

GeDiPNet Cluster 312 -- 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 19:44:49

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Signaling by ERBB2 TMD/JMD mutants	Reactome	5	ERBB4, EGFR, ERBB2, ERBB3, KRAS	22	34	80.28	3.403e-9	3.347e-7
Signaling by ERBB2 KD Mutants	Reactome	5	ERBB4, EGFR, ERBB2, ERBB3, KRAS	25	34	70.65	6.825e-9	6.245e-7
ERBB2 Activates PTK6 Signaling	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	13	34	108.69	3.759e-8	2.772e-6
ERBB2 Regulates Cell Motility	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	15	34	94.20	7.147e-8	4.879e-6
Bladder cancer	KEGG	5	DAPK1, EGFR, ERBB2, KRAS, TP53	41	34	43.08	9.321e-8	6.172e-6
PI3K events in ERBB2 signaling	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	16	34	88.31	9.510e-8	6.260e-6
SHC1 events in ERBB2 signaling	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	17	34	83.11	1.241e-7	7.893e-6
Signaling by ERBB2	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	18	34	78.50	1.593e-7	9.799e-6
Downregulation of ERBB2 signaling	Reactome	4	ERBB4, EGFR, ERBB2, ERBB3	24	34	58.87	5.464e-7	2.897e-5
EGFR tyrosine kinase inhibitor resistance	KEGG	5	BCL2, EGFR, ERBB2, ERBB3, KRAS	80	34	22.08	2.764e-6	1.161e-4
Signaling by ERBB4	Reactome	3	ERBB4, EGFR, ERBB3	11	34	96.34	3.368e-6	1.366e-4
Gastric cancer	KEGG	6	ABCB1, BCL2, EGFR, ERBB2, KRAS, TP53	150	34	14.13	3.460e-6	1.398e-4
ErbB signaling pathway	KEGG	5	ERBB4, EGFR, ERBB2, ERBB3, KRAS	86	34	20.54	3.956e-6	1.564e-4
Colorectal cancer	KEGG	5	DCC, BCL2, EGFR, KRAS, TP53	87	34	20.30	4.189e-6	1.639e-4
PI3K-Akt signaling pathway	KEGG	8	ERBB4, PPP2R5E, BCL2, EGFR, ERBB2, ERBB3, KRAS, TP53	361	34	7.83	5.646e-6	2.096e-4