

GeDiPNet Cluster 496 -- 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](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 00:02:59

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Cellular senescence	KEGG	7	AKT3, MTOR, PIK3CA, PTEN, RHEB, CCND2, PIK3R2	157	9	59.50	2.010e-12	3.561e-10
mTOR signaling pathway	KEGG	7	AKT3, MTOR, PIK3CA, PTEN, RHEB, RPS6, PIK3R2	158	9	59.12	2.102e-12	3.705e-10
PI3K-Akt signaling pathway	KEGG	8	AKT3, MTOR, PIK3CA, PTEN, RHEB, RPS6, CCND2, PIK3R2	361	9	29.57	5.414e-12	8.758e-10
EGFR tyrosine kinase inhibitor resistance	KEGG	6	AKT3, MTOR, PIK3CA, PTEN, RPS6, PIK3R2	80	9	100.08	5.968e-12	9.522e-10
Insulin signaling pathway	KEGG	6	AKT3, MTOR, PIK3CA, RHEB, RPS6, PIK3R2	138	9	58.02	1.685e-10	1.857e-8
Human papillomavirus infection	KEGG	7	AKT3, MTOR, PIK3CA, PTEN, RHEB, CCND2, PIK3R2	333	9	28.05	4.064e-10	4.133e-8
Autophagy - animal	KEGG	6	AKT3, MTOR, PIK3CA, PTEN, RHEB, PIK3R2	169	9	47.38	5.763e-10	5.671e-8
Central carbon metabolism in cancer	KEGG	5	AKT3, MTOR, PIK3CA, PTEN, PIK3R2	71	9	93.97	7.742e-10	7.370e-8
CD28 dependent PI3K/Akt signaling	Reactome	4	AKT3, MTOR, PIK3CA, PIK3R2	22	9	242.63	1.057e-9	9.790e-8
Glioma	KEGG	5	AKT3, MTOR, PIK3CA, PTEN, PIK3R2	76	9	87.79	1.097e-9	1.011e-7
Longevity regulating pathway	KEGG	5	AKT3, MTOR, PIK3CA, RHEB, PIK3R2	90	9	74.14	2.599e-9	2.203e-7
PD-L1 expression and PD-1 checkpoint pathway in cancer	KEGG	5	AKT3, MTOR, PIK3CA, PTEN, PIK3R2	90	9	74.14	2.599e-9	2.203e-7
Prostate cancer	KEGG	5	AKT3, MTOR, PIK3CA, PTEN, PIK3R2	98	9	68.08	4.008e-9	3.272e-7
Choline metabolism in cancer	KEGG	5	AKT3, MTOR, PIK3CA, RHEB, PIK3R2	99	9	67.40	4.220e-9	3.422e-7
Insulin resistance	KEGG	5	AKT3, MTOR, PIK3CA, PTEN, PIK3R2	109	9	61.21	6.873e-9	5.293e-7