

GeDiPNet Cluster 309 -- Enriched GO Terms (Biological Process)

GO term enrichment: Biological Process terms (gene2go, human/tax_id=9606 only), upper-tail hypergeometric test, fold enrichment = (overlap / cluster gene count) / (term gene count / universe size), Benjamini-Hochberg FDR-corrected. Top 15 terms per cluster by q-value. See scripts/build_cluster_go_enrichment.php on gedipnet.bicnirrh.res.in. Data as of: 2026-10-07 03:23:06. · Rows: 15 · Generated: 2026-10-07 08:25:24

GO Term	GO ID	Overlap Genes	Overlap Gene Names	Term Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
immune response	GO:0006955	43	CCR6, CD4, CD40LG, CTLA4, FCRL3, HLA-B, HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, ICAM1	543	256	5.78	7.610e-21	1.386e-17
antigen processing and presentation	GO:0019882	12	HLA-B, HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, RAB5B, HLA-C, HLA-DPB1, HLA-DRA, HLA-DRB5, PSMB8	48	256	18.25	1.519e-12	6.694e-10
positive regulation of T cell proliferation	GO:0042102	13	BTNL2, CD4, CD40LG, HLA-DPA1, IL1B, IL2, IL23R, IL2RA, IL4, IL6, HLA-DPB1, PTPRC	67	256	14.16	5.804e-12	2.248e-9
antigen processing and presentation of peptide or polysaccharide antigen via MHC class II	GO:0002504	8	HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, HLA-DPB1, HLA-DRA, HLA-DRB5	15	256	38.93	6.588e-12	2.530e-9
peptide antigen assembly with MHC class II protein complex	GO:0002503	8	HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, HLA-DPB1, HLA-DRA, HLA-DRB5	16	256	36.50	1.302e-11	4.672e-9
positive regulation of T cell activation	GO:0050870	11	CD4, HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, HLA-DPB1, HLA-DRA, HLA-DRB5, CCL2, TNFSF11	45	256	17.84	1.731e-11	6.013e-9
immune system process	GO:0002376	41	C4A, C4B, CD4, CD40, CTLA4, HLA-B, HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, IFIH1	943	256	3.17	4.723e-11	1.465e-8
positive regulation of canonical NF-kappaB signal transduction	GO:0043123	20	CD4, CD40, CD40LG, HLA-DRB1, IL1B, LTA, TGFB1, TNF, VEGFA, INSR, NEK6, CASP7	232	256	6.29	7.036e-11	2.088e-8
response to lipopolysaccharide	GO:0032496	17	CYP1A1, IL10, IL13, IL1B, IL23R, LTA, PTPN22, TNF, GPX1, SOD2, DIO2, FASLG	161	256	7.71	8.220e-11	2.394e-8
positive regulation of transcription by RNA polymerase II	GO:0045944	46	AAMDC, ADRB2, CD40, ESR2, IFNG, IL10, IL13, IL17A, IL1B, IL2, IL4, IL6	1208	256	2.78	2.232e-10	5.888e-8
positive regulation of B cell proliferation	GO:0030890	10	CD40, FCRL3, IL13, IL2, IL4, VAV3, PRLR, PTPRC, TICAM1, TLR4	47	256	15.53	6.479e-10	1.531e-7
positive regulation of smooth muscle cell proliferation	GO:0048661	10	IL13, IL6, IL6R, TGFB1, TNF, ID2, CDH13, FOXP1, PIK3R1, TLR4	52	256	14.04	1.864e-9	3.886e-7
positive regulation of MAPK cascade	GO:0043410	18	ADRB2, CD4, CD40, FCRL3, HLA-DRB1, IL1B, IL6, IL6R, TGFB1, TNF, VEGFA, CARTPT	224	256	5.87	2.010e-9	4.151e-7
positive regulation of osteoclast differentiation	GO:0045672	8	IFNG, IL17A, IL23R, TNF, PPARGC1B, PPP3CA, TNFRSF11A, TNFSF11	28	256	20.86	2.727e-9	5.434e-7
antigen processing and presentation of exogenous peptide antigen via MHC class II	GO:0019886	8	HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRB1, HLA-DRB3, HLA-DPB1, HLA-DRA, HLA-DRB5	31	256	18.84	6.681e-9	1.207e-6