

GeDiPNet Cluster 407 -- 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: 2026-10-08 03:30:07. · Rows: 15 · Generated: 2026-10-08 21:31:07

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Vitamin D (calciferol) metabolism	Reactome	3	CYP27B1, CYP2R1, VDR	11	11	297.77	9.394e-8	6.212e-6
Parathyroid hormone synthesis, secretion and action	KEGG	4	CYP27B1, VDR, PTH, PTH1R	115	11	37.98	2.500e-6	1.078e-4
Vitamins	Reactome	2	CYP27B1, CYP2R1	6	11	363.94	1.142e-5	3.807e-4
Endocrine and other factor-regulated calcium reabsorption	KEGG	3	VDR, PTH, PTH1R	53	11	61.80	1.306e-5	4.260e-4
Class B/2 (Secretin family receptors)	Reactome	2	PTH, PTH1R	18	11	121.31	1.158e-4	2.548e-3
Steroid biosynthesis	KEGG	2	CYP27B1, CYP2R1	20	11	109.18	1.436e-4	3.032e-3
G alpha (s) signalling events	Reactome	3	PTH, PTH1R, PDE3B	140	11	23.40	2.389e-4	4.541e-3
Defective CYP2R1 causes Rickets vitamin D-dependent 1B (VDDR1B)	Reactome	1	CYP2R1	1	11	1091.82	9.159e-4	1.299e-2
Defective CYP27B1 causes Rickets vitamin D-dependent 1A (VDDR1A)	Reactome	1	CYP27B1	1	11	1091.82	9.159e-4	1.299e-2
PDE3B signalling	Reactome	1	PDE3B	1	11	1091.82	9.159e-4	1.299e-2
Metabolic pathways	KEGG	6	CYP27B1, CYP2R1, CA1, HADHB, PDE3B, CYP3A4	1563	11	4.19	1.239e-3	1.637e-2
Beta oxidation of myristoyl-CoA to lauroyl-CoA	Reactome	1	HADHB	3	11	363.94	2.745e-3	2.946e-2
Beta oxidation of palmitoyl-CoA to myristoyl-CoA	Reactome	1	HADHB	3	11	363.94	2.745e-3	2.946e-2
Neuroactive ligand-receptor interaction	KEGG	3	PRSS1, PTH, PTH1R	370	11	8.85	3.980e-3	3.823e-2
Beta oxidation of lauroyl-CoA to decanoyl-CoA-CoA	Reactome	1	HADHB	5	11	218.36	4.572e-3	4.188e-2