

GeDiPNet Cluster 46 -- 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 16:57:18

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Cytokine-cytokine receptor interaction	KEGG	85	IFNG, IL10, IL13, IL17A, IL18, IL4, CCL2, CCL5, CXCL1, IL2, IL22, IL5	298	490	6.99	3.679e-49	4.515e-45
Viral protein interaction with cytokine and cytokine receptor	KEGG	48	IL10, IL18, CCL2, CCL5, CXCL1, IL2, IL6, CCR1, CCR5, CXCL8, IL18R1, TNF	100	490	11.76	2.844e-40	1.963e-36
Inflammatory bowel disease	KEGG	38	IFNG, IL10, IL13, IL17A, IL18, IL4, TLR2, TLR4, HLA-DPB1, HLA-DQB1, HLA-DRB1, IL2	66	490	14.11	4.653e-36	2.161e-32
Interleukin-10 signaling	Reactome	31	IL10, IL18, PTGS2, CCL2, CCL5, CXCL1, IL6, CCR1, IL12A, CCR5, CXCL8, ICAM1	47	490	16.17	2.756e-32	9.817e-29
Interleukin-4 and Interleukin-13 signaling	Reactome	43	HMOX1, IL10, IL13, IL17A, IL18, IL4, PTGS2, CCL2, IL6, TGFB1, IL12A, IL23R	108	490	9.76	6.902e-32	2.310e-28
Chemokine receptors bind chemokines	Reactome	31	CCL2, CCL5, CXCL1, CCR1, CCR5, CXCL8, CCR3, CCL27, CXCR3, CCR7, CXCL12, CCL19	59	490	12.88	6.438e-28	1.580e-24
Rheumatoid arthritis	KEGG	33	IFNG, IL17A, IL18, TLR2, TLR4, CCL2, CCL5, CTLA4, CXCL1, HLA-DPB1, HLA-DQB1, HLA-DRB1	95	490	8.51	1.786e-22	2.267e-19
Th17 cell differentiation	KEGG	34	IFNG, IL17A, IL4, HLA-DPB1, HLA-DQB1, HLA-DRB1, IL2, IL22, IL6, TGFB1, HLA-DQA1, IFNGR1	109	490	7.65	2.180e-21	2.189e-18
JAK-STAT signaling pathway	KEGG	41	IFNG, IL10, IL13, IL4, HRAS, IL2, IL22, IL5, IL6, IL9, LEP, STAT4	168	490	5.98	4.492e-21	4.314e-18
Lipid and atherosclerosis	KEGG	44	IL18, TLR2, TLR4, CCL2, CCL5, CXCL1, HRAS, IL6, FAS, IL12A, APOA1, APOB	216	490	4.99	3.145e-19	2.285e-16
Chemokine signaling pathway	KEGG	41	CCL2, CCL5, CXCL1, HRAS, CCR1, CCR5, CXCL8, IKBKG, STAT3, ARRB2, CCR3, CCL27	193	490	5.21	1.093e-18	7.316e-16
IL-17 signaling pathway	KEGG	29	IFNG, IL13, IL17A, IL4, PTGS2, CCL2, CXCL1, IL5, IL6, CXCL8, IKBKG, TNF	94	490	7.56	2.877e-18	1.765e-15
Tuberculosis	KEGG	39	FCGR3A, IFNG, IL10, IL18, MRC1, TLR2, TLR4, HLA-DPB1, HLA-DQB1, HLA-DRB1, IL6, TGFB1	181	490	5.28	4.688e-18	2.754e-15
Allograft rejection	KEGG	19	IFNG, IL10, IL4, HLA-DPB1, HLA-DQB1, HLA-DRB1, IL2, IL5, HLA-DQA1, FAS, HLA-B, IL12A	39	490	11.94	9.188e-17	4.159e-14
Malaria	KEGG	21	IFNG, IL10, IL18, TLR2, TLR4, CCL2, IL6, TGFB1, IL12A, CXCL8, ICAM1, ITGAL	50	490	10.29	9.805e-17	4.420e-14