

GeDiPNet Cluster 283 -- 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: 2026-10-09 03:30:08. · Rows: 15 · Generated: 2026-10-09 07:59:34

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Thyroid cancer	KEGG	12	BRAF, CCDC6, HRAS, KRAS, NCOA4, NRAS, NTRK1, PAX8, PPARG, RET, TFG, TPR	37	105	37.10	1.616e-16	6.450e-14
FoxO signaling pathway	KEGG	11	BRAF, GRM1, HRAS, KRAS, NRAS, PRKAG2, INSR, SKP2, SMAD3, TGFB2, SOD2	133	105	9.46	2.084e-8	1.569e-6
Pathways in cancer	KEGG	19	ALK, BRAF, CCDC6, HRAS, KRAS, LPAR4, NCOA4, NRAS, NTRK1, PAX8, PPARG, RET	533	105	4.08	1.501e-7	8.997e-6
RAS GTPase cycle mutants	Reactome	3	HRAS, KRAS, NRAS	3	105	114.38	6.494e-7	3.207e-5
Chronic myeloid leukemia	KEGG	7	BRAF, HRAS, KRAS, NRAS, GAB2, SMAD3, TGFB2	77	105	10.40	4.645e-6	1.734e-4
SHC1 events in ERBB4 signaling	Reactome	4	HRAS, KRAS, NRAS, NRG1	14	105	32.68	5.162e-6	1.887e-4
GRB2 events in ERBB2 signaling	Reactome	4	HRAS, KRAS, NRAS, NRG1	14	105	32.68	5.162e-6	1.887e-4
Activation of RAS in B cells	Reactome	3	HRAS, KRAS, NRAS	5	105	68.63	6.412e-6	2.234e-4
Estrogen-stimulated signaling through PRKCZ	Reactome	3	HRAS, KRAS, NRAS	6	105	57.19	1.274e-5	3.998e-4
Longevity regulating pathway	KEGG	7	HRAS, KRAS, NRAS, PPARG, PRKAG2, INSR, SOD2	90	105	8.90	1.315e-5	4.103e-4
Longevity regulating pathway - multiple species	KEGG	6	HRAS, KRAS, NRAS, PRKAG2, INSR, SOD2	62	105	11.07	1.599e-5	4.829e-4
RAS signaling downstream of NF1 loss-of-function variants	Reactome	3	HRAS, KRAS, NRAS	7	105	49.02	2.216e-5	6.352e-4
FLT3 Signaling	Reactome	3	HRAS, KRAS, NRAS	7	105	49.02	2.216e-5	6.352e-4
Central carbon metabolism in cancer	KEGG	6	HRAS, KRAS, NRAS, NTRK1, NTRK3, RET	71	105	9.67	3.496e-5	9.270e-4
p38MAPK events	Reactome	3	HRAS, KRAS, NRAS	8	105	42.89	3.523e-5	9.327e-4