

GeDiPNet Cluster 73 -- 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 00:39:29

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	112	9.75	7.134e-6	2.591e-4
RUNX3 regulates CDKN1A transcription	Reactome	3	TP53, SMAD4, ZFHX3	7	112	45.96	2.689e-5	7.779e-4
Renal cell carcinoma	KEGG	6	SOS1, CUL2, PIK3CD, RAP1A, MAP2K2, PTPN11	70	112	9.19	4.640e-5	1.217e-3
Phospholipase D signaling pathway	KEGG	8	SOS1, GNAS, DNMT2, PIK3CD, DNMT3, RAPGEF4, MAP2K2, PTPN11	149	112	5.76	7.443e-5	1.780e-3
Neurotrophin signaling pathway	KEGG	7	SOS1, TP53, ABL1, PIK3CD, RAP1A, MAP2K2, PTPN11	120	112	6.26	1.270e-4	2.747e-3
Natural killer cell mediated cytotoxicity	KEGG	7	SOS1, PIK3CD, FAS, HLA-A, LAT2, MAP2K2, PTPN11	133	112	5.64	2.406e-4	4.567e-3
Endocrine resistance	KEGG	6	SOS1, GNAS, TP53, JAG1, PIK3CD, MAP2K2	99	112	6.50	3.187e-4	5.708e-3
Proteoglycans in cancer	KEGG	8	SOS1, TP53, PIK3CD, FAS, TWIST1, WNT9A, MAP2K2, PTPN11	204	112	4.21	6.345e-4	9.798e-3
Colorectal cancer	KEGG	5	SOS1, TP53, PIK3CD, SMAD4, MAP2K2	87	112	6.16	1.298e-3	1.696e-2
Ras signaling pathway	KEGG	8	NF1, SOS1, ABL1, PIK3CD, FLT1, RAP1A, MAP2K2, PTPN11	237	112	3.62	1.667e-3	2.041e-2
RAS signaling downstream of NF1 loss-of-function variants	Reactome	2	NF1, SPRED1	7	112	30.64	1.756e-3	2.119e-2
MAPK signaling pathway	KEGG	9	NF1, SOS1, CACNA1S, TP53, MAP3K11, FAS, FLT1, RAP1A, MAP2K2	299	112	3.23	1.902e-3	2.242e-2
Endometrial cancer	KEGG	4	SOS1, TP53, PIK3CD, MAP2K2	59	112	7.27	2.199e-3	2.499e-2
Breast cancer	KEGG	6	SOS1, TP53, JAG1, PIK3CD, WNT9A, MAP2K2	148	112	4.35	2.593e-3	2.828e-2
Gastric cancer	KEGG	6	SOS1, TP53, PIK3CD, SMAD4, WNT9A, MAP2K2	150	112	4.29	2.773e-3	2.965e-2