

GeDiPNet Cluster 307 -- 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 15:34:05

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Collagen chain trimerization	Reactome	7	COL12A1, COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	44	9	212.30	1.922e-16	8.424e-14
Assembly of collagen fibrils and other multimeric structures	Reactome	7	COL12A1, COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	51	9	183.16	5.801e-16	2.338e-13
Collagen degradation	Reactome	7	COL12A1, COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	52	9	179.64	6.703e-16	2.663e-13
NCAM1 interactions	Reactome	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	21	9	381.27	1.091e-15	4.215e-13
Collagen biosynthesis and modifying enzymes	Reactome	7	COL12A1, COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	67	9	139.42	4.347e-15	1.491e-12
Signaling by PDGF	Reactome	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	33	9	242.63	2.222e-14	6.441e-12
Protein digestion and absorption	KEGG	7	COL12A1, COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	103	9	90.69	9.853e-14	2.531e-11
Integrin cell surface interactions	Reactome	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	81	9	98.85	6.444e-12	1.198e-9
ECM-receptor interaction	KEGG	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	89	9	89.96	1.152e-11	2.026e-9
Cytoskeleton in muscle cells	KEGG	7	COL6A1, COL6A2, COL6A3, LMNA, COL4A3, COL4A4, COL4A5	232	9	40.26	3.196e-11	5.153e-9
Focal adhesion	KEGG	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	203	9	39.44	1.745e-9	1.821e-7
Human papillomavirus infection	KEGG	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	333	9	24.04	3.402e-8	2.551e-6
PI3K-Akt signaling pathway	KEGG	6	COL6A1, COL6A2, COL6A3, COL4A3, COL4A4, COL4A5	361	9	22.18	5.508e-8	3.887e-6
Extracellular matrix organization	Reactome	3	COL4A3, COL4A4, COL4A5	15	9	266.89	1.318e-7	8.310e-6
Anchoring fibril formation	Reactome	3	COL4A3, COL4A4, COL4A5	15	9	266.89	1.318e-7	8.310e-6