

GeDiPNet Cluster 535 -- 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: 2026-10-20 03:30:09. · Rows: 15 · Generated: 2026-10-20 00:02:56

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Extracellular matrix organization	Reactome	1	COL4A1	15	4	200.17	4.987e-3	3.635e-2
Anchoring fibril formation	Reactome	1	COL4A1	15	4	200.17	4.987e-3	3.635e-2
Crosslinking of collagen fibrils	Reactome	1	COL4A1	18	4	166.81	5.982e-3	4.097e-2
NCAM1 interactions	Reactome	1	COL4A1	21	4	142.98	6.977e-3	4.528e-2
Non-integrin membrane-ECM interactions	Reactome	1	COL4A1	24	4	125.10	7.970e-3	4.940e-2
Laminin interactions	Reactome	1	COL4A1	28	4	107.23	9.294e-3	5.428e-2
Signaling by PDGF	Reactome	1	COL4A1	33	4	90.98	1.095e-2	6.008e-2
Collagen chain trimerization	Reactome	1	COL4A1	44	4	68.24	1.458e-2	7.133e-2
Assembly of collagen fibrils and other multimeric structures	Reactome	1	COL4A1	51	4	58.87	1.688e-2	7.780e-2
Collagen degradation	Reactome	1	COL4A1	52	4	57.74	1.721e-2	7.870e-2
Collagen biosynthesis and modifying enzymes	Reactome	1	COL4A1	67	4	44.81	2.213e-2	9.093e-2
Degradation of the extracellular matrix	Reactome	1	HTRA1	70	4	42.89	2.311e-2	9.306e-2
Integrin cell surface interactions	Reactome	1	COL4A1	81	4	37.07	2.671e-2	1.011e-1
ECM-receptor interaction	KEGG	1	COL4A1	89	4	33.74	2.932e-2	1.069e-1
Small cell lung cancer	KEGG	1	COL4A1	93	4	32.28	3.062e-2	1.097e-1