF25, TNFRSF1B, WAS, XCL1	33
Cell Death	apoptosis	apoptosis of eukaryotic cells	3,84E-16	ADA, AIM2, ALOX5, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD69, CD247, CD1D, CD3E, CD5L, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSTA, CTSS, CXCL1, CXCL2, CXCR3, FCER1G, FGR, GABBR1, GNLY, GPR65, GRN, GZMA, GZMB, HCK, HCLS1, ICOS, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LSP1, LTF, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), NCF1, PLA2G7, PLAC8, POU2AF1, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RAC2, RASD1, RASSF5, RTN1, RUNX3, S100A8, SAA1, SERPINA3, STAT1, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, UBASH3A, VAV1, WAS, XAF1, XCL1	103
Cell Death	apoptosis	apoptosis of normal cells	4,24E-16	ADA, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD14, CD22, CD27, CD28, CD69, CD247, CD1D, CD3E, CD5L, CIITA, CR2, CSF1R, CTSS, CXCL1, CXCL2, FCER1G, GABBR1, GZMA, GZMB, ICOS, IGHG1, IGHM, IL1B, IL1RN, IL2RG, IL7R, IRF1, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LTF, MAP4K1, MMP7, NCF1, PLA2G7, POU2AF1, PRF1, PRKCB, PTGDS, PTPRC, RAC2, RUNX3, SAA1, SERPINA3, STAT1, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, WAS, XAF1, XCL1	73
Cell Death	apoptosis	apoptosis	1,51E-15	ADA, AIM2, ALOX5, BCL11B, BCL2A1, BIRC3, BTK, C3, C1QA, CASP1, CCL3, CCL4, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD53, CD69, CD247, CD1D, CD3E, CD3G, CD5L, CD8A, CIITA, CR2, CSF1R, CSF2RB, CSTA, CTSS, CXCL1, CXCL2, CXCR3, FAIM3, FCER1G, FGR, GABBR1, GNLY, GPR65, GRN, GZMA, GZMB, HCK, HCLS1, ICAM2, ICOS, IDO1, IGHG1, IGHM, IL1B, IL1RN, IL2RG, IL7R, IRF1, IRF4, ITGB2, ITK, JAK3, LCK, LCN2, LILRB1, LSP1, LTB, LTF, LY86, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), NCF1, NOD2, PHLDA2, PLA2G7, PLAC8, POU2AF1, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RAC2, RASD1, RASSF5, RTN1, RUNX3, S100A8, SAA1, SERPINA3, SLAMF1, SLC2A3, ST8SIA4, STAT1, STAT4, TAC1, TCL1A, TIMP1, TNFRSF17, TNFRSF25, TNFRSF1B, TNFSF13B, UBASH3A, VAV1, WAS, XAF1, XCL1	116
Cell Death	apoptosis	apoptosis of B lymphocytes	9,29E-11	BCL2A1, BTK, CASP1, CCL11, CD22, CD27, CR2, GZMB, IGHM, POU2AF1, PRF1, PRKCB, PTPRC, TCL1A, TNFRSF17, TNFSF13B	16
Cell Death	apoptosis	apoptosis of leukocyte cell lines	2,54E-09	BCL2A1, BIRC3, CCL5, CCL11, CCR5, CD2, CD19, CD3E, CD8A, GZMB, HCLS1, IGHM, IRF4, LCN2, MGC29506, MS4A1, MYB (includes EG:4602), PLAC8, PTPN6, PTPRC, TNFRSF25, TNFRSF1B	22

Cell Death	apoptosis	apoptosis of phagocytes	2,57E-08	BCL2A1, BIRC3, C1QA, CASP1, CCL5, CD14, CD5L, CXCL1, CXCL2, IL1B, IL1RN, IRF1, ITGB2, LTF, TNFRSF1B	15
Cell Death	apoptosis	apoptosis of cell lines	7,58E-08	AIM2, ALOX5, BCL2A1, BIRC3, BTK, CASP1, CCL5, CCL11, CCR5, CD2, CD4, CD19, CD28, CD48, CD3E, CD8A, CSF1R, CSF2RB, CSTA, CXCR3, FGR, GNLY, GPR65, GRN, GZMB, HCK, HCLS1, IDO1, IGHM, IL1B, IL2RG, IRF1, IRF4, JAK3, LCK, LCN2, LSP1, MAP4K1, MGC29506, MMP7, MS4A1, MYB (includes EG:4602), PLA2G7, PLAC8, PRF1, PRKCB, PTGDS, PTPN6, PTPN22, PTPRC, PTTG1, RASD1, RASSF5, RTN1, RUNX3, S100A8, STAT1, TIMP1, TNFRSF25, TNFRSF1B, TNFSF13B, UBASH3A, VAV1, XAF1	64
Cell Death	cytotoxicity	cytotoxicity of cells	2,05E-28	CASP1, CCL2, CCL5, CCL11, CD2, CD6, CD27, CD28, CD48, CD69, CD96, CD1D, CD300A, CYBB, FCER1G, FCGR3B, FGR, GZMA, GZMB, HCK, HCST, HLA-DRB1, IGHG1, IMPDH1, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, PTPN6, PTPRC, SH2D1A, SLAMF6, SLAMF7, STAT1, STAT4, TAC1, TAP1, TNFRSF1B, TYROBP, VAV1, WAS	43
Cell Death	cytotoxicity	cytotoxicity of leukocytes	6,00E-25	CASP1, CCL2, CCL5, CCL11, CD2, CD6, CD27, CD48, CD69, CD96, CD1D, CD300A, CYBB, FCGR3B, FGR, GZMA, GZMB, HCK, HLA-DRB1, IMPDH1, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, PTPN6, PTPRC, SLAMF6, STAT1, STAT4, TYROBP, VAV1, WAS	34
Cell Death	cytotoxicity	cytotoxicity of eukaryotic cells	2,86E-24	CASP1, CCL2, CCL5, CCL11, CD2, CD6, CD27, CD28, CD48, CD69, CD96, CD1D, CD300A, CYBB, FCGR3B, FGR, GZMA, GZMB, HCK, HLA-DRB1, IGHG1, IMPDH1, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, PTPN6, PTPRC, SLAMF6, STAT1, STAT4, TAC1, TYROBP, VAV1, WAS	37
Cell Death	cytotoxicity	cytotoxicity of lymphocytes	2,01E-21	CCL2, CCL5, CCL11, CD2, CD6, CD27, CD48, CD69, CD96, CD1D, CD300A, FCGR3B, GZMA, GZMB, HLA-DRB1, IMPDH1, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, PTPN6, PTPRC, SLAMF6, STAT1, STAT4, TYROBP, VAV1, WAS	30
Cell Death	cytotoxicity	cytotoxicity of natural killer cells	5,66E-17	CCL2, CD2, CD6, CD27, CD48, CD69, CD96, CD300A, FCGR3B, ITGAL, ITGB2, ITK, KLRK1, LCK, PRF1, PTPN6, SLAMF6, STAT1, STAT4, TYROBP, VAV1, WAS	22
Cell Death	cytotoxicity	cytotoxicity of T lymphocytes	1,20E-08	CCL5, CCL11, CD27, CD1D, GZMA, GZMB, HLA-DRB1, IMPDH1, KLRK1, PRF1, PTPRC, STAT4	12
Cell Death	survival	survival of leukocytes	2,86E-20	BCL2A1, BTK, BTLA, CCL4, CCL11, CD19, CD22, CD28, CD86, CD300A, CD3E, CD8A, CSF1R, CSF2RB, FCER1G, HCK, ICOS, IL1B, IL2RB, IL2RG, ITGB2, JAK3, LAX1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP	33
Cell Death	survival	survival of blood cells	1,24E-19	BCL2A1, BTK, BTLA, CCL3, CCL4, CCL11, CD19, CD22, CD28, CD86, CD300A, CD3E, CD8A, CSF1R, CSF2RB, FCER1G, HCK, ICOS, IL1B, IL2RB, IL2RG, ITGB2, JAK3, LAX1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP	34
Cell Death	survival	survival of lymphocytes	2,80E-13	BTK, BTLA, CD19, CD22, CD28, CD86, CD3E, CD8A, HCK, ICOS, IL2RB, IL2RG, JAK3, LAX1, MYB (includes EG:4602), PRKCB, PTPRC, STAT1, STAT4, TNFRSF17, TNFRSF1B, TNFSF13B	22
Cell Death	survival	survival of normal cells	1,24E-11	BCL2A1, BTK, BTLA, CCL3, CCL4, CCL5, CCL11, CCL21, CD4, CD19, CD22, CD28, CD86, CD300A, CD3E, CD8A, CSF1R, CSF2RB, CXCL9, FCER1G, HCK, ICOS, IL1B, IL2RB, IL2RG, ITGB2, JAK3, LAX1, MYB (includes EG:4602), PRKCB, PTPRC, RAC2, STAT1, STAT4, TIMP1, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP	39
Cell Death	survival	survival of T lymphocytes	3,14E-10	BTLA, CD28, CD86, CD3E, CD8A, ICOS, IL2RB, IL2RG, JAK3, LAX1, MYB (includes EG:4602), PTPRC, STAT1, STAT4, TNFRSF1B	15
Cell Death	survival	survival of cells	3,36E-09	BCL2A1, BTK, BTLA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CD4, CD19, CD22, CD28, CD48, CD86, CD300A, CD3E, CD8A, CSF1R, CSF2RB, CXCL9, CXCL10, CXCL11, CXCR3, DGKA, FCER1G, FGR, GZMB, HCK, ICOS, IL1B, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LCK, LYZ, MYB (includes EG:4602), PLAC8, PRKCB, PTPN6, PTPN7, PTPN22, PTPRC, RAC2, STAT1, STAT4, TCL1A, TIMP1, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP	54
Cell Death	survival	survival of eukaryotic cells	1,88E-08	BCL2A1, BTK, BTLA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL21, CD4, CD19, CD22, CD28, CD86, CD300A, CD3E, CD8A, CSF1R, CSF2RB, CXCL9, CXCR3, DGKA, FCER1G, FGR, HCK, ICOS, IL1B, IL2RB, IL2RG, ITGB2, JAK3, LAX1, LCK, MYB (includes EG:4602), PLAC8, PRKCB, PTPN6, PTPN7, PTPN22, PTPRC, RAC2, STAT1, STAT4, TCL1A, TIMP1, TNFRSF17, TNFRSF1B, TNFSF13B, TYROBP	49
Cell Death	lysis	lysis of cells	9,91E-10	CASP1, CD4, CD48, CD1D, CD8A, CR2, GNLY, GZMA, GZMB, IGHG1, IL27RA, ITGB2, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	18
Cell Death	lysis	lysis of eukaryotic	7,60E-08	CD4, CD48, CD1D, CR2, GNLY, GZMB, IL27RA, ITGB2, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	14

		cells				
Cell Death	activation-induced cell death	activation-induced cell death	6,47E-09	CCR5, CD28, CD3E, CIITA, IRF4, ITK, LTB, MAP4K1, PRF1, RAC2, STAT1, TNFRSF1B	12	
Cell Death	activation-induced cell death	activation-induced cell death of T lymphocytes	1,83E-08	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1	9	
Cell Death	activation-induced cell death	activation-induced cell death of eukaryotic cells	1,09E-07	CCR5, CD28, CD3E, CIITA, ITK, MAP4K1, PRF1, RAC2, STAT1, TNFRSF1B	10	
Cell Death	killing	killing of natural killer cells	1,34E-08	CD48, CD1D, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1	8	
Cell Death	killing	killing of lymphocytes	2,66E-08	CD48, CD1D, CIITA, KLRK1, LY9, PRF1, SH2D1A, SLAMF6, SLAMF7, STAT1	10	
Cell Death	killing	killing of hematopoietic cells	6,77E-08	CD48, KLRK1, LY9, SH2D1A, SLAMF6, SLAMF7	6	
Cell Death	cytolysis	cytolysis	2,93E-08	CD48, CD247, CR2, GNLY, GZMA, GZMB, IGHG1, IGKC, ITGB2, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	15	
Cell Death	cytolysis	cytolysis of cells	3,50E-08	CD48, CR2, GNLY, GZMA, GZMB, IGHG1, ITGB2, KLRK1, LCK, PRF1, PTPRC, TNFRSF1B, VAV1	13	
Tissue Development	adhesion	adhesion of blood cells	7,03E-27	BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, VAV1	47	
Tissue Development	adhesion	adhesion of leukocytes	3,38E-24	BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CORO1A, CSF3R, CXCL2, CXCL9, CXCL11, CXCR3, FGR, FYB, HCK, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SELL, SELPLG, TAC1, VAV1	41	
Tissue Development	adhesion	adhesion of normal cells	3,88E-23	AMICA1, BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CD8A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, VAV1	49	
Tissue Development	adhesion	adhesion of mononuclear leukocytes	1,46E-22	BTK, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, RASSF5, RGS1, SELL, SELPLG, TAC1, VAV1	31	
Tissue Development	adhesion	adhesion of cells	6,00E-21	ADAM8, AMICA1, BTK, C3, C1ORF38, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR2, CCR5, CD2, CD4, CD19, CD28, CD48, CD84, CD96, CD8A, CLEC7A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, CYTIP, EMB, EMR1, FCER1G, FGB, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHA1, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCK, LCP1, LTF, MYO1F, PARVG, PCDH10, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, ST8SIA4, STAT1, TAC1, TIMP1, VAV1, ZAP70	71	
Tissue Development	adhesion	adhesion of lymphocytes	5,86E-20	BTK, CCL2, CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD19, CD28, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, RGS1, SELL, SELPLG, TAC1	26	
Tissue Development	adhesion	adhesion of eukaryotic cells	6,87E-20	AMICA1, BTK, C3, C1QA, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CD2, CD4, CD19, CD28, CD48, CD8A, CORO1A, CR2, CSF3R, CXCL2, CXCL9, CXCL10, CXCL11, CXCR3, CYTIP, FCER1G, FGR, FYB, GZMB, HCK, ICAM2, ICOS, IGHM, IL1B, ITGAL, ITGAX, ITGB2, ITK, LCP1, LTF, PARVG, PTPRC, RAC2, RASSF5, RGS1, S100A8, SAA1, SELL, SELPLG, TAC1, TIMP1, VAV1, ZAP70	55	
Tissue Development	adhesion	adhesion of T lymphocytes	9,88E-17	CCL3, CCL4, CCL11, CCL19, CCL20, CCL21, CD2, CD48, CXCL9, CXCL11, CXCR3, FYB, ICAM2, ICOS, ITGAL, ITGB2, ITK, RASSF5, SELL, SELPLG, TAC1	21	
Tissue Development	adhesion	adhesion of granulocytes	1,87E-11	C3, CCL11, CORO1A, CSF3R, CXCL2, FGR, HCK, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	16	

Tissue Development	adhesion	adhesion of neutrophils	2,10E-09	CORO1A, CSF3R, CXCL2, IL1B, ITGAL, ITGAX, ITGB2, LCP1, S100A8, SELL, SELPLG, VAV1	12
Tissue Development	adhesion	adhesion of endothelial cells	4,78E-08	AMICA1, C1QA, CCL2, CCL3, CCL4, CCL5, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, SELL, SELPLG	13
Tissue Development	adhesion	adhesion of lymphoma cell lines	1,07E-07	CCL2, CCL21, CD4, CR2, CXCL2, ITGAL, ITGAX, ITGB2, PARVG	9
Tissue Development	accumulation	accumulation of leukocytes	2,07E-22	ALOX5, CCL2, CCL5, CCL11, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL9, CXCL10, CXCR3, CYBB, DEF6, GRN, ICOS, IL10RA, IL1B, IL1RN, IL2RG, ITGAL, ITGAX, ITGB2, PTGDS, RUNX3, S100A8, SELL, SELPLG, SH2D2A, SLPI, TIMP1, TNFRSF25	35
Tissue Development	accumulation	accumulation of cells	1,43E-18	ALOX5, CCL2, CCL5, CCL11, CCL21, CCR2, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL9, CXCL10, CXCR3, CYBB, DEF6, GRN, ICOS, IL10RA, IL1B, IL1RN, IL2RG, ITGAL, ITGAX, ITGB2, PTGDS, PTTG1, RAC2, RUNX3, S100A8, SELL, SELPLG, SH2D2A, SLPI, TIMP1, TNFRSF25	37
Tissue Development	accumulation	accumulation of mononuclear leukocytes	1,31E-16	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL2, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, PTGDS, RUNX3, SELL, SH2D2A, TNFRSF25	21
Tissue Development	accumulation	accumulation of lymphocytes	3,50E-15	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CD1D, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, ITGB2, RUNX3, SELL, SH2D2A, TNFRSF25	19
Tissue Development	accumulation	accumulation of T lymphocytes	5,82E-14	CCL5, CCL21, CCR5, CCR7, CD28, CD86, CXCL10, CXCR3, DEF6, ICOS, IL10RA, IL2RG, ITGAL, RUNX3, SH2D2A, TNFRSF25	16
Tissue Development	accumulation	accumulation of phagocytes	6,34E-11	CCL2, CCL5, CCL11, CCR2, CD28, CXCL2, CXCL10, GRN, IL1B, IL1RN, ITGAX, ITGB2, S100A8, SELPLG, SLPI, TIMP1	16
Tissue Development	accumulation	accumulation of granulocytes	2,59E-10	ALOX5, CCL2, CCL5, CCL11, CXCL2, CXCL9, CXCL10, GRN, IL1B, IL1RN, ITGB2, PTGDS, S100A8, SELPLG, SLPI	15
Tissue Development	generation	generation of lymphocytes	3,58E-14	C3, CD4, CD28, CD86, CR2, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL1RN, IL27RA, IL2RG, IL7R, IRF4, ITK, JAK3, PSMB9, STAT4, TNFSF13B	19
Tissue Development	generation	generation of leukocytes	1,00E-13	C3, CD4, CD28, CD86, CR2, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL1RN, IL27RA, IL2RG, IL7R, IRF4, ITK, JAK3, LTB, PSMB9, STAT4, TNFSF13B	20
Tissue Development	generation	generation of T lymphocytes	2,01E-10	CD4, CD28, CD86, HLA-DQB1, ICOS, IL10RA, IL12RB1, IL27RA, IL2RG, ITK, JAK3, PSMB9, STAT4, TNFSF13B	14
Tissue Development	aggregation	aggregation of cells	1,98E-10	BTK, CCL5, CCL11, CD2, CD4, CD6, CP, CXCL9, CXCL10, CXCR3, FCER1G, FPR1, HCLS1, ICAM2, IGHM, ITGAL, ITGB2, LCK, LCP2, LTF, MMP7, PCDH10, PTPRC, SELL, SELPLG, TIMP1, VAV1	27
Tissue Development	aggregation	aggregation of blood cells	7,98E-08	BTK, CCL5, CCL11, CD4, CXCL9, CXCL10, CXCR3, FCER1G, FPR1, HCLS1, IGHM, ITGAL, ITGB2, LCK, LCP2, SELL, SELPLG, VAV1	18
Respiratory Disease	respiratory disorder	respiratory disorder	2,21E-22	ADA, ALOX5, C3, C3AR1, CASP1, CCL2, CCL3, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD4, CD14, CD86, CD247, CD1D, CD3E, CD8A, CIITA, CSF2RB, CTSS, CXCL10, CXCL11, CYBB, CYSLTR1, FGB, FPR1, GZMB, HCK, HLA-DRB1, ICOS, IGHG1, IGF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IMPDH1, ITGB2, ITK, LCK, LCN2, LTF, LYZ, MMP7, MND, MS4A1, NCF1, NOD2, PLA2G7, PTPRC, PTTG1, REG1A, RUNX3, SLC2A3, SLPI, STAT1, STAT4, TCIRG1, TIMP1, TNFRSF25, TXNDC3	67
Respiratory Disease	respiratory disorder	respiratory disorder of rodents	1,95E-15	ALOX5, CCL2, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD86, CD1D, CIITA, CTSS, CYBB, GZMB, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, ITK, NCF1, RUNX3, STAT1, STAT4, TNFRSF25	28
Respiratory Disease	respiratory disorder	respiratory disorder of mice	7,82E-15	ALOX5, CCL2, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CD4, CD14, CD86, CD1D, CIITA, CTSS, CYBB, GZMB, ICOS, IGHG1, IL1B, IL27RA, IL2RB, ITK, NCF1, RUNX3, STAT1, STAT4, TNFRSF25	27
Respiratory Disease	severe acute respiratory	severe acute respiratory	4,70E-11	C3AR1, CCR7, CD247, CD3E, CSF2RB, FPR1, IL10RA, ITK, LCK, LCN2, LTF, MND, NCF1, PTTG1, SLC2A3, SLPI, STAT4, TCIRG1, TIMP1	19

	y syndrome				
Respiratory Disease	airway hyperresponsiveness	airway hyperresponsiveness of organism	1,09E-08	ALOX5, C3, C3AR1, CD86, CD1D, ICOS, IGHG1, IL1RN, IL27RA, IL2RB, ITK, RUNX3, STAT4	13
Respiratory Disease	pneumonitis	pneumonitis	3,78E-08	CCL2, CCL3, CCR2, CCR5, CD4, CD14, CD86, CIITA, CTSS, HLA-DRB1, IL16, IL1B, MS4A1, NOD2, STAT1, TNFRSF25	16
Infectious Disease	infectious disorder	infectious disorder	3,92E-22	ADA, ALOX5, APOBEC3G, APOC1, ARID5A, BIRC3, C2, C3, C1QA, C3AR1, CARD16, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL20, CCR2, CCR5, CCR7, CCRL2, CD4, CD14, CD19, CD22, CD28, CD69, CD86, CD163, CD247, CD1D, CD3E, CD79A, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL9, CXCL10, CXCL11, CXCR3, CYBB, CYSLTR1, DARC, FCER1G, FPR1, GABBR1, HCK, HCP5, HLA-DOA, HLA-DQB1, ICOS, IGHM, IGK@, IGL@, IL16, IL10RA, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, ITGAL, ITGB2, ITK, LAPTM5, LCK, LCN2, LCP2, LTB, LTF, LY86, LY96, LYZ, MNDA, MS4A1, MS4A4A, MYO1F, NCF1, PPM1N, PRF1, PTPRC, PTTG1, RARRES3, SELPLG, SLAMF1, SLC2A3, SLPI, STAT1, STAT4, TCIRG1, TIMP1, TLR7, TLR8 (includes EG:51311), TNFRSF17, TNFRSF1B, UBASH3A, UNC93B1, VAV1, XCL1	106
Infectious Disease	infectious disorder	infectious disorder of mammalia	6,95E-18	BIRC3, C3, C1QA, CASP1, CCL2, CCR2, CCR5, CD4, CD14, CD19, CD22, CD1D, CXCR3, CYBB, HCK, HLA-DQB1, ICOS, IGHM, IL1B, IL1RN, IL27RA, ITGB2, ITK, LCN2, PRF1, STAT1, STAT4, TLR7, UNC93B1, VAV1	30
Infectious Disease	infectious disorder	infectious disorder of rodents	1,72E-17	BIRC3, C3, C1QA, CASP1, CCL2, CCR2, CCR5, CD4, CD14, CD19, CD22, CD1D, CXCR3, CYBB, HCK, HLA-DQB1, IGHM, IL1B, IL1RN, IL27RA, ITGB2, ITK, LCN2, PRF1, STAT1, STAT4, TLR7, UNC93B1, VAV1	29
Infectious Disease	infectious disorder	infectious disorder of mice	9,96E-17	BIRC3, C3, C1QA, CASP1, CCL2, CCR2, CCR5, CD4, CD14, CD19, CD22, CD1D, CYBB, HCK, HLA-DQB1, IGHM, IL1B, IL1RN, IL27RA, ITGB2, ITK, LCN2, PRF1, STAT1, STAT4, TLR7, UNC93B1, VAV1	28
Infectious Disease	leprosy	leprosy	2,94E-16	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, CD28, CD79A, CXCR3, FCER1G, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, SLAMF1, SLPI, TNFRSF17	21
Infectious Disease	lepomatous leprosy	lepomatous leprosy	1,05E-13	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, FCER1G, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	15
Infectious Disease	infection	infection by Hepatitis C virus	3,58E-12	CCL2, CCL3, CCL4, CCL5, CCL20, CXCL9, CXCL10, CXCL11, IMPDH1	9
Infectious Disease	infection	infection of blood cells	9,66E-10	CASP1, CCL3, CCL5, CCR2, CCR5, CD4, DARC, FPR1, IRF1, LTF, RARRES3	11
Infectious Disease	infection	infection of normal cells	9,99E-10	CASP1, CCL3, CCL5, CCR2, CCR5, CD4, DARC, FPR1, IRF1, LTF, RARRES3, TNFRSF1B	12
Infectious Disease	infection	infection by Reoviridae	1,11E-09	CCL2, CCL4, CCL5, CTSS, CXCL1, CXCL10	6
Infectious Disease	infection	infection by measles virus	6,99E-09	CCL2, CCL3, CCL4, CCL5, CXCL10	5
Infectious Disease	infection	infection of leukocytes	1,20E-08	CASP1, CCL3, CCL5, CCR2, CCR5, CD4, FPR1, IRF1, LTF, RARRES3	10
Infectious Disease	infection	infection by Human cytomegalo virus	1,28E-08	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCL10	6
Infectious Disease	infection	infection of mammalia	3,78E-08	CASP1, CCR2, CCR5, CD1D, ICOS, IGHM, IL1B, IL27RA, ITGB2, ITK, LCN2, PRF1, STAT1, TLR7, UNC93B1	15
Infectious Disease	infection	infection by rotavirus	4,11E-08	CCL2, CCL4, CCL5, CXCL1, CXCL10	5
Infectious Disease	infection	infection by lymphocytic choriomeningitis virus	5,94E-08	CCL2, CCL3, CCL4, CCL5, CXCL10, ITGB2, XCL1	7
Infectious Disease	infection	infection of mice	9,84E-08	CASP1, CCR2, CCR5, CD1D, IGHM, IL1B, IL27RA, ITGB2, ITK, LCN2, PRF1, STAT1, TLR7, UNC93B1	14
Infectious Disease	severe acute respiratory	severe acute respiratory syndrome	4,70E-11	C3AR1, CCR7, CD247, CD3E, CSF2RB, FPR1, IL10RA, ITK, LCK, LCN2, LTF, MNDA, NCF1, PTTG1, SLC2A3, SLPI, STAT4, TCIRG1, TIMP1	19

	syndrome					
Humoral Immune Response	proliferation	proliferation of B lymphocytes	1,89E-21	ADA, BTK, BTLA, CD4, CD19, CD22, CD86, CD3E, CD79A, CD8A, CR2, HCK, IGHM, IGKC, IL1RN, IL2RG, IL7R, IRF4, LY86, LY96, MS4A1, PRKCB, PTPN6, PTPRC, SASH3, SLAMF1, SLAMF7, SLPI, SPIB, STAT1, TCIRG1, TCL1A, TLR7, TNFRSF17, TNFSF13B, VAV1	36	
Humoral Immune Response	quantity	quantity of B lymphocytes	4,98E-19	BCL2A1, BTK, C3, CCR7, CD19, CD22, CD27, CD28, CD69, CD79A, CR2, CXCL13, FCER1G, HLA-DQA1, ICOS, IGHM, IGKC, IL2RG, IL7R, ITGB2, JAK3, MS4A1, POU2AF1, PTPN6, RAC2, SLA, TNFRSF1B, TNFSF13B, VAV1, WAS, ZC3H12A	31	
Humoral Immune Response	quantity	quantity of plasma cells	8,00E-11	CD22, ICOS, IL7R, ITGB2, PTPN6, RAC2, TNFRSF1B, TNFSF13B, ZC3H12A	9	
Humoral Immune Response	formation	formation of germinal center	5,23E-11	ADA, C3, CD28, CXCL13, ICOS, LAX1, LTB, POU2AF1, SH2D1A, TAC1, TNFSF13B, VAV1	12	
Humoral Immune Response	cell movement	cell movement of B lymphocytes	1,39E-10	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, POU2AF1, RAC2, RGS1, SELPLG, ZC3H12A	12	
Humoral Immune Response	activation	activation of B lymphocytes	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16	
Humoral Immune Response	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9	
Humoral Immune Response	migration	migration of B lymphocytes	3,61E-09	CCL19, CCL20, CCL21, CD22, CXCL13, DOCK2, ICOS, TIMP1, TNFRSF1B, TNFSF13B	10	
Humoral Immune Response	differentiation	differentiation of B lymphocytes	2,03E-08	CD14, CD27, CD79A, CR2, ICOS, IGHM, IKZF1, IL2RB, IL2RG, IL7R, IRF4, POU2AF1, PTPN6, PTPRC, SPIB, TLR7, TNFSF13B	17	
Humoral Immune Response	development	development of B lymphocytes	1,15E-07	ADA, BTK, CD19, CD69, CR2, IGHM, IL2RG, IL7R, JAK3, MYB (includes EG:4602), POU2AF1, TNFSF13B, VAV1	13	
Antigen Presentation	migration	migration of dendritic cells	3,57E-21	C3, CCL3, CCL4, CCL5, CCL19, CCL20, CCL21, CCR2, CCR5, CCR7, CD86, CXCL9, CXCL10, CXCL11, CXCL13, CXCR3, ICAM2, IL16, IL10RA, IL1B, RAC2, RUNX3, TAC1, TIMP1, WAS	25	
Antigen Presentation	chemotaxis	chemotaxis of phagocytes	3,97E-18	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL12RB1, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, SAA1, TAC1, XCL1	27	
Antigen Presentation	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23	
Antigen Presentation	chemotaxis	chemotaxis of antigen presenting cells	2,54E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CXCL9, CXCR3, FPR1, GNLY, IL16, IL12RB1, IL1B, SAA1, TAC1	18	
Antigen Presentation	chemotaxis	chemotaxis of dendritic cells	2,22E-11	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, FPR1, GNLY, IL16, IL1B, TAC1	14	
Antigen Presentation	chemotaxis	chemotaxis of B lymphocytes	2,91E-09	CCL18, CCL19, CCL20, CCL21, CCR2, CXCL9, CXCL13, RAC2, RGS1	9	
Antigen Presentation	activation	activation of neutrophils	1,03E-14	C3, CCL2, CCL3, CCL4, CCL5, CD14, CXCL1, CXCL6, FPR1, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, TAC1, VAV1	18	
Antigen Presentation	activation	activation of antigen presenting cells	9,47E-14	CCL2, CCL3, CCL4, CCL5, CD4, CD86, CD1D, CSF1R, CXCL10, FCER1G, HCK, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, IGHM, IL1B, LTB, LTF, PSMB9, SLPI, STAT1, STAT4, TAC1, TLR7, TNFRSF1B	26	
Antigen Presentation	activation	activation of phagocytes	1,23E-13	C3, CCL2, CCL3, CCL4, CCL5, CD4, CD14, CSF1R, CXCL1, CXCL6, CXCL10, FCER1G, FPR1, HCK, IL18RAP, IL1B, IL1RN, LCN2, LTF, NCF1C, SELL, STAT1, STAT4, TAC1, VAV1	25	
Antigen Presentation	activation	activation of B	3,87E-10	ADA, BTK, C1QA, CD19, CD22, CD86, CD8A, CR2, IGHG1, IGHM, LAX1, POU2AF1, PTPRC, TNFRSF17, TNFSF13B, VAV1	16	

on		lymphocytes			
Antigen Presentation	cell movement	cell movement of dendritic cells	1,41E-12	CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL20, CCL21, CCR7, CD86, FPR1, GNLV, ICAM2, IL16, IL1B, TAC1	16
Antigen Presentation	cell movement	cell movement of macrophages	1,01E-11	C3, CCL2, CCL3, CCL4, CCL5, CCR2, CCR5, CSF1R, CXCL9, CXCL10, CXCR3, DARC, IL16, IL12RB1, IL1B, IL1RN, ITGB2, RAC2, SAA1, SELL	20
Antigen Presentation	recruitment	recruitment of antigen presenting cells	3,76E-11	C3AR1, CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	14
Antigen Presentation	recruitment	recruitment of dendritic cells	4,81E-10	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CCR2, CXCL10	8
Antigen Presentation	recruitment	recruitment of macrophages	1,71E-08	C3AR1, CCL2, CCL3, CCL4, CCR2, CCR5, CD8A, CXCL10, ITGB2, LSP1, UCP2	11
Antigen Presentation	chemoattraction	chemoattraction of antigen presenting cells	8,00E-11	CCL2, CCL3, CCL4, CCL5, CCL19, CCL20, CXCL9, CXCR3, IL12RB1	9
Antigen Presentation	chemoattraction	chemoattraction of macrophages	1,29E-10	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCR3, IL12RB1	7
Antigen Presentation	chemoattraction	chemoattraction of phagocytes	4,55E-10	CCL2, CCL3, CCL4, CCL5, CXCL1, CXCL9, CXCR3, IL12RB1, XCL1	9
Antigen Presentation	transmigration	transmigration of dendritic cells	1,11E-08	CCL3, CCL4, CCL5, CCL19, CCR7, ICAM2, IL1B	7
Antigen Presentation	processing	processing of antigen	1,34E-08	ERAP2, FCER1G, HLA-DMB, HLA-DOA, HLA-DQA1, HLA-DQB1, HLA-DRB1, UNC93B1	8
Antigen Presentation	binding	binding of antigen presenting cells	1,71E-08	CD2, CD4, CD6, CD14, CD69, CLEC10A, FPR1, FYB, ITGAL, LCK, PTPRC	11
Antigen Presentation	quantity	quantity of dendritic cells	4,93E-08	CCL19, CCL21, CCR2, CCR7, CXCL13, IKZF1, IRF1, IRF4, ITGB2, LTB, TYROBP	11
Dermatological Diseases and Conditions	dermatological disorder	dermatological disorder	3,75E-20	ADA, ALOX5, CASP1, CCL3, CCL4, CCL5, CCL20, CCRL2, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD52, CD86, CD1D, CD79A, CSF1R, CSF2RB, CSF3R, CXCL9, CXCL13, CXCR3, CYSLTR1, FCER1G, GABBR1, HLA-DQA1, HLA-DRB1, IGHD, IGHG1, IGHM, IGK@, IGKC, IGL@, IL16, IL12RB1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, ITGAL, ITGB2, LCK, LCP2, LTB, LY86, MAP4K1, MMP7, MS4A1, NOD2, PRKCB, PTPN6, RGS1, RUNX3, S100A8, SAA1, SELL, SLAMF1, SLPI, STAT1, STAT4, TLR7, TMC8, TNFRSF17, TNFRSF1B	68
Dermatological Diseases and Conditions	leprosy	leprosy	2,94E-16	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, CD28, CD79A, CXCR3, FCER1G, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, SLAMF1, SLPI, TNFRSF17	21
Dermatological Diseases and Conditions	leprous leprosy	leprous leprosy	1,05E-13	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, FCER1G, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	15

Dermatological Diseases and Conditions	dermatitis	dermatitis	2,74E-12	CASP1, CCL5, CD2, CD4, CD52, CD1D, CXCL13, CYSLTR1, FCER1G, HLA-DQA1, HLA-DRB1, IGHM, IGKC, IL16, IL1B, IL1RN, IL2RB, IL2RG, ITGAL, ITGB2, LCP2, LTB, MS4A1, STAT1	24
Dermatological Diseases and Conditions	psoriatic arthritis	psoriatic arthritis	7,74E-12	CD27, CXCL9, IGHD, IGHG1, IGHM, IGKC, ITGAL, MAP4K1, MS4A1, NOD2, PRKCB, PTPN6, RUNX3, S100A8, SAA1, TNFRSF1B	16
Dermatological Diseases and Conditions	contact dermatitis	contact dermatitis	4,65E-08	CD4, CD1D, FCER1G, IGHM, IGKC, IL16, ITGB2, LCP2, LTB	9
Lymphoid Tissue Structure and Development	homing	homing of myeloid cells	7,97E-20	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, WAS, XCL1	29
Lymphoid Tissue Structure and Development	homing	homing of granulocytes	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	28
Lymphoid Tissue Structure and Development	homing	homing of neutrophils	1,56E-17	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, WAS, XCL1	24
Lymphoid Tissue Structure and Development	homing	homing of eosinophils	2,60E-09	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1, WAS	10
Lymphoid Tissue Structure and Development	chemotaxis	chemotaxis of myeloid cells	7,75E-19	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, PTPRC, RAC2, S100A8, TAC1, XCL1	28
Lymphoid Tissue Structure and Development	chemotaxis	chemotaxis of granulocytes	7,31E-18	C3, CCL2, CCL3, CCL4, CCL5, CCL11, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCR3, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	27
Lymphoid Tissue Structure and Development	chemotaxis	chemotaxis of neutrophils	1,64E-16	CCL2, CCL3, CCL4, CCL5, CD28, CORO1A, CSF3R, CXCL1, CXCL2, CXCL6, CXCL10, FCER1G, FGR, FPR1, HCK, IL1B, ITGB2, LSP1, PTPN6, RAC2, S100A8, TAC1, XCL1	23
Lymphoid Tissue Structure and Development	chemotaxis	chemotaxis of eosinophils	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9
Lymphoid Tissue	formation	formation of lymphatic	1,28E-11	ADA, C3, CCL21, CD28, CXCL13, ICOS, LAX1, LTB, POU2AF1, SH2D1A, TAC1, TNFRSF1B, TNFSF13B, VAV1	14

Structure and Development		system component				
Lymphoid Tissue Structure and Development	formation	formation of germinal center	5,23E-11	ADA, C3, CD28, CXCL13, ICOS, LAX1, LTB, POU2AF1, SH2D1A, TAC1, TNFSF13B, VAV1		12
Lymphoid Tissue Structure and Development	quantity	quantity of granulocytes	4,90E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B		18
Lymphoid Tissue Structure and Development	quantity	quantity of myeloid cells	6,29E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, IKZF1, IL1B, ITGB2, JAK3, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B		19
Lymphoid Tissue Structure and Development	quantity	quantity of lymphatic system cells	7,93E-09	ADA, ALOX5, C1QA, CCL11, CD1D, CD8A, CSF2RB, CSF3R, CXCL13, IKZF1, IL1B, ITGB2, JAK3, PSMB10, RAC2, S100A8, SELL, SELPLG, STAT4, TNFRSF25, TNFRSF1B		21
Lymphoid Tissue Structure and Development	development	development of lymph node	9,31E-08	CCL19, CCL21, CCR7, CXCL13, IKZF1, IL7R, JAK3, LTB		8
Connective Tissue Disorders	rheumatic disease	rheumatic disease	9,52E-20	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD19, CD22, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCK, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SH2D1A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TLR7, TNFRSF1B, TNFSF13B, XCL1		116
Connective Tissue Disorders	rheumatic disease	rheumatic disease of mammalia	1,87E-17	C2, C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, HLA-DRB1, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B		30
Connective Tissue Disorders	rheumatic disease	rheumatic disease of rodents	4,29E-16	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B		28
Connective Tissue Disorders	rheumatic disease	rheumatic disease of mice	5,69E-16	C3, CASP1, CCL2, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B		27
Connective Tissue Disorders	connective tissue disorder	connective tissue disorder	1,76E-19	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD19, CD22, CD27, CD28, CD53, CD69, CD86, CD96, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCK, LCP1, LST1, LTB, LTF, LYZ, MAN2B1, MAP4K1, MMP7, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22,		119

Connective Tissue Disorders	arthritis	arthritis	1,37E-18	PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SH2D1A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TLR7, TNFRSF1B, TNFSF13B, XCL1	111
Connective Tissue Disorders	arthritis	arthritis of mammalia	1,29E-14	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	26
Connective Tissue Disorders	arthritis	arthritis of rodents	5,19E-14	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	25
Connective Tissue Disorders	arthritis	arthritis of mice	7,21E-14	C3, CASP1, CCL2, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	24
Connective Tissue Disorders	rheumatoid arthritis	rheumatoid arthritis	5,51E-15	ADAM8, AG2, AIF1, ALOX5, C2, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCN1, FCRL3, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, NCF4, NOD2, P2RY13, PSMB9, PTPN22, PTPRC, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	95
Connective Tissue Disorders	psoriatic arthritis	psoriatic arthritis	7,74E-12	CD27, CXCL9, IGHD, IGHG1, IGHM, IGKC, ITGAL, MAP4K1, MS4A1, NOD2, PRKCB, PTPN6, RUNX3, S100A8, SAA1, TNFRSF1B	16
Connective Tissue Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	6,34E-09	CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	13
Connective Tissue Disorders	systemic lupus erythematosus	systemic lupus erythematosus	6,67E-09	C2, C1QA, CD19, CD22, CD86, CR2, ICOS, IL16, IL7R, MS4A1, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	16
Connective Tissue Disorders	juvenile rheumatoid arthritis	juvenile rheumatoid arthritis	8,59E-09	ALOX5, CCL3, CCL4, CCL5, CD69, CD86, GNLY, GZMA, IL1B, IL1RN, NCF4, P2RY13, PTPRC, S100A8, TNFSF13B	15
Connective Tissue Disorders	experimentally-induced arthritis	experimentally-induced arthritis	3,37E-08	C3, CCL4, CCR2, CCR5, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	16
Connective Tissue Disorders	experimentally-induced arthritis	experimentally-induced arthritis of mice	3,37E-08	C3, CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	14
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease	9,52E-20	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD19, CD22, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCK, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1,	116

				SERPINA3, SH2D1A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TLR7, TNFRSF1B, TNFSF13B, XCL1	
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of mammalia	1,87E-17	C2, C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, HLA-DRB1, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	30
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of rodents	4,29E-16	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	28
Skeletal and Muscular Disorders	rheumatic disease	rheumatic disease of mice	5,69E-16	C3, CASP1, CCL2, CCR2, CD4, CD22, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	27
Skeletal and Muscular Disorders	arthritis	arthritis	1,37E-18	ADAM8, AG2, AIF1, ALOX5, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD27, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCER1G, FCN1, FCRL3, FGB, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RUNX3, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	111
Skeletal and Muscular Disorders	arthritis	arthritis of mammalia	1,29E-14	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, HLA-DRB1, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	26
Skeletal and Muscular Disorders	arthritis	arthritis of rodents	5,19E-14	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	25
Skeletal and Muscular Disorders	arthritis	arthritis of mice	7,21E-14	C3, CASP1, CCL2, CCR2, CD4, CD69, CIITA, CR2, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, LTF, NCF1, NCF1C, STAT1, STAT4, TNFRSF1B, TNFSF13B	24
Skeletal and Muscular Disorders	rheumatoid arthritis	rheumatoid arthritis	5,51E-15	ADAM8, AG2, AIF1, ALOX5, C2, C1QA, C3AR1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD28, CD53, CD69, CD86, CD3D, CD79A, CIITA, CR2, CSF2RB, CSF3R, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, DEF6, FCN1, FCRL3, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IGHG1, IGHM, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL2RB, IL7R, ITGAL, ITGB2, LCP1, LST1, LTB, LTF, LYZ, MS4A1, MS4A7, NCF4, NOD2, P2RY13, PSMB9, PTPN22, PTPRC, S100A8, SAA1, SERPINA3, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TNFRSF1B, TNFSF13B, XCL1	95
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder of mice	3,05E-13	C3, CASP1, CCL2, CCR2, CD4, CD22, CD69, CD86, CIITA, CR2, CSF1R, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, ITGB2, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	30
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder of rodents	3,18E-13	C3, CASP1, CCL2, CCL5, CCR2, CD4, CD22, CD69, CD86, CIITA, CR2, CSF1R, CTSS, DEF6, FCER1G, ICOS, IGHG1, IL1B, IL1RN, IL27RA, IL2RB, ITGB2, LTF, NCF1, NCF1C, SH2D1A, STAT1, STAT4, TAP1, TNFRSF1B, TNFSF13B	31
Skeletal and Muscular Disorders	skeletal and muscular disorder	skeletal and muscular disorder	3,14E-11	ADAM8, AG2, AIF1, ALOX5, BCL11B, BTK, C2, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL18, CCL19, CCL21, CCR2, CCR5, CCRL2, CD4, CD6, CD14, CD19, CD22, CD27, CD28, CD52, CD53, CD69, CD86, CD96, CD1E, CD3D, CD79A, CIITA, CP, CR2, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL2, CXCL6, CXCL9, CXCL10, CXCL13, CYTH4, DEF6, EVI2B, FCER1G, FCN1, FCRL3, FGB, FPR1, GABBR1, GBP2, GNLY, GPSM3, GRN, GZMA, GZMB, HCK, HCLS1, HLA-DMB, HLA-DOA, HLA-DOB, HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-F, ICOS, IDO1, IGHD, IGHG1, IGHM, IGKC, IGL@, IKZF1, IL16, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IL7R, IMPDH1, ITGAL, ITGB2, KIAA1199, KLRB1, LCK, LCN2, LCP1, LRG1, LST1, LTB, LTF, LY96, LYZ,	137

Skeletal and Muscular Disorders	psoriatic arthritis	psoriatic arthritis	7,74E-12	MAP4K1, MS4A1, MS4A7, NCF1, NCF4, NCF1C, NOD2, P2RY13, PRKCB, PSMB9, PTGDS, PTPN6, PTPN22, PTPRC, RARRES3, RTN1, RUNX3, S100A8, SAA1, SERPINA3, SH2D1A, SP140, STAT1, STAT4, TAC1, TAGAP, TAP1, TIMP1, TLR7, TNFRSF1B, TNFSF13B, XCL1	16
Skeletal and Muscular Disorders	collagen-induced arthritis	collagen-induced arthritis of mice	6,34E-09	CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	13
Skeletal and Muscular Disorders	systemic lupus erythematosus	systemic lupus erythematosus	6,67E-09	C2, C1QA, CD19, CD22, CD86, CR2, ICOS, IL16, IL7R, MS4A1, PTPN22, PTPRC, SH2D1A, STAT4, TAP1, TNFSF13B	16
Skeletal and Muscular Disorders	juvenile rheumatoid arthritis	juvenile rheumatoid arthritis	8,59E-09	ALOX5, CCL3, CCL4, CCL5, CD69, CD86, GNLY, GZMA, IL1B, IL1RN, NCF4, P2RY13, PTPRC, S100A8, TNFSF13B	15
Skeletal and Muscular Disorders	experimentally-induced arthritis	experimentally-induced arthritis	3,37E-08	C3, CCL4, CCR2, CCR5, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	16
Skeletal and Muscular Disorders	experimentally-induced arthritis of mice	experimentally-induced arthritis of mice	3,37E-08	C3, CCR2, CD69, CR2, CTSS, ICOS, IGHG1, IL1B, IL1RN, IL2RB, STAT1, STAT4, TNFRSF1B, TNFSF13B	14
Post-Translational Modification	tyrosine phosphorylation	tyrosine phosphorylation of protein	1,46E-19	CCL3, CCL4, CCL5, CCL11, CD2, CD4, CD19, CD28, CD48, CD247, CD3E, CD79A, CD8A, CLEC4C, CSF1R, FCER1G, FCRL3, FCRL5, HCK, IGHM, IL1B, ITGB2, JAK3, LAX1, LCK, PTPN6, PTPN22, PTPRC, SELL, SH2D1A, SPIB, TAC1, TYROBP, ZAP70	34
Post-Translational Modification	phosphorylation	phosphorylation of protein	1,04E-15	CCL3, CCL4, CCL5, CCL11, CD2, CD4, CD6, CD19, CD28, CD48, CD247, CD3E, CD79A, CD8A, CLEC4C, CSF1R, FCER1G, FCRL3, FCRL5, HCK, IGHM, IL1B, ITGB2, JAK3, LAX1, LCK, PTPN6, PTPN22, PTPRC, SELL, SH2D1A, SPIB, STAT1, TAC1, TYROBP, ZAP70	36
Post-Translational Modification	moiety attachment	moiety attachment of protein	1,64E-09	CCL3, CCL4, CCL5, CCL11, CD2, CD4, CD6, CD19, CD22, CD28, CD37, CD48, CD247, CD3E, CD79A, CD8A, CLEC4C, CSF1R, FCER1G, FCRL3, FCRL5, HCK, IGHM, IL1B, ITGB2, JAK3, LAX1, LCK, PTPN6, PTPN22, PTPRC, SELL, SH2D1A, SPIB, STAT1, TAC1, TYROBP, ZAP70	38
Hematological Disease	hematological disorder	hematological disorder	6,30E-19	ADA, ALOX5, BTK, C2, C3, C1QA, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCR2, CCR5, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD52, CD86, CD247, CD3D, CD3E, CD3G, CPA3, CSF1R, CSF2RB, CSF3R, CTSS, CXCL1, CXCL9, CXCL10, CXCL13, CYSLTR1, DARC, DEF6, FCER1G, FCGR3B, FGB, FGR, FYB, HCLS1, ICOS, IGHM, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ITGB2, ITK, JAK3, KLRK1, LCK, LCN2, MMP7, MS4A1, MYB (includes EG:4602), PRF1, PRKCB, PTGDS, PTPN6, PTTG1, RAC2, SELL, STAT4, TLR7, TNFRSF1B, VAV1, WAS, ZAP70, ZC3H12A	80
Hematological Disease	hematological disorder	hematological disorder of mammalia	2,49E-09	C3, CASP1, CCL11, CD4, CD14, CD19, CD28, CD3E, CSF3R, CXCL9, DEF6, FCER1G, HCLS1, ICOS, IKZF1, IL1RN, IL2RB, IL2RG, IL7R, ITGB2, JAK3, LCN2, PRF1, PTTG1, RAC2, STAT4, TLR7, TNFRSF1B, VAV1, ZC3H12A	30
Hematological Disease	hematological disorder	hematological disorder of mice	7,26E-09	C3, CASP1, CCL11, CD4, CD14, CD19, CD28, CD3E, CSF3R, DEF6, FCER1G, HCLS1, IKZF1, IL1RN, IL2RB, IL2RG, IL7R, ITGB2, JAK3, LCN2, PRF1, PTTG1, RAC2, STAT4, TLR7, TNFRSF1B, VAV1, ZC3H12A	28
Hematological Disease	hematological cancer	hematological cancer	6,23E-13	ADA, ALOX5, CCL3, CCL4, CD2, CD14, CD19, CD22, CD27, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CSF3R, CXCL1, CXCL13, FGR, IKZF1, IL1B, IL2RB, IL2RG, IMPDH1, IRF4, ITGB2, JAK3, KLRK1, LCK, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, TLR7, ZAP70	37
Hematological Disease	lymphocytic leukemia	lymphocytic leukemia	3,53E-12	ADA, CCL3, CCL4, CD14, CD19, CD22, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCL13, IKZF1, IL1B, IL2RB, IL2RG, IRF4, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	25

Hematological Disease	leukemia	leukemia	1,16E-11	ADA, ALOX5, CCL3, CCL4, CD2, CD14, CD19, CD22, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CSF3R, CXCL13, FGR, IKZF1, IL1B, IL2RB, IL2RG, IMPDH1, IRF4, ITGB2, JAK3, LCK, MS4A1, PRKCB, PTPN6, TLR7, ZAP70	33
Hematological Disease	B-cell leukemia	B-cell leukemia	7,38E-10	ADA, CCL3, CCL4, CD19, CD22, CD52, CD86, CD3E, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	17
Hematological Disease	disease	disease of leukocytes	1,58E-09	BTK, CASP1, CCL3, CCL5, CCR2, CCR5, CD4, CD86, FPR1, ICOS, IRF1, LTF, RARRES3	13
Hematological Disease	disease	disease of mononuclear leukocytes	6,19E-08	BTK, CCL3, CCL5, CCR2, CCR5, CD4, CD86, FPR1, ICOS	9
Hematological Disease	chronic B-cell leukemia	chronic B-cell leukemia	8,59E-09	ADA, CCL3, CCL4, CD22, CD52, CD86, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	15
Hematological Disease	infection	infection of leukocytes	1,20E-08	CASP1, CCL3, CCL5, CCR2, CCR5, CD4, FPR1, IRF1, LTF, RARRES3	10
Hematological Disease	eosinophilia	eosinophilia	3,00E-08	ALOX5, CCL3, CCL11, CD4, CD86, CD247, CD3G, CPA3, CTSS, CXCL9, CYSLTR1, DEF6, IL2RG, ITK, LCK, PRF1	16
Neurological Disease	encephalitis	encephalitis	1,59E-17	ALOX5, BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, MS4A1, NCF1, SELL, STAT1, STAT4, TIMP1, TYROBP, UBASH3A, UNC93B1	30
Neurological Disease	encephalitis	encephalitis of mammalia	7,05E-15	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A, UNC93B1	26
Neurological Disease	encephalitis	encephalitis of rodents	3,31E-14	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	25
Neurological Disease	encephalitis	encephalitis of mice	6,15E-13	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	23
Neurological Disease	encephalomyelitis	encephalomyelitis	9,26E-16	BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TIMP1, TYROBP, UBASH3A	27
Neurological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of organism	4,41E-15	BTLA, C3, C3AR1, CASP1, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	26
Neurological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,54E-13	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL27RA, IRF4, ITGAL, LTB, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	24
Neurological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of mice	2,82E-12	BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TYROBP, UBASH3A	22
Neurological Disease	encephalopathy	encephalopathy of mice	1,69E-12	ALOX5, BTLA, C3, C3AR1, CASP1, CCR2, CD28, CD86, CD1D, CXCL10, CYBB, GABBR1, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL27RA, IRF4, ITGAL, NCF1, SELL, STAT1, STAT4, TAC1, TYROBP, UBASH3A	26
Neurological Disease	encephalopathy	encephalopathy	1,19E-08	ALOX5, BTLA, C3, C3AR1, CASP1, CCL2, CCL3, CCR2, CD28, CD86, CD1D, CXCL10, CYBB, GABBR1, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1RN, IL27RA, IRF4, ITGAL, LTB, MS4A1, NCF1, SELL, STAT1, STAT4, TAC1, TIMP1, TYROBP, UBASH3A, UNC93B1	34
Neurological Disease	neurology	neurological	5,78E-11	ADA, ALOX5, BTLA, C3, C1QA, C3AR1, CASP1, CCL3, CCL21, CCR2, CD28,	40

al Disease	cal disorder	disorder of rodents		CD86, CD1D, CTSS, CXCL1, CXCL2, CXCL10, CYBB, GABBR1, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IGHG1, IL1B, IL1RN, IL27RA, IRF4, ITGAL, LTB, NCF1, PTGDS, SELL, ST8SIA4, STAT1, STAT4, TAC1, TNFRSF1B, TYROBP, UBASH3A	
Neurologic al Disease	neurological disorder	neurological disorder of mice	1,23E-10	ADA, ALOX5, BTLA, C3, C1QA, C3AR1, CASP1, CCL3, CCL21, CCR2, CD28, CD86, CD1D, CTSS, CXCL1, CXCL2, CXCL10, CYBB, GABBR1, HLA-DQA1, HLA-DQB1, ICOS, IDO1, IL1B, IL1RN, IL27RA, IRF4, ITGAL, NCF1, PTGDS, SELL, ST8SIA4, STAT1, STAT4, TAC1, TNFRSF1B, TYROBP, UBASH3A	38
Neurologic al Disease	neurological disorder	neurological disorder of mammalia	9,52E-10	ADA, ALOX5, BTLA, C3, C1QA, C3AR1, CASP1, CCL2, CCL3, CCL21, CCR2, CD14, CD28, CD86, CD1D, CTSS, CXCL1, CXCL2, CXCL10, CYBB, GABBR1, HLA-DQA1, HLA-DQB1, HLA-DRB1, ICOS, IDO1, IGHG1, IL10RA, IL1B, IL1RN, IL27RA, IL2RB, IRF4, ITGAL, LTB, NCF1, PTGDS, SELL, ST8SIA4, STAT1, STAT4, TAC1, TNFRSF1B, TYROBP, UBASH3A, UCP2, UNC93B1	47
Hypersensitivity Response	cell movement	cell movement of eosinophils	3,31E-17	C3, CCL2, CCL3, CCL5, CCL11, CCL21, CD2, CD48, CXCL9, CXCL10, CXCR3, FPR1, ICAM2, IL1B, IL27RA, IL2RB, ITGAL, ITGB2, ITK, PLA2G7, RUNX3, WAS	22
Hypersensitivity Response	migration	migration of eosinophils	2,90E-14	C3, CCL4, CCL5, CCL11, CXCL2, CXCL9, CXCL10, CXCL11, ICAM2, IL16, IL1B, ITGAL, ITGB2, LTF	14
Hypersensitivity Response	activation	activation of mast cells	4,94E-11	C3, CCL3, CCL5, CCR2, CD48, CD300A, FCER1G, FYB, IL27RA, LCP2, TAC1, TLR7, TLR8 (includes EG:51311)	13
Hypersensitivity Response	homing	homing of eosinophils	2,60E-09	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1, WAS	10
Hypersensitivity Response	infiltration	infiltration by eosinophils	6,64E-09	CCL3, CCL5, CCL11, CCL21, CD2, CD48, IL27RA, IL2RB, ITK, PLA2G7, RUNX3	11
Hypersensitivity Response	chemotaxis	chemotaxis of eosinophils	3,45E-08	C3, CCL2, CCL3, CCL5, CCL11, CXCL9, CXCL10, CXCR3, FPR1	9
Hypersensitivity Response	degranulation	degranulation of mast cells	8,80E-08	BTK, C3, C3AR1, CD300A, FCER1G, HCK, ITK, LAX1, LCP2, RAC2, VAV1	11
Genetic Disorder	leprosy	leprosy	2,94E-16	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, CD28, CD79A, CXCR3, FCER1G, IGHM, IGK@, IGL@, IL12RB1, IL2RB, IL2RG, LY86, SLAMF1, SLPI, TNFRSF17	21
Genetic Disorder	lepomatous leprosy	lepomatous leprosy	1,05E-13	CCL3, CCL4, CCRL2, CD4, CD14, CD19, CD22, FCER1G, IGHM, IGK@, IGL@, IL2RB, IL2RG, LY86, TNFRSF17	15
Genetic Disorder	colitis	colitis	2,94E-12	ALOX5, CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CXCL10, EMR1, IGHM, IL1B, IL1RN, MMP7, MS4A1, NCF1, RUNX3, S100A8, STAT4, WAS	21
Genetic Disorder	psoriatic arthritis	psoriatic arthritis	7,74E-12	CD27, CXCL9, IGHD, IGHG1, IGHM, IGKC, ITGAL, MAP4K1, MS4A1, NOD2, PRKCB, PTPN6, RUNX3, S100A8, SAA1, TNFRSF1B	16
Genetic Disorder	severe combined immunodeficiency	severe combined immunodeficiency	3,08E-09	ADA, BTK, CD247, CD3D, IL2RG, IL7R, JAK3, PTPRC	8
Cancer	tumorigenesis	tumorigenesis	6,88E-15	ADA, ADAM8, ADAMDEC1, AIM2, ALOX5, APOC1, ASCL2, BIRC3, BTK, C3, C15ORF48, C17ORF81, CARD16, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD19, CD22, CD27, CD28, CD48, CD52, CD69, CD86, CD163, CD247, CD1D, CD3D, CD3E, CD3G, CD8A, CLEC10A, CP, CSF1R, CSF2RB, CSF3R, CST7, CTSS, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DARC, DGKA, ERAP2, FGR, FPR1, GABBR1, GBP2, GPR65, GPR183, GRN, GZMA, GZMB, GZMK, HCLS1, HLA-DOA, HMHA1, ICAM2, ICOS, IDO1, IFITM1, IGHG1, IGHM, IGJ, IGKC, IGL@, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGB2, ITK, IVD, JAK3, KIAA1199, KLRK1, LCK, LCN2, LIMD2, LOC96610, LPAR5, LRG1, LSP1, LTB, LTF, LYZ, MAP4K1, MIR155HG, MMP7, MS4A1, MYB (includes EG:4602), NLRP7, NNMT, PHLDA2, PRF1, PRKCB, PSMB9, PTGDS, PTPN6, PTPRC, PTTG1, PYHIN1 (includes EG:149628), RASSF5, RGS1, RTN1, RUNX3, S100A8, SAA1, SECTM1, SELL, SERPINA3, SLC2A3, SLPI, STAT1, TARP, TCIRG1, TCL1A, TDO2, TIMP1, TLR7, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, UCP2, VAV1, WARS, WFDC2, XAF1, XIIST, ZAP70	154

Cancer	cancer	cancer	3,87E-14	ADA, ADAM8, ADAMDEC1, AIM2, ALOX5, APOC1, ASCL2, BIRC3, C3, C15ORF48, C17ORF81, CARD16, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD14, CD19, CD22, CD27, CD28, CD48, CD52, CD69, CD86, CD163, CD247, CD3D, CD3E, CD3G, CD8A, CLEC10A, CP, CSF1R, CSF2RB, CSF3R, CST7, CTSS, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DGKA, ERAP2, FGR, GABBR1, GBP2, GPR65, GPR183, GRN, GZMA, GZMB, GZMK, HCLS1, HLA-DOA, HMHA1, ICOS, IDO1, IFITM1, IGHM, IGJ, IGKC, IGL@, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGB2, ITK, IVD, JAK3, KIAA1199, KLRK1, LCK, LCN2, LIMD2, LOC96610, LPAR5, LRG1, LSP1, LTB, LTF, LYZ, MAP4K1, MIR155HG, MMP7, MS4A1, MYB (includes EG:4602), NLRP7, NNMT, PHLDA2, PRF1, PRKCB, PSMB9, PTGDS, PTPN6, PTPRC, PTTG1, PYHIN1 (includes EG:149628), RASSF5, RGS1, RTN1, RUNX3, S100A8, SAA1, SECTM1, SELL, SERPINA3, SLC2A3, SLPI, STAT1, TARP, TCL1A, TDO2, TIMP1, TLR7, TNFRSF1B, TRAT1, TYROBP, WARS, WFDC2, XAF1, XIST, ZAP70	143
Cancer	neoplasia	neoplasia	4,90E-14	ADA, ADAM8, ADAMDEC1, AIM2, ALOX5, APOC1, ASCL2, BIRC3, C3, C15ORF48, C17ORF81, CARD16, CASP1, CCL2, CCL3, CCL4, CCL5, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD14, CD19, CD22, CD27, CD28, CD48, CD52, CD69, CD86, CD163, CD247, CD3D, CD3E, CD3G, CD8A, CLEC10A, CP, CSF1R, CSF2RB, CSF3R, CST7, CTSS, CXCL1, CXCL2, CXCL9, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), CYTIP, DGKA, ERAP2, FGR, GABBR1, GBP2, GPR65, GPR183, GRN, GZMA, GZMB, GZMK, HCLS1, HLA-DOA, HMHA1, ICOS, IDO1, IFITM1, IGHM, IGJ, IGKC, IGL@, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IL7R, IMPDH1, IRF1, IRF4, ISG20, ITGB2, ITK, IVD, JAK3, KIAA1199, KLRK1, LCK, LCN2, LIMD2, LOC96610, LPAR5, LRG1, LSP1, LTB, LTF, LYZ, MAP4K1, MIR155HG, MMP7, MS4A1, MYB (includes EG:4602), NLRP7, NNMT, PHLDA2, PRF1, PRKCB, PSMB9, PTGDS, PTPN6, PTPRC, PTTG1, PYHIN1 (includes EG:149628), RASSF5, RGS1, RTN1, RUNX3, S100A8, SAA1, SECTM1, SELL, SERPINA3, SLC2A3, SLPI, STAT1, TARP, TCL1A, TDO2, TIMP1, TLR7, TNFRSF1B, TRAT1, TYROBP, UCP2, WARS, WFDC2, XAF1, XIST, ZAP70	144
Cancer	hematologic cancer	hematologic cancer	6,23E-13	ADA, ALOX5, CCL3, CCL4, CD2, CD14, CD19, CD22, CD27, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CSF3R, CXCL1, CXCL13, FGR, IKZF1, IL1B, IL2RB, IL2RG, IMPDH1, IRF4, ITGB2, JAK3, KLRK1, LCK, MS4A1, MYB (includes EG:4602), PRKCB, PTPN6, TLR7, ZAP70	37
Cancer	lymphocytic leukemia	lymphocytic leukemia	3,53E-12	ADA, CCL3, CCL4, CD14, CD19, CD22, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF2RB, CXCL13, IKZF1, IL1B, IL2RB, IL2RG, IRF4, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	25
Cancer	leukemia	leukemia	1,16E-11	ADA, ALOX5, CCL3, CCL4, CD2, CD14, CD19, CD22, CD52, CD86, CD247, CD3D, CD3E, CD3G, CSF1R, CSF2RB, CSF3R, CXCL13, FGR, IKZF1, IL1B, IL2RB, IL2RG, IMPDH1, IRF4, ITGB2, JAK3, LCK, MS4A1, PRKCB, PTPN6, TLR7, ZAP70	33
Cancer	melanoma	melanoma	2,55E-10	CASP1, CCL3, CCL4, CCL19, CCR7, CD2, CD163, CD3D, CD8A, CSF1R, CSF2RB, CXCL1, CXCL10, CXCL13, GBP2, GZMB, GZMK, IL1B, IL1RN, IL2RB, IL2RG, IRF1, LCK, MS4A1, TARP, TRAT1, ZAP70	27
Cancer	B-cell leukemia	B-cell leukemia	7,38E-10	ADA, CCL3, CCL4, CD19, CD22, CD52, CD86, CD3E, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	17
Cancer	malignant tumor	malignant tumor	8,52E-09	ADA, AIM2, C3, CARD16, CASP1, CCL2, CCL3, CCL4, CCL11, CCL19, CCR2, CCR5, CCR7, CD2, CD14, CD19, CD22, CD48, CD52, CD163, CD3D, CD8A, CLEC10A, CP, CSF1R, CSF2RB, CSF3R, CST7, CTSS, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, GABBR1, GBP2, GPR65, GZMB, GZMK, ICOS, IDO1, IFITM1, IKZF1, IL1B, IL1RN, IL2RB, IL2RG, IRF1, LCK, LCN2, LIMD2, LPAR5, LTB, LTF, LYZ, MAP4K1, MIR155HG, MMP7, MS4A1, NLRP7, NNMT, PRF1, PRKCB, PTGDS, PTPRC, PTTG1, PYHIN1 (includes EG:149628), RASSF5, RUNX3, S100A8, SAA1, SLPI, STAT1, TARP, TCL1A, TDO2, TIMP1, TLR7, TNFRSF1B, TRAT1, TYROBP, WFDC2, ZAP70	83
Cancer	chronic B-cell leukemia	chronic B-cell leukemia	8,59E-09	ADA, CCL3, CCL4, CD22, CD52, CD86, IL1B, IL2RB, IL2RG, ITGB2, LCK, MS4A1, PRKCB, TLR7, ZAP70	15
Cancer	tumor	tumor	2,07E-08	ADA, AIM2, C3, CARD16, CASP1, CCL2, CCL3, CCL4, CCL11, CCL19, CCL21, CCR2, CCR5, CCR7, CD2, CD4, CD14, CD19, CD22, CD28, CD48, CD52, CD86, CD163, CD3D, CD8A, CLEC10A, CP, CSF1R, CSF2RB, CSF3R, CST7, CTSS, CXCL1, CXCL9, CXCL10, CXCL13, CXCR3, CXCR6 (includes EG:10663), DARC, GABBR1, GBP2, GPR65, GZMB, GZMK, ICAM2, ICOS, IDO1, IFITM1, IGHG1, IKZF1, IL1B, IL1RN, IL27RA, IL2RB, IL2RG, IRF1, LCK, LCN2, LIMD2, LPAR5,	100

				LSP1, LTB, LTF, LYZ, MAP4K1, MIR155HG, MMP7, MS4A1, NLRP7, NNMT, PHLDA2, PRF1, PRKCB, PSMB9, PTGDS, PTPN6, PTPRC, PTTG1, PYHIN1 (includes EG:149628), RASSF5, RUNX3, S100A8, SAA1, SELL, SLPI, STAT1, TARP, TCL1A, TDO2, TIMP1, TLR7, TNFRSF1B, TNFSF13B, TRAT1, TYROBP, VAV1, WFDC2, XAF1, ZAP70	
Cell Morphology	polarization	polarization of blood cells	7,89E-15	CCL5, CCL19, CCL21, CD28, CXCL9, CXCL10, ICOS, IL12RB1, IL1B, IL1RN, IRF4, ITGB2, LCK, LSP1, RASSF5, SLAMF1, STAT4, VAV1, WAS	19
Cell Morphology	polarization	polarization of cells	2,44E-13	CCL2, CCL5, CCL19, CCL21, CCR5, CD28, CXCL9, CXCL10, ICOS, IL12RB1, IL1B, IL1RN, IRF4, ITGB2, LCK, LSP1, RASSF5, SLAMF1, STAT4, VAV1, WAS	21
Cell Morphology	polarization	polarization of eukaryotic cells	8,34E-13	CCL5, CCL19, CCL21, CCR5, CD28, CXCL9, CXCL10, ICOS, IL12RB1, IL1B, IL1RN, IRF4, ITGB2, LCK, LSP1, RASSF5, SLAMF1, STAT4, VAV1, WAS	20
Cell Morphology	polarization	polarization of leukocytes	9,47E-13	CCL5, CCL19, CCL21, CD28, ICOS, IL12RB1, IL1B, IL1RN, IRF4, ITGB2, LCK, LSP1, RASSF5, SLAMF1, STAT4, VAV1, WAS	17
Cell Morphology	polarization	polarization of lymphocytes	3,76E-11	CCL19, CCL21, CD28, ICOS, IL12RB1, IL1B, IRF4, ITGB2, LCK, RASSF5, SLAMF1, STAT4, VAV1, WAS	14
Cell Morphology	polarization	polarization of T lymphocytes	1,08E-08	CCL19, CD28, ICOS, IL12RB1, IL1B, IRF4, LCK, RASSF5, SLAMF1, STAT4, VAV1	11
Cell Morphology	shape change	shape change of leukocytes	3,95E-14	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, HCK, ICOS, ITGAL, ITGB2, SELL, WAS	17
Cell Morphology	shape change	shape change of blood cells	8,84E-14	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, SELL, WAS	18
Cell Morphology	shape change	shape change of granulocytes	1,09E-10	CCL2, CCL3, CCL5, CCL11, CCR2, CORO1A, FGR, HCK, ITGB2, SELL	10
Cell Morphology	shape change	shape change of normal cells	1,16E-07	CCL2, CCL3, CCL5, CCL11, CCR2, CD19, CD247, CD3E, CORO1A, DOCK2, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, SELL, SERPINA3, WAS	19
Cell Morphology	cell spreading	cell spreading of blood cells	6,64E-09	CD19, CD247, CD3E, CORO1A, FGR, GZMB, HCK, ICOS, ITGAL, ITGB2, WAS	11
Cell Morphology	cell spreading	cell spreading of leukocytes	1,58E-08	CD19, CD247, CD3E, CORO1A, FGR, HCK, ICOS, ITGAL, ITGB2, WAS	10
Cellular Compromise	respiratory burst	respiratory burst	1,81E-14	C3, CCL2, CCL11, CD14, CXCL1, CYBB, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, LTF, NCF1, PTPRC, TYROBP	18
Cellular Compromise	respiratory burst	respiratory burst of cells	5,61E-13	C3, CCL2, CCL11, CD14, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	15
Cellular Compromise	respiratory burst	respiratory burst of myeloid cells	3,65E-12	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	13
Cellular Compromise	respiratory burst	respiratory burst of leukocytes	3,91E-12	C3, CCL2, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, PTPRC, TYROBP	14
Cellular Compromise	respiratory burst	respiratory burst of granulocytes	5,23E-11	C3, CCL11, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	12
Cellular Compromise	respiratory burst	respiratory burst of neutrophils	2,62E-10	C3, CXCL1, FCER1G, FGR, FPR1, HCK, IGHA1, ITGAL, ITGAX, ITGB2, TYROBP	11
Cellular Compromise	degranulation	degranulation of	9,77E-11	BTK, C3, C3AR1, CCL3, CCL4, CD300A, FCER1G, FCGR3B, FPR1, HCK, ITGB2, ITK, KLRK1, LAX1, LCP2, RAC2, SLA, TAC1, VAV1	19

se		eukaryotic cells				
Cellular Compromise	degranulation	degranulation of mast cells	8,80E-08	BTK, C3, C3AR1, CD300A, FCER1G, HCK, ITK, LAX1, LCP2, RAC2, VAV1		11
Cellular Compromise	depletion	depletion of mononuclear leukocytes	6,71E-09	ADA, CCR2, CD4, CD27, EOMES, IL2RB, MS4A1, SELL, TNFRSF1B, TNFSF13B		10
Cellular Compromise	depletion	depletion of cells	1,71E-08	ADA, CCR2, CD4, CD27, DENND2D, EOMES, IL2RB, MS4A1, SELL, TNFRSF1B, TNFSF13B		11
Cellular Compromise	depletion	depletion of lymphocytes	8,16E-08	ADA, CD4, CD27, EOMES, IL2RB, MS4A1, SELL, TNFRSF1B, TNFSF13B		9
Gastrointestinal Disease	colitis	colitis	2,94E-12	ALOX5, CASP1, CCR2, CCR5, CD86, CD247, CD3D, CD3E, CD3G, CXCL10, EMR1, IGHM, IL1B, IL1RN, MMP7, MS4A1, NCF1, RUNX3, S100A8, STAT4, WAS		21
Gastrointestinal Disease	damage	damage of liver	7,85E-08	C3, CASP1, CXCL1, CXCL10, FGR, HCK, IL1RN, IL27RA, ITGAL, ITGB2, NCF1, PRF1, STAT1, STAT4, TNFRSF1B		15
Infection Mechanism	infection	infection by Hepatitis C virus	3,58E-12	CCL2, CCL3, CCL4, CCL5, CCL20, CXCL9, CXCL10, CXCL11, IMPDH1		9
Infection Mechanism	infection	infection by Reoviridae	1,11E-09	CCL2, CCL4, CCL5, CTSS, CXCL1, CXCL10		6
Infection Mechanism	infection	infection by measles virus	6,99E-09	CCL2, CCL3, CCL4, CCL5, CXCL10		5
Infection Mechanism	infection	infection by Human cytomegalovirus	1,28E-08	CCL2, CCL3, CCL4, CCL5, CXCL9, CXCL10		6
Infection Mechanism	infection	infection by rotavirus	4,11E-08	CCL2, CCL4, CCL5, CXCL1, CXCL10		5
Infection Mechanism	infection	infection by lymphocytic choriomeningitis virus	5,94E-08	CCL2, CCL3, CCL4, CCL5, CXCL10, ITGB2, XCL1		7
Infection Mechanism	replication	replication of HIV	1,62E-10	APOBEC3G, CCL3, CCL4, CCL5, CCR5, CD4, CD28, CIITA, HCK, IGKC, IL16, IL1B, LCK, PTPRC, S100A8, TAC1		16
Infection Mechanism	replication	replication of HIV-1	1,29E-09	APOBEC3G, CCL3, CCL4, CCL5, CCR5, CD4, CD28, CIITA, HCK, IGKC, IL1B, LCK, PTPRC, S100A8		14
Infection Mechanism	replication	replication of virus	1,70E-08	APBB1IP, APOBEC3G, CCL2, CCL3, CCL4, CCL5, CCR5, CD4, CD28, CD48, CIITA, CTSW, CXCL10, CXCR6 (includes EG:10663), FERMT3, HCK, IFITM1, IGKC, IL16, IL10RA, IL12RB1, IL1B, ISG20, LCK, MAN2B1, PIK3R5, PTPRC, RARRES3, S100A8, SELPLG, SLPI, STAT1, STAT4, TAC1		34
Infection Mechanism	infectivity	infectivity of virus	5,16E-09	APOBEC3G, APOC1, CCL2, CCL3, CCL4, CCL5, CCR5, CD4, CLEC10A, HCK, RARRES3		11
Infection Mechanism	infectivity	infectivity of HIV-1	3,11E-08	APOBEC3G, CCL2, CCL3, CCL4, CCL5, CCR5, CD4, HCK		8
Organismal Survival	survival	survival of organism	1,16E-11	BCL2A1, C3, CCL2, CCL21, CCR2, CCR5, CD2, CD4, CD6, CD14, CD48, CNPY3, CXCL9, CXCL10, CXCL11, CXCR3, CYBB, IDO1, IGHM, IGK@, IKZF1, IL1B, IL1RN, IL7R, ITGAL, ITK, LY96, LYZ, MYB (includes EG:4602), NCF1, PRF1, PRKCB, PTPRC, STAT1, STAT4, TAP1, TNFRSF1B, UNC93B1, ZC3H12A		39
Organismal Survival	survival	survival of rodents	3,62E-10	BCL2A1, C3, CCL2, CCL21, CCR2, CCR5, CD2, CD4, CD6, CD14, CNPY3, CXCL9, CXCL10, CXCR3, CYBB, IDO1, IGHM, IGK@, IKZF1, IL1B, IL1RN, IL7R, ITGAL, ITK, LY96, NCF1, PRF1, PRKCB, PTPRC, STAT1, STAT4, TAP1, TNFRSF1B, UNC93B1, ZC3H12A		35
Organismal Survival	survival	survival of	3,70E-10	BCL2A1, C3, CCL2, CCL21, CCR2, CCR5, CD2, CD4, CD6, CD14, CNPY3, CXCL9,		36

I Survival		mammalia		CXCL10, CXCR3, CYBB, IDO1, IGHM, IGK@, IKZF1, IL1B, IL1RN, IL7R, ITGAL, ITK, LY96, MYB (includes EG:4602), NCF1, PRF1, PRKCB, PTPRC, STAT1, STAT4, TAP1, TNFRSF1B, UNC93B1, ZC3H12A	
Organisma I Survival	survival	survival of mice	8,21E-10	BCL2A1, C3, CCL2, CCL21, CCR2, CCR5, CD2, CD4, CD6, CD14, CNPY3, CXCL9, CXCL10, CXCR3, CYBB, IDO1, IGHM, IKZF1, IL1B, IL1RN, IL7R, ITGAL, ITK, LY96, NCF1, PRF1, PRKCB, PTPRC, STAT1, STAT4, TAP1, TNFRSF1B, UNC93B1, ZC3H12A	34
Antimicro bial Response	antiviral response	antiviral response	3,96E-11	APOBEC3G, CCL4, CCL5, CCL11, CCL19, CCR7, FGR, IRF1, IRF7, ISG20, LCN2, LILRB1, RARRES3, STAT1, TLR7, TLR8 (includes EG:51311), VAV1	17
Antimicro bial Response	antiviral response	antiviral response of organism	1,29E-09	CCL4, CCL5, CCL11, CCL19, FGR, IRF7, ISG20, LCN2, LILRB1, RARRES3, STAT1, TLR7, TLR8 (includes EG:51311), VAV1	14
Organisma I Injury and Abnormali ties	damage	damage of organ	6,59E-11	ALOX5, C2, C3, C1QA, CASP1, CCL2, CCR2, CCR5, CD4, CXCL1, CXCL10, CYBB, FGR, HCK, IL1B, IL1RN, IL27RA, ITGAL, ITGB2, NCF1, PRF1, SLPI, STAT1, STAT4, TAC1, TNFRSF1B	26
Organisma I Injury and Abnormali ties	damage	damage of liver	7,85E-08	C3, CASP1, CXCL1, CXCL10, FGR, HCK, IL1RN, IL27RA, ITGAL, ITGB2, NCF1, PRF1, STAT1, STAT4, TNFRSF1B	15
Organisma I Injury and Abnormali ties	fibrosis	fibrosis	3,39E-09	ADA, ALOX5, C3, CCL2, CCR2, CCR5, CD4, CD19, CXCL6, CXCL9, CXCL10, CXCL11, CXCR3, HCK, IFITM1, IGHG1, IL1B, IL1RN, IMPDH1, IRF7, LCK, MMP7, NCF1, OAS2, PRKCB, PSMB9, STAT1, TIMP1, TNFRSF1B	29
Organisma I Injury and Abnormali ties	injury	injury of organ	4,79E-08	ALOX5, C2, CASP1, CCL2, CXCL1, CXCL10, CYBB, IL1RN, IL27RA, ITGAL, ITGB2, NCF1, SLPI, STAT1, STAT4, TAC1, TNFRSF1B	17
Reproduct ive System Disease	endometr iosis	endometri osis	8,49E-11	CASP1, CCL2, CCL4, CCL18, CCL19, CCL21, CD163, CSF1R, CXCL9, CXCL10, CXCL13, CXCR6 (includes EG:10663), DARC, GZMA, HLA-DOB, IGL@, IL2RB, IL2RG, ISG20, ITGAL, KIAA1199, LTF, MMP7, PRKCB, PTPN22, PTTG1, S100A8, SLC2A3, SLPI, TNFRSF17, TNFRSF1B, TNFSF13B, WFDC2, XCL1, XCL2	35
Renal and Urological Disease	nephritis	nephritis	9,91E-10	C1QA, CCL4, CCL5, CD2, CD19, CD28, CD1D, CD8A, HLA-DQB1, ICOS, IL16, IL1RN, IL27RA, ITGAL, MS4A1, PTPRC, SH2D2A, TNFSF13B	18
Renal and Urological Disease	glomerulo nephritis	glomerulon ephritis	8,69E-09	C1QA, CCL4, CCL5, CD2, CD19, CD28, CD1D, ICOS, IL16, IL1RN, IL27RA, ITGAL, MS4A1, PTPRC, SH2D2A, TNFSF13B	16
Renal and Urological Disease	glomerulo nephritis	glomerulon ephritis of organism	4,93E-08	C1QA, CD2, CD28, CD1D, ICOS, IL16, IL1RN, IL27RA, ITGAL, PTPRC, SH2D2A	11
Free Radical Scavengin g	productio n	production of reactive oxygen species	1,30E-08	ALOX5, CCL5, CCL11, CD14, CD28, CD52, CYBB, GZMA, GZMB, GZMK, IL1B, LCP2, NCF1, NCF1C, PRF1, PRKCB, RAC2, SELPLG, UCP2, ZAP70	20
Free Radical Scavengin g	productio n	production of superoxide	2,93E-08	ALOX5, CXCL9, CYBB, FGR, FPR1, HCK, IL1B, ITGAX, ITGB2, LTF, NCF1, NCF1C, PRKCB, RAC2	14
Cardiovasc ular System Developm ent and Function	adhesion	adhesion of endothelial cells	4,78E-08	AMICA1, C1QA, CCL2, CCL3, CCL4, CCL5, ICAM2, IL1B, ITGAL, ITGAX, ITGB2, SELL, SELPLG	13
Hepatic System Disease	damage	damage of liver	7,85E-08	C3, CASP1, CXCL1, CXCL10, FGR, HCK, IL1RN, IL27RA, ITGAL, ITGB2, NCF1, PRF1, STAT1, STAT4, TNFRSF1B	15
Organ Developm ent	developm ent	developmen t of lymph	9,31E-08	CCL19, CCL21, CCR7, CXCL13, IKZF1, IL7R, JAK3, LTB	8

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SUPPLEMENTAL TABLE 4

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92 probeset list enrichment analysis (biological functions)

Category	Function	Function Annotation	p-value	Molecules	# Molecules
Cellular Function and Maintenance	homeostasis	homeostasis of leukocytes	2,03E-08	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RASSF5, SIVA1, SST, TYROBP	13
Cellular Function and Maintenance	homeostasis	homeostasis of plasmacytoid dendritic cells	3,09E-03	TYROBP	1
Cellular Function and Maintenance	homeostasis	homeostasis of naive T lymphocytes	6,17E-03	CCL19	1
Cellular Function and Maintenance	development	T cell development	1,29E-07	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RASSF5, SIVA1, SST	12
Cellular Function and Maintenance	cell death	cell death of T lymphocytes	1,21E-05	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, SIVA1	7
Cellular Function and Maintenance	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Cellular Function and Maintenance	cell death	cell death of naive T lymphocytes	4,24E-02	CCL19	1
Cellular Function and Maintenance	differentiation	differentiation of T lymphocytes	2,57E-04	CCL19, CD86, CD3E, DEF6, NCAPH2, RASSF5	6
Cellular Function and Maintenance	differentiation	differentiation of naive T lymphocytes	5,51E-03	CD86, DEF6	2
Cellular Function and Maintenance	differentiation	differentiation of thymocytes	8,50E-03	CD86, CD3E	2
Cellular Function and Maintenance	differentiation	differentiation of effector T lymphocytes	3,35E-02	DEF6	1
Cellular Function and Maintenance	generation	generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Cellular Function and Maintenance	polymerization	polymerization of actin cytoskeleton	3,09E-03	CD3E	1
Cellular Function and Maintenance	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Cellular Function and Maintenance	apoptosis	apoptosis of cytotoxic T cells	3,05E-02	GZMB	1
Cellular Function and Maintenance	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2
Cellular Function and Maintenance	respiratory burst	respiratory burst of neutrophils	5,21E-03	IGHA1, TYROBP	2
Cellular Function and Maintenance	co-localization	co-localization of T lymphocytes	6,17E-03	CCL19	1
Cellular Function and Maintenance	co-localization	co-localization of antigen presenting cells	6,17E-03	CCL19	1
Cellular Function and Maintenance	turnover	turnover of epithelial cells	9,24E-03	IGHM	1
Cellular Function and Maintenance	polarization	polarization of T lymphocytes	9,63E-03	CCL19, RASSF5	2
Cellular Function and Maintenance	polarization	polarization of naive T lymphocytes	3,05E-02	CCL19	1
Cellular Function and Maintenance	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Cellular Function and Maintenance	function	function of natural killer cells	3,05E-02	CD86	1
Cellular Function and Maintenance	organization	organization of actin stress fibers	3,95E-02	ARHGAP4	1
Cellular Function and Maintenance	phagocytosis	phagocytosis of leukemia cell lines	4,54E-02	DEF6	1
Cell-mediated Immune Response	development	T cell development	1,29E-07	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RASSF5, SIVA1, SST	12
Cell-mediated Immune Response	cell death	cell death of T lymphocytes	1,21E-05	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, SIVA1	7

Cell-mediated					
Immune Response	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Cell-mediated		cell death of naive T			
Immune Response	cell death	lymphocytes	4,24E-02	CCL19	1
Cell-mediated		differentiation of T		CCL19, CD86, CD3E, DEF6, NCAPH2,	
Immune Response	differentiation	lymphocytes	2,57E-04	RASSF5	6
Cell-mediated		differentiation of naive T			
Immune Response	differentiation	lymphocytes	5,51E-03	CD86, DEF6	2
Cell-mediated		differentiation of			
Immune Response	differentiation	thymocytes	8,50E-03	CD86, CD3E	2
Cell-mediated		differentiation of effector T			
Immune Response	differentiation	lymphocytes	3,35E-02	DEF6	1
Cell-mediated		generation of cytotoxic T			
Immune Response	generation	cells	3,32E-04	CD86, PSMB9	2
Cell-mediated					
Immune Response	adhesion	adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Cell-mediated					
Immune Response	migration	T cell migration	2,98E-03	CCL19, CD86, SST, TNFRSF14	4
Cell-mediated					
Immune Response	migration	migration of thymocytes	4,54E-02	SST	1
Cell-mediated					
Immune Response	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Cell-mediated		apoptosis of cytotoxic T			
Immune Response	apoptosis	cells	3,05E-02	GZMB	1
Cell-mediated					
Immune Response	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2
Cell-mediated		Th2 immune response of			
Immune Response	Th2 immune response	natural killer T lymphocytes	6,17E-03	CD86	1
Cell-mediated		homeostasis of naive T			
Immune Response	homeostasis	lymphocytes	6,17E-03	CCL19	1
Cell-mediated		polarization of T			
Immune Response	polarization	lymphocytes	9,63E-03	CCL19, RASSF5	2
Cell-mediated		polarization of naive T			
Immune Response	polarization	lymphocytes	3,05E-02	CCL19	1
Cell-mediated		cell movement of T			
Immune Response	cell movement	lymphocytes	1,13E-02	CCL19, CD86, TNFRSF14	3
Cell-mediated		infiltration by T			
Immune Response	infiltration	lymphocytes	1,38E-02	CCL19, CD86	2
Cell-mediated		chemotaxis of naive T			
Immune Response	chemotaxis	lymphocytes	1,54E-02	CCL19	1
Cell-mediated		chemotaxis of T			
Immune Response	chemotaxis	lymphocytes	2,42E-02	CCL19, TNFRSF14	2
Cell-mediated					
Immune Response	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1
Cell-mediated		chemotaxis of memory T			
Immune Response	chemotaxis	lymphocytes	3,95E-02	CCL19	1
Cell-mediated					
Immune Response	invasion	invasion of T lymphocytes	1,54E-02	SERP1	1
Cell-mediated		cell spreading of T			
Immune Response	cell spreading	lymphocytes	1,84E-02	CD3E	1
Cell-mediated					
Immune Response	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Cell-mediated					
Immune Response	frequency	frequency of T lymphocytes	2,45E-02	CCL19	1
Cell-mediated		formation of			
Immune Response	formation	immunological synapses	3,95E-02	DEF6	1
Cell-mediated					
Immune Response	anergy	anergy of T lymphocytes	4,24E-02	CD86	1
Cellular				CCL19, CD86, CD3E, DEF6, GZMB,	
Development	development	T cell development	1,29E-07	IGHM, LGALS2, NCAPH2, PSMB9,	12
Cellular				RASSF5, SIVA1, SST	
Development	development	development of cells	3,27E-04	CCL19, CD86, CD3E, DEF6, GZMB,	13
Cellular	development	arrest in development of	3,09E-03	IGHM, LGALS2, NCAPH2, PSMB9,	1
				RASSF5, SIVA1, SST, TYROBP	

Development		oligodendrocytes		CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RARRES3, RASSF5, SIVA1, SST, TYROBP	14
Cellular Development	developmental process	developmental process of leukocytes	1,66E-07		
Cellular Development	developmental process	developmental process of thymocytes	4,98E-03	CD86, CD3E, SST	3
Cellular Development	cell death	cell death of T lymphocytes	1,21E-05	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, SIVA1	7
Cellular Development	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Cellular Development	cell death	cell death of naive T lymphocytes	4,24E-02	CCL19	1
Cellular Development	maturation	maturation of leukocytes	2,38E-05	CCL19, CD86, IGHM, RARRES3, SST, TYROBP	6
Cellular Development	maturation	maturation of dendritic cells	2,77E-03	CCL19, RARRES3, TYROBP	3
Cellular Development	maturation	maturation of lymphocytes	3,52E-03	CD86, IGHM, SST	3
Cellular Development	maturation	maturation of pro-B lymphocytes	9,24E-03	IGHM	1
Cellular Development	maturation	maturation of osteoclasts	2,75E-02	TYROBP	1
Cellular Development	maturation	maturation of thymocytes	4,54E-02	SST	1
Cellular Development	differentiation	differentiation of lymphocytes	1,59E-04	CCL19, CD86, CD3E, DEF6, IGHM, NCAPH2, RASSF5	7
Cellular Development	differentiation	differentiation of T lymphocytes	2,57E-04	CCL19, CD86, CD3E, DEF6, NCAPH2, RASSF5	6
Cellular Development	differentiation	differentiation of thymoma cell lines	3,09E-03	CD3E	1
Cellular Development	differentiation	differentiation of cells	3,26E-03	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, NCAPH2, PTGDS, RARRES3, RASSF5, STRA13, TYROBP	12
Cellular Development	differentiation	differentiation of naive T lymphocytes	5,51E-03	CD86, DEF6	2
Cellular Development	differentiation	differentiation of thymocytes	8,50E-03	CD86, CD3E	2
Cellular Development	differentiation	differentiation of effector T lymphocytes	3,35E-02	DEF6	1
Cellular Development	generation	generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Cellular Development	expansion	expansion of T lymphocytes	2,95E-03	CD86, CD3E, IGHM	3
Cellular Development	expansion	expansion of splenocytes	1,23E-02	CD3E	1
Cellular Development	expansion	expansion of cytotoxic T cells	1,54E-02	IGHM	1
Cellular Development	growth	arrest in growth of B cell lymphoma cells	3,09E-03	IGHM	1
Cellular Development	growth	arrest in growth of lung cancer cell lines	2,45E-02	RASSF5	1
Cellular Development	growth	arrest in growth of carcinoma cell lines	3,35E-02	RASSF5	1
Cellular Development	growth	arrest in growth of tumor cell lines	3,48E-02	IGHM, RASSF5	2
Cellular Development	growth	arrest in growth of lymphoma cell lines	4,24E-02	IGHM	1
Cellular Development	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Cellular Development	apoptosis	apoptosis of cytotoxic T cells	3,05E-02	GZMB	1
Cellular Development	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2

Cellular Development	cell spreading	cell spreading of blood cells	8,87E-03	CD3E, GZMB	2
Cellular Development	cell spreading	cell spreading of T lymphocytes	1,84E-02	CD3E	1
Cellular Development	cell spreading	cell spreading of blood platelets	3,35E-02	GZMB	1
Cellular Development	regeneration	regeneration of myeloid cells	9,24E-03	TYROBP	1
Cellular Development	polarization	polarization of T lymphocytes	9,63E-03	CCL19, RASSF5	2
Cellular Development	polarization	polarization of naive T lymphocytes	3,05E-02	CCL19	1
Cellular Development	neurogenesis	neurogenesis of neuronal progenitor cells	1,23E-02	GZMB	1
Cellular Development	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Hematological System Development and Function	development	T cell development	1,29E-07	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RASSF5, SIVA1, SST	12
Hematological System Development and Function	hematological process	hematological process	4,02E-06	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9, RASSF5, SIVA1, SST, TAC1	13
Hematological System Development and Function	binding	binding of lymphocytes	6,51E-06	CCL19, CD86, CD3E, SST, TAC1	5
Hematological System Development and Function	binding	binding of T lymphocytes	1,06E-03	CD86, SST, TAC1	3
Hematological System Development and Function	binding	binding of lymphoblasts	9,24E-03	CD3E	1
Hematological System Development and Function	binding	binding of memory T lymphocytes	1,23E-02	CD86	1
Hematological System Development and Function	binding	binding of B lymphocytes	4,83E-02	CD86	1
Hematological System Development and Function	cell death	cell death of T lymphocytes	1,21E-05	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, SIVA1	7
Hematological System Development and Function	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Hematological System Development and Function	cell death	cell death of naive T lymphocytes	4,24E-02	CCL19	1
Hematological System Development and Function	proliferation	proliferation of leukocytes	1,81E-05	CD86, CD3E, DEF6, IGHM, IGKC, LST1, SST, TAC1, TNFRSF14, TYROBP	10
Hematological System Development and Function	proliferation	proliferation of lymphocytes	7,37E-05	CD86, CD3E, DEF6, IGHM, IGKC, LST1, SST, TAC1, TNFRSF14	9
Hematological System Development and Function	proliferation	proliferation of alpha-beta	1,09E-03	CD3E, TNFRSF14	2

System		T lymphocytes			
Development and Function					
Hematological System					
Development and Function	proliferation	proliferation of T lymphocytes	3,21E-03	CD86, CD3E, DEF6, IGHM, SST, TNFRSF14	6
Hematological System					
Development and Function	proliferation	proliferation of naive T lymphocytes	3,60E-03	CD3E, DEF6	2
Hematological System					
Development and Function	proliferation	proliferation of B lymphocytes	3,63E-03	CD86, CD3E, IGHM, IGKC	4
Hematological System					
Development and Function	proliferation	proliferation of long-term culture-initiating cells	6,17E-03	TAC1	1
Hematological System					
Development and Function	proliferation	proliferation of peripheral blood mononuclear leukocytes	6,17E-03	LST1	1
Hematological System					
Development and Function	proliferation	proliferation of colony-forming granulocyte-macrophages	1,23E-02	TAC1	1
Hematological System					
Development and Function	proliferation	proliferation of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Hematological System					
Development and Function	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Hematological System					
Development and Function	proliferation	proliferation of hematopoietic progenitor cells	2,30E-02	CD3E, TAC1	2
Hematological System					
Development and Function	proliferation	proliferation of lymphoblasts	2,75E-02	CD3E	1
Hematological System					
Development and Function	proliferation	proliferation of pro-B lymphocytes	4,24E-02	IGHM	1
Hematological System					
Development and Function	quantity	quantity of lymphocytes	3,17E-05	CCL19, CD86, CD3E, DEF6, IGHM, IGKC, SST, TYROBP	8
Hematological System					
Development and Function	quantity	quantity of blood cells	9,97E-05	CCL19, CD86, CD3E, DEF6, IGHM, IGKC, SST, STRA13, TYROBP	9
Hematological System					
Development and Function	quantity	quantity of T lymphocytes	1,71E-03	CCL19, CD86, CD3E, DEF6, SST	5
Hematological System					
Development and Function	quantity	quantity of thymocytes	3,73E-03	CD86, CD3E, SST	3
Hematological System					
Development and Function	quantity	quantity of pre-B lymphocytes	5,51E-03	IGHM, IGKC	2

Development and Function Hematological System					
Development and Function Hematological System	quantity	quantity of suppressor T lymphocytes	6,17E-03	CD86	1
Development and Function Hematological System	quantity	quantity of natural killer cells	7,44E-03	CD86, TYROBP	2
Development and Function Hematological System	quantity	quantity of pre-B1 lymphocytes	1,23E-02	IGHM	1
Development and Function Hematological System	quantity	quantity of dendritic cells	1,25E-02	CCL19, TYROBP	2
Development and Function Hematological System	quantity	quantity of pre-B2 lymphocytes	1,54E-02	IGHM	1
Development and Function Hematological System	quantity	quantity of myeloid dendritic cells	2,14E-02	CCL19	1
Development and Function Hematological System	quantity	quantity of pre-T lymphocytes	2,45E-02	CD3E	1
Development and Function Hematological System	quantity	quantity of plasmacytoid dendritic cells	3,35E-02	TYROBP	1
Development and Function Hematological System	quantity	quantity of mononuclear cells	3,65E-02	STRA13	1
Development and Function Hematological System	activation	activation of leukocytes	3,74E-05	CD86, CD3E, DEF6, GZMB, IGHM, PSMB9, SST, TAC1, TYROBP	9
Development and Function Hematological System	activation	activation of lymphocytes	1,31E-04	CD86, CD3E, DEF6, GZMB, IGHM, TAC1, TYROBP	7
Development and Function Hematological System	activation	activation of T lymphocytes	1,97E-04	CD86, CD3E, DEF6, GZMB, TAC1, TYROBP	6
Development and Function Hematological System	activation	activation of cytotoxic T cells	3,13E-04	CD86, GZMB, TAC1	3
Development and Function Hematological System	activation	activation of naive T lymphocytes	6,05E-04	CD86, DEF6	2
Development and Function Hematological System	activation	activation of antigen presenting cells	2,23E-03	CD86, IGHM, PSMB9, TAC1	4
Development and Function Hematological System	activation	activation of effector lymphocytes	2,45E-02	DEF6	1

Function					
Hematological System Development and Function	activation	activation of thymocytes	3,05E-02	CD3E	1
Hematological System Development and Function	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Hematological System Development and Function	activation	activation of natural killer cells	3,82E-02	TAC1, TYROBP	2
Hematological System Development and Function	differentiation	differentiation of lymphocytes	1,59E-04	CCL19, CD86, CD3E, DEF6, IGHM, NCAPH2, RASSF5	7
Hematological System Development and Function	differentiation	differentiation of T lymphocytes	2,57E-04	CCL19, CD86, CD3E, DEF6, NCAPH2, RASSF5	6
Hematological System Development and Function	differentiation	differentiation of naive T lymphocytes	5,51E-03	CD86, DEF6	2
Hematological System Development and Function	differentiation	differentiation of thymocytes	8,50E-03	CD86, CD3E	2
Hematological System Development and Function	differentiation	differentiation of effector T lymphocytes	3,35E-02	DEF6	1
Hematological System Development and Function	response	response of lymphocytes	2,33E-04	CCL19, CD86, CD3E, GZMB	4
Hematological System Development and Function	response	response of B lymphocytes	6,05E-04	CCL19, GZMB	2
Hematological System Development and Function	response	T cell response	2,29E-03	CCL19, CD86, CD3E	3
Hematological System Development and Function	response	response of peripheral blood leukocytes	9,24E-03	CCL19	1
Hematological System Development and Function	generation	generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Hematological System Development and Function	infiltration	infiltration by dendritic cells	4,14E-04	CCL19, CD86	2
Hematological System Development and Function	infiltration	infiltration by T lymphocytes	1,38E-02	CCL19, CD86	2
Hematological System Development and Function	extravasation	extravasation of plasma	7,13E-04	SST, TAC1	2

Hematological System Development and Function	cell movement	cell movement of dendritic cells	1,06E-03	CCL19, CD86, TAC1	3
Hematological System Development and Function	cell movement	cell movement of lymphocytes	5,05E-03	CCL19, CD86, TAC1, TNFRSF14	4
Hematological System Development and Function	cell movement	cell movement of T lymphocytes	1,13E-02	CCL19, CD86, TNFRSF14	3
Hematological System Development and Function	adhesion	adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Hematological System Development and Function	adhesion	adhesion of blood platelets	8,14E-03	GZMB, IGHM	2
Hematological System Development and Function	accumulation	accumulation of mononuclear leukocytes	1,99E-03	CD86, DEF6, PTGDS	3
Hematological System Development and Function	accumulation	accumulation of effector memory T lymphocytes	3,09E-03	DEF6	1
Hematological System Development and Function	accumulation	accumulation of T lymphocytes	1,21E-02	CD86, DEF6	2
Hematological System Development and Function	accumulation	accumulation of monocytes	2,75E-02	PTGDS	1
Hematological System Development and Function	expansion	expansion of T lymphocytes	2,95E-03	CD86, CD3E, IGHM	3
Hematological System Development and Function	expansion	expansion of cytotoxic T cells	1,54E-02	IGHM	1
Hematological System Development and Function	chemotaxis	chemotaxis of CD34+ cells	3,09E-03	CCL19	1
Hematological System Development and Function	chemotaxis	chemotaxis of lymphocytes	5,10E-03	CCL19, TAC1, TNFRSF14	3
Hematological System Development and Function	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Hematological System Development and Function	chemotaxis	chemotaxis of dendritic cells	1,25E-02	CCL19, TAC1	2
Hematological System Development and Function	chemotaxis	chemotaxis of monocyte-derived dendritic cells	1,54E-02	CCL19	1
Hematological System Development and Function	chemotaxis	chemotaxis of naive T	1,54E-02	CCL19	1

System Development and Function Hematological System		lymphocytes			
Development and Function Hematological System	chemotaxis	chemotaxis of T lymphocytes	2,42E-02	CCL19, TNFRSF14	2
Development and Function Hematological System	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1
Development and Function Hematological System	chemotaxis	chemotaxis of memory T lymphocytes	3,95E-02	CCL19	1
Development and Function Hematological System	modulation	modulation of Kupffer cells	3,09E-03	SST	1
Development and Function Hematological System	maturation	maturation of lymphocytes	3,52E-03	CD86, IGHM, SST	3
Development and Function Hematological System	maturation	maturation of pro-B lymphocytes	9,24E-03	IGHM	1
Development and Function Hematological System	maturation	maturation of thymocytes	4,54E-02	SST	1
Development and Function Hematological System	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Development and Function Hematological System	apoptosis	apoptosis of cytotoxic T cells	3,05E-02	GZMB	1
Development and Function Hematological System	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2
Development and Function Hematological System	attraction	attraction of thymocytes	6,17E-03	CCL19	1
Development and Function Hematological System	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Development and Function Hematological System	co-localization	co-localization of T lymphocytes	6,17E-03	CCL19	1
Development and Function Hematological System	co-localization	co-localization of antigen presenting cells	6,17E-03	CCL19	1
Development and Function Hematological System	homeostasis	homeostasis of naive T lymphocytes	6,17E-03	CCL19	1
Development and Function Hematological System	agglutination	agglutination of blood platelets	9,24E-03	IGHM	1

Development and Function Hematological System					
Development and Function Hematological System	regeneration	regeneration of myeloid cells	9,24E-03	TYROBP	1
Development and Function Hematological System	polarization	polarization of T lymphocytes	9,63E-03	CCL19, RASSF5	2
Development and Function Hematological System	polarization	polarization of naive T lymphocytes	3,05E-02	CCL19	1
Development and Function Hematological System	priming	priming of naive T lymphocytes	1,23E-02	CD86	1
Development and Function Hematological System	priming	priming of cytotoxic T cells	2,14E-02	CD86	1
Development and Function Hematological System	cell spreading	cell spreading of T lymphocytes	1,84E-02	CD3E	1
Development and Function Hematological System	cell spreading	cell spreading of blood platelets	3,35E-02	GZMB	1
Development and Function Hematological System	survival	survival of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Development and Function Hematological System	survival	survival of T lymphocytes	2,42E-02	CD86, CD3E	2
Development and Function Hematological System	interaction	interaction of dendritic cells	2,14E-02	CD86	1
Development and Function Hematological System	stimulation	stimulation of mast cells	2,14E-02	TAC1	1
Development and Function Hematological System	stimulation	stimulation of leukocytes	4,10E-02	CD86, TAC1	2
Development and Function Hematological System	inhibition	inhibition of effector T lymphocytes	2,75E-02	CD86	1
Development and Function Hematological System	function	function of natural killer cells	3,05E-02	CD86	1
Development and Function Hematological System	transmigration	transmigration of leukocytes	3,28E-02	CCL19, CD86	2
Development and Function Hematological System	transmigration	transmigration of dendritic cells	4,24E-02	CCL19	1

Function					
Hematological System					
Development and Function	recruitment	recruitment of dendritic cells	4,54E-02	CCL19 CCL19, CD86, CD3E, DEF6, GZMB, IGHM, LGALS2, NCAPH2, PSMB9,	1
Hematopoiesis	development	T cell development	1,29E-07	RASSF5, SIVA1, SST CCL19, CD3E, DEF6, GZMB, IGHM,	12
Hematopoiesis	cell death	cell death of T lymphocytes	1,21E-05	LGALS2, SIVA1	7
Hematopoiesis	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Hematopoiesis	cell death	cell death of naive T lymphocytes	4,24E-02	CCL19 CCL19, CD86, CD3E, DEF6, IGHM,	1
Hematopoiesis	differentiation	differentiation of lymphocytes	1,59E-04	NCAPH2, RASSF5 CCL19, CD86, CD3E, DEF6, NCAPH2,	7
Hematopoiesis	differentiation	differentiation of T lymphocytes	2,57E-04	RASSF5	6
Hematopoiesis	differentiation	differentiation of naive T lymphocytes	5,51E-03	CD86, DEF6	2
Hematopoiesis	differentiation	differentiation of thymocytes	8,50E-03	CD86, CD3E	2
Hematopoiesis	differentiation	differentiation of effector T lymphocytes	3,35E-02	DEF6	1
Hematopoiesis	generation	generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Hematopoiesis	chemotaxis	chemotaxis of CD34+ cells	3,09E-03	CCL19	1
Hematopoiesis	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1
Hematopoiesis	quantity	quantity of thymocytes	3,73E-03	CD86, CD3E, SST	3
Hematopoiesis	quantity	quantity of pre-B lymphocytes	5,51E-03	IGHM, IGKC	2
Hematopoiesis	quantity	quantity of pre-B1 lymphocytes	1,23E-02	IGHM	1
Hematopoiesis	quantity	quantity of pre-B2 lymphocytes	1,54E-02	IGHM	1
Hematopoiesis	quantity	quantity of pre-T lymphocytes	2,45E-02	CD3E	1
Hematopoiesis	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Hematopoiesis	apoptosis	apoptosis of cytotoxic T cells	3,05E-02	GZMB	1
Hematopoiesis	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2
Hematopoiesis	proliferation	proliferation of long-term culture-initiating cells	6,17E-03	TAC1	1
Hematopoiesis	proliferation	proliferation of colony-forming granulocyte-macrophages	1,23E-02	TAC1	1
Hematopoiesis	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Hematopoiesis	proliferation	proliferation of hematopoietic progenitor cells	2,30E-02	CD3E, TAC1	2
Hematopoiesis	proliferation	proliferation of lymphoblasts	2,75E-02	CD3E	1
Hematopoiesis	proliferation	proliferation of pro-B lymphocytes	4,24E-02	IGHM	1
Hematopoiesis	binding	binding of lymphoblasts	9,24E-03	CD3E	1
Hematopoiesis	polarization	polarization of T lymphocytes	9,63E-03	CCL19, RASSF5	2
Hematopoiesis	polarization	polarization of naive T lymphocytes	3,05E-02	CCL19	1
Hematopoiesis	activation	activation of thymocytes	3,05E-02	CD3E	1
Hematopoiesis	migration	migration of thymocytes	4,54E-02	SST	1
Cellular Movement	migration	Lymphocyte migration	2,21E-06	CCL19, CD86, CD3E, RASSF5, SERP1,	8

				SST, TAC1, TNFRSF14	
Cellular Movement	migration	migration of dendritic cells	2,21E-03	CCL19, CD86, TAC1	3
Cellular Movement	migration	migration of normal cells	2,25E-03	CCL19, CD86, CD3E, RASSF5, SERP1, SST, TAC1, TNFRSF14, WARS	9
Cellular Movement	migration	T cell migration	2,98E-03	CCL19, CD86, SST, TNFRSF14	4
Cellular Movement	migration	migration of eukaryotic cells	4,21E-03	CCL19, CD86, CD3E, GZMB, RASSF5, SERP1, SST, TAC1, TNFRSF14, WARS	10
Cellular Movement	migration	migration of neuroblastoma cell lines	3,05E-02	SST	1
Cellular Movement	migration	migration of PBMC cells	3,35E-02	CCL19	1
Cellular Movement	migration	migration of lung cell lines	3,95E-02	SST	1
Cellular Movement	migration	migration of thymocytes	4,54E-02	SST	1
Cellular Movement	infiltration	infiltration by dendritic cells	4,14E-04	CCL19, CD86	2
Cellular Movement	infiltration	infiltration by T lymphocytes	1,38E-02	CCL19, CD86	2
Cellular Movement	extravasation	extravasation of plasma cell movement of dendritic cells	7,13E-04	SST, TAC1	2
Cellular Movement	cell movement	cell movement of lymphocytes	1,06E-03	CCL19, CD86, TAC1	3
Cellular Movement	cell movement	cell movement of T lymphocytes	5,05E-03	CCL19, CD86, TAC1, TNFRSF14	4
Cellular Movement	cell movement	cell movement of T lymphocytes	1,13E-02	CCL19, CD86, TNFRSF14	3
Cellular Movement	adhesion	adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Cellular Movement	chemotaxis	chemotaxis of CD34+ cells	3,09E-03	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of lymphocytes	5,10E-03	CCL19, TAC1, TNFRSF14	3
Cellular Movement	chemotaxis	chemotaxis of squamous cell carcinoma cell lines	6,17E-03	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of dendritic cells	1,25E-02	CCL19, TAC1	2
Cellular Movement	chemotaxis	chemotaxis of monocyte-derived dendritic cells	1,54E-02	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of naive T lymphocytes	1,54E-02	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of T lymphocytes	2,42E-02	CCL19, TNFRSF14	2
Cellular Movement	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of nervous tissue cell lines	3,65E-02	CCL19	1
Cellular Movement	chemotaxis	chemotaxis of memory T lymphocytes	3,95E-02	CCL19	1
Cellular Movement	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Cellular Movement	co-localization	co-localization of T lymphocytes	6,17E-03	CCL19	1
Cellular Movement	co-localization	co-localization of antigen presenting cells	6,17E-03	CCL19	1
Cellular Movement	invasion	invasion of neuroblastoma cell lines	9,24E-03	SST	1
Cellular Movement	invasion	invasion of T lymphocytes	1,54E-02	SERP1	1
Cellular Movement	invasion	invasion of normal cells	2,71E-02	SERP1, SST	2
Cellular Movement	cell spreading	cell spreading of T lymphocytes	1,84E-02	CD3E	1
Cellular Movement	transmigration	transmigration of leukocytes	3,28E-02	CCL19, CD86	2
Cellular Movement	transmigration	transmigration of dendritic cells	4,24E-02	CCL19	1
Immune Cell	migration	Lymphocyte migration	2,21E-06	CCL19, CD86, CD3E, RASSF5, SERP1,	8

Trafficking				SST, TAC1, TNFRSF14	
Immune Cell Trafficking	migration	migration of dendritic cells	2,21E-03	CCL19, CD86, TAC1	3
Immune Cell Trafficking	migration	T cell migration	2,98E-03	CCL19, CD86, SST, TNFRSF14	4
Immune Cell Trafficking	migration	migration of PBMC cells	3,35E-02	CCL19	1
Immune Cell Trafficking	migration	migration of thymocytes	4,54E-02	SST	1
Immune Cell Trafficking	activation	activation of leukocytes	3,74E-05	CD86, CD3E, DEF6, GZMB, IGHM, PSMB9, SST, TAC1, TYROBP	9
Immune Cell Trafficking	activation	activation of lymphocytes	1,31E-04	CD86, CD3E, DEF6, GZMB, IGHM, TAC1, TYROBP	7
Immune Cell Trafficking	activation	activation of T lymphocytes	1,97E-04	TYROBP	6
Immune Cell Trafficking	activation	activation of cytotoxic T cells	3,13E-04	CD86, GZMB, TAC1	3
Immune Cell Trafficking	activation	activation of naive T lymphocytes	6,05E-04	CD86, DEF6	2
Immune Cell Trafficking	activation	activation of antigen presenting cells	2,23E-03	CD86, IGHM, PSMB9, TAC1	4
Immune Cell Trafficking	activation	activation of effector lymphocytes	2,45E-02	DEF6	1
Immune Cell Trafficking	activation	activation of thymocytes	3,05E-02	CD3E	1
Immune Cell Trafficking	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Immune Cell Trafficking	activation	activation of natural killer cells	3,82E-02	TAC1, TYROBP	2
Immune Cell Trafficking	infiltration	infiltration by dendritic cells	4,14E-04	CCL19, CD86	2
Immune Cell Trafficking	infiltration	infiltration by T lymphocytes	1,38E-02	CCL19, CD86	2
Immune Cell Trafficking	cell movement	cell movement of dendritic cells	1,06E-03	CCL19, CD86, TAC1	3
Immune Cell Trafficking	cell movement	cell movement of lymphocytes	5,05E-03	CCL19, CD86, TAC1, TNFRSF14	4
Immune Cell Trafficking	cell movement	cell movement of T lymphocytes	1,13E-02	CCL19, CD86, TNFRSF14	3
Immune Cell Trafficking	adhesion	adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Immune Cell Trafficking	accumulation	accumulation of mononuclear leukocytes	1,99E-03	CD86, DEF6, PTGDS	3
Immune Cell Trafficking	accumulation	accumulation of effector memory T lymphocytes	3,09E-03	DEF6	1
Immune Cell Trafficking	accumulation	accumulation of T lymphocytes	1,21E-02	CD86, DEF6	2
Immune Cell Trafficking	accumulation	accumulation of monocytes	2,75E-02	PTGDS	1
Immune Cell Trafficking	chemotaxis	chemotaxis of lymphocytes	5,10E-03	CCL19, TAC1, TNFRSF14	3
Immune Cell Trafficking	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Immune Cell Trafficking	chemotaxis	chemotaxis of dendritic cells	1,25E-02	CCL19, TAC1	2
Immune Cell Trafficking	chemotaxis	chemotaxis of monocyte-derived dendritic cells	1,54E-02	CCL19	1
Immune Cell Trafficking	chemotaxis	chemotaxis of naive T lymphocytes	1,54E-02	CCL19	1
Immune Cell Trafficking	chemotaxis	chemotaxis of T lymphocytes	2,42E-02	CCL19, TNFRSF14	2
Immune Cell Trafficking	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1
Immune Cell Trafficking	chemotaxis	chemotaxis of memory T lymphocytes	3,95E-02	CCL19	1

Immune Cell Trafficking	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Immune Cell Trafficking	co-localization	co-localization of T lymphocytes	6,17E-03	CCL19	1
Immune Cell Trafficking	co-localization	co-localization of antigen presenting cells	6,17E-03	CCL19	1
Immune Cell Trafficking	recruitment	recruitment of lymphoid cells	6,17E-03	CCL19	1
Immune Cell Trafficking	recruitment	recruitment of dendritic cells	4,54E-02	CCL19	1
Immune Cell Trafficking	priming	priming of naive T lymphocytes	1,23E-02	CD86	1
Immune Cell Trafficking	priming	priming of cytotoxic T cells	2,14E-02	CD86	1
Immune Cell Trafficking	invasion	invasion of T lymphocytes	1,54E-02	SERP1	1
Immune Cell Trafficking	cell spreading	cell spreading of T lymphocytes	1,84E-02	CD3E	1
Immune Cell Trafficking	transmigration	transmigration of leukocytes	3,28E-02	CCL19, CD86	2
Immune Cell Trafficking	transmigration	transmigration of dendritic cells	4,24E-02	CCL19	1
Cell-To-Cell Signaling and Interaction	binding	binding of lymphocytes	6,51E-06	CCL19, CD86, CD3E, SST, TAC1	5
Cell-To-Cell Signaling and Interaction	binding	binding of cells	9,78E-04	CCL19, CD86, CD3E, GZMB, IGKC, SST, TAC1	7
Cell-To-Cell Signaling and Interaction	binding	binding of T lymphocytes	1,06E-03	CD86, SST, TAC1	3
Cell-To-Cell Signaling and Interaction	binding	binding of eukaryotic cells	3,63E-03	CCL19, CD86, CD3E, IGKC, SST, TAC1	6
Cell-To-Cell Signaling and Interaction	binding	binding of lymphoblasts	9,24E-03	CD3E	1
Cell-To-Cell Signaling and Interaction	binding	binding of memory T lymphocytes	1,23E-02	CD86	1
Cell-To-Cell Signaling and Interaction	binding	binding of B lymphocytes	4,83E-02	CD86, CD3E, DEF6, GZMB, IGHM, IGK@, IGL@, PSMB9, SST, TAC1, TYROBP	11
Cell-To-Cell Signaling and Interaction	activation	activation of cells	3,00E-05	CD86, CD3E, DEF6, GZMB, IGHM, PSMB9, SST, TAC1, TYROBP	9
Cell-To-Cell Signaling and Interaction	activation	activation of leukocytes	3,74E-05	CD86, CD3E, DEF6, GZMB, IGHM, TAC1, TYROBP	7
Cell-To-Cell Signaling and Interaction	activation	activation of lymphocytes	1,31E-04	CD86, CD3E, DEF6, GZMB, IGHM, TAC1, TYROBP	6
Cell-To-Cell Signaling and Interaction	activation	activation of T lymphocytes	1,97E-04	CD86, CD3E, DEF6, GZMB, TAC1, TYROBP	3
Cell-To-Cell Signaling and Interaction	activation	activation of cytotoxic T cells	3,13E-04	CD86, GZMB, TAC1	2
Cell-To-Cell Signaling and Interaction	activation	activation of naive T lymphocytes	6,05E-04	CD86, DEF6	4
Cell-To-Cell Signaling and Interaction	activation	activation of antigen presenting cells	2,23E-03	CD86, IGHM, PSMB9, TAC1	1
Cell-To-Cell Signaling and Interaction	activation	activation of synovial cells	1,54E-02	TAC1	

Signaling and Interaction Cell-To-Cell		activation of endocrine cells	1,84E-02	GZMB	1
Signaling and Interaction Cell-To-Cell	activation	activation of endocrine cells	1,84E-02	GZMB	1
Signaling and Interaction Cell-To-Cell		activation of connective tissue cells	2,19E-02	TAC1, TYROBP	2
Signaling and Interaction Cell-To-Cell	activation	activation of connective tissue cells	2,19E-02	TAC1, TYROBP	2
Signaling and Interaction Cell-To-Cell		activation of effector lymphocytes	2,45E-02	DEF6	1
Signaling and Interaction Cell-To-Cell	activation	activation of effector lymphocytes	2,45E-02	DEF6	1
Signaling and Interaction Cell-To-Cell		activation of fibroblast cell lines	2,75E-02	CD3E	1
Signaling and Interaction Cell-To-Cell	activation	activation of fibroblast cell lines	2,75E-02	CD3E	1
Signaling and Interaction Cell-To-Cell		activation of thymocytes	3,05E-02	CD3E	1
Signaling and Interaction Cell-To-Cell	activation	activation of thymocytes	3,05E-02	CD3E	1
Signaling and Interaction Cell-To-Cell		activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Signaling and Interaction Cell-To-Cell	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Signaling and Interaction Cell-To-Cell		activation of natural killer cells	3,82E-02	TAC1, TYROBP	2
Signaling and Interaction Cell-To-Cell	activation	activation of natural killer cells	3,82E-02	TAC1, TYROBP	2
Signaling and Interaction Cell-To-Cell		response of leukocytes	4,17E-05	CCL19, CD86, CD3E, GZMB, RARRES3	5
Signaling and Interaction Cell-To-Cell	response	response of leukocytes	4,17E-05	CCL19, CD86, CD3E, GZMB, RARRES3	5
Signaling and Interaction Cell-To-Cell		response of lymphocytes	2,33E-04	CCL19, CD86, CD3E, GZMB	4
Signaling and Interaction Cell-To-Cell	response	response of lymphocytes	2,33E-04	CCL19, CD86, CD3E, GZMB	4
Signaling and Interaction Cell-To-Cell		response of cells	3,23E-04	CCL19, CD86, CD3E, GZMB, RARRES3, SST, TYROBP	7
Signaling and Interaction Cell-To-Cell	response	response of cells	3,23E-04	CCL19, CD86, CD3E, GZMB, RARRES3, SST, TYROBP	7
Signaling and Interaction Cell-To-Cell		response of B lymphocytes	6,05E-04	CCL19, GZMB	2
Signaling and Interaction Cell-To-Cell	response	response of B lymphocytes	6,05E-04	CCL19, GZMB	2
Signaling and Interaction Cell-To-Cell		response of dendritic cells	6,05E-04	CCL19, RARRES3	2
Signaling and Interaction Cell-To-Cell	response	response of dendritic cells	6,05E-04	CCL19, RARRES3	2
Signaling and Interaction Cell-To-Cell		T cell response	2,29E-03	CCL19, CD86, CD3E	3
Signaling and Interaction Cell-To-Cell	response	T cell response	2,29E-03	CCL19, CD86, CD3E	3
Signaling and Interaction Cell-To-Cell		response of peripheral blood leukocytes	9,24E-03	CCL19	1
Signaling and Interaction Cell-To-Cell	response	response of peripheral blood leukocytes	9,24E-03	CCL19	1
Signaling and Interaction Cell-To-Cell		interaction of cells	4,30E-04	CD86, PCDH10, SST, TAC1	4
Signaling and Interaction Cell-To-Cell	interaction	interaction of cells	4,30E-04	CD86, PCDH10, SST, TAC1	4
Signaling and Interaction Cell-To-Cell		interaction of dendritic cells	2,14E-02	CD86	1
Signaling and Interaction Cell-To-Cell	interaction	interaction of dendritic cells	2,14E-02	CD86	1
Signaling and Interaction Cell-To-Cell		adhesion of blood cells	1,66E-03	CCL19, GZMB, IGHM, RASSF5, TAC1	5
Signaling and Interaction Cell-To-Cell	adhesion	adhesion of blood cells	1,66E-03	CCL19, GZMB, IGHM, RASSF5, TAC1	5
Signaling and Interaction Cell-To-Cell		adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Signaling and Interaction Cell-To-Cell	adhesion	adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Signaling and Interaction Cell-To-Cell		adhesion of cells	4,55E-03	CCL19, GZMB, IGHA1, IGHM, NINJ1, PCDH10, RASSF5, TAC1	8
Signaling and Interaction Cell-To-Cell	adhesion	adhesion of cells	4,55E-03	CCL19, GZMB, IGHA1, IGHM, NINJ1, PCDH10, RASSF5, TAC1	8
Signaling and Interaction Cell-To-Cell		adhesion of blood platelets	8,14E-03	GZMB, IGHM	2
Signaling and Interaction Cell-To-Cell	adhesion	adhesion of blood platelets	8,14E-03	GZMB, IGHM	2
Signaling and Interaction Cell-To-Cell		detachment of breast cell lines	3,09E-03	GZMB	1
Signaling and Interaction Cell-To-Cell	detachment	detachment of breast cell lines	3,09E-03	GZMB	1

Cell-To-Cell Signaling and Interaction	detachment	detachment of endothelial cells	9,24E-03	GZMB	1
Cell-To-Cell Signaling and Interaction	responsiveness	responsiveness of B lymphocytes	3,09E-03	CCL19	1
Cell-To-Cell Signaling and Interaction	attraction	attraction of thymocytes	6,17E-03	CCL19	1
Cell-To-Cell Signaling and Interaction	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of lymphoid cells	6,17E-03	CCL19	1
Cell-To-Cell Signaling and Interaction	recruitment	recruitment of dendritic cells	4,54E-02	CCL19	1
Cell-To-Cell Signaling and Interaction	agglutination	agglutination of blood platelets	9,24E-03	IGHM	1
Cell-To-Cell Signaling and Interaction	degeneration	degeneration of synapse	1,23E-02	TYROBP	1
Cell-To-Cell Signaling and Interaction	priming	priming of naive T lymphocytes	1,23E-02	CD86	1
Cell-To-Cell Signaling and Interaction	priming	priming of cytotoxic T cells	2,14E-02	CD86	1
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of astrocytes	2,14E-02	TAC1	1
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of mast cells	2,14E-02	TAC1	1
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of endothelial cells	3,35E-02	TAC1	1
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of leukocytes	4,10E-02	CD86, TAC1	2
Cell-To-Cell Signaling and Interaction	stimulation	stimulation of neurons	4,54E-02	TAC1	1
Cell-To-Cell Signaling and Interaction	conduction	conduction of cells	2,45E-02	KCNAB2	1
Cell-To-Cell Signaling and Interaction	phagocytosis	phagocytosis of leukemia cell lines	4,54E-02	DEF6	1
Cellular Compromise	destruction	destruction of neurons	9,34E-06	SST, TAC1	2
Cellular Compromise	respiratory burst	respiratory burst of neutrophils	5,21E-03	IGHA1, TYROBP	2
Cellular Compromise	perturbation	perturbation of mitochondria	6,17E-03	GZMB	1
Cellular Compromise	shrinkage	shrinkage of nucleus	6,17E-03	RARRES3	1
Cellular Compromise	collapse	collapse of nucleus	9,24E-03	GZMB	1
Cellular Compromise	degeneration	degeneration of synapse	1,23E-02	TYROBP	1
Cellular Compromise	degeneration	degeneration of myotube	1,54E-02	STRA13	1

Cellular Compromise	apoptosis	apoptosis of nucleus	2,75E-02	GZMB	1
Cellular Compromise	acidification	acidification of cells	3,95E-02	IGL@	1
Cellular Compromise	damage	damage of endothelial cells	4,24E-02	PTGDS	1
Cellular Compromise	permeability transition	permeability transition of cells	4,24E-02	GZMB	1
Dermatological Diseases and Conditions	contact dermatitis	initiation of contact dermatitis of mice	9,34E-06	IGHM, IGKC	2
Dermatological Diseases and Conditions	lepomatous leprosy	lepomatous leprosy	4,07E-04	IGHM, IGK@, IGL@	3
Dermatological Diseases and Conditions	epidermodysplasia verruciformis	epidermodysplasia verruciformis	6,17E-03	TMC8	1
Dermatological Diseases and Conditions	psoriatic arthritis	psoriatic arthritis	2,08E-02	IGHM, IGKC	2
Dermatological Diseases and Conditions	development	development of skin tumor	2,45E-02	CD86	1
Dermatological Diseases and Conditions	edema	edema of skin	3,05E-02	TAC1	1
Dermatological Diseases and Conditions	dermatological disorder	dermatological disorder	4,01E-02	CD86, IGHM, IGK@, IGKC, IGL@, TMC8	6
Immunological Disease	contact dermatitis	initiation of contact dermatitis of mice	9,34E-06	IGHM, IGKC	2
Immunological Disease	immunological disorder	immunological disorder of rodents	1,57E-04	CD86, CD3E, DEF6, IGHM, IGKC, TNFRSF14, TYROBP	7
Immunological Disease	immunological disorder	immunological disorder of mice	8,78E-04	CD86, CD3E, DEF6, IGHM, IGKC, TYROBP	6
Immunological Disease	immunological disorder	immunological disorder	7,10E-03	ADAP2, CCL19, CD86, CD3E, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, IGL@, LST1, PSMB9, TAC1, TNFRSF14, TYROBP, WARS, ZNRD1	17
Immunological Disease	disease	disease of leukocytes	9,19E-04	CD86, RARRES3, TNFRSF14	3
Immunological Disease	disease	disease of T lymphocytes	1,09E-03	CD86, TNFRSF14	2
Immunological Disease	disease	disease of dendritic cells	3,95E-02	RARRES3	1
Immunological Disease	infection	infection of leukocytes	6,12E-03	RARRES3, TNFRSF14	2
Immunological Disease	infection	infection of T lymphocytes	2,75E-02	TNFRSF14	1
Immunological Disease	hyperplasia	hyperplasia of T lymphocytes	6,17E-03	CD86	1
Immunological Disease	autoimmune disease	autoimmune disease of rodents	6,80E-03	CD86, DEF6, TNFRSF14, TYROBP	4
Immunological Disease	autoimmune disease	autoimmune disease of rodents	9,75E-03	ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGL@, LST1, PSMB9, TAC1, TNFRSF14, TYROBP, WARS, ZNRD1	15
Immunological Disease	autoimmune disease	autoimmune disease of mice	3,40E-02	CD86, DEF6, TYROBP	3
Immunological Disease	T-cell leukemia	T-cell leukemia	7,44E-03	CD86, CD3E	2
Immunological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,17E-02	CD86, TNFRSF14, TYROBP	3
Immunological Disease	experimental autoimmune	experimental autoimmune	3,95E-02	TNFRSF14	1

Disease	encephalomyelitis	encephalomyelitis of rats			
Immunological Disease	agammaglobulinemia precursor T-cell	agammaglobulinemia precursor T-cell	1,23E-02	IGHM	1
Immunological Disease	lymphoblastic leukemia-lymphoma	lymphoblastic leukemia-lymphoma of mice	1,23E-02	CD3E ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGL@, LST1, PSMB9, TAC1	1
Immunological Disease	rheumatoid arthritis	rheumatoid arthritis	1,81E-02		11
Immunological Disease	rheumatoid arthritis	rheumatoid arthritis of mice	4,24E-02	DEF6	1
Immunological Disease	experimental autoimmune myasthenia gravis	experimental autoimmune myasthenia gravis of mice	1,84E-02	CD86	1
Immunological Disease	B-cell leukemia	B-cell leukemia of mice	2,14E-02	CD3E	1
Immunological Disease	B-cell leukemia	B-cell leukemia	4,54E-02	CD86, CD3E	2
Immunological Disease	adult T cell leukemia	adult T cell leukemia	2,14E-02	CD86	1
Immunological Disease	hypersensitive reaction	hypersensitive reaction	2,63E-02	CD86, IGHM, IGKC	3
Immunological Disease	hypergammaglobulinemia	hypergammaglobulinemia of mice	2,75E-02	DEF6	1
Immunological Disease	eosinophilia	eosinophilia of lung	3,05E-02	CD86	1
Immunological Disease	acute lymphocytic leukemia	acute lymphocytic leukemia	3,75E-02	CD86, CD3E	2
Inflammatory Disease	contact dermatitis	initiation of contact dermatitis of mice	9,34E-06	IGHM, IGKC	2
Inflammatory Disease	inflammatory disorder	inflammatory disorder of rodents	8,73E-04	CD86, DEF6, GZMB, IGHM, IGKC, TNFRSF14, TYROBP	7
Inflammatory Disease	inflammatory disorder	inflammatory disorder of mice	3,67E-03	CD86, DEF6, GZMB, IGHM, IGKC, TYROBP	6
Inflammatory Disease	systemic juvenile idiopathic arthritis	systemic juvenile idiopathic arthritis	3,60E-03	CD86, IGKC	2
Inflammatory Disease	vasculitis	vasculitis of blood vessel	6,17E-03	DEF6	1
Inflammatory Disease	vasculitis	vasculitis	7,78E-03	CD86, DEF6 ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, IGL@, LST1, PSMB9, PTGDS, TAC1	2
Inflammatory Disease	arthritis	arthritis	7,17E-03		13
Inflammatory Disease	colitis	colitis	7,51E-03	CD86, CD3E, IGHM	3
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,17E-02	CD86, TNFRSF14, TYROBP	3
Inflammatory Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rats	3,95E-02	TNFRSF14	1
Inflammatory Disease	ulcerative colitis	ulcerative colitis	1,25E-02	CD86, CD3E ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGL@, LST1, PSMB9, TAC1	2
Inflammatory Disease	rheumatoid arthritis	rheumatoid arthritis	1,81E-02		11
Inflammatory Disease	rheumatoid arthritis	rheumatoid arthritis of mice	4,24E-02	DEF6	1
Inflammatory Disease	psoriatic arthritis	psoriatic arthritis	2,08E-02	IGHM, IGKC	2
Inflammatory Disease	Wegener's granulomatosis	Wegener's granulomatosis	2,75E-02	CD86	1
Inflammatory Disease	asthma	asthma of mice	4,83E-02	GZMB BOP1, CCL19, CD86, CD3E, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, LST1, PTGDS, RARRES3, RASSF5,	1
Cellular Growth and Proliferation	proliferation	proliferation of eukaryotic cells	1,02E-05		18

Cellular Growth and Proliferation	proliferation	proliferation of normal cells	1,34E-05	SST, STRA13, TAC1, TNFRSF14, TYROBP CCL19, CD86, CD3E, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, LST1, PTGDS, SST, STRA13, TAC1, TNFRSF14, TYROBP	15
Cellular Growth and Proliferation	proliferation	proliferation of cells	1,51E-05	BOP1, CCL19, CD86, CD3E, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, LST1, PDF, PTGDS, RARRES3, RASSF5, SST, STRA13, TAC1, TNFRSF14, TYROBP, WARS	20
Cellular Growth and Proliferation	proliferation	proliferation of leukocytes	1,81E-05	TYROBP	10
Cellular Growth and Proliferation	proliferation	proliferation of lymphocytes	7,37E-05	CD86, CD3E, DEF6, IGHM, IGKC, LST1, SST, TAC1, TNFRSF14	9
Cellular Growth and Proliferation	proliferation	proliferation of lymphatic system cells	8,08E-04	CD86, IGHM, SST, TAC1	4
Cellular Growth and Proliferation	proliferation	proliferation of alpha-beta T lymphocytes	1,09E-03	CD3E, TNFRSF14	2
Cellular Growth and Proliferation	proliferation	proliferation of epithelial cell lines	1,72E-03	BOP1, RARRES3, TAC1	3
Cellular Growth and Proliferation	proliferation	proliferation of bronchoalveolar lavage cells	3,09E-03	HLA-DPB1	1
Cellular Growth and Proliferation	proliferation	proliferation of T lymphocytes	3,21E-03	CD86, CD3E, DEF6, IGHM, SST, TNFRSF14	6
Cellular Growth and Proliferation	proliferation	proliferation of naive T lymphocytes	3,60E-03	CD3E, DEF6	2
Cellular Growth and Proliferation	proliferation	proliferation of B lymphocytes	3,63E-03	CD86, CD3E, IGHM, IGKC	4
Cellular Growth and Proliferation	proliferation	proliferation of colon cell lines	6,17E-03	TAC1	1
Cellular Growth and Proliferation	proliferation	proliferation of long-term culture-initiating cells	6,17E-03	TAC1	1
Cellular Growth and Proliferation	proliferation	proliferation of peripheral blood mononuclear leukocytes	6,17E-03	LST1	1
Cellular Growth and Proliferation	proliferation	proliferation of splenocytes	1,16E-02	IGHM, SST	2
Cellular Growth and Proliferation	proliferation	proliferation of colony-forming granulocyte-macrophages	1,23E-02	TAC1	1
Cellular Growth and Proliferation	proliferation	proliferation of breast cancer cell lines	1,34E-02	IGKC, RARRES3, TAC1	3
Cellular Growth and Proliferation	proliferation	proliferation of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Cellular Growth and Proliferation	proliferation	proliferation of thymocytes	2,08E-02	CD3E, SST	2
Cellular Growth and Proliferation	proliferation	proliferation of hematopoietic progenitor cells	2,30E-02	CD3E, TAC1	2
Cellular Growth and Proliferation	proliferation	proliferation of lymphoblasts	2,75E-02	CD3E	1
Cellular Growth and Proliferation	proliferation	proliferation of multilineage progenitor cells	3,95E-02	CCL19	1
Cellular Growth and Proliferation	proliferation	proliferation of myoblasts	4,24E-02	STRA13	1
Cellular Growth and Proliferation	proliferation	proliferation of pro-B lymphocytes	4,24E-02	IGHM	1
Cellular Growth and Proliferation	proliferation	proliferation of cell lines	4,78E-02	BOP1, CD3E, IGKC, RARRES3, RASSF5, SST, TAC1	7
Cellular Growth	colony formation	colony formation of	3,32E-04	GZMB, RASSF5	2

and Proliferation		melanoma cell lines			
Cellular Growth and Proliferation	colony formation	colony formation of tumor cell lines	2,31E-02	GZMB, RASSF5, SIVA1	3
Cellular Growth and Proliferation	generation	generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Cellular Growth and Proliferation	generation	generation of splenocytes	9,24E-03	CD86	1
Cellular Growth and Proliferation	expansion	expansion of T lymphocytes	2,95E-03	CD86, CD3E, IGHM	3
Cellular Growth and Proliferation	expansion	expansion of splenocytes	1,23E-02	CD3E	1
Cellular Growth and Proliferation	expansion	expansion of cytotoxic T cells	1,54E-02	IGHM	1
Cellular Growth and Proliferation	growth	arrest in growth of B cell lymphoma cells	3,09E-03	IGHM	1
Cellular Growth and Proliferation	growth	arrest in growth of lung cancer cell lines	2,45E-02	RASSF5	1
Cellular Growth and Proliferation	growth	arrest in growth of carcinoma cell lines	3,35E-02	RASSF5	1
Cellular Growth and Proliferation	growth	arrest in growth of tumor cell lines	3,48E-02	IGHM, RASSF5	2
Cellular Growth and Proliferation	growth	arrest in growth of lymphoma cell lines	4,24E-02	IGHM	1
Cellular Growth and Proliferation	stimulation	stimulation of astrocytes	2,14E-02	TAC1	1
Cellular Growth and Proliferation	stimulation	stimulation of mast cells	2,14E-02	TAC1	1
Cellular Growth and Proliferation	stimulation	stimulation of endothelial cells	3,35E-02	TAC1	1
Cellular Growth and Proliferation	stimulation	stimulation of leukocytes	4,10E-02	CD86, TAC1	2
Cellular Growth and Proliferation	stimulation	stimulation of neurons	4,54E-02	TAC1	1
Cellular Growth and Proliferation	inhibition	inhibition of effector T lymphocytes	2,75E-02	CD86	1
Cell Death	cell death	cell death of T lymphocytes	1,21E-05	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, SIVA1	7
Cell Death	cell death	cell death of normal cells	2,46E-03	CCL19, CD3E, DEF6, GZMB, IGHM, LGALS2, PTGDS, RASSF5, SIVA1, SST, TAC1	11
Cell Death	cell death	cell death of Th2 cells	2,14E-02	GZMB	1
Cell Death	cell death	cell death of enteroendocrine cells	2,14E-02	SST	1
Cell Death	cell death	cell death of naive T lymphocytes	4,24E-02	CCL19	1
Cell Death	apoptosis	apoptosis of lymphoblasts	9,56E-04	CD3E, GZMB	2
Cell Death	apoptosis	apoptosis of lymphocytes	1,56E-03	CD3E, GZMB, IGHM, LGALS2, SIVA1	5
Cell Death	apoptosis	initiation of apoptosis of tumor cells	3,09E-03	GZMB	1
Cell Death	apoptosis	apoptosis of leukocyte cell lines	3,50E-03	CD3E, GZMB, IGHM, SIVA1	4
Cell Death	apoptosis	apoptosis of T lymphocytes	4,51E-03	CD3E, GZMB, LGALS2, SIVA1	4
Cell Death	apoptosis	apoptosis of B-lymphoblastoid cells	1,54E-02	GZMB	1
Cell Death	apoptosis	apoptosis of B cell hybridoma cells	1,84E-02	SIVA1	1
Cell Death	apoptosis	apoptosis of nucleus	2,75E-02	GZMB	1
Cell Death	apoptosis	apoptosis of B lymphocytes	2,77E-02	GZMB, IGHM	2
Cell Death	apoptosis	apoptosis of tumor cells	2,93E-02	GZMB, IGHM, TNFRSF14	3
Cell Death	apoptosis	apoptosis of B cell lymphoma cells	3,05E-02	IGHM	1
Cell Death	apoptosis	apoptosis of cytotoxic T	3,05E-02	GZMB	1

		cells			
Cell Death	apoptosis	apoptosis of thymocytes	3,48E-02	CD3E, GZMB	2
Cell Death	apoptosis	apoptosis of neuroblastoma cells	4,54E-02	TNFRSF14	1
Cell Death	cell viability	cell viability of keratinocytes	3,09E-03	RARRES3	1
Cell Death	focal necrosis	focal necrosis of liver	3,09E-03	TYROBP	1
Cell Death	reconstitution	reconstitution of osteoclasts	3,09E-03	TYROBP	1
Cell Death	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated cytotoxic reaction of breast cancer cell lines	6,17E-03	IGKC	1
Cell Death	cytotoxicity	cytotoxicity of cell lines	7,78E-03	GZMB, TAC1	2
Cell Death	cytotoxicity	cytotoxicity of eukaryotic cells	1,88E-02	GZMB, TAC1, TYROBP	3
Cell Death	regeneration	regeneration of myeloid cells	9,24E-03	TYROBP	1
Cell Death	survival	survival of leukocytes	1,83E-02	CD86, CD3E, TYROBP	3
Cell Death	survival	survival of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Cell Death	survival	survival of T lymphocytes	2,42E-02	CD86, CD3E	2
Cell Death	survival	survival of dendritic cells	4,83E-02	TYROBP	1
Cell Death	necrosis	necrosis of neurons	2,14E-02	TAC1	1
Cell Death	activation-induced cell death	activation-induced cell death of T-cell hybrid cells	3,65E-02	CD3E	1
Cell Death	cytolysis	cytolysis of tumor cells	3,95E-02	GZMB	1
Cell Death	cytolysis	cytolysis	4,32E-02	GZMB, IGKC	2
Tissue Morphology	quantity	quantity of lymphocytes	3,17E-05	IGKC, SST, TYROBP	8
Tissue Morphology	quantity	quantity of blood cells	9,97E-05	CCL19, CD86, CD3E, DEF6, IGHM, IGKC, SST, STRA13, TYROBP	9
Tissue Morphology	quantity	quantity of T lymphocytes	1,71E-03	CCL19, CD86, CD3E, DEF6, IGHM, IGKC, RARRES3, SST, STRA13, TYROBP	5
Tissue Morphology	quantity	quantity of cells	3,33E-03	TYROBP	10
Tissue Morphology	quantity	quantity of thymocytes	3,73E-03	CD86, CD3E, SST	3
Tissue Morphology	quantity	quantity of pre-B lymphocytes	5,51E-03	IGHM, IGKC	2
Tissue Morphology	quantity	quantity of suppressor T lymphocytes	6,17E-03	CD86	1
Tissue Morphology	quantity	quantity of natural killer cells	7,44E-03	CD86, TYROBP	2
Tissue Morphology	quantity	quantity of pre-B1 lymphocytes	1,23E-02	IGHM	1
Tissue Morphology	quantity	quantity of dendritic cells	1,25E-02	CCL19, TYROBP	2
Tissue Morphology	quantity	quantity of pre-B2 lymphocytes	1,54E-02	IGHM	1
Tissue Morphology	quantity	quantity of myeloid dendritic cells	2,14E-02	CCL19	1
Tissue Morphology	quantity	quantity of pre-T lymphocytes	2,45E-02	CD3E	1
Tissue Morphology	quantity	quantity of Peyer's patches	3,05E-02	IGHM	1
Tissue Morphology	quantity	quantity of keratinocytes	3,05E-02	RARRES3	1
Tissue Morphology	quantity	quantity of microglia	3,35E-02	TYROBP	1
Tissue Morphology	quantity	quantity of plasmacytoid dendritic cells	3,35E-02	TYROBP	1
Tissue Morphology	quantity	quantity of mononuclear cells	3,65E-02	STRA13	1

Tissue Morphology	contraction	contraction of bronchial smooth muscle	3,09E-03	TAC1	1
Tissue Morphology	contraction	contraction of circular muscle layer	3,09E-03	TAC1	1
Tissue Morphology	contraction	contraction of portal vein permeability of venular capillary	2,14E-02	TAC1	1
Tissue Morphology	permeability		6,17E-03	TAC1	1
Tissue Morphology	thickening	thickening of aorta	6,17E-03	PTGDS	1
Tissue Morphology	depolarization	depolarization of smooth muscle	9,24E-03	TAC1	1
Tissue Morphology	volume	volume of tumor tissue	1,23E-02	CCL19	1
Tissue Morphology	relaxation	relaxation of pulmonary artery	1,54E-02	TAC1	1
Tissue Morphology	relaxation	relaxation of coronary artery	2,45E-02	TAC1	1
Tissue Morphology	stimulation	stimulation of epithelial tissue	1,84E-02	TAC1	1
Inflammatory Response	activation	activation of leukocytes	3,74E-05	CD86, CD3E, DEF6, GZMB, IGHM, PSMB9, SST, TAC1, TYROBP	9
Inflammatory Response	activation	activation of lymphocytes	1,31E-04	CD86, CD3E, DEF6, GZMB, IGHM, TAC1, TYROBP	7
Inflammatory Response	activation	activation of T lymphocytes	1,97E-04	TYROBP	6
Inflammatory Response	activation	activation of cytotoxic T cells	3,13E-04	CD86, GZMB, TAC1	3
Inflammatory Response	activation	activation of naive T lymphocytes	6,05E-04	CD86, DEF6	2
Inflammatory Response	activation	activation of antigen presenting cells	2,23E-03	CD86, IGHM, PSMB9, TAC1	4
Inflammatory Response	activation	activation of effector lymphocytes	2,45E-02	DEF6	1
Inflammatory Response	activation	activation of thymocytes	3,05E-02	CD3E	1
Inflammatory Response	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Inflammatory Response	activation	activation of natural killer cells	3,82E-02	TAC1, TYROBP	2
Inflammatory Response	immune response	immune response	1,03E-04	CCL19, CD86, CD3E, DEF6, GZMB, IGHM, PSMB9, SST, TAC1, TNFRSF14, TYROBP	11
Inflammatory Response	accumulation	accumulation of mononuclear leukocytes	1,99E-03	CD86, DEF6, PTGDS	3
Inflammatory Response	accumulation	accumulation of effector memory T lymphocytes	3,09E-03	DEF6	1
Inflammatory Response	accumulation	accumulation of T lymphocytes	1,21E-02	CD86, DEF6	2
Inflammatory Response	accumulation	accumulation of monocytes	2,75E-02	PTGDS	1
Inflammatory Response	modulation	modulation of Kupffer cells	3,09E-03	SST	1
Inflammatory Response	chemotaxis	chemotaxis of lymphocytes	5,10E-03	CCL19, TAC1, TNFRSF14	3
Inflammatory Response	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Inflammatory Response	chemotaxis	chemotaxis of dendritic cells	1,25E-02	CCL19, TAC1	2
Inflammatory Response	chemotaxis	chemotaxis of monocyte-derived dendritic cells	1,54E-02	CCL19	1
Inflammatory Response	chemotaxis	chemotaxis of naive T lymphocytes	1,54E-02	CCL19	1
Inflammatory Response	chemotaxis	chemotaxis of T lymphocytes	2,42E-02	CCL19, TNFRSF14	2
Inflammatory Response	chemotaxis	chemotaxis of thymocytes	2,75E-02	CCL19	1

Inflammatory Response	chemotaxis	chemotaxis of memory T lymphocytes	3,95E-02	CCL19	1
Inflammatory Response	respiratory burst	respiratory burst of neutrophils	5,21E-03	IGHA1, TYROBP	2
Inflammatory Response	Th2 immune response	Th2 immune response of natural killer T lymphocytes	6,17E-03	CD86	1
Inflammatory Response	antibody-dependent cell-mediated cytotoxic reaction	antibody-dependent cell-mediated cytotoxic reaction of breast cancer cell lines	6,17E-03	IGKC	1
Inflammatory Response	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Inflammatory Response	co-localization	co-localization of T lymphocytes	6,17E-03	CCL19	1
Inflammatory Response	adhesion	adhesion of blood platelets	8,14E-03	GZMB, IGHM	2
Inflammatory Response	agglutination	agglutination of blood platelets	9,24E-03	IGHM	1
Inflammatory Response	priming	priming of naive T lymphocytes	1,23E-02	CD86	1
Inflammatory Response	priming	priming of cytotoxic T cells	2,14E-02	CD86	1
Inflammatory Response	proliferation	proliferation of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Inflammatory Response	antiviral response	antiviral response of organism	2,14E-02	CCL19, RARRES3	2
Inflammatory Response	antiviral response	antiviral response of mammalia	3,65E-02	RARRES3	1
Inflammatory Response	inflammation	inflammation of paw	3,05E-02	TAC1	1
Inflammatory Response	inflammation	inflammation of respiratory system component	4,24E-02	CD86, TAC1	2
Inflammatory Response	cell spreading	cell spreading of blood platelets	3,35E-02	GZMB	1
Inflammatory Response	quantity	quantity of plasmacytoid dendritic cells	3,35E-02	TYROBP	1
Inflammatory Response	transmigration	transmigration of dendritic cells	4,24E-02	CCL19	1
Inflammatory Response	phagocytosis	phagocytosis of leukemia cell lines	4,54E-02	DEF6	1
Inflammatory Response	recruitment	recruitment of dendritic cells	4,54E-02	CCL19	1
Molecular Transport	release	release of 5-hydroxytryptamine	1,29E-04	SST, TAC1, TYROBP	3
Molecular Transport	release	release of glycine	3,09E-03	TAC1	1
Molecular Transport	release	release of cyclic AMP	2,75E-02	SST	1
Molecular Transport	quantity	quantity of calcium	2,12E-03	CCL19, CD3E, IGHM, IGKC, SST, TAC1	6
Molecular Transport	quantity	quantity of GMP	6,17E-03	TAC1	1
Molecular Transport	quantity	quantity of prostaglandin D2	9,24E-03	PTGDS	1
Molecular Transport	quantity	quantity of acetylcholine	2,75E-02	TAC1	1
Molecular Transport	quantity	quantity of L-glutamic acid	4,24E-02	SST	1
Molecular Transport	co-localization	co-localization of phosphatidylserine	3,09E-03	IGHM	1
Molecular Transport	co-localization	co-localization of ganglioside GM1	6,17E-03	IGHM	1
Molecular Transport	mobilization	mobilization of calcium	5,18E-03	CCL19, CD3E, DEF6, TAC1, TYROBP	5

Molecular Transport	mobilization	mobilization of Ca ²⁺	1,07E-02	CD3E, TAC1, TYROBP	3
Molecular Transport	flux	flux of calcium	7,19E-03	CCL19, CD3E, IGHM, SST	4
Molecular Transport	accumulation	accumulation of cyclic AMP	7,20E-03	IGHM, SST, TAC1	3
Molecular Transport	secretion	secretion of lactic acid	9,24E-03	TAC1	1
Molecular Transport	secretion	secretion of antibody	1,23E-02	IGHM	1
Molecular Transport	secretion	secretion of beta-estradiol	3,35E-02	TAC1	1
Molecular Transport	transport	transport of norepinephrine	9,24E-03	TAC1	1
Small Molecule Biochemistry	release	release of 5-hydroxytryptamine	1,29E-04	SST, TAC1, TYROBP	3
Small Molecule Biochemistry	release	release of glycine	3,09E-03	TAC1	1
Small Molecule Biochemistry	release	release of cyclic AMP	2,75E-02	SST	1
Small Molecule Biochemistry	phosphorylation	phosphorylation of L-tyrosine	2,21E-03	CD3E, IGHM, TNFRSF14	3
Small Molecule Biochemistry	aminoacylation	aminoacylation of L-tryptophanyl-tRNA(Trp)	3,09E-03	WARS	1
Small Molecule Biochemistry	co-localization	co-localization of phosphatidylserine	3,09E-03	IGHM	1
Small Molecule Biochemistry	co-localization	co-localization of ganglioside GM1	6,17E-03	IGHM	1
Small Molecule Biochemistry	density	density of Ca ²⁺	3,09E-03	CD3E	1
Small Molecule Biochemistry	efflux	efflux of 5-hydroxytryptamine	3,09E-03	TAC1	1
Small Molecule Biochemistry	inhibition	inhibition of acetylcholine	3,09E-03	SST	1
Small Molecule Biochemistry	reduction	reduction of GTP	3,09E-03	TAC1	1
Small Molecule Biochemistry	reduction	reduction of acetylcholine	3,09E-03	SST	1
Small Molecule Biochemistry	quantity	quantity of GMP	6,17E-03	TAC1	1
Small Molecule Biochemistry	quantity	quantity of prostaglandin D2	9,24E-03	PTGDS	1
Small Molecule Biochemistry	quantity	quantity of acetylcholine	2,75E-02	TAC1	1
Small Molecule Biochemistry	quantity	quantity of L-glutamic acid	4,24E-02	SST	1
Small Molecule Biochemistry	stimulation	stimulation of dopamine	6,17E-03	TAC1	1
Small Molecule Biochemistry	accumulation	accumulation of cyclic AMP	7,20E-03	IGHM, SST, TAC1	3
Small Molecule Biochemistry	binding	binding of dexamethasone	9,24E-03	SST	1
Small Molecule Biochemistry	secretion	secretion of lactic acid	9,24E-03	TAC1	1
Small Molecule Biochemistry	secretion	secretion of beta-estradiol	3,35E-02	TAC1	1
Small Molecule Biochemistry	transport	transport of norepinephrine	9,24E-03	TAC1	1
Small Molecule Biochemistry	induction	induction of histamine	1,23E-02	TAC1	1
Small Molecule Biochemistry	formation	formation of cyclic AMP	1,29E-02	SST, TAC1	2
Small Molecule Biochemistry	synthesis	synthesis of prostaglandin F2alpha	1,54E-02	IGHM	1
Small Molecule Biochemistry	synthesis	synthesis of prostaglandin	1,84E-02	IGHM	1

Biochemistry		D2			
Small Molecule		biosynthesis of chondroitin sulfate	2,45E-02	CHST13	1
Biochemistry	biosynthesis				
Small Molecule		conversion of progesterone	3,05E-02	TAC1	1
Biochemistry	conversion				
Small Molecule		production of prostaglandin	3,21E-02	PTGDS, TAC1	2
Biochemistry	production				
Small Molecule		catabolism of L-tryptophan	3,35E-02	CD86	1
Biochemistry	catabolism				
Tissue		generation of cytotoxic T cells	3,32E-04	CD86, PSMB9	2
Development	generation				
Tissue		generation of splenocytes	9,24E-03	CD86	1
Development	generation				
Tissue		adhesion of blood cells	1,66E-03	CCL19, GZMB, IGHM, RASSF5, TAC1	5
Development	adhesion				
Tissue		adhesion of T lymphocytes	1,92E-03	CCL19, RASSF5, TAC1	3
Development	adhesion				
Tissue		adhesion of cells	4,55E-03	CCL19, GZMB, IGHA1, IGHM, NINJ1, PCDH10, RASSF5, TAC1	8
Development	adhesion				
Tissue		adhesion of blood platelets	8,14E-03	GZMB, IGHM	2
Development	adhesion				
Tissue		adhesion of extracellular matrix	4,54E-02	GZMB	1
Development	adhesion				
Tissue		accumulation of mononuclear leukocytes	1,99E-03	CD86, DEF6, PTGDS	3
Development	accumulation				
Tissue		accumulation of effector memory T lymphocytes	3,09E-03	DEF6	1
Development	accumulation				
Tissue		accumulation of T lymphocytes	1,21E-02	CD86, DEF6	2
Development	accumulation				
Tissue		accumulation of monocytes	2,75E-02	PTGDS	1
Development	accumulation				
Tissue		angiogenesis of synovial membrane	6,17E-03	TAC1	1
Development	angiogenesis				
Tissue		angiogenesis of tissue	1,43E-02	SST, TAC1	2
Development	angiogenesis				
Tissue		agglutination of blood platelets	9,24E-03	IGHM	1
Development	agglutination				
Tissue		activation of nerves	1,84E-02	TAC1	1
Development	activation				
Genetic Disorder	lepomatous leprosy	lepomatous leprosy	4,07E-04	IGHM, IGK@, IGL@	3
Genetic Disorder	demyelinating peripheral neuropathy	demyelinating peripheral neuropathy of mice	3,09E-03	CD86	1
Genetic Disorder	diabetic nephropathy	diabetic nephropathy of mice	3,09E-03	PTGDS	1
Genetic Disorder	epidermodysplasia verruciformis	epidermodysplasia verruciformis	6,17E-03	TMC8	1
Genetic Disorder	polycystic lipomembraneous osteodysplasia with sclerosing	polycystic lipomembraneous osteodysplasia with sclerosing			
Genetic Disorder	leukoencephalopathy	leukoencephalopathy	6,17E-03	TYROBP	1
Genetic Disorder	colitis Aicardi-Goutieres syndrome	colitis Aicardi-Goutieres syndrome	7,51E-03	CD86, CD3E, IGHM	3
Genetic Disorder	agammaglobulinemia	agammaglobulinemia	9,24E-03	RNASEH2C	1
Genetic Disorder	ulcerative colitis	ulcerative colitis	1,23E-02	IGHM	1
Genetic Disorder	ventricular tachycardia	ventricular tachycardia of heart	1,25E-02	CD86, CD3E	2
Genetic Disorder	psoriatic arthritis	psoriatic arthritis	1,84E-02	TAC1	1
Genetic Disorder	genetic disorder	genetic disorder of mice	2,08E-02	IGHM, IGKC	2
Genetic Disorder	asthma	asthma of mice	2,59E-02	CD86, GZMB, IGHM, PTGDS, TYROBP	5
Genetic Disorder			4,83E-02	GZMB	1

Infectious Disease	lepomatous leprosy	lepomatous leprosy	4,07E-04	IGHM, IGK@, IGL@	3
Infectious Disease	infection	infection of leukocytes	6,12E-03	RARRES3, TNFRSF14	2
Infectious Disease	infection	infection by Newcastle disease virus	6,17E-03	RARRES3	1
Infectious Disease	infection	infection of T lymphocytes	2,75E-02	TNFRSF14	1
Infectious Disease	infection	infection by human herpesvirus 1	3,05E-02	TNFRSF14	1
Infectious Disease	infection	infection of leukocyte cell lines	3,95E-02	CD86	1
Infectious Disease	infection	infection of eukaryotic cells	4,80E-02	CD86, PPP1R14D, RARRES3, TIMM17B, TNFRSF14, ZNRD1	6
Infectious Disease	infectious disorder	infectious disorder	3,18E-02	TNFRSF14, ZNRD1	10
Antigen Presentation	infiltration	infiltration by dendritic cells	4,14E-04	CCL19, CD86	2
Antigen Presentation	response	response of dendritic cells	6,05E-04	CCL19, RARRES3	2
Antigen Presentation	cell movement	cell movement of dendritic cells	1,06E-03	CCL19, CD86, TAC1	3
Antigen Presentation	migration	migration of dendritic cells	2,21E-03	CCL19, CD86, TAC1	3
Antigen Presentation	activation	activation of antigen presenting cells	2,23E-03	CD86, IGHM, PSMB9, TAC1	4
Antigen Presentation	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Antigen Presentation	modulation	modulation of Kupffer cells	3,09E-03	SST	1
Antigen Presentation	chemoattraction	chemoattraction of Langerhans cells	6,17E-03	CCL19	1
Antigen Presentation	co-localization	co-localization of antigen presenting cells	6,17E-03	CCL19	1
Antigen Presentation	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Antigen Presentation	chemotaxis	chemotaxis of dendritic cells	1,25E-02	CCL19, TAC1	2
Antigen Presentation	chemotaxis	chemotaxis of monocyte-derived dendritic cells	1,54E-02	CCL19	1
Antigen Presentation	quantity	quantity of dendritic cells	1,25E-02	CCL19, TYROBP	2
Antigen Presentation	quantity	quantity of myeloid dendritic cells	2,14E-02	CCL19	1
Antigen Presentation	quantity	quantity of plasmacytoid dendritic cells	3,35E-02	TYROBP	1
Antigen Presentation	proliferation	proliferation of bone marrow-derived macrophages	1,84E-02	TYROBP	1
Antigen Presentation	interaction	interaction of dendritic cells	2,14E-02	CD86	1
Antigen Presentation	transmigration	transmigration of dendritic cells	4,24E-02	CCL19	1
Antigen Presentation	recruitment	recruitment of dendritic cells	4,54E-02	CCL19	1
Humoral Immune Response	response	response of B lymphocytes	6,05E-04	CCL19, GZMB	2
Humoral Immune Response	proliferation	proliferation of B lymphocytes	3,63E-03	CD86, CD3E, IGHM, IGKC	4
Humoral Immune Response	proliferation	proliferation of pro-B lymphocytes	4,24E-02	IGHM	1
Humoral Immune Response	quantity	quantity of pre-B lymphocytes	5,51E-03	IGHM, IGKC	2
Humoral Immune Response	quantity	quantity of pre-B1 lymphocytes	1,23E-02	IGHM	1
Humoral Immune Response	quantity	quantity of pre-B2 lymphocytes	1,54E-02	IGHM	1

Response		lymphocytes			
		initiation of cell cycle			
Humoral Immune Response	cell cycle progression	progression of B lymphocytes	6,17E-03	IGHM	1
Humoral Immune Response	G1 phase	arrest in G1 phase of B lymphocytes	1,23E-02	IGHM	1
Humoral Immune Response	chemotaxis	chemotaxis of memory B cells	1,23E-02	CCL19	1
Humoral Immune Response	activation	activation of B lymphocytes	3,28E-02	CD86, IGHM	2
Humoral Immune Response	binding	binding of B lymphocytes	4,83E-02	CD86	1
Lymphoid Tissue Structure and Development	proliferation	proliferation of lymphatic system cells	8,08E-04	CD86, IGHM, SST, TAC1	4
Lymphoid Tissue Structure and Development	proliferation	proliferation of splenocytes	1,16E-02	IGHM, SST	2
Lymphoid Tissue Structure and Development	proliferation	proliferation of colony-forming granulocyte-macrophages	1,23E-02	TAC1	1
Lymphoid Tissue Structure and Development	regeneration	regeneration of myeloid cells	9,24E-03	TYROBP	1
Lymphoid Tissue Structure and Development	expansion	expansion of splenocytes	1,23E-02	CD3E	1
Lymphoid Tissue Structure and Development	quantity	quantity of Peyer's patches	3,05E-02	IGHM	1
Post-Translational Modification	dephosphorylation	dephosphorylation of protein	8,30E-04	IGHM, PPP1R14D	2
Post-Translational Modification	phosphorylation	phosphorylation of L-tyrosine	2,21E-03	CD3E, IGHM, TNFRSF14	3
Post-Translational Modification	tyrosine phosphorylation	tyrosine phosphorylation of protein	3,56E-03	CD3E, IGHM, TAC1, TYROBP	4
Post-Translational Modification	moiety attachment	moiety attachment of protein	2,50E-02	CD3E, IGHM, TAC1, TCEB2, TYROBP	5
Post-Translational Modification	modification	modification of protein	4,91E-02	CD3E, IGHM, PPP1R14D, TAC1, TCEB2, TYROBP	6
Hematological Disease	disease	disease of leukocytes	9,19E-04	CD86, RARRES3, TNFRSF14	3
Hematological Disease	disease	disease of T lymphocytes	1,09E-03	CD86, TNFRSF14	2
Hematological Disease	disease	disease of dendritic cells	3,95E-02	RARRES3	1
Hematological Disease	infection	infection of leukocytes	6,12E-03	RARRES3, TNFRSF14	2
Hematological Disease	infection	infection of T lymphocytes	2,75E-02	TNFRSF14	1
Hematological Disease	hyperplasia	hyperplasia of T lymphocytes	6,17E-03	CD86	1
Hematological Disease	refractory anemia with ringed sideroblasts	refractory anemia with ringed sideroblasts	6,17E-03	CD86	1
Hematological Disease	T-cell leukemia	T-cell leukemia	7,44E-03	CD86, CD3E	2
Hematological Disease	agammaglobulinemia precursor T-cell	agammaglobulinemia precursor T-cell	1,23E-02	IGHM	1
Hematological Disease	lymphoblastic leukemia-lymphoma	lymphoblastic leukemia-lymphoma of mice	1,23E-02	CD3E	1
Hematological Disease	leukemogenesis	delay in leukemogenesis of mice	1,84E-02	CD3E	1
Hematological Disease	transient ischemic attack	transient ischemic attack	1,84E-02	PTGDS	1

Hematological Disease	B-cell leukemia	B-cell leukemia of mice	2,14E-02	CD3E	1
Hematological Disease	B-cell leukemia	B-cell leukemia	4,54E-02	CD86, CD3E	2
Hematological Disease	adult T cell leukemia	adult T cell leukemia	2,14E-02	CD86	1
Hematological Disease	neutrophilia	neutrophilia of airway	2,14E-02	DEF6	1
Hematological Disease	hypergammaglobulinemia	hypergammaglobulinemia of mice	2,75E-02	DEF6	1
Hematological Disease	eosinophilia	eosinophilia of lung	3,05E-02	CD86	1
Hematological Disease	acute lymphocytic leukemia	acute lymphocytic leukemia	3,75E-02	CD86, CD3E	2
Cell Morphology	transmembrane potential	transmembrane potential of mitochondria	1,55E-03	GZMB, IGHM, LGALS2, SST	4
Cell Morphology	transmembrane potential	transmembrane potential of mitochondrial membrane	3,36E-03	GZMB, IGHM	2
Cell Morphology	intracellular pH	intracellular pH of breast cancer cell lines	3,09E-03	SST	1
Cell Morphology	modulation	modulation of Kupffer cells	3,09E-03	SST	1
Cell Morphology	permeabilization	permeabilization of mitochondria	4,10E-03	GZMB, SIVA1	2
Cell Morphology	depolarization	depolarization of dorsal horn cells	6,17E-03	TAC1	1
Cell Morphology	depolarization	depolarization of ganglion cells	1,23E-02	TAC1	1
Cell Morphology	depolarization	depolarization of cells	1,25E-02	SST, TAC1	2
Cell Morphology	depolarization	depolarization of muscle cells	1,54E-02	SST	1
Cell Morphology	shrinkage	shrinkage of nucleus	6,17E-03	RARRES3	1
Cell Morphology	surface area	surface area of mesangial cells	6,17E-03	SST	1
Cell Morphology	cell spreading	cell spreading of blood cells	8,87E-03	CD3E, GZMB	2
Cell Morphology	cell spreading	cell spreading of T lymphocytes	1,84E-02	CD3E	1
Cell Morphology	cell spreading	cell spreading of blood platelets	3,35E-02	GZMB	1
Cell Morphology	collapse	collapse of nucleus	9,24E-03	GZMB	1
Cell Morphology	polarization	polarization of T lymphocytes	9,63E-03	CCL19, RASSF5	2
Cell Morphology	polarization	polarization of membrane rafts	2,14E-02	CD86	1
Cell Morphology	polarization	polarization of naive T lymphocytes	3,05E-02	CCL19	1
Cell Morphology	blebbing	blebbing of plasma membrane	1,23E-02	TAC1	1
Cell Morphology	morphology	morphology of keratinocytes	1,23E-02	RARRES3	1
Cell Morphology	morphology	morphology of leukemia cell lines	1,54E-02	TYROBP	1
Cell Morphology	extension	extension of dendrites	2,14E-02	CCL19	1
Cell Morphology	permeability	permeability of plasma membrane	2,75E-02	GZMB	1
Hair and Skin Development and Function	proliferation	proliferation of epithelial cell lines	1,72E-03	BOP1, RARRES3, TAC1	3
Hair and Skin Development and Function	cell viability	cell viability of keratinocytes	3,09E-03	RARRES3	1
Hair and Skin Development and	morphology	morphology of keratinocytes	1,23E-02	RARRES3	1

Function					
Hair and Skin Development and Function	quantity	quantity of keratinocytes	3,05E-02	RARRES3 CCL19, CD3E, IGHM, IGKC, SST, TAC1	1
Cell Signaling	quantity	quantity of calcium	2,12E-03	TAC1	6
Cell Signaling	density	density of Ca2+	3,09E-03	CD3E	1
Cell Signaling	density	density of calcium	3,09E-03	CD3E	1
Cell Signaling	reduction	reduction of GTP tyrosine phosphorylation of protein	3,09E-03	TAC1	1
Cell Signaling	tyrosine phosphorylation		3,56E-03	CD3E, IGHM, TAC1, TYROBP	4
Cell Signaling	mobilization	mobilization of calcium	5,18E-03	CCL19, CD3E, DEF6, TAC1, TYROBP	5
Cell Signaling	mobilization	mobilization of Ca2+	1,07E-02	CD3E, TAC1, TYROBP	3
Cell Signaling	inhibition	inhibition of calcium	6,17E-03	SST	1
Cell Signaling	flux	flux of calcium	7,19E-03	CCL19, CD3E, IGHM, SST	4
Cell Signaling	accumulation	accumulation of cyclic AMP	7,20E-03	IGHM, SST, TAC1	3
Cell Signaling	formation	formation of cyclic AMP	1,29E-02	SST, TAC1	2
Cell Signaling	transduction	transduction of calcium	2,14E-02	CD3E	1
Cell Signaling	release	release of cyclic AMP	2,75E-02	SST	1
Cell Signaling	regulation	regulation of calcium	3,95E-02	SST	1
Vitamin and Mineral Metabolism	quantity	quantity of calcium	2,12E-03	CCL19, CD3E, IGHM, IGKC, SST, TAC1	6
Vitamin and Mineral Metabolism	density	density of Ca2+	3,09E-03	CD3E	1
Vitamin and Mineral Metabolism	density	density of calcium	3,09E-03	CD3E	1
Vitamin and Mineral Metabolism	mobilization	mobilization of calcium	5,18E-03	CCL19, CD3E, DEF6, TAC1, TYROBP	5
Vitamin and Mineral Metabolism	mobilization	mobilization of Ca2+	1,07E-02	CD3E, TAC1, TYROBP	3
Vitamin and Mineral Metabolism	inhibition	inhibition of calcium	6,17E-03	SST	1
Vitamin and Mineral Metabolism	flux	flux of calcium	7,19E-03	CCL19, CD3E, IGHM, SST	4
Vitamin and Mineral Metabolism	transduction	transduction of calcium	2,14E-02	CD3E	1
Vitamin and Mineral Metabolism	regulation	regulation of calcium phosphorylation of L-tyrosine	3,95E-02	SST	1
Amino Acid Metabolism	phosphorylation		2,21E-03	CD3E, IGHM, TNFRSF14	3
Amino Acid Metabolism	release	release of glycine	3,09E-03	TAC1	1
Amino Acid Metabolism	catabolism	catabolism of L-tryptophan	3,35E-02	CD86	1
Amino Acid Metabolism	quantity	quantity of L-glutamic acid	4,24E-02	SST	1
Carbohydrate Metabolism	co-localization	co-localization of phosphatidylserine	3,09E-03	IGHM	1
Carbohydrate Metabolism	biosynthesis	biosynthesis of chondroitin sulfate	2,45E-02	CHST13	1
Carbohydrate	glycogenolysis	glycogenolysis	3,05E-02	SST	1

Metabolism

Cell Cycle	mitosis	mitosis of synovial cells	3,09E-03	TAC1	1
Cell Cycle	mitosis	mitosis of fibroblasts	1,84E-02	TAC1	1
Cell Cycle	mitosis	mitosis of smooth muscle cells	3,65E-02	TAC1	1
Cell Cycle	cell cycle progression	delay in cell cycle progression of carcinoma cell lines	6,17E-03	RASSF5	1
Cell Cycle	cell cycle progression	delay in cell cycle progression of lung cancer cell lines	6,17E-03	RASSF5	1
Cell Cycle	cell cycle progression	initiation of cell cycle progression of B lymphocytes	6,17E-03	IGHM	1
Cell Cycle	cell cycle progression	cell cycle progression of lymphocytes	9,25E-03	CD3E, IGHM	2
Cell Cycle	cell cycle progression	entry into cell cycle progression of endocrine cell lines	1,84E-02	SST	1
Cell Cycle	cell cycle progression	cell cycle progression of eukaryotic cells	2,84E-02	CD3E, IGHM, RASSF5, SST	4
Cell Cycle	cell cycle progression	arrest in cell cycle progression of lymphoma cell lines	3,65E-02	IGHM	1
Cell Cycle	cell cycle progression	cell cycle progression of cell lines	4,74E-02	IGHM, RASSF5, SST	3
Cell Cycle	G1 phase	arrest in G1 phase of B lymphocytes	1,23E-02	IGHM	1
Cell Cycle	G1 phase	arrest in G1 phase of lymphoma cell lines	3,65E-02	IGHM	1
Cellular Assembly and Organization	polymerization	polymerization of actin cytoskeleton	3,09E-03	CD3E	1
Cellular Assembly and Organization	perturbation	perturbation of mitochondria	6,17E-03	GZMB	1
Cellular Assembly and Organization	shrinkage	shrinkage of nucleus	6,17E-03	RARRES3	1
Cellular Assembly and Organization	rearrangement	rearrangement of microtubule organizing centers	1,23E-02	CD3E	1
Cellular Assembly and Organization	biogenesis	biogenesis of plasma membrane	1,54E-02	SERP1	1
Cellular Assembly and Organization	biogenesis	biogenesis of protein-RNA complex	2,45E-02	BOP1	1
Cellular Assembly and Organization	extension	extension of dendrites	2,14E-02	CCL19	1
Cellular Assembly and Organization	formation	formation of membrane blebs	2,14E-02	TAC1	1
Cellular Assembly and Organization	formation	formation of immunological synapses	3,95E-02	DEF6	1
Cellular Assembly and Organization	polarization	polarization of membrane rafts	2,14E-02	CD86	1
Cellular Assembly and Organization	permeability	permeability of plasma membrane	2,75E-02	GZMB	1
Cellular Assembly and Organization	activation	activation of mitochondria	3,35E-02	IGHM	1
Cellular Assembly and Organization	transport	transport of sorting endosomes	3,35E-02	IGHM	1
Cellular Assembly and Organization	organization	organization of actin stress fibers	3,95E-02	ARHGAP4	1
Connective Tissue Development and Function	mitosis	mitosis of synovial cells	3,09E-03	TAC1	1
Connective Tissue Development and	mitosis	mitosis of fibroblasts	1,84E-02	TAC1	1

Function					
Connective Tissue Development and Function	reconstitution	reconstitution of osteoclasts	3,09E-03	TYROBP	1
Connective Tissue Development and Function	angiogenesis	angiogenesis of synovial membrane	6,17E-03	TAC1	1
Connective Tissue Development and Function	activation	activation of synovial cells	1,54E-02	TAC1	1
Connective Tissue Development and Function	activation	activation of fibroblast cell lines	2,75E-02	CD3E	1
Connective Tissue Development and Function	maturation	maturation of osteoclasts	2,75E-02	TYROBP	1
DNA Replication, Recombination, and Repair	allelic exclusion	allelic exclusion of DNA	3,09E-03	IGHM	1
DNA Replication, Recombination, and Repair	fragmentation	fragmentation of DNA fragment	1,54E-02	GZMB	1
DNA Replication, Recombination, and Repair	nicking	nicking of DNA	3,95E-02	GZMB	1
Digestive System Development and Function	contraction	contraction of circular muscle layer	3,09E-03	TAC1	1
Digestive System Development and Function	proliferation	proliferation of colon cell lines	6,17E-03	TAC1	1
Digestive System Development and Function	relaxation	relaxation of caudad compartment	9,24E-03	SST	1
Endocrine System Disorders	diabetic nephropathy	diabetic nephropathy of mice	3,09E-03	PTGDS	1
Endocrine System Disorders	diabetes mellitus	onset of diabetes mellitus of mice	2,45E-02	CD86	1
Endocrine System Disorders	diabetes mellitus	diabetes mellitus of mice	4,03E-02	CD86, PTGDS	2
Infection Mechanism	infectivity	encephalomyocarditis virus infectivity of vesicular stomatitis virus	3,09E-03	RARRES3	1
Infection Mechanism	infectivity	replication of Zaire ebolavirus - Mayinga (Zaire, 1976)	6,17E-03	RARRES3	1
Infection Mechanism	replication	replication of encephalomyocarditis virus	3,09E-03	RARRES3	1
Infection Mechanism	replication	replication of HIV	2,45E-02	RARRES3	1
Infection Mechanism	replication	replication of HIV	2,96E-02	IGKC, TAC1	2
Infection Mechanism	entrance	entrance of human herpesvirus 1	6,17E-03	TNFRSF14	1
Infection Mechanism	entrance	entrance of human herpesvirus 2	6,17E-03	TNFRSF14	1
Infection Mechanism	infection	infection by Newcastle disease virus	6,17E-03	RARRES3	1
Infection Mechanism	infection	infection by human herpesvirus 1	6,17E-03	RARRES3	1
Infection Mechanism	infection	infection by human herpesvirus 1	3,05E-02	TNFRSF14	1
Infection Mechanism	viral entry	viral entry by human herpesvirus 1	6,17E-03	TNFRSF14	1
Infection Mechanism	quantity	quantity of Murine cytomegalovirus	6,17E-03	TNFRSF14	1
Infection Mechanism	quantity	co-localization of phosphatidylserine	1,54E-02	TYROBP	1
Lipid Metabolism	co-localization	phosphatidylserine	3,09E-03	IGHM	1

Lipid Metabolism	co-localization	co-localization of ganglioside GM1	6,17E-03	IGHM	1
Lipid Metabolism	binding	binding of dexamethasone quantity of prostaglandin	9,24E-03	SST	1
Lipid Metabolism	quantity	D2	9,24E-03	PTGDS	1
Lipid Metabolism	synthesis	synthesis of prostaglandin F2alpha	1,54E-02	IGHM	1
Lipid Metabolism	synthesis	synthesis of prostaglandin D2	1,84E-02	IGHM	1
Lipid Metabolism	conversion	conversion of progesterone production of	3,05E-02	TAC1	1
Lipid Metabolism	production	prostaglandin	3,21E-02	PTGDS, TAC1	2
Lipid Metabolism	secretion	secretion of beta-estradiol diabetic nephropathy of	3,35E-02	TAC1	1
Metabolic Disease	diabetic nephropathy	mice	3,09E-03	PTGDS	1
Metabolic Disease	macroalbuminuria	macroalbuminuria onset of diabetes mellitus	9,24E-03	PTGDS	1
Metabolic Disease	diabetes mellitus	of mice	2,45E-02	CD86	1
Metabolic Disease	diabetes mellitus	diabetes mellitus of mice	4,03E-02	CD86, PTGDS	2
Metabolic Disease	microalbuminuria	microalbuminuria	3,05E-02	PTGDS	1
Nervous System Development and Function	development	arrest in development of oligodendrocytes	3,09E-03	TYROBP	1
Nervous System Development and Function	analgesia	analgesia of spinal cord	6,17E-03	TAC1	1
Nervous System Development and Function	depolarization	depolarization of dorsal horn cells	6,17E-03	TAC1	1
Nervous System Development and Function	depolarization	depolarization of ganglion cells	1,23E-02	TAC1	1
Nervous System Development and Function	flexor reflex	flexor reflex of hindlimb	6,17E-03	TAC1	1
Nervous System Development and Function	neurogenesis	neurogenesis of neuronal progenitor cells	1,23E-02	GZMB	1
Nervous System Development and Function	size	size of adenohypophysis	1,23E-02	SERP1	1
Nervous System Development and Function	activation	activation of nerves	1,84E-02	TAC1	1
Nervous System Development and Function	extension	extension of dendrites	2,14E-02	CCL19	1
Nervous System Development and Function	guidance	guidance of normal cells	2,14E-02	CCL19	1
Nervous System Development and Function	stimulation	stimulation of astrocytes	2,14E-02	TAC1	1
Nervous System Development and Function	stimulation	stimulation of neurons	4,54E-02	TAC1	1
Nervous System Development and Function	nociception	nociception by rats	2,75E-02	TAC1	1
Nervous System Development and Function	quantity	quantity of microglia	3,35E-02	TYROBP	1

Nervous System Development and Function	chemotaxis	chemotaxis of nervous tissue cell lines	3,65E-02	CCL19	1
Neurological Disease	demyelinating peripheral neuropathy	demyelinating peripheral neuropathy of mice	3,09E-03	CD86	1
Neurological Disease	hypomyelination	hypomyelination of brain	3,09E-03	TYROBP	1
Neurological Disease	hypomyelination	hypomyelination of thalamus	3,09E-03	TYROBP	1
Neurological Disease	polycystic lipomembraneous osteodysplasia with sclerosing leukoencephalopathy	polycystic lipomembraneous osteodysplasia with sclerosing leukoencephalopathy	6,17E-03	TYROBP	1
Neurological Disease	Aicardi-Goutieres syndrome	Aicardi-Goutieres syndrome	9,24E-03	RNASEH2C	1
Neurological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rodents	1,17E-02	CD86, TNFRSF14, TYROBP	3
Neurological Disease	experimental autoimmune encephalomyelitis	experimental autoimmune encephalomyelitis of rats	3,95E-02	TNFRSF14	1
Neurological Disease	experimental autoimmune myasthenia gravis	experimental autoimmune myasthenia gravis of mice	1,84E-02	CD86	1
Neurological Disease	transient ischemic attack	transient ischemic attack	1,84E-02	PTGDS	1
Neurological Disease	neurological disorder	neurological disorder of rodents	2,27E-02	CD86, PTGDS, TAC1, TNFRSF14, TYROBP	5
Neurological Disease	neurological disorder	neurological disorder of mammalia	2,79E-02	CD86, PTGDS, SST, TAC1, TNFRSF14, TYROBP	6
Neurological Disease	encephalopathy	encephalopathy of mice	2,44E-02	CD86, TAC1, TYROBP	3
Neurological Disease	allodynia	allodynia of mice	4,54E-02	PTGDS	1
Nucleic Acid Metabolism	reduction	reduction of GTP	3,09E-03	TAC1	1
Nucleic Acid Metabolism	quantity	quantity of GMP	6,17E-03	TAC1	1
Nucleic Acid Metabolism	accumulation	accumulation of cyclic AMP	7,20E-03	IGHM, SST, TAC1	3
Nucleic Acid Metabolism	formation	formation of cyclic AMP	1,29E-02	SST, TAC1	2
Nucleic Acid Metabolism	release	release of cyclic AMP	2,75E-02	SST	1
Organ Morphology	contraction	contraction of circular muscle layer	3,09E-03	TAC1	1
Organ Morphology	contraction	contraction of urinary bladder	1,54E-02	TAC1	1
Organ Morphology	focal necrosis	focal necrosis of liver	3,09E-03	TYROBP	1
Protein Synthesis	aminoacylation	aminoacylation of L-tryptophanyl-tRNA(Trp)	3,09E-03	WARS	1
Renal and Urological Disease	diabetic nephropathy	diabetic nephropathy of mice	3,09E-03	PTGDS	1
Renal and Urological Disease	macroalbuminuria	macroalbuminuria	9,24E-03	PTGDS	1
Renal and Urological Disease	microalbuminuria	microalbuminuria	3,05E-02	PTGDS	1
Respiratory System Development and Function	proliferation	proliferation of bronchoalveolar lavage cells	3,09E-03	HLA-DPB1	1
Respiratory System Development and Function	migration	migration of lung cell lines	3,95E-02	SST	1
Skeletal and Muscular System Development and	contraction	contraction of bronchial smooth muscle	3,09E-03	TAC1	1

Function					
Skeletal and Muscular System Development and Function	contraction	contraction of circular muscle layer	3,09E-03	TAC1	1
Skeletal and Muscular System Development and Function	reconstitution	reconstitution of osteoclasts	3,09E-03	TYROBP	1
Skeletal and Muscular System Development and Function	angiogenesis	angiogenesis of synovial membrane	6,17E-03	TAC1	1
Skeletal and Muscular System Development and Function	flexor reflex	flexor reflex of hindlimb	6,17E-03	TAC1	1
Skeletal and Muscular System Development and Function	depolarization	depolarization of smooth muscle	9,24E-03	TAC1	1
Skeletal and Muscular System Development and Function	depolarization	depolarization of muscle cells	1,54E-02	SST	1
Skeletal and Muscular System Development and Function	maturation	maturation of osteoclasts	2,75E-02	TYROBP	1
Skeletal and Muscular System Development and Function	mitosis	mitosis of smooth muscle cells	3,65E-02	TAC1	1
Skeletal and Muscular System Development and Function	proliferation	proliferation of myoblasts	4,24E-02	STRA13	1
Connective Tissue Disorders	systemic juvenile idiopathic arthritis	systemic juvenile idiopathic arthritis	3,60E-03	CD86, IGKC	2
Connective Tissue Disorders	arthritis	arthritis	7,17E-03	LST1, PSMB9, PTGDS, TAC1	13
Connective Tissue Disorders	rheumatoid arthritis	rheumatoid arthritis	1,81E-02	ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, IGL@, PSMB9, TAC1	11
Connective Tissue Disorders	rheumatoid arthritis	rheumatoid arthritis of mice	4,24E-02	DEF6	1
Connective Tissue Disorders	psoriatic arthritis	psoriatic arthritis	2,08E-02	IGHM, IGKC	2
Skeletal and Muscular Disorders	systemic juvenile idiopathic arthritis	systemic juvenile idiopathic arthritis	3,60E-03	CD86, IGKC	2
Skeletal and Muscular Disorders	arthritis	arthritis	7,17E-03	ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGKC, IGL@, LST1, PSMB9, PTGDS, TAC1	13
Skeletal and Muscular Disorders	rheumatoid arthritis	rheumatoid arthritis	1,81E-02	ADAP2, CCL19, CD86, DEF6, GZMB, HLA-DPB1, IGHM, IGL@, LST1, PSMB9, TAC1	11
Skeletal and Muscular Disorders	rheumatoid arthritis	rheumatoid arthritis of mice	4,24E-02	DEF6	1
Skeletal and Muscular Disorders	experimental autoimmune myasthenia gravis	experimental autoimmune myasthenia gravis of mice	1,84E-02	CD86	1
Skeletal and Muscular Disorders	psoriatic arthritis	psoriatic arthritis	2,08E-02	IGHM, IGKC	2
Cancer	hyperplasia	hyperplasia of T lymphocytes	6,17E-03	CD86	1

Cancer	quantity refractory anemia with ringed sideroblasts	quantity of uterine tumor refractory anemia with ringed sideroblasts	6,17E-03	PSMB9	1
Cancer	T-cell leukemia precursor T-cell lymphoblastic leukemia-lymphoma	T-cell leukemia precursor T-cell lymphoblastic leukemia-lymphoma of mice	7,44E-03	CD86, CD3E	2
Cancer	leukemogenesis	delay in leukemogenesis of mice	1,23E-02	CD3E	1
Cancer	B-cell leukemia	B-cell leukemia of mice	1,84E-02	CD3E	1
Cancer	B-cell leukemia	B-cell leukemia	2,14E-02	CD3E	1
Cancer	adult T cell leukemia	adult T cell leukemia	4,54E-02	CD86, CD3E	2
Cancer	development	development of skin tumor	2,14E-02	CD86	1
Cancer	oral cancer acute lymphocytic leukemia	oral cancer acute lymphocytic leukemia	2,45E-02	CD86	1
Cancer	oral cancer acute lymphocytic leukemia	oral cancer acute lymphocytic leukemia	3,41E-02	CCL19, TYROBP	2
Cancer	oral cancer acute lymphocytic leukemia	oral cancer acute lymphocytic leukemia	3,75E-02	CD86, CD3E	2
Cancer	cancer	cancer	4,67E-02	C17ORF81, CCL19, CD86, CD3E, GZMB, IGHM, IGKC, IGL@, LAGE3, PSMB9, PTGDS, RASSF5, STRA13, TARP, TYROBP, WARS	16
Cardiovascular Disease	vasculitis	vasculitis of blood vessel	6,17E-03	DEF6	1
Cardiovascular Disease	vasculitis	vasculitis	7,78E-03	CD86, DEF6	2
Cardiovascular Disease	transient ischemic attack	transient ischemic attack	1,84E-02	PTGDS	1
Cardiovascular Disease	ventricular tachycardia	ventricular tachycardia of heart	1,84E-02	TAC1	1
Cardiovascular Disease	Wegener's granulomatosis	Wegener's granulomatosis	2,75E-02	CD86	1
Cardiovascular System Development and Function	angiogenesis	angiogenesis of synovial membrane	6,17E-03	TAC1	1
Cardiovascular System Development and Function	angiogenesis	angiogenesis of tissue	1,43E-02	SST, TAC1	2
Cardiovascular System Development and Function	angiogenesis	angiogenesis of retina	1,84E-02	WARS	1
Cardiovascular System Development and Function	permeability	permeability of venular capillary	6,17E-03	TAC1	1
Cardiovascular System Development and Function	formation	formation of neovessel	1,23E-02	CD3E	1
Cardiovascular System Development and Function	relaxation	relaxation of pulmonary artery	1,54E-02	TAC1	1
Cardiovascular System Development and Function	relaxation	relaxation of coronary artery	2,45E-02	TAC1	1
Cardiovascular System Development and Function	contraction	contraction of portal vein	2,14E-02	TAC1	1

Cardiovascular System					
Development and Function	stimulation	stimulation of endothelial cells	3,35E-02	TAC1	1
Cardiovascular System					
Development and Function	end diastolic pressure	end diastolic pressure of left ventricle	4,54E-02	TAC1	1
Drug Metabolism	stimulation	stimulation of dopamine	6,17E-03	TAC1	1
Drug Metabolism	binding	binding of dexamethasone	9,24E-03	SST	1
Drug Metabolism	transport	transport of norepinephrine	9,24E-03	TAC1	1
Drug Metabolism	conversion	conversion of progesterone	3,05E-02	TAC1	1
Drug Metabolism	secretion	secretion of beta-estradiol	3,35E-02	TAC1	1
Organismal Development	angiogenesis	angiogenesis of synovial membrane	6,17E-03	TAC1	1
Organismal Development	angiogenesis	angiogenesis of tissue	1,43E-02	SST, TAC1	2
Organismal Development	angiogenesis	angiogenesis of retina	1,84E-02	WARS	1
Organismal Development	formation	formation of neovessel	1,23E-02	CD3E	1
Gastrointestinal Disease	colitis	colitis	7,51E-03	CD86, CD3E, IGHM	3
Gastrointestinal Disease	ulcerative colitis	ulcerative colitis	1,25E-02	CD86, CD3E	2
Antimicrobial Response	elimination	elimination of Murine cytomegalovirus	9,24E-03	GZMB	1
Antimicrobial Response	antiviral response	antiviral response of organism	2,14E-02	CCL19, RARRES3	2
Antimicrobial Response	antiviral response	antiviral response of mammalia	3,65E-02	RARRES3	1
Antimicrobial Response	immune protection	immune protection of mice	2,14E-02	IGHM	1
Endocrine System					
Development and Function	binding	binding of dexamethasone	9,24E-03	SST	1
Endocrine System					
Development and Function	cell cycle progression	entry into cell cycle progression of endocrine cell lines	1,84E-02	SST	1
Endocrine System					
Development and Function	conversion	conversion of progesterone	3,05E-02	TAC1	1
Endocrine System					
Development and Function	secretion	secretion of beta-estradiol	3,35E-02	TAC1	1
Protein Trafficking	secretion	secretion of antibody	1,23E-02	IGHM	1
Tumor Morphology	volume	volume of tumor tissue	1,23E-02	CCL19	1
Tumor Morphology	cytolysis	cytolysis of tumor cells	3,95E-02	GZMB	1
Tumor Morphology	rejection	rejection of tumor	3,95E-02	CD86	1
Renal and Urological System					
Development and Function	contraction	contraction of urinary bladder	1,54E-02	TAC1	1
Respiratory Disease	respiratory disorder	respiratory disorder of mice	1,70E-02	CCL19, CD86, GZMB	3
Respiratory Disease	neutrophilia	neutrophilia of airway	2,14E-02	DEF6	1
Respiratory Disease	eosinophilia	eosinophilia of lung	3,05E-02	CD86	1
Respiratory Disease	hyperreactivity	hyperreactivity of airway	3,05E-02	CD86	1

Respiratory Disease	asthma	asthma of mice	4,83E-02	GZMB	1
Organ Development	angiogenesis	angiogenesis of retina	1,84E-02	WARS	1
Visual System Development and Function	angiogenesis	angiogenesis of retina	1,84E-02	WARS	1
Hypersensitivity Response	stimulation	stimulation of mast cells	2,14E-02	TAC1	1
Organismal Injury and Abnormalities	edema	edema of paw	2,14E-02	SST	1
Organismal Injury and Abnormalities	edema	edema of skin	3,05E-02	TAC1	1
Organismal Injury and Abnormalities	neutrophilia	neutrophilia of airway	2,14E-02	DEF6	1
Organismal Injury and Abnormalities	hyperreactivity	hyperreactivity of airway	3,05E-02	CD86	1
Organismal Injury and Abnormalities	pain	pain of mice	4,24E-02	TAC1	1
Organismal Injury and Abnormalities	tumor tissue	tumor tissue	4,83E-02	CCL19	1
Nutritional Disease	wasting syndrome	wasting syndrome of mice	2,75E-02	CD86	1
Behavior	anxiety	anxiety of rats	3,35E-02	TAC1	1
Reproductive System Development and Function	ejaculation	ejaculation	3,35E-02	TAC1	1
Gene Expression	transcription	transcription of AP1 response element	3,65E-02	CD3E	1
Gene Expression	transcription	transcription of interferon-stimulated response element	3,95E-02	RARRES3	1
Gene Expression	activation	activation of AP1 response element	4,24E-02	CD3E	1
Gene Expression	activation	activation of Nfat binding site	4,54E-02	CD3E	1
Gene Expression	elongation	elongation of RNA	4,24E-02	TCEB2	1
Organismal Survival	survival	survival of rats	3,95E-02	IGK@	1
Psychological Disorders	psychosis	psychosis	4,32E-02	SST, TAC1	2

SUPPLEMENTAL TABLE 5

B cell proliferation		T cell proliferation		NK cell activation		Granulocyte migration		Dendritic cell migration		Mast cell activation		Macrophage activation	
200675_at	CD81	200675_at	CD81	200983_x_at	CD59	1405_i_at	CCL5	1405_i_at	CCL5	1405_i_at	CCL5	1405_i_at	CCL5
201887_at	IL13RA1	200679_x_at	HMGB1 (includes EG:3146)	200984_s_at	CD59	200602_at	APP	200027_at	NARS	204655_at	CCL5	200806_s_at	HSPD1
201888_s_at	IL13RA1	200680_x_at	HMGB1 (includes EG:3146)	200985_s_at	CD59	200679_x_at	HMGB1 (includes EG:3146)	200679_x_at	HMGB1 (includes EG:3146)	205114_s_at	CCL3	200807_s_at	HSPD1
202265_at	BMI1	200806_s_at	HSPD1	201008_s_at	TXNIP	200680_x_at	HMGB1 (includes EG:3146)	200680_x_at	HMGB1 (includes EG:3146)	205500_at	C5	201107_s_at	THBS1
202284_s_at	CDKN1A	200807_s_at	HSPD1	201009_s_at	TXNIP	202648_at	RPS19	200813_s_at	PAFAH1B1	205629_s_at	CRH	201108_s_at	THBS1
202315_s_at	BCR	200983_x_at	CD59	201010_s_at	TXNIP	202649_x_at	RPS19	200815_s_at	PAFAH1B1	205630_at	CRH	201109_s_at	THBS1
202431_s_at	MYC	200984_s_at	CD59	202803_s_at	ITGB2	202833_s_at	SERPINA1	200816_s_at	PAFAH1B1	205754_at	F2	201110_s_at	THBS1
202833_s_at	SERPINA1	200985_s_at	CD59	203547_at	CD4	202834_at	AGT	202042_at	HARS	206001_at	NPY	202018_s_at	LTF
203140_at	BCL6	201107_s_at	THBS1	202859_x_at	TYRO	202834_at	IL8	202834_at	AGT	206407_s_at	CCL13	202637_s_at	ICAM1
203233_at	IL4R	201108_s_at	THBS1	202917_s_at	STAT5	202917_s_at	S100A8	203666_at	CXCL12	206552_s_at	TAC1	202638_s_at	ICAM1
203528_at	SEMA4D	201109_s_at	THBS1	205026_at	B	203084_at	TGFB1	203915_at	CXCL9	207029_at	KITLG	202728_s_at	LTBP1
203547_at	CD4	201110_s_at	THBS1	205263_at	BCL10	203085_s_at	TGFB1	204103_at	CCL4	207113_s_at	TNF	202729_s_at	LTBP1
203666_at	CXCL12	201265_at	FTL	205291_at	IL2RB	203233_at	IL4R	204450_x_at	APOA1	207433_at	IL10	202859_x_at	IL8
204562_at	IRF4	201328_at	ETS2	205546_s_at	TYK2	203236_s_at	LGALS9	204533_at	CXCL10	207538_at	IL4	203547_at	CD4
204639_at	ADA	201329_s_at	ETS2	205789_at	CD1D	203535_at	S100A9	204606_at	CCL21	207539_s_at	IL4	203948_s_at	MPO
204780_s_at	FAS	201331_s_at	STAT6	205821_at	KLRK1	203687_at	CX3CL1	204655_at	CCL5	207906_at	IL3	203949_at	MPO
204781_s_at	FAS	201332_s_at	STAT6	205992_s_at	IL15	206001_at	NPY	205067_at	IL1B	208850_s_at	THY1	204103_at	CCL4
204923_at	SASH3	201695_s_at	NP	206005_x_at	SPN	206056_x_at	SPN	205114_s_at	CCL3	208851_s_at	THY1	204655_at	CCL5
205153_s_at	CD40	206057_x_at	SPN	206057_x_at	SPN	204035_at	SCG2	205153_s_at	CD40	210354_at	IFNG	204748_at	PTGS2
205207_at	IL6	201746_at	TP53	206118_at	STAT4	204470_at	CXCL1	205242_at	CXCL13	211124_s_at	KITLG	204965_at	GC
205312_at	SPI1	202431_s_at	MYC	206295_at	IL18	204533_at	CXCL10	205476_at	CCL20	211743_s_at	PRG2 (includes EG:5553)	205067_at	IL1B
205385_at	MDM2	202637_s_at	ICAM1	206295_at	IL18	204534_at	VTN	206295_at	IL18	213869_x_at	THY1	205114_s_at	CCL3
205386_s_at	MDM2	202638_s_at	ICAM1	206545_at	CD28	204563_at	SELL	206337_at	CCR7	214627_at	EPX	205153_s_at	CD40
205456_at	CD3E	202668_at	EFNB2	206618_at	1	204606_at	CCL21	206576_s_at	CEACAM1	216714_at	CCL13	205207_at	IL6
205504_at	BTK	202669_s_at	EFNB2	206890_at	B1	204606_at	CCL21	207113_s_at	TNF	217767_at	C3	205377_s_at	ACHE
205685_at	CD86	202687_s_at	TNFSF10	207160_at	IL12A	204655_at	CCL5	207113_s_at	TNF	217767_at	C3	205378_s_at	ACHE
205686_s_at	CD86	202688_at	TNFSF10	207315_at	CD226	205067_at	IL1B	207433_at	IL10	226534_at	KITLG	205378_s_at	ACHE
205692_s_at	CD38	202711_at	EFNB1	207375_s_at	IL15R	205114_s_at	CCL3	207652_s_at	CMKLR1	1555759_a_at	CCL5	205753_at	CRP
205758_at	CD8A	202803_s_at	ITGB2	207536_s_at	TNFRS	205118_at	FPR1	207681_at	CXCR3			206295_at	IL18
		202779_s_at	ITGB2	207795_s_at	F9	205119_s_at	FPR1	207861_at	CCL22			206350_at	APCS
		203010_at	STAT5A	at	KLRD1	at	FPR1						

205798_at	IL7R	203065_s_at	CAV1	207796_x_at	KLRD1	205291_at	IL2RB	207892_at	CD40LG	206363_at	MAF
205861_at	SPIB	203084_at	TGFB1	207849_at	IL2	205481_at	ADORA1	207901_at	IL12B	206552_s_at	TAC1
205992_s_at	IL15	203085_s_at	TGFB1	207860_at	NCR1	205500_at	C5	208075_s_at	CCL7	206758_at	EDN2
206181_at	SLAMF1	203315_at	NCK2	207901_at	IL12B	205653_at	CTSG	209496_at	RARRES2	206975_at	LTA
206206_at	CD180	203381_s_at	APOE	207989_at	OPRM	205901_at	PNOC	209498_at	CEACAM1	207082_at	CSF1
206508_at	CD70	203382_s_at	APOE	207994_s_at	OPRM	205916_at	S100A7	209687_at	CXCL12	207092_at	LEP
206633_at	CHRNA1	203508_at	TNFRSF1B	208309_s_at	MALT	206056_x_at	SPN	209827_s_at	IL16	207113_s_at	TNF
206635_at	CHRN2	203666_at	CXCL12	209124_at	MYD8	206057_x_at	SPN	209828_s_at	IL16	207257_at	EPO
206665_s_at	BCL2L1	203684_s_at	BCL2	210017_at	MALT	206295_at	IL18	209875_s_at	SPP1	207388_s_at	PTGES
206693_at	IL7	203685_at	BCL2	210018_x_at	MALT	206336_at	CXCL6	210072_at	CCL19	207433_at	IL10
207029_at	KITLG	203868_s_at	VCAM1	210354_at	IFNG	206365_at	XCL1	210610_at	CEACAM1	207538_at	IL4
207113_s_at	TNF	203939_at	NT5E	210606_x_at	KLRD1	206366_x_at	XCL1	210659_at	CMKLR1	207539_s_at	IL4
207238_s_at	PTPRC	204116_at	IL2RG	210763_x_at	NCR3	206367_at	REN	211338_at	IFNA2	207849_at	IL2
207433_at	IL10	204393_s_at	ACPP	210865_at	FASLG	206390_x_at	PF4	211547_s_at	PAFAH1B1	207906_at	IL3
207538_at	IL4	204489_s_at	CD44	211010_s_at	NCR3	206407_s_at	CCL13	211883_x_at	CEACAM1	208018_s_at	HCK
207539_s_at	IL4	204490_s_at	CD44	211333_s_at	FASLG	206429_at	F2RL1	211889_x_at	CEACAM1	208075_s_at	CCL7
207844_at	IL13	204625_s_at	ITGB3	211359_s_at	OPRM	206545_at	CD28	214938_x_at	HMGB1 (includes EG:3146)	208169_s_at	PTGER3
207849_at	IL2	204626_s_at	ITGB3	211567_at	SPN	206552_s_at	TAC1	215346_at	CD40	208402_at	IL17A (includes EG:3605)
207892_at	CD40LG	204627_s_at	ITGB3	211583_x_at	NCR3	206923_at	PRKCA	216508_x_at	HMGB1 (includes EG:3146)	208429_x_at	HNFA4
207906_at	IL3	204628_s_at	ITGB3	211786_at	TNFRS	207082_at	CSF1	217073_x_at	APOA1	209347_s_at	MAF
207952_at	IL5	204718_at	EPHB6	211856_x_at	CD28	207113_s_at	TNF	217119_s_at	CXCR3	209348_s_at	MAF
208018_s_at	HCK	204725_s_at	NCK1	211861_x_at	CD28	207334_s_at	TGFB2	222292_at	CD40	209540_at	IGF1
208315_x_at	TRAF3	204780_s_at	FAS	212463_at	CD59	207356_at	DEFB4 (includes EG:1673)	35150_at	CD40	209541_at	IGF1
208536_s_at	BCL2L11	204781_s_at	FAS	212549_at	STAT5	207419_s_at	RAC2	39402_at	IL1B	209542_x_at	IGF1
208864_s_at	TXN	204785_x_at	IFNAR2	212550_at	STAT5	207463_x_at	PRSS3 (includes EG:5646)	224731_at	HMGB1 (includes EG:3146)	209716_at	CSF1
209374_s_at	IGHM	204786_s_at	IFNAR2	213475_s_at	B	207467_x_at	CAST	224734_at	HMGB1 (includes EG:3146)	209977_at	PLG
209499_x_at	TNFSF13	204863_s_at	IL6ST	214617_at	ITGAL	207849_at	IL2	226960_at	CXCL17	210168_at	C6
209500_x_at	TNFSF13	204864_s_at	IL6ST	216424_at	PRF1	207850_at	IL2	229121_at	CMKLR1	210228_at	CSF2
209687_at	CXCL12	204890_s_at	LCK	216980_s_at	CD4	207852_at	CXCL3	231694_at	APOA1	210229_s_at	CSF2
209995_s_at	TCL1A	204891_s_at	LCK	216981_x_at	SPN	207906_at	IL3	1555016_at	IL16	210354_at	IFNG
210314_x_at	TNFSF13	204923_at	SASH3	217045_x_at	SPN	207952_at	IL5	1555759_a_at	CCL5	210367_s_at	PTGES

210354_at	IFNG	204924_at	TLR2	217088_s_at	NCR1	208193_at	IL9	1568574_x_at	SPP1	210374_x_at	PTGER3
210889_s_at	FCGR2B	204926_at	INHBA	217095_x_at	NCR1	208200_at	IL1A			210375_at	PTGER3
210895_s_at	CD86	205026_at	STAT5B	217181_at	IL2	208640_at	RAC1			210422_x_at	SLC11A1
210904_s_at	IL13RA1	205067_at	IL1B	217371_s_at	IL15	208641_s_at	RAC1			210423_s_at	SLC11A1
211039_at	CHRNA1	205159_at	CSF2RB	217372_at	IL15	208908_s_at	CAST			210495_x_at	FN1
211124_s_at	KITLG	205173_x_at	CD58	217493_x_at	NCR2	208944_at	TGFBR2			210557_x_at	CSF1
211428_at	SERPINA1	205207_at	IL6	219618_at	IRAK4	209716_at	CSF1			210831_s_at	PTGER3
211429_s_at	SERPINA1	205254_x_at	TCF7	220307_at	CD244	209774_x_at	CXCL2			210832_x_at	PTGER3
211430_s_at	IGHM	205255_x_at	TCF7	220646_s_at	KLRF1	209821_at	IL33			210833_at	PTGER3
211495_x_at	TNFSF13	205278_at	GAD1	221074_at	NCR2	209875_s_at	SPP1			210834_s_at	PTGER3
211612_s_at	IL13RA1	205291_at	IL2RB	221075_s_at	NCR2	210118_s_at	IL1A			211265_at	PTGER3
211635_x_at	IGHM	205292_s_at	HNRNPA2B1	223514_at	CARD11	210133_at	CCL11			211506_s_at	IL8
211636_at	IGHM	205400_at	WAS	228748_at	CD59	210228_at	CSF2			211577_s_at	IGF1
211637_x_at	IGHM	205456_at	CD3E	234320_at	CD244	210229_s_at	CSF2			211652_s_at	LBP
211638_at	IGHM	205595_at	DSG3	236988_x_at	ITGB2	210244_at	CAMP			211719_x_at	FN1
211639_x_at	IGHM	205685_at	CD86	239522_at	IL12R	210354_at	IFNG			211839_s_at	CSF1
211646_at	IGHM	205686_s_at	CD86	1552497_a_at	SLAMF6	210390_s_at	CCL15			211909_x_at	PTGER3
211649_x_at	IGHM	205720_at	POMC	1552584_a_at	IL12RB1	210548_at	CCL23			212464_s_at	FN1
211650_x_at	IGHM	205733_at	BLM	1553681_a_at	PRF1	210549_s_at	CCL23			213933_at	PTGER3
211832_s_at	MDM2	205783_at	KLK13	1554240_a_at	ITGAL	210557_x_at	CSF1			214461_at	LBP
211835_at	IGHM	205798_at	IL7R	1555086_at	STAT5B	210845_s_at	PLAUR			214701_s_at	FN1
211868_x_at	IGHM	205821_at	KLRK1	1555088_x_at	STAT5B	210865_at	FASLG			214702_at	FN1
212300_at	TXLNA (includes EG:200081)	205831_at	CD2	1555349_a_at	ITGB2	211277_x_at	APP			214832_at	HNF4A
212312_at	BCL2L1	205880_at	PRKD1	1555691_a_at	KLRK1	211333_s_at	FASLG			214851_at	HNF4A
212587_s_at	PTPRC	205904_at	MICA	1557257_at	BCL10	211428_at	SERPINA1			215346_at	CD40
212588_at	PTPRC	205905_s_at	MICA	1557258_a_at	BCL10	211429_s_at	SERPINA1			215485_s_at	ICAM1
212827_at	IGHM	205963_s_at	DNAJA3	1562368_at	CARD11	211506_s_at	IL8			215775_at	THBS1
213191_at	TICAM1	205989_s_at	MOG	1568964_x_at	SPN	211567_at	SPN			216424_at	CD4
214669_x_at	IGKC	205992_s_at	IL15			211839_s_at	CSF1			216442_x_at	FN1
214836_x_at	IGKC	206056_x_at	SPN			211856_x_at	CD28			216598_s_at	CCL2
215037_s_at	BCL2L1	206057_x_at	SPN			211861_x_at	CD28			216876_s_at	IL17A (includes EG:3605)

215346_at	CD40	206067_s_at	WT1	211924_s_at	PLAUR	216889_s_at	HNFB4
215719_x_at	FAS	206115_at	EGR3	212048_s_at	YARS	217181_at	IL2
215925_s_at	CD72	206125_s_at	KLK8	212586_at	CAST	217254_s_at	EPO
215990_s_at	BCL6	206219_s_at	VAV1	213093_at	PRKCA	217473_x_at	SLC11A1
216207_x_at	IGKC	206281_at	ADCYAP1	213414_s_at	RPS19	217507_at	SLC11A1
216252_x_at	FAS	206295_at	IL18	213421_x_at	PRSS3 (includes EG:5646)	217871_s_at	MIF
216424_at	CD4	206341_at	IL2RA	213506_at	F2RL1	218995_s_at	EDN1
216491_x_at	IGHM	206365_at	XCL1	213603_s_at	RAC2	221271_at	IL21
216510_x_at	IGHM	206366_x_at	XCL1	214146_s_at	PPBP	221323_at	ULBP1
216517_at	IGKC	206407_s_at	CCL13	214370_at	S100A8	222292_at	CD40
216557_x_at	IGHM	206467_x_at	TNFRSF6B	214567_s_at	XCL1	35150_at	CD40
216558_x_at	IGHM	206488_s_at	CD36	214575_s_at	AZU1	37020_at	CRP
216609_at	TXN	206493_at	ITGA2B (includes EG:3674)	214637_at	OSM	39402_at	IL1B
216705_s_at	ADA	206494_s_at	ITGA2B (includes EG:3674)	214866_at	PLAUR	222802_at	EDN1
216706_x_at	IGHM	206545_at	CD28	214938_x_at	HMGB1 (includes EG:3146)	229327_s_at	MAF
216829_at	IGKC	206577_at	VIP	214953_s_at	APP	230382_at	SLC11A1
216986_s_at	IRF4	206589_at	GFI1	214974_x_at	CXCL5	230914_at	HNFB4
216987_at	IRF4	206633_at	CHRNA1	215101_s_at	CXCL5	235086_at	THBS1
217084_at	IGHM	206665_s_at	BCL2L1	215194_at	PRKCA	239336_at	THBS1
217181_at	IL2	206669_at	GAD1	215195_at	PRKCA	240033_at	PLG
217217_at	IGHM	206670_s_at	GAD1	216220_s_at	ADORA1	241716_at	HSPD1
217223_s_at	BCR	206693_at	IL7	216508_x_at	HMGB1 (includes EG:3146)	243372_at	HSPD1
217236_x_at	IGHM	206780_at	GAD2	216598_s_at	CCL2	243621_at	SPACA3
217281_x_at	IGHM	206907_at	TNFSF9	216714_at	CCL13	243845_at	HSPD1
217360_x_at	IGHM	207004_at	BCL2	216980_s_at	SPN	243977_at	IL6
217371_s_at	IL15	207005_s_at	BCL2	216981_x_at	SPN	1554997_a_at	PTGS2
217372_at	IL15	207052_at	HAVCR1	217181_at	IL2	1555116_s_at	SLC11A1
217373_x_at	MDM2	207085_x_at	CSF2RA (includes EG:1438)	218002_s_at	CXCL14	1555759_a_at	CCL5
217542_at	MDM2	207092_at	LEP	220971_at	IL25	1556316_s_at	MIF
217871_s_at	MIF	207104_x_at	LILRB1	221463_at	CCL24	1558199_at	FN1
219500_at	CLCF1	207113_s_at	TNF	39402_at	IL1B	1564630_at	EDN1

220307_at	CD244	207160_at	IL12A	823_at	CX3CL1	1566323_at	MAF
220567_at	IKZF2	207176_s_at	CD80	222484_s_at	CXCL14	1566324_a_at	MAF
221271_at	IL21	207187_at	JAK3	223278_at	GJB2		
221351_at	HTR1A	207199_at	TERT	223710_at	CCL26 (includes EG:10344)		
221571_at	TRAF3	207238_s_at	PTPRC	224731_at	HMGB1 (includes EG:3146)		
222292_at	CD40	207277_at	CD209 (includes EG:30835)	224734_at	HMGB1 (includes EG:3146)		
222343_at	BCL2L11	207278_s_at	CD209 (includes EG:30835)	230101_at	CXCL2		
35150_at	CD40	207323_s_at	MBP	230170_at	OSM		
39318_at	TCL1A	207426_s_at	TNFSF4	230318_at	SERPINA1		
223501_at	TNFSF13B	207433_at	IL10	232170_at	S100A7A		
223502_s_at	TNFSF13B	207526_s_at	IL1RL1	232220_at	S100A7A		
223514_at	CARD11	207536_s_at	TNFRSF9	237038_at	CXCL14		
223903_at	TLR9	207538_at	IL4	238760_at	YARS		
225160_x_at	MDM2	207539_s_at	IL4	242451_x_at	RPS19		
225606_at	BCL2L11	207540_s_at	SYK	242743_at	IL4R		
226218_at	IL7R	207549_x_at	CD46	243669_s_at	PRAP1		
226534_at	KITLG	207586_at	SHH	1555759_a_at	CCL5		
226602_s_at	BCR	207795_s_at	KLRD1	1560074_x_at	PRKCA		
228518_at	IGHM	207796_x_at	KLRD1	1564010_x_at	CAST		
228758_at	BCL6	207817_at	IFNW1	1567457_x_at	RAC1		
228891_at	SEMA4D	207840_at	CD160	1567458_s_at	RAC1		
229326_at	TNFSF13	207849_at	IL2	1568574_x_at	SPP1		
229711_s_at	MDM2	207892_at	CD40LG	1568964_x_at	SPN		
230318_at	SERPINA1	207901_at	IL12B	1569203_x_at	CXCL2		
231228_at	BCL2L1	207907_at	TNFSF14				
231929_at	IKZF2	208023_at	TNFRSF4				
232739_at	SPIB	208173_at	IFNB1				
234320_at	CD244	208193_at	IL9				
235737_at	TSLP	208200_at	IL1A				
237522_at	FAS	208308_s_at	GPI				
237891_at	MDM2	208324_at	AKAP13				
241389_at	CHRN2	208325_s_at	AKAP13				
242743_at	IL4R	208402_at	IL17A (includes EG:3605)				

243977_at	IL6	208478_s_at	BAX
244089_at	MYC	208485_x_at	CFLAR
244616_x_at	MDM2	208650_s_at	CD24
1552480_s_at	PTPRC	208651_x_at	CD24
1552892_at	TNFRSF13C	208783_s_at	CD46
1553088_a_at	BCL2L11	208864_s_at	TXN
1553094_at	TAC4	208991_at	STAT3
1553096_s_at	BCL2L11	208992_s_at	STAT3
1555060_a_at	IKZF2	209072_at	MBP
1555186_at	CDKN1A	209083_at	CORO1A
1555372_at	BCL2L11	209269_s_at	SYK
1555626_a_at	SLAMF1	209374_s_at	IGHM
1556316_s_at	MIF	209499_x_at	TNFSF13
1558143_a_at	BCL2L11	209500_x_at	TNFSF13
1561358_at	TXLNA (includes EG:200081)	209508_x_at	CFLAR
1561937_x_at	IGHM	209534_x_at	AKAP13
1562368_at	CARD11	209535_s_at	AKAP13
1569830_at	PTPRC	209554_at	CD36
		209555_s_at	CD36
		209602_s_at	GATA3
		209603_at	GATA3
		209604_s_at	GATA3
		209687_at	CXCL12
		209771_x_at	CD24
		209772_s_at	CD24
		209835_x_at	CD44
		209875_s_at	SPP1
		209939_x_at	CFLAR
		210031_at	CD247
		210038_at	PRKCQ
		210039_s_at	PRKCQ
		210105_s_at	FYN

210118_s_at	IL1A
210136_at	MBP
210198_s_at	PLP1
210228_at	CSF2
210229_s_at	CSF2
210314_x_at	TNFSF13
210318_at	RBP3
210340_s_at	CSF2RA (includes EG:1438)
210342_s_at	TPO
210354_at	IFNG
210439_at	ICOS
210442_at	IL1RL1
210495_x_at	FN1
210511_s_at	INHBA
210563_x_at	CFLAR
210564_x_at	CFLAR
210606_x_at	KLRD1
210848_at	GPI
210865_at	FASLG
210895_s_at	CD86
210916_s_at	CD44
211000_s_at	IL6ST
211039_at	CHRNA1
211063_s_at	NCK1
211075_s_at	CD47
211108_s_at	JAK3
211109_at	JAK3
211197_s_at	ICOSLG
211198_s_at	ICOSLG
211199_s_at	ICOSLG
211264_at	GAD2
211269_s_at	IL2RA
211286_x	CSF2RA (includes EG:1438)

_at	
211287_x	
_at	CSF2RA (includes EG:1438)
211300_s_	
at	TP53
211316_x	
_at	CFLAR
211317_s_	
at	CFLAR
211333_s_	
at	FASLG
211336_x	
_at	LILRB1
211430_s_	
at	IGHM
211495_x	
_at	TNFSF13
211526_s_	
at	TNFRSF6B
211567_at	SPN
211574_s_	
at	CD46
211579_at	ITGB3
211635_x	
_at	IGHM
211636_at	IGHM
211637_x	
_at	IGHM
211638_at	IGHM
211639_x	
_at	IGHM
211646_at	IGHM
211649_x	
_at	IGHM
211650_x	
_at	IGHM
211719_x	
_at	FN1
211744_s_	
at	CD58
211786_at	TNFRSF9
211833_s_	
at	BAX
211835_at	IGHM
211836_s_	
at	MOG
211856_x	
_at	CD28
211861_x	
_at	CD28
211862_x	
_at	CFLAR
211868_x	
_at	IGHM
211936_at	HSPA5

212014_x _at	CD44
212063_at	CD44
212097_at	CAV1
212195_at	IL6ST
212196_at	IL6ST
212312_at	BCL2L1
212463_at	CD59
212464_s_ at	FN1
212486_s_ at	FYN
212549_at	STAT5B
212550_at	STAT5B
212587_s_ at	PTPRC
212588_at	PTPRC
212788_x _at	FTL
212827_at	IGHM
212884_x _at	APOE
213055_at	CD47
213187_x _at	FTL
213450_s_ at	ICOSLG
213475_s_ at	ITGAL
213516_at	AKAP13
213830_at	TRD@
213856_at	CD47
213857_s_ at	CD47
214032_at	ZAP70
214228_x _at	TNFRSF4
214329_x _at	TNFSF10
214468_at	MYH6
214486_x _at	CFLAR
214567_s_ at	XCL1
214618_at	CFLAR
214636_at	CALCB (includes EG:797)
214650_x _at	MOG

214701_s_at	FN1
214702_at	FN1
214938_x_at	HMGB1 (includes EG:3146)
215037_s_at	BCL2L1
215240_at	ITGB3
215485_s_at	ICAM1
215719_x_at	FAS
215775_at	THBS1
216033_s_at	FYN
216056_at	CD44
216252_x_at	FAS
216261_at	ITGB3
216322_at	CD58
216379_x_at	CD24
216442_x_at	FN1
216491_x_at	IGHM
216508_x_at	HMGB1 (includes EG:3146)
216510_x_at	IGHM
216557_x_at	IGHM
216558_x_at	IGHM
216567_at	MBP
216609_at	TXN
216651_s_at	GAD2
216670_at	KLK13
216706_x_at	IGHM
216714_at	CCL13
216876_s_at	IL17A (includes EG:3605)
216942_s_at	CD58
216953_s_at	WT1
216956_s_at	ITGA2B (includes EG:3674)
216966_at	ITGA2B (includes EG:3674)
216980_s_at	SPN
216981_x	SPN

_at	
217084_at	IGHM
217181_at	IL2
217217_at	IGHM
217236_x	
_at	IGHM
217281_x	
_at	IGHM
217315_s_	
at	KLK13
217360_x	
_at	IGHM
217371_s_	
at	IL15
217372_at	IL15
217523_at	CD44
217705_at	PRKD1
217871_s_	
at	MIF
219424_at	EBI3
220049_s_	
at	PDCD1LG2
220054_at	IL23A
220307_at	CD244
221060_s_	
at	TLR4
221085_at	TNFSF15
221223_x	
_at	CISH
221271_at	IL21
221331_x	
_at	CTLA4
221351_at	HTR1A
221371_at	TNFSF18
221718_s_	
at	AKAP13
222023_at	AKAP13
222024_s_	
at	AKAP13
222061_at	CD58
266_s_at	CD24
38964_r_a	
t	WAS
39402_at	IL1B
223377_x	
_at	CISH
223501_at	TNFSF13B
223502_s_	TNFSF13B

at

223514_at	CARD11
223834_at	CD274
223851_s_at	TNFRSF18
223961_s_at	CISH
224093_at	IFNK
224341_x_at	TLR4
224399_at	PDCD1LG2
224553_s_at	TNFRSF18
224731_at	HMGB1 (includes EG:3146)
224734_at	HMGB1 (includes EG:3146)
224859_at	CD276
224884_at	AKAP13
225107_at	HNRNPA2B1
225289_at	STAT3
225407_at	MBP
225408_at	MBP
225932_s_at	HNRNPA2B1
226016_at	CD47
226068_at	SYK
226218_at	IL7R
227039_at	AKAP13
227060_at	RELT
227259_at	CD47
227486_at	NT5E
227677_at	JAK3
228518_at	IGHM
228748_at	CD59
228766_at	CD36
228938_at	MBP
228976_at	ICOSLG
229221_at	CD44
229326_at	TNFSF13
229895_s_at	NCK1
229937_x_at	LILRB1

230031_at	HSPA5
230237_at	ADCYAP1
231228_at	BCL2L1
231775_at	TNFRSF10A (includes EG:8797)
231794_at	CTLA4
232068_s_at	TLR4
232188_at	AKAP13
234066_at	IL1RL1
234320_at	CD244
234362_s_at	CTLA4
234411_x_at	CD44
234418_x_at	CD44
234474_x_at	IL6ST
234895_at	CTLA4
234967_at	IL6ST
235075_at	DSG3
235086_at	THBS1
235458_at	HAVCR2
235737_at	TSLP
236263_at	SHH
236324_at	MBP
236341_at	CTLA4
236988_x_at	ITGB2
237030_at	ACPP
237126_at	CD46
237367_x_at	CFLAR
237522_at	FAS
239336_at	THBS1
239629_at	CFLAR
240766_at	IL23A
241193_at	ETS2
241716_at	HSPD1
242197_x_at	CD36
242809_at	IL1RL1

242974_at	CD47
243213_at	STAT3
243265_at	GAD2
243372_at	HSPD1
243829_at	BRAF
243845_at	HSPD1
243977_at	IL6
244023_at	SYK
244089_at	MYC
244131_at	HNRNPA2B1
244413_at	CLECL1
1552280_at	TIMD4
1552319_a_at	KLK8
1552480_s_at	PTPRC
1552609_s_at	IL28A
1552648_a_at	TNFRSF10A (includes EG:8797)
1552798_a_at	TLR4
1552892_at	TNFRSF13C
1552914_a_at	CD276
1552915_at	IL28A
1552995_at	IL27
1553094_at	TAC4
1553994_at	NT5E
1553995_a_at	NT5E
1554078_s_at	DNAJA3
1554240_a_at	ITGAL
1554285_at	HAVCR2
1554519_at	CD80
1554544_a_at	MBP
1555086_at	STAT5B
1555088_x_at	STAT5B
1555271_a_at	TERT
1555349_at	ITGB2

a_at	
1555613_	
a_at	ZAP70
1555628_	
a_at	HAVCR2
1555629_	
at	HAVCR2
1555689_	
at	CD80
1555691_	
a_at	KLRK1
1555729_	
a_at	CD209 (includes EG:30835)
1555807_	
a_at	MOG
1556316_s	
_at	MIF
1557905_s	
_at	CD44
1558199_	
at	FN1
1559101_	
at	FYN
1559583_	
at	CD276
1561899_	
at	CLECL1
1561937_	
x_at	IGHM
1562368_	
at	CARD11
1565868_	
at	CD44
1568513_	
x_at	IL23A
1568574_	
x_at	SPP1
1568601_	
at	GAD2
1568964_	
x_at	SPN
1569830_	
at	PTPRC