

GeDiPNet Cluster 342 -- 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: 2026-10-09 03:30:08. · Rows: 15 · Generated: 2026-10-09 15:24:13

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	8	BCL2, COL1A2, IL6, MMP2, MMP9, ALOX5, FGF2, TGFB1	108	30	29.65	1.634e-10	2.135e-8
AGE-RAGE signaling pathway in diabetic complications	KEGG	7	COL3A1, BCL2, COL1A2, IL6, MMP2, COL1A1, TGFB1	101	30	27.75	4.188e-9	3.860e-7
Relaxin signaling pathway	KEGG	7	COL3A1, COL1A2, MMP2, MMP9, ACTA2, COL1A1, TGFB1	130	30	21.56	2.449e-8	1.816e-6
Collagen degradation	Reactome	5	COL3A1, COL1A2, MMP2, MMP9, COL1A1	52	30	38.49	1.641e-7	9.720e-6
Non-integrin membrane-ECM interactions	Reactome	4	COL3A1, COL1A2, COL1A1, FGF2	24	30	66.72	3.246e-7	1.758e-5
Diabetic cardiomyopathy	KEGG	7	COL3A1, COL1A2, MMP2, MMP9, NCF1, COL1A1, TGFB1	205	30	13.67	5.560e-7	2.801e-5
Collagen chain trimerization	Reactome	4	COL3A1, COL1A2, COL22A1, COL1A1	44	30	36.39	4.006e-6	1.535e-4
Amoebiasis	KEGG	5	COL3A1, COL1A2, IL6, COL1A1, TGFB1	103	30	19.43	5.057e-6	1.854e-4
Extracellular matrix organization	Reactome	3	COL3A1, COL1A2, COL1A1	15	30	80.07	6.272e-6	2.198e-4
Intestinal immune network for IgA production	KEGG	4	IL6, CXCL12, CXCR4, TGFB1	50	30	32.03	6.726e-6	2.332e-4
Assembly of collagen fibrils and other multimeric structures	Reactome	4	COL3A1, COL1A2, MMP9, COL1A1	51	30	31.40	7.286e-6	2.491e-4
ECM proteoglycans	Reactome	4	COL3A1, COL1A2, VCAN, COL1A1	51	30	31.40	7.286e-6	2.491e-4
Leukocyte transendothelial migration	KEGG	5	MMP2, MMP9, NCF1, CXCL12, CXCR4	116	30	17.26	9.058e-6	2.989e-4
Proteoglycans in cancer	KEGG	6	COL1A2, MMP2, MMP9, COL1A1, FGF2, TGFB1	204	30	11.77	9.429e-6	3.086e-4
Collagen biosynthesis and modifying enzymes	Reactome	4	COL3A1, COL1A2, COL22A1, COL1A1	67	30	23.90	2.173e-5	6.258e-4