

GeDiPNet Cluster 556 -- 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 00:03:14

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Prostate cancer	KEGG	8	KRAS, PIK3CA, PTEN, CTNNB1, HRAS, TP53, PDGFRA, AR	98	16	61.28	1.792e-13	3.941e-11
Endometrial cancer	KEGG	6	KRAS, PIK3CA, PTEN, CTNNB1, HRAS, TP53	59	16	76.33	8.345e-11	9.989e-9
Pathways in cancer	KEGG	10	KRAS, PIK3CA, PTEN, CTNNB1, ESR1, JAK2, HRAS, TP53, PDGFRA, AR	533	16	14.08	1.717e-10	1.889e-8
Central carbon metabolism in cancer	KEGG	6	KRAS, PIK3CA, PTEN, HRAS, TP53, PDGFRA	71	16	63.43	2.630e-10	2.800e-8
Melanoma	KEGG	6	KRAS, PIK3CA, PTEN, HRAS, TP53, PDGFRA	73	16	61.70	3.121e-10	3.255e-8
Breast cancer	KEGG	7	KRAS, PIK3CA, PTEN, CTNNB1, ESR1, HRAS, TP53	148	16	35.50	3.902e-10	3.988e-8
Glioma	KEGG	6	KRAS, PIK3CA, PTEN, HRAS, TP53, PDGFRA	76	16	59.26	4.000e-10	4.075e-8
EGFR tyrosine kinase inhibitor resistance	KEGG	6	KRAS, PIK3CA, PTEN, JAK2, HRAS, PDGFRA	80	16	56.30	5.483e-10	5.438e-8
Hepatocellular carcinoma	KEGG	7	KRAS, PIK3CA, PTEN, CTNNB1, HRAS, ARID1A, TP53	170	16	30.91	1.034e-9	9.591e-8
Signaling by PDGFRA transmembrane, juxtamembrane and kinase domain mutants	Reactome	4	KRAS, PIK3CA, HRAS, PDGFRA	12	16	250.21	1.033e-9	9.591e-8
Signaling by PDGFRA extracellular domain mutants	Reactome	4	KRAS, PIK3CA, HRAS, PDGFRA	12	16	250.21	1.033e-9	9.591e-8
MicroRNAs in cancer	KEGG	8	KRAS, PIK3CA, PTEN, ATM, HRAS, TP53, PDGFRA, DICER1	311	16	19.31	1.987e-9	1.718e-7
Thyroid hormone signaling pathway	KEGG	6	KRAS, PIK3CA, CTNNB1, ESR1, HRAS, TP53	122	16	36.92	7.156e-9	5.473e-7
Prolactin signaling pathway	KEGG	5	KRAS, PIK3CA, ESR1, JAK2, HRAS	71	16	52.86	2.599e-8	1.722e-6
Cellular senescence	KEGG	6	KRAS, PIK3CA, PTEN, ATM, HRAS, TP53	157	16	28.69	3.260e-8	2.111e-6