

GeDiPNet Cluster 95 -- 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 17:09:55

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Chronic myeloid leukemia	KEGG	7	SOS1, TP53, ABL1, PIK3CD, SMAD4, MAP2K2, PTPN11	77	53	20.60	4.104e-8	2.875e-6
RUNX3 regulates CDKN1A transcription	Reactome	3	TP53, SMAD4, ZFXH3	7	53	97.12	2.805e-6	1.134e-4
Endocrine resistance	KEGG	6	SOS1, GNAS, TP53, JAG1, PIK3CD, MAP2K2	99	53	13.73	4.520e-6	1.696e-4
Renal cell carcinoma	KEGG	5	SOS1, CUL2, PIK3CD, MAP2K2, PTPN11	70	53	16.19	1.344e-5	4.178e-4
Neurotrophin signaling pathway	KEGG	6	SOS1, TP53, ABL1, PIK3CD, MAP2K2, PTPN11	120	53	11.33	1.373e-5	4.243e-4
Colorectal cancer	KEGG	5	SOS1, TP53, PIK3CD, SMAD4, MAP2K2	87	53	13.02	3.877e-5	1.010e-3
Phospholipase D signaling pathway	KEGG	6	SOS1, GNAS, DNMT2, PIK3CD, MAP2K2, PTPN11	149	53	9.12	4.680e-5	1.175e-3
Endometrial cancer	KEGG	4	SOS1, TP53, PIK3CD, MAP2K2	59	53	15.36	1.285e-4	2.671e-3
Growth hormone synthesis, secretion and action	KEGG	5	SOS1, GNAS, CACNA1S, PIK3CD, MAP2K2	122	53	9.29	1.936e-4	3.708e-3
Non-small cell lung cancer	KEGG	4	SOS1, TP53, PIK3CD, MAP2K2	73	53	12.42	2.937e-4	5.160e-3
Glioma	KEGG	4	SOS1, TP53, PIK3CD, MAP2K2	76	53	11.93	3.428e-4	5.858e-3
Chemical carcinogenesis - receptor activation	KEGG	6	SOS1, GNAS, CACNA1S, JAG1, PIK3CD, MAP2K2	215	53	6.32	3.493e-4	5.948e-3
RAS signaling downstream of NF1 loss-of-function variants	Reactome	2	NF1, SPRED1	7	53	64.74	3.956e-4	6.575e-3
EGFR tyrosine kinase inhibitor resistance	KEGG	4	NF1, SOS1, PIK3CD, MAP2K2	80	53	11.33	4.172e-4	6.846e-3
Breast cancer	KEGG	5	SOS1, TP53, JAG1, PIK3CD, MAP2K2	148	53	7.66	4.735e-4	7.563e-3