

GeDiPNet Cluster 527 -- 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 00:03:01

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Prolactin receptor signaling	Reactome	2	GH1, PRL	12	14	142.98	8.273e-5	1.633e-3
Growth hormone receptor signaling	Reactome	2	GH1, PRL	14	14	122.55	1.139e-4	2.104e-3
PKA activation in glucagon signalling	Reactome	2	GNAS, PRKAR1A	17	14	100.92	1.699e-4	2.893e-3
Growth hormone synthesis, secretion and action	KEGG	3	GH1, GNAS, HRAS	122	14	21.09	3.430e-4	4.998e-3
Insulin signaling pathway	KEGG	3	PRKAR1A, TSC2, HRAS	138	14	18.65	4.925e-4	6.606e-3
Phospholipase D signaling pathway	KEGG	3	GNAS, TSC2, HRAS	149	14	17.27	6.162e-4	7.856e-3
PI3K-Akt signaling pathway	KEGG	4	GH1, PRL, TSC2, HRAS	361	14	9.51	6.327e-4	8.014e-3
JAK-STAT signaling pathway	KEGG	3	GH1, PRL, HRAS	168	14	15.32	8.737e-4	1.023e-2
Vasopressin regulates renal water homeostasis via Aquaporins	Reactome	2	GNAS, PRKAR1A	43	14	39.90	1.109e-3	1.225e-2
Chemical carcinogenesis - receptor activation	KEGG	3	AIP, GNAS, HRAS	215	14	11.97	1.780e-3	1.750e-2
Hedgehog 'off' state	Reactome	2	GNAS, PRKAR1A	56	14	30.64	1.875e-3	1.815e-2
Hormone signaling	KEGG	3	GH1, GNAS, PRL	219	14	11.75	1.876e-3	1.817e-2
Human cytomegalovirus infection	KEGG	3	GNAS, TSC2, HRAS	226	14	11.39	2.053e-3	1.938e-2
Long-term depression	KEGG	2	GNAS, HRAS	60	14	28.60	2.149e-3	2.009e-2
Thermogenesis	KEGG	3	GNAS, TSC2, HRAS	234	14	11.00	2.267e-3	2.090e-2