

GeDiPNet Cluster 43 -- 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 07:26:40

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	21	MMP9, TNF, CXCL8, MMP1, IL6, PTGS2, ALOX5, HMOX1, IL10, IL17A, IL1B, IL4	108	125	18.68	2.366e-21	2.355e-18
Lipid and atherosclerosis	KEGG	23	MMP9, TLR4, TNF, CXCL8, MMP1, IL6, TNFRSF1A, APOA4, IL1B, RELA, SRC, SOD2	216	125	10.23	3.416e-17	1.655e-14
Tuberculosis	KEGG	20	TLR4, TNF, IL6, TNFRSF1A, IFNG, IL10, IL1B, NOS2, RELA, SRC, SYK, CAMK2A	181	125	10.62	2.305e-15	8.222e-13
IL-17 signaling pathway	KEGG	15	MMP9, TNF, CXCL8, MMP1, IL6, PTGS2, IFNG, IL17A, IL1B, IL4, RELA, CASP3	94	125	15.33	3.598e-14	9.958e-12
Chagas disease	KEGG	15	TLR4, TNF, CXCL8, IL6, TNFRSF1A, IFNG, IL10, IL1B, NOS2, RELA, SERPINE1, CCL5	103	125	13.99	1.462e-13	3.595e-11
AGE-RAGE signaling pathway in diabetic complications	KEGG	14	TNF, CXCL8, IL6, IL1B, RELA, SERPINE1, COL1A1, COL1A2, MMP2, TGFB1, CASP3, MAPK1	101	125	13.32	1.996e-12	4.132e-10
HIF-1 signaling pathway	KEGG	14	TLR4, IGF1, IL6, HMOX1, IFNG, NOS2, RELA, SERPINE1, CAMK2A, TIMP1, ANGPT1, MAPK1	110	125	12.23	6.608e-12	1.227e-9
Kaposi sarcoma-associated herpesvirus infection	KEGG	17	CXCL8, IL6, PTGS2, TNFRSF1A, ZFP36, HLA-B, RELA, SRC, SYK, PPP3CA, PPP3CB, FGF2	196	125	8.33	1.760e-11	2.985e-9
TNF signaling pathway	KEGG	14	MMP9, TNF, IL6, PTGS2, TNFRSF1A, ADAM17, IL1B, RELA, CCL5, CASP3, LTA, MAPK1	119	125	11.30	1.967e-11	3.299e-9
Pertussis	KEGG	12	TLR4, TNF, CXCL8, IL6, IL10, IL1B, NOS2, RELA, CASP3, MAPK1, MAPK3, NLRP3	78	125	14.78	2.298e-11	3.794e-9
Leishmaniasis	KEGG	12	TLR4, TNF, PTGS2, IFNG, IL10, IL1B, IL4, NOS2, RELA, TGFB1, MAPK1, MAPK3	78	125	14.78	2.298e-11	3.794e-9
Proteoglycans in cancer	KEGG	17	PLAU, MMP9, TLR4, TNF, ITGA2, IGF1, SRC, TIMP3, CAMK2A, COL1A1, COL1A2, FGF2	204	125	8.01	3.337e-11	5.349e-9
Interleukin-10 signaling	Reactome	10	TNF, CXCL8, IL6, PTGS2, TNFRSF1A, IL10, IL1B, CCL5, TIMP1, CSF3	47	125	20.44	3.876e-11	6.142e-9
Amoebiasis	KEGG	13	TLR4, TNF, CXCL8, IL6, IFNG, IL10, IL1B, NOS2, RELA, COL1A1, COL1A2, TGFB1	103	125	12.13	4.333e-11	6.779e-9
C-type lectin receptor signaling pathway	KEGG	13	TNF, IL6, PTGS2, IL10, IL1B, RELA, SRC, SYK, PPP3CA, PPP3CB, MAPK1, MAPK3	105	125	11.90	5.555e-11	8.415e-9