

GeDiPNet Cluster 133 -- 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 13:54:36

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Interleukin-4 and Interleukin-13 signaling	Reactome	33	IL1B, TNF, CDKN1A, FOXO3, HIF1A, HMOX1, ICAM1, IL12B, IL13, IL13RA1, IL6, MMP9	108	337	10.89	1.194e-25	2.355e-22
Interleukin-10 signaling	Reactome	23	IL1B, IL1RN, TNF, CD86, CXCL1, CXCL2, ICAM1, IL12B, IL6, PTGS2, TNFRSF1A, CSF3	47	337	17.44	8.394e-24	1.253e-20
Pathways in cancer	KEGG	59	CTNNA3, GSTM1, GSTP1, GSTT1, NFKBIA, ITGA3, BDKRB2, CDKN1A, CDKN2A, EDN1, HDAC2, HHIP	533	337	3.94	3.893e-20	3.050e-17
Inflammatory bowel disease	KEGG	20	IL1B, TNF, HLA-DPB1, IL12B, IL13, IL6, NOD2, TGFB1, TLR4, TLR5, IL17A, IL18	66	337	10.80	6.582e-16	2.634e-13
Rheumatoid arthritis	KEGG	23	FLT1, IL1B, TNF, CD86, CTLA4, CXCL1, CXCL2, HLA-DPB1, ICAM1, IL6, TGFB1, TLR4	95	337	8.63	1.001e-15	3.878e-13
Fluid shear stress and atherosclerosis	KEGG	27	GSTM1, GSTP1, GSTT1, IL1B, TNF, TXN, CYBA, EDN1, HMOX1, ICAM1, MMP9, NOS3	141	337	6.82	1.692e-15	6.311e-13
Lipid and atherosclerosis	KEGG	32	IL1B, NFKBIA, TNF, CYP2A6, CXCL1, CXCL2, CYBA, CYP1A1, HSPA1A, HSPA1B, HSPA1L, ICAM1	216	337	5.28	8.340e-15	2.647e-12
Cytokine-cytokine receptor interaction	KEGG	37	IL1B, IL1RN, TNF, CCL1, CXCL1, CXCL2, IL12B, IL13, IL13RA1, IL27, IL6, LEP	298	337	4.42	1.923e-14	5.634e-12
Chagas disease	KEGG	22	IL1B, NFKBIA, TNF, ACE, BDKRB2, IL12B, IL6, NOS2, TGFB1, TLR4, FAS, TLR9	103	337	7.61	7.036e-14	1.855e-11
IL-17 signaling pathway	KEGG	21	IL1B, NFKBIA, TNF, CXCL1, CXCL2, IL13, IL6, MMP9, PTGS2, CEBPB, IL17A, CSF3	94	337	7.96	1.024e-13	2.618e-11
Legionellosis	KEGG	16	IL1B, NFKBIA, TNF, CXCL1, CXCL2, HSPA1A, HSPA1B, HSPA1L, IL12B, IL6, TLR4, CD14	56	337	10.18	1.560e-12	3.304e-10
PI3K-Akt signaling pathway	KEGG	38	FLT1, MAGI2, ITGA3, CDKN1A, FOXO3, IL6, NOS3, TLR4, TP53, PIK3CG, TSC2, PPP2R2A	361	337	3.75	1.622e-12	3.425e-10
HIF-1 signaling pathway	KEGG	19	FLT1, CDKN1A, EDN1, HIF1A, HMOX1, IL6, NOS2, NOS3, TLR4, IGF1R, INSR, LDHC	110	337	6.16	1.868e-10	2.539e-8
AGE-RAGE signaling pathway in diabetic complications	KEGG	18	IL1B, TNF, EDN1, ICAM1, IL6, NOS3, TGFB1, AGER, VEGFA, IL1A, SERPINE1, CXCL8	101	337	6.35	3.328e-10	4.274e-8
Malaria	KEGG	13	IL1B, TNF, ICAM1, IL6, TGFB1, TLR4, TLR9, CSF3, IL18, TLR2, HGF, CXCL8	50	337	9.27	7.389e-10	8.545e-8