

GeDiPNet Cluster 98 -- 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: 2026-10-07 03:30:09. · Rows: 15 · Generated: 2026-10-07 16:54:48

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Pathways in cancer	KEGG	27	JAK2, RUNX1, TERT, TP53, GNB1, CDKN2B, CTNNA1, DAPK1, EPO, HDAC1, KRAS, MYC	533	145	4.20	1.824e-10	2.487e-8
PI3K-Akt signaling pathway	KEGG	20	JAK2, TCL1A, TP53, EFNA5, GNB1, EPO, KRAS, MYC, TLR2, BCL2, BCL2L1, MYB	361	145	4.59	1.221e-8	1.036e-6
Chronic myeloid leukemia	KEGG	9	RUNX1, TP53, HDAC1, KRAS, MYC, BCL2L1, MECOM, BCR, TGFB1	77	145	9.68	3.412e-7	1.920e-5
EGFR tyrosine kinase inhibitor resistance	KEGG	9	JAK2, KRAS, BCL2, BCL2L1, PDGFRB, IGF1R, FGF2, PDGFA, PDGFB	80	145	9.32	4.757e-7	2.564e-5
Interleukin-4 and Interleukin-13 signaling	Reactome	10	JAK2, TP53, IRF4, MYC, BCL2, BCL2L1, FOXO1, FGF2, TGFB1, IL1B	108	145	7.67	6.805e-7	3.481e-5
JAK-STAT signaling pathway	KEGG	12	MPL, THPO, IL20RB, JAK2, EPO, MYC, BCL2, BCL2L1, PDGFRB, IFNA2, PDGFA, PDGFB	168	145	5.92	8.560e-7	4.268e-5
Signaling by FGFR1 in disease	Reactome	6	KRAS, BCR, FGFR1, FGFR1OP2, ZMYM2, FGF2	33	145	15.06	2.364e-6	1.018e-4
Melanoma	KEGG	8	TP53, KRAS, PDGFRB, FGFR1, IGF1R, FGF2, PDGFA, PDGFB	73	145	9.08	2.579e-6	1.098e-4
Prostate cancer	KEGG	9	TP53, KRAS, BCL2, FOXO1, PDGFRB, FGFR1, IGF1R, PDGFA, PDGFB	98	145	7.61	2.685e-6	1.134e-4
Cellular senescence	KEGG	11	ATM, CHEK2, HLA-C, ITPR2, TP53, HLA-B, CDKN2B, KRAS, MYC, FOXO1, TGFB1	157	145	5.80	3.012e-6	1.248e-4
Human T-cell leukemia virus 1 infection	KEGG	13	ATM, CHEK2, HLA-C, TERT, CALR, TP53, HLA-B, CDKN2B, KRAS, MYC, BCL2L1, MAD1L1	224	145	4.81	3.075e-6	1.269e-4
Transcriptional misregulation in cancer	KEGG	12	ATM, MEIS1, RUNX1, TP53, BMI1, HDAC1, LYL1, MYC, BCL2L1, FOXO1, IGF1R, PDGFA	198	145	5.02	4.804e-6	1.839e-4
MicroRNAs in cancer	KEGG	15	ATM, TP53, DNMT3A, EFNA5, BMI1, DNMT1, DNMT3B, EZH2, HDAC1, KRAS, MYC, BCL2	311	145	3.99	5.157e-6	1.951e-4
Human immunodeficiency virus 1 infection	KEGG	12	ATM, HLA-C, ITPR2, CALR, GNB1, HLA-B, KRAS, TLR2, BCL2, BCL2L1, CXCR4, IFNA2	213	145	4.67	1.013e-5	3.392e-4
MAPK signaling pathway	KEGG	14	TP53, EFNA5, PLA2G4A, KRAS, MYC, MECOM, PDGFRB, FGFR1, IGF1R, FGF2, PDGFA, PDGFB	299	145	3.88	1.512e-5	4.740e-4