

GeDiPNet Cluster 33 -- 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 02:16:09

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Crosslinking of collagen fibrils	Reactome	3	COL4A1, COL4A2, LOXL2	18	89	22.49	2.962e-4	5.306e-3
Synthesis of Leukotrienes (LT) and Eoxins (EX)	Reactome	3	ALOX5AP, CYP4F3, CYP4F8	20	89	20.24	4.094e-4	6.828e-3
GABAergic synapse	KEGG	5	CACNA1A, CACNA1C, GNB1, GPHN, GAD1	89	89	7.58	5.078e-4	8.055e-3
Mitotic Prometaphase	Reactome	5	BUB1B, TUBA1A, TUBB4A, PMF1, PMF1-BGLAP	113	89	5.97	1.494e-3	1.844e-2
Collagen biosynthesis and modifying enzymes	Reactome	4	COL4A1, COL4A2, COLGALT1, ADAMTS14	67	89	8.06	1.513e-3	1.859e-2
Sealing of the nuclear envelope (NE) by ESCRT-III	Reactome	3	SPAST, TUBA1A, TUBB4A	31	89	13.06	1.522e-3	1.866e-2
EML4 and NUDC in mitotic spindle formation	Reactome	5	BUB1B, TUBA1A, TUBB4A, PMF1, PMF1-BGLAP	117	89	5.77	1.743e-3	2.065e-2
Signaling by PDGF	Reactome	3	COL4A1, COL4A2, PDGFRB	33	89	12.27	1.828e-3	2.135e-2
Resolution of Sister Chromatid Cohesion	Reactome	5	BUB1B, TUBA1A, TUBB4A, PMF1, PMF1-BGLAP	126	89	5.35	2.412e-3	2.620e-2
Eicosanoids	Reactome	2	CYP4F3, CYP4F8	12	89	22.49	3.415e-3	3.376e-2
RHO GTPases Activate Formins	Reactome	5	BUB1B, TUBA1A, TUBB4A, PMF1, PMF1-BGLAP	140	89	4.82	3.799e-3	3.636e-2
Focal adhesion	KEGG	6	COL4A1, COL4A2, EGFR, PDGFRB, MYL2, PARVB	203	89	3.99	3.933e-3	3.733e-2
Gap junction	KEGG	4	EGFR, PDGFRB, TUBA1A, TUBB4A	89	89	6.06	4.261e-3	3.941e-2
Fatty acids	Reactome	2	CYP4F3, CYP4F8	15	89	17.99	5.355e-3	4.576e-2
Extracellular matrix organization	Reactome	2	COL4A1, COL4A2	15	89	17.99	5.355e-3	4.576e-2