

GeDiPNet Cluster 627 -- 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 00:03:12

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Collecting duct acid secretion	KEGG	4	SLC4A1, ATP6V0A4, ATP6V1B1, ATP6V1C2	28	11	155.97	7.711e-9	5.852e-7
Bicarbonate transporters	Reactome	3	SLC4A1, SLC4A3, SLC4A2	10	11	327.55	6.836e-8	3.995e-6
Ion channel transport	Reactome	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	24	11	136.48	1.145e-6	4.692e-5
Insulin receptor recycling	Reactome	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	26	11	125.98	1.469e-6	5.833e-5
Transferrin endocytosis and recycling	Reactome	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	31	11	105.66	2.534e-6	9.229e-5
ROS and RNS production in phagocytes	Reactome	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	34	11	96.34	3.368e-6	1.178e-4
Vibrio cholerae infection	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	51	11	64.22	1.162e-5	3.295e-4
Epithelial cell signaling in Helicobacter pylori infection	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	71	11	46.13	3.158e-5	7.560e-4
Synaptic vesicle cycle	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	79	11	41.46	4.352e-5	9.798e-4
Rheumatoid arthritis	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	95	11	34.48	7.556e-5	1.518e-3
Oxidative phosphorylation	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	137	11	23.91	2.241e-4	3.595e-3
Phagosome	KEGG	3	ATP6V0A4, ATP6V1B1, ATP6V1C2	155	11	21.13	3.224e-4	4.759e-3
Defective SLC2A1 causes GLUT1 deficiency syndrome 1 (GLUT1DS1)	Reactome	1	SLC2A1	1	11	1091.82	9.159e-4	1.060e-2
Defective SLC4A1 causes hereditary spherocytosis type 4 (HSP4), distal renal tubular acidosis (dRTA) and dRTA with hemolytic anemia (dRTA-HA)	Reactome	1	SLC4A1	1	11	1091.82	9.159e-4	1.060e-2
Amino acids regulate mTORC1	Reactome	2	ATP6V1B1, ATP6V1C2	55	11	39.70	1.103e-3	1.221e-2