

GeDiPNet Cluster 40 -- 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 02:16:10

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Mannose type O-glycan biosynthesis	KEGG	12	B3GALNT2, CRPPA, FKRPF, LARGE1, POMGNT1, POMT1, POMK, POMT2, FKTN, B4GAT1, POMGNT2, RXYLT1	23	45	139.25	2.022e-24	3.490e-21
O-linked glycosylation	Reactome	9	B3GALNT2, LARGE1, POMGNT1, POMT1, POMK, POMT2, B4GAT1, DAG1, POMGNT2	10	45	240.20	6.188e-22	7.045e-19
Defective POMT2 causes MDDGA2, MDDGB2 and MDDGC2	Reactome	3	POMT1, POMT2, DAG1	3	45	266.89	4.916e-8	3.513e-6
Defective POMT1 causes MDDGA1, MDDGB1 and MDDGC1	Reactome	3	POMT1, POMT2, DAG1	3	45	266.89	4.916e-8	3.513e-6
ECM-receptor interaction	KEGG	6	COL6A2, LAMA2, ITGA7, COL4A1, FREM1, DAG1	89	45	17.99	9.020e-7	4.459e-5
Cytoskeleton in muscle cells	KEGG	8	CAPN3, COL6A2, LAMA2, LMNA, NEB, ITGA7, COL4A1, DAG1	232	45	9.20	2.000e-6	8.790e-5
Defective LARGE causes MDDGA6 and MDDGB6	Reactome	2	LARGE1, B4GAT1	2	45	266.89	1.373e-5	4.363e-4
Defective POMGNT1 causes MDDGA3, MDDGB3 and MDDGC3	Reactome	2	POMGNT1, DAG1	2	45	266.89	1.373e-5	4.363e-4
Hypertrophic cardiomyopathy	KEGG	5	LAMA2, LMNA, ITGA7, TGFB2, DAG1	99	45	13.48	3.234e-5	8.897e-4
Dilated cardiomyopathy	KEGG	5	LAMA2, LMNA, ITGA7, TGFB2, DAG1	105	45	12.71	4.295e-5	1.130e-3
Metabolic pathways	KEGG	16	B3GALNT2, CRPPA, FKRPF, GMPPB, LARGE1, POMGNT1, POMT1, INPP5K, POMK, POMT2, DPM2, FKTN	1563	45	2.73	9.855e-5	2.225e-3
Pathways in cancer	KEGG	9	LAMA2, APAF1, APC, COL4A1, JAG1, SHH, TGFB2, TGFB2R2, EGLN3	533	45	4.51	1.322e-4	2.809e-3
Laminin interactions	Reactome	3	LAMA2, ITGA7, COL4A1	28	45	28.60	1.508e-4	3.124e-3
Hippo signaling pathway	KEGG	5	APC, BMPR1A, BMPR1B, TGFB2, TGFB2R2	157	45	8.50	2.870e-4	5.182e-3
Arrhythmogenic right ventricular cardiomyopathy	KEGG	4	LAMA2, LMNA, ITGA7, DAG1	86	45	12.41	2.919e-4	5.247e-3