

GeDiPNet Cluster 393 -- 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 17:54:11

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Evasion of Oncogene Induced Senescence Due to Defective p16INK4A binding to CDK4 and CDK6	Reactome	3	CDK4, CDK6, CDKN2A	3	4	3002.50	1.386e-11	2.292e-9
Evasion of Oxidative Stress Induced Senescence Due to Defective p16INK4A binding to CDK4 and CDK6	Reactome	3	CDK4, CDK6, CDKN2A	3	4	3002.50	1.386e-11	2.292e-9
p53 signaling pathway	KEGG	4	CDK4, CDK6, CDKN2A, PPM1D	75	4	160.13	1.403e-9	1.439e-7
Oncogene Induced Senescence	Reactome	3	CDK4, CDK6, CDKN2A	33	4	272.95	7.547e-8	5.122e-6
Evasion of Oncogene Induced Senescence Due to Defective p16INK4A binding to CDK4	Reactome	2	CDK4, CDKN2A	2	4	3002.50	8.320e-8	5.592e-6
Evasion of Oxidative Stress Induced Senescence Due to Defective p16INK4A binding to CDK4	Reactome	2	CDK4, CDKN2A	2	4	3002.50	8.320e-8	5.592e-6
Cyclin D associated events in G1	Reactome	3	CDK4, CDK6, CDKN2A	44	4	204.72	1.831e-7	1.111e-5
Melanoma	KEGG	3	CDK4, CDK6, CDKN2A	73	4	123.39	8.581e-7	4.253e-5
Non-small cell lung cancer	KEGG	3	CDK4, CDK6, CDKN2A	73	4	123.39	8.581e-7	4.253e-5
Glioma	KEGG	3	CDK4, CDK6, CDKN2A	76	4	118.52	9.698e-7	4.749e-5
Pancreatic cancer	KEGG	3	CDK4, CDK6, CDKN2A	77	4	116.98	1.009e-6	4.895e-5
Chronic myeloid leukemia	KEGG	3	CDK4, CDK6, CDKN2A	77	4	116.98	1.009e-6	4.895e-5
Senescence-Associated Secretory Phenotype (SASP)	Reactome	3	CDK4, CDK6, CDKN2A	111	4	81.15	3.053e-6	1.281e-4
Oxidative Stress Induced Senescence	Reactome	3	CDK4, CDK6, CDKN2A	125	4	72.06	4.370e-6	1.731e-4
Transcriptional regulation by RUNX2	Reactome	2	CDK4, PPM1D	12	4	500.42	5.485e-6	2.089e-4