

GeDiPNet Cluster 375 -- 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](https://gedipnet.bicnirrh.res.in/scripts/build_cluster_enrichment.php) on gedipnet.bicnirrh.res.in. Data as of: 2026-10-08 03:30:07. · Rows: 15 · Generated: 2026-10-08 16:06:30

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Assembly of collagen fibrils and other multimeric structures	Reactome	7	COL17A1, LAMB3, MMP20, COL7A1, LAMC2, COL1A1, COL1A2	51	31	53.18	3.948e-11	5.896e-9
Anchoring fibril formation	Reactome	5	LAMB3, COL7A1, LAMC2, COL1A1, COL1A2	15	31	129.14	2.409e-10	2.986e-8
ECM-receptor interaction	KEGG	6	ITGB6, LAMB3, LAMC2, DSPP, COL1A1, COL1A2	89	31	26.12	8.860e-8	5.908e-6
Post-translational protein phosphorylation	Reactome	6	AMBN, AMELX, ENAM, FAM20A, FAM20C, AMTN	108	31	21.52	2.820e-7	1.621e-5
Regulation of Insulin-like Growth Factor (IGF) transport and uptake by Insulin-like Growth Factor Binding Proteins (IGFBPs)	Reactome	6	AMBN, AMELX, ENAM, FAM20A, FAM20C, AMTN	125	31	18.60	6.704e-7	3.435e-5
MET activates PTK2 signaling	Reactome	4	LAMB3, LAMC2, COL1A1, COL1A2	30	31	51.66	9.497e-7	4.657e-5
Type I hemidesmosome assembly	Reactome	3	COL17A1, LAMB3, LAMC2	11	31	105.66	2.534e-6	1.091e-4
Collagen chain trimerization	Reactome	4	COL17A1, COL7A1, COL1A1, COL1A2	44	31	35.22	4.587e-6	1.804e-4
Extracellular matrix organization	Reactome	3	COL7A1, COL1A1, COL1A2	15	31	77.48	6.938e-6	2.529e-4
ECM proteoglycans	Reactome	4	ITGB6, DSPP, COL1A1, COL1A2	51	31	30.39	8.339e-6	2.955e-4
Collagen degradation	Reactome	4	MMP20, COL7A1, COL1A1, COL1A2	52	31	29.80	9.017e-6	3.149e-4
Collagen biosynthesis and modifying enzymes	Reactome	4	COL17A1, COL7A1, COL1A1, COL1A2	67	31	23.13	2.485e-5	7.306e-4
Laminin interactions	Reactome	3	LAMB3, COL7A1, LAMC2	28	31	41.51	4.883e-5	1.269e-3
Integrin cell surface interactions	Reactome	4	ITGB6, COL7A1, COL1A1, COL1A2	81	31	19.13	5.260e-5	1.348e-3
Protein digestion and absorption	KEGG	4	COL17A1, COL7A1, COL1A1, COL1A2	103	31	15.05	1.343e-4	2.877e-3