

GeDiPNet Cluster 62 -- 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 07:18:35

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
GnRH secretion	KEGG	5	GNA11, GNAQ, KRAS, PIK3CA, PIK3R1	65	18	51.32	3.222e-8	2.400e-6
Downstream signal transduction	Reactome	4	KRAS, RASA1, PIK3CA, PIK3R1	29	18	92.03	8.195e-8	5.517e-6
Fatty Acids bound to GPR40 (FFAR1) regulate insulin secretion	Reactome	3	GNA11, GNA14, GNAQ	8	18	250.21	1.576e-7	9.768e-6
Acetylcholine regulates insulin secretion	Reactome	3	GNA11, GNA14, GNAQ	9	18	222.41	2.361e-7	1.381e-5
Chagas disease	KEGG	5	GNA11, GNA14, GNAQ, PIK3CA, PIK3R1	103	18	32.39	3.299e-7	1.861e-5
Amoebiasis	KEGG	5	GNA11, GNA14, GNAQ, PIK3CA, PIK3R1	103	18	32.39	3.299e-7	1.861e-5
Signaling by FGFR3 fusions in cancer	Reactome	3	KRAS, PIK3CA, PIK3R1	10	18	200.17	3.370e-7	1.897e-5
Signaling by FGFR4 in disease	Reactome	3	KRAS, PIK3CA, PIK3R1	11	18	181.97	4.630e-7	2.502e-5
Cholinergic synapse	KEGG	5	GNA11, GNAQ, KRAS, PIK3CA, PIK3R1	115	18	29.01	5.722e-7	2.996e-5
Signaling by PDGFRA transmembrane, juxtamembrane and kinase domain mutants	Reactome	3	KRAS, PIK3CA, PIK3R1	12	18	166.81	6.167e-7	3.201e-5
Signaling by PDGFRA extracellular domain mutants	Reactome	3	KRAS, PIK3CA, PIK3R1	12	18	166.81	6.167e-7	3.201e-5
Growth hormone synthesis, secretion and action	KEGG	5	GNA11, GNAQ, KRAS, PIK3CA, PIK3R1	122	18	27.35	7.679e-7	3.850e-5
Constitutive Signaling by EGFRvIII	Reactome	3	KRAS, PIK3CA, PIK3R1	15	18	133.44	1.272e-6	5.988e-5
Signaling by ERBB2 ECD mutants	Reactome	3	KRAS, PIK3CA, PIK3R1	16	18	125.10	1.564e-6	7.141e-5
Tie2 Signaling	Reactome	3	KRAS, PIK3CA, PIK3R1	18	18	111.20	2.275e-6	9.929e-5