

GeDiPNet Cluster 1 -- 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 10:45:12

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Leishmaniasis	KEGG	33	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, FCGR3A, JAK2, TLR4, ITGAM, NCF2, CYBB	78	701	7.25	8.313e-21	7.404e-18
Allograft rejection	KEGG	23	HLA-DPA1, HLA-DPB1, HLA-DQA1, CD40LG, HLA-DQB1, HLA-DRA, HLA-DRB1, CD40, HLA-DOB, HLA-DQB2, HLA-DRB5, IL2	39	701	10.10	4.592e-19	3.230e-16
Type I diabetes mellitus	KEGG	23	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DOB, HLA-DQB2, HLA-DRB5, IL2, HLA-B, HLA-C	44	701	8.96	1.855e-17	9.619e-15
Autoimmune thyroid disease	KEGG	25	HLA-DPA1, HLA-DPB1, HLA-DQA1, CD40LG, HLA-DQB1, HLA-DRA, HLA-DRB1, TSHR, CD40, HLA-DOB, HLA-DQB2, HLA-DRB5	54	701	7.93	3.170e-17	1.556e-14
Tuberculosis	KEGG	45	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, FCGR3A, JAK2, SYK, TLR4, ITGAM, HLA-DOB	181	701	4.26	3.457e-17	1.668e-14
Toxoplasmosis	KEGG	34	HLA-DPA1, HLA-DPB1, HLA-DQA1, CD40LG, HLA-DQB1, HLA-DRA, HLA-DRB1, CD40, JAK2, TLR4, HLA-DOB, HLA-DQB2	112	701	5.20	3.998e-16	1.660e-13
Graft-versus-host disease	KEGG	22	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, HLA-DOB, HLA-DQB2, HLA-DRB5, IL2, HLA-B, HLA-C	45	701	8.38	5.998e-16	2.409e-13
Rheumatoid arthritis	KEGG	30	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, TLR4, VEGFA, HLA-DOB, HLA-DQB2, HLA-DRB5, TLR2	95	701	5.41	6.726e-15	2.224e-12
Herpes simplex virus 1 infection	KEGG	42	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, B2M, JAK2, SYK, HLA-DOB, HLA-DQB2, HLA-DRB5	182	701	3.95	6.882e-15	2.255e-12
Inflammatory bowel disease	KEGG	25	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, IL23R, TLR4, STAT4, HLA-DOB, HLA-DQB2, HLA-DRB5	66	701	6.49	1.012e-14	3.149e-12
Asthma	KEGG	17	HLA-DPA1, HLA-DPB1, HLA-DQA1, CD40LG, HLA-DQB1, HLA-DRA, HLA-DRB1, CD40, HLA-DOB, HLA-DQB2, HLA-DRB5, HLA-DOA	32	701	9.10	2.173e-13	5.207e-11
Th1 and Th2 cell differentiation	KEGG	27	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, JAK2, STAT4, HLA-DOB, HLA-DQB2, HLA-DRB5, IL2	93	701	4.97	1.483e-12	3.156e-10
Influenza A	KEGG	37	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, JAK2, TLR4, HLA-DOB, HLA-DQB2, HLA-DRB5, HLA-DOA	173	701	3.66	3.397e-12	6.663e-10
Epstein-Barr virus infection	KEGG	40	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, B2M, CD40, SYK, HLA-DOB, HLA-DQB2, HLA-DRB5	204	701	3.36	8.291e-12	1.516e-9
Human T-cell leukemia virus 1 infection	KEGG	42	HLA-DPA1, HLA-DPB1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1, B2M, CD40, ZFP36, ADCY5, HLA-DOB, HLA-DQB2	224	701	3.21	1.142e-11	2.012e-9