

GeDiPNet Cluster 287 -- 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 18:30:16

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Regulation of insulin secretion	Reactome	2	CACNA1A, SLC2A1	16	34	44.15	9.106e-4	1.265e-2
Defective SLC9A6 causes X-linked, syndromic mental retardation,, Christianson type (MRXSCH)	Reactome	1	SLC9A6	1	34	353.24	2.831e-3	2.950e-2
Defective SLC2A1 causes GLUT1 deficiency syndrome 1 (GLUT1DS1)	Reactome	1	SLC2A1	1	34	353.24	2.831e-3	2.950e-2
GPVI-mediated activation cascade	Reactome	2	COL1A2, PTPN11	34	34	20.78	4.123e-3	3.856e-2
Lactose synthesis	Reactome	1	SLC2A1	3	34	117.75	8.470e-3	6.196e-2
Melanin biosynthesis	Reactome	1	TYR	5	34	70.65	1.408e-2	8.377e-2
MET activates PTPN11	Reactome	1	PTPN11	5	34	70.65	1.408e-2	8.377e-2
Adipocytokine signaling pathway	KEGG	2	PTPN11, SLC2A1	70	34	10.09	1.666e-2	9.286e-2
Renal cell carcinoma	KEGG	2	PTPN11, SLC2A1	70	34	10.09	1.666e-2	9.286e-2
RAS signaling downstream of NF1 loss-of-function variants	Reactome	1	NF1	7	34	50.46	1.965e-2	1.020e-1
Synaptic vesicle cycle	KEGG	2	CACNA1A, STXBP1	79	34	8.94	2.092e-2	1.055e-1
Vitamin C (ascorbate) metabolism	Reactome	1	SLC2A1	8	34	44.15	2.243e-2	1.097e-1
Platelet Aggregation (Plug Formation)	Reactome	1	COL1A2	8	34	44.15	2.243e-2	1.097e-1
Sodium/Proton exchangers	Reactome	1	SLC9A6	9	34	39.25	2.520e-2	1.169e-1
Activation of the phototransduction cascade	Reactome	1	GNB1	9	34	39.25	2.520e-2	1.169e-1