

GeDiPNet Cluster 284 -- 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: 2026-10-10 03:30:08. · Rows: 15 · Generated: 2026-10-10 10:23:41

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Breast cancer	KEGG	33	BRAF, DLL3, ESR1, ESR2, FGFR1, HEY1, HEY2, KRAS, NCOA3, NOTCH1, NOTCH2, WNT7B	148	990	2.70	9.749e-8	6.873e-6
Pathways in cancer	KEGG	79	AR, BRAF, CTNNA2, CTNNA3, DLL3, ESR1, ESR2, FGFR1, HEY1, HEY2, HGF, HIF1A	533	990	1.80	1.651e-7	1.083e-5
Endocrine resistance	KEGG	25	BRAF, DLL3, ESR1, ESR2, KRAS, MMP9, NCOA3, NOTCH1, NOTCH2, AKT3, EGFR, IGF1	99	990	3.06	2.864e-7	1.752e-5
Bladder cancer	KEGG	14	BRAF, KRAS, MMP9, EGFR, TP53, CXCL8, EGF, MMP2, MYC, VEGFA, CDKN2A, ERBB2	41	990	4.14	2.591e-6	1.183e-4
Central carbon metabolism in cancer	KEGG	19	FGFR1, HIF1A, KRAS, MET, AKT3, EGFR, HK2, NTRK3, PDHA2, PIK3R1, TP53, MTOR	71	990	3.25	2.980e-6	1.331e-4
Endometrial cancer	KEGG	17	BRAF, CTNNA2, CTNNA3, KRAS, AKT3, APC, CTNNA1, EGFR, PIK3R1, TP53, EGF, MYC	59	990	3.50	3.267e-6	1.437e-4
Proteoglycans in cancer	KEGG	37	BRAF, COL1A2, ESR1, FGFR1, HGF, HIF1A, HPSE2, KRAS, MET, MMP9, PTPN11, WNT7B	204	990	2.20	3.781e-6	1.627e-4
Melanoma	KEGG	19	BRAF, FGFR1, HGF, KRAS, MET, PDGFD, AKT3, EGFR, IGF1, PIK3R1, TP53, CDK6	73	990	3.16	4.671e-6	1.924e-4
EGFR tyrosine kinase inhibitor resistance	KEGG	20	BRAF, HGF, KRAS, MET, NF1, NRG2, PDGFD, AKT3, EGFR, GAB1, IGF1, PIK3R1	80	990	3.03	5.165e-6	2.080e-4
Interleukin-4 and Interleukin-13 signaling	Reactome	24	COL1A2, HGF, HIF1A, MMP3, MMP9, RHOU, FSCN1, PIK3R1, PIM1, PTGS2, RORA, SOCS5	108	990	2.70	5.701e-6	2.251e-4
Non-small cell lung cancer	KEGG	18	BRAF, FHIT, HGF, KRAS, MET, RARB, AKT3, ALK, EGFR, PIK3R1, TP53, CDK6	73	990	2.99	1.861e-5	5.929e-4
Signaling by ERBB2 KD Mutants	Reactome	9	KRAS, NRG2, EGFR, ERBB4, GAB1, PIK3R1, EGF, ERBB2, HRAS	25	990	4.37	1.030e-4	2.380e-3
Prostate cancer	KEGG	20	AR, BRAF, FGFR1, KRAS, MMP3, MMP9, PDGFD, AKT3, EGFR, ERG, IGF1, PIK3R1	98	990	2.48	1.201e-4	2.687e-3
PI3K events in ERBB2 signaling	Reactome	7	NRG2, EGFR, ERBB4, GAB1, PIK3R1, EGF, ERBB2	16	990	5.31	1.491e-4	3.178e-3
Signaling by ERBB2 ECD mutants	Reactome	7	KRAS, EGFR, GAB1, PIK3R1, EGF, ERBB2, HRAS	16	990	5.31	1.491e-4	3.178e-3