

GeDiPNet Cluster 44 -- 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 02:15:43

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
ECM proteoglycans	Reactome	16	ITGB5, VCAN, COMP, COL2A1, COL9A1, COL9A2, COL9A3, HSPG2, MATN3, COL1A1, COL1A2, COL3A1	51	219	17.20	3.520e-16	1.473e-13
Non-integrin membrane-ECM interactions	Reactome	12	COL10A1, COL11A1, COL11A2, TTR, COL2A1, HSPG2, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2, DDR2	24	219	27.42	2.230e-15	8.049e-13
Assembly of collagen fibrils and other multimeric structures	Reactome	13	COL10A1, COL11A1, COL11A2, COL2A1, COL9A1, COL9A2, COL9A3, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2	51	219	13.98	4.461e-12	8.539e-10
Collagen biosynthesis and modifying enzymes	Reactome	14	ADAMTS14, COL10A1, COL11A1, COL11A2, COL2A1, COL9A1, COL9A2, COL9A3, COL1A1, COL1A2, COL3A1, COL5A1	67	219	11.46	1.236e-11	2.165e-9
Collagen chain trimerization	Reactome	12	COL10A1, COL11A1, COL11A2, COL2A1, COL9A1, COL9A2, COL9A3, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2	44	219	14.96	1.262e-11	2.202e-9
Integrin cell surface interactions	Reactome	14	ITGB5, COMP, COL2A1, COL9A1, COL9A2, COL9A3, HSPG2, KDR, COL1A1, COL1A2, COL3A1, COL5A1	81	219	9.48	1.839e-10	2.504e-8
Cytoskeleton in muscle cells	KEGG	22	COL11A1, COL11A2, FBN2, ITGB5, MYL7, THBS3, VCAN, COMP, COL9A1, COL9A2, COL9A3, HSPG2	232	219	5.20	2.322e-10	3.075e-8
Collagen degradation	Reactome	10	COL10A1, COL11A1, COL11A2, COL2A1, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2, MMP13	52	219	10.55	2.683e-8	2.085e-6
MET activates PTK2 signaling	Reactome	8	COL11A1, COL11A2, COL2A1, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2	30	219	14.62	4.458e-8	3.220e-6
NCAM1 interactions	Reactome	7	COL2A1, COL9A1, COL9A2, COL9A3, COL3A1, COL5A1, COL5A2	21	219	18.28	5.701e-8	4.013e-6
Signaling by PDGF	Reactome	8	THBS3, COL2A1, COL9A1, COL9A2, COL9A3, COL3A1, COL5A1, COL5A2	33	219	13.29	1.009e-7	6.577e-6
Extracellular matrix organization	Reactome	6	COL2A1, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2	15	219	21.94	1.498e-7	9.295e-6
Focal adhesion	KEGG	17	ITGB5, MYL7, THBS3, COMP, COL2A1, BCL2, COL9A1, COL9A2, COL9A3, FLNA, FLNB, FLT1	203	219	4.59	1.748e-7	1.064e-5
Molecules associated with elastic fibres	Reactome	8	EFEMP1, FBN2, ITGB5, LTBP1, TGFB1, BMP7, FBN1, MFAP5	38	219	11.55	3.285e-7	1.857e-5
Protein digestion and absorption	KEGG	12	COL10A1, COL11A1, COL11A2, COL2A1, COL9A1, COL9A2, COL9A3, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2	103	219	6.39	3.554e-7	1.993e-5