

GeDiPNet Cluster 320 -- Enriched Pathways

Pathway enrichment: KEGG + Reactome, upper-tail hypergeometric test, Benjamini-Hochberg FDR-corrected. Fold enrichment = (overlap / cluster gene count) / (pathway gene count / universe size). Top 15 pathways per cluster by q-value. See [scripts/build_cluster_enrichment.php](#) on [gedipnet.bicnirrh.res.in](#). Data as of: 2026-10-07 03:30:09. · Rows: 15 · Generated: 2026-10-07 05:04:28

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Th17 cell differentiation	KEGG	21	FOS, JUN, MAPK1, SMAD3, STAT3, HLA-DQA1, HLA-DQB1, HLA-DRB1, CD247, IL2, IL21, IL23R	109	271	8.54	3.144e-14	8.836e-12
Inflammatory bowel disease	KEGG	16	JUN, SMAD3, STAT3, HLA-DQA1, HLA-DQB1, HLA-DRB1, IL1A, IL10, IL18RAP, IL2, IL21, IL23R	66	271	10.74	9.042e-13	1.985e-10
Th1 and Th2 cell differentiation	KEGG	17	FOS, JUN, MAML2, MAPK1, HLA-DQA1, HLA-DQB1, HLA-DRB1, CD247, IL2, IL2RA, JAK2, RUNX3	93	271	8.10	2.292e-11	3.794e-9
Toxoplasmosis	KEGG	15	HSPA6, MAPK1, STAT3, CCR5, CIITA, HLA-DQA1, HLA-DQB1, HLA-DRB1, IL10, JAK2, LAMA2, LAMB4	112	271	5.94	3.010e-8	2.297e-6
Viral protein interaction with cytokine and cytokine receptor	KEGG	14	CXCL1, CXCR2, CXCR4, TNFRSF10C, CCR5, CCR3, IL10, IL18RAP, IL2, IL2RA, IL2RB, IL6R	100	271	6.20	4.949e-8	3.528e-6
Interleukin-6 signaling	Reactome	6	STAT3, JAK2, IL6R, STAT1, TYK2, IL6	11	271	24.17	5.249e-8	3.728e-6
Leishmaniasis	KEGG	12	FCGR1A, FOS, JUN, MAPK1, HLA-DQA1, HLA-DQB1, HLA-DRB1, IL1A, IL10, JAK2, STAT1, HLA-DRA	78	271	6.82	1.578e-7	9.719e-6
Hematopoietic cell lineage	KEGG	13	CD14, CD8B, FCGR1A, GP1BB, ITGA2B, HLA-DQA1, HLA-DQB1, HLA-DRB1, IL1A, IL2RA, IL6R, IL6	100	271	5.76	3.642e-7	2.038e-5
Interleukin-23 signaling	Reactome	5	STAT3, IL23R, JAK2, STAT4, TYK2	9	271	24.62	6.598e-7	3.397e-5
MAPK1 (ERK2) activation	Reactome	5	MAPK1, JAK2, IL6R, TYK2, IL6	9	271	24.62	6.598e-7	3.397e-5
Pathways in cancer	KEGG	31	ADCY7, CXCR4, DAPK1, EGF, FOS, GADD45A, GNG11, IGF1R, ITGA2B, JUN, KRAS, MAPK1	533	271	2.58	1.232e-6	5.866e-5
JAK-STAT signaling pathway	KEGG	16	EGF, OSM, STAT3, IL10, IL2, IL21, IL23R, IL2RA, JAK2, STAT4, PTPN2, IL2RB	168	271	4.22	1.239e-6	5.890e-5
Intestinal immune network for IgA production	KEGG	9	CXCR4, HLA-DQA1, HLA-DQB1, HLA-DRB1, IL10, IL2, LTBR, IL6, HLA-DRA	50	271	7.98	1.480e-6	6.850e-5
Translocation of ZAP-70 to Immunological synapse	Reactome	6	HLA-DQA1, HLA-DQB1, HLA-DRB1, PTPN22, CD247, HLA-DRA	19	271	13.99	2.647e-6	1.122e-4
Cytokine-cytokine receptor interaction	KEGG	21	CXCL1, CXCR2, CXCR4, IL1RN, OSM, TNFRSF10C, CCR5, IL1A, CCR3, FAS, IL10, IL18RAP	298	271	3.12	3.913e-6	1.556e-4