

GeDiPNet Cluster 551 -- 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: 2026-10-20 03:30:09. · Rows: 15 · Generated: 2026-10-20 00:03:51

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Interferon gamma signaling	Reactome	4	HLA-DPA1, HLA-DPB1, TRIM10, TRIM31	87	11	50.20	8.155e-7	3.482e-5
Staphylococcus aureus infection	KEGG	3	C2, HLA-DPA1, HLA-DPB1	99	11	33.09	8.545e-5	1.676e-3
Hematopoietic cell lineage	KEGG	3	HLA-DPA1, HLA-DPB1, CR2	100	11	32.75	8.805e-5	1.717e-3
Translocation of ZAP-70 to Immunological synapse	Reactome	2	HLA-DPA1, HLA-DPB1	19	11	114.93	1.293e-4	2.319e-3
Phosphorylation of CD3 and TCR zeta chains	Reactome	2	HLA-DPA1, HLA-DPB1	22	11	99.26	1.744e-4	2.947e-3
PD-1 signaling	Reactome	2	HLA-DPA1, HLA-DPB1	23	11	94.94	1.909e-4	3.163e-3
Systemic lupus erythematosus	KEGG	3	C2, HLA-DPA1, HLA-DPB1	140	11	23.40	2.389e-4	3.769e-3
Generation of second messenger molecules	Reactome	2	HLA-DPA1, HLA-DPB1	31	11	70.44	3.495e-4	5.064e-3
Asthma	KEGG	2	HLA-DPA1, HLA-DPB1	32	11	68.24	3.727e-4	5.323e-3
Allograft rejection	KEGG	2	HLA-DPA1, HLA-DPB1	39	11	55.99	5.548e-4	7.246e-3
Type I diabetes mellitus	KEGG	2	HLA-DPA1, HLA-DPB1	44	11	49.63	7.065e-4	8.708e-3
Epstein-Barr virus infection	KEGG	3	HLA-DPA1, HLA-DPB1, CR2	204	11	16.06	7.206e-4	8.844e-3
Graft-versus-host disease	KEGG	2	HLA-DPA1, HLA-DPB1	45	11	48.53	7.390e-4	9.015e-3
Regulation of Complement cascade	Reactome	2	C2, CR2	47	11	46.46	8.061e-4	9.611e-3
Intestinal immune network for IgA production	KEGG	2	HLA-DPA1, HLA-DPB1	50	11	43.67	9.121e-4	1.059e-2