

GeDiPNet Cluster 139 -- 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: 2026-10-08 03:30:07. · Rows: 15 · Generated: 2026-10-08 13:16:33

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Inflammatory bowel disease	KEGG	14	IL23R, NFKB1, GATA3, HLA-DQA1, HLA-DRB1, IL18R1, IL18RAP, IL4R, SMAD3, HLA-DQB1, HLA-DRA, IL2	66	162	15.73	1.581e-13	3.733e-11
Th17 cell differentiation	KEGG	15	IL23R, NFKB1, GATA3, HLA-DQA1, HLA-DRB1, IRF4, IL4R, SMAD3, CD247, HLA-DQB1, HLA-DRA, IL2	109	162	10.20	1.575e-11	2.566e-9
Phosphorylation of CD3 and TCR zeta chains	Reactome	6	HLA-DQA1, HLA-DRB1, CD247, HLA-DQB1, HLA-DRA, PTPRC	22	162	20.22	3.426e-7	1.926e-5
Th1 and Th2 cell differentiation	KEGG	10	NFKB1, GATA3, HLA-DQA1, HLA-DRB1, IL4R, CD247, HLA-DQB1, HLA-DRA, IL2, NFATC2	93	162	7.97	4.663e-7	2.516e-5
Translocation of ZAP-70 to Immunological synapse	Reactome	5	HLA-DQA1, HLA-DRB1, CD247, HLA-DQB1, HLA-DRA	19	162	19.51	4.189e-6	1.674e-4
Intestinal immune network for IgA production	KEGG	7	LTBR, TNFRSF13B, HLA-DQA1, HLA-DRB1, HLA-DQB1, HLA-DRA, IL2	50	162	10.38	4.378e-6	1.734e-4
PD-1 signaling	Reactome	5	HLA-DQA1, HLA-DRB1, CD247, HLA-DQB1, HLA-DRA	23	162	16.12	1.161e-5	3.863e-4
Allograft rejection	KEGG	6	HLA-B, HLA-DQA1, HLA-DRB1, HLA-DQB1, HLA-DRA, IL2	39	162	11.41	1.239e-5	4.079e-4
Type I diabetes mellitus	KEGG	6	HLA-B, HLA-DQA1, HLA-DRB1, HLA-DQB1, HLA-DRA, IL2	44	162	10.11	2.536e-5	7.429e-4
Graft-versus-host disease	KEGG	6	HLA-B, HLA-DQA1, HLA-DRB1, HLA-DQB1, HLA-DRA, IL2	45	162	9.88	2.894e-5	8.248e-4
Viral myocarditis	KEGG	7	ITGAL, HLA-B, HLA-DQA1, HLA-DRB1, ABL2, HLA-DQB1, HLA-DRA	70	162	7.41	4.192e-5	1.125e-3
Generation of second messenger molecules	Reactome	5	HLA-DQA1, HLA-DRB1, CD247, HLA-DQB1, HLA-DRA	31	162	11.96	5.371e-5	1.371e-3
Asthma	KEGG	5	HLA-DQA1, HLA-DRB1, FCER1G, HLA-DQB1, HLA-DRA	32	162	11.58	6.296e-5	1.556e-3
Autoimmune thyroid disease	KEGG	6	HLA-B, HLA-DQA1, HLA-DRB1, HLA-DQB1, HLA-DRA, IL2	54	162	8.24	8.302e-5	1.950e-3
Interferon gamma signaling	Reactome	7	HLA-B, HLA-DQA1, HLA-DRB1, IRF1, IRF4, HLA-DQB1, HLA-DRA	87	162	5.96	1.687e-4	3.445e-3