

GeDiPNet Cluster 22 -- 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 16:56:33

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Inflammatory bowel disease	KEGG	30	HLA-DRB5, STAT4, HLA-DPA1, HLA-DPB1, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, HLA-DQA1, IL13, TLR2	66	369	14.79	2.638e-28	6.775e-25
Leishmaniasis	KEGG	26	FCGR3B, HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, FCGR2A, HLA-DQA1, IRAK1	78	369	10.85	1.602e-20	1.342e-17
Allograft rejection	KEGG	19	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-B, HLA-DRA, TNF, HLA-DRB1, HLA-DQA1, CD40, CD40LG, HLA-DOB, HLA-DQB1	39	369	15.86	4.547e-19	3.219e-16
Type I diabetes mellitus	KEGG	19	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-B, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, HLA-DQA1, HLA-DOB, HLA-DQB1	44	369	14.05	8.076e-18	4.482e-15
Toxoplasmosis	KEGG	27	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, TNF, HLA-DRB1, HLA-DQA1, IRAK1, TLR2, TGFB1, CASP3, CCR5	112	369	7.85	3.373e-17	1.641e-14
Graft-versus-host disease	KEGG	18	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-B, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, HLA-DQA1, IL6, HLA-DOB	45	369	13.02	3.177e-16	1.339e-13
Th17 cell differentiation	KEGG	25	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, IL1B, HLA-DRB1, HLA-DQA1, TGFB1, IL6, TGFB1, IL17A, IL17F	109	369	7.47	1.831e-15	6.742e-13
Phosphorylation of CD3 and TCR zeta chains	Reactome	13	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, HLA-DRB1, HLA-DQA1, HLA-DQB1, HLA-DQB2, PTPRC, PTPRJ, PTPN22, CD247	22	369	19.23	6.836e-15	2.247e-12
Rheumatoid arthritis	KEGG	23	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, HLA-DQA1, TLR2, IL6, TGFB1	95	369	7.88	7.142e-15	2.327e-12
Tuberculosis	KEGG	30	FCGR2B, FCGR3B, HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, IL1A, IL1B, TNF, HLA-DRB1, FCGR2A, HLA-DQA1	181	369	5.39	3.073e-14	8.658e-12
Interleukin-4 and Interleukin-13 signaling	Reactome	23	IL1A, IL1B, TNF, IL13, IL6, MUC1, TGFB1, IL17A, IL17F, IRF4, IL18, VEGFA	108	369	6.93	1.381e-13	3.421e-11
Asthma	KEGG	14	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, TNF, HLA-DRB1, HLA-DQA1, IL13, CD40, CD40LG, HLA-DOB, HLA-DQB1	32	369	14.24	1.493e-13	3.665e-11
Autoimmune thyroid disease	KEGG	17	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-B, HLA-DRA, HLA-DRB1, HLA-DQA1, CD40, CD40LG, HLA-DOB, HLA-DQB1, HLA-DQB2	54	369	10.25	2.247e-13	5.371e-11
Intestinal immune network for IgA production	KEGG	16	HLA-DRB5, HLA-DPA1, HLA-DPB1, HLA-DRA, HLA-DRB1, HLA-DQA1, IL6, TGFB1, CD40, CD40LG, HLA-DOB, HLA-DQB1	50	369	10.42	8.679e-13	1.917e-10
Th1 and Th2 cell differentiation	KEGG	20	HLA-DRB5, STAT4, HLA-DPA1, HLA-DPB1, HLA-DRA, HLA-DRB1, HLA-DQA1, IL13, MAML3, HLA-DOB, HLA-DQB1, HLA-DQB2	93	369	7.00	4.614e-12	8.786e-10