

GeDiPNet Cluster 4 -- 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 07:03:04

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Pathways in cancer	KEGG	267	ESR1, FGFR2, ABL1, AKT1, AKT2, ALK, APC2, AR, ARAF, BAX, BCL2, BIRC2	533	2396	2.51	2.426e-57	5.383e-53
Prostate cancer	KEGG	74	FGFR2, AKT1, AKT2, AR, ARAF, BCL2, CCND1, CCNE1, CDKN1B, CTNNB1, E2F1, EGF	98	2396	3.78	1.733e-32	5.493e-29
PI3K-Akt signaling pathway	KEGG	159	IFNB1, FGFR2, AKT1, AKT2, AREG, ARTN, BCL2, BRCA1, CCND1, CCNE1, CDKN1B, CSF1	361	2396	2.21	4.250e-26	8.420e-23
Endocrine resistance	KEGG	67	ESR1, AKT1, AKT2, ARAF, BAX, BCL2, CCND1, CDKN1B, CDKN2A, CYP2D6, DLL1, DLL4	99	2396	3.39	6.209e-25	9.843e-22
Breast cancer	KEGG	86	ESR1, AKT1, AKT2, APC2, ARAF, BAX, BRCA1, BRCA2, CCND1, CTNNB1, DLL1, DLL4	148	2396	2.91	1.121e-24	1.727e-21
Colorectal cancer	KEGG	61	AKT1, AKT2, APC2, ARAF, AREG, BAX, BCL2, BIRC5, CCND1, CTNNB1, EGF, EGFR	87	2396	3.51	4.261e-24	6.221e-21
Non-small cell lung cancer	KEGG	54	AKT1, AKT2, ALK, ARAF, BAX, CCND1, CDKN2A, E2F1, EGF, EGFR, ERBB2, HRAS	73	2396	3.71	2.672e-23	3.370e-20
Proteoglycans in cancer	KEGG	103	ESR1, AKT1, AKT2, ARAF, CAV1, CCND1, CTNNB1, EGFR, ERBB2, ERBB3, FGFR1, FLNA	204	2396	2.53	9.104e-23	1.075e-19
Lipid and atherosclerosis	KEGG	107	IFNB1, AKT1, AKT2, BAX, BCL2, CASP7, CASP8, CD40, CXCL2, CXCL3, CXCL8, CYP1A1	216	2396	2.48	9.278e-23	1.084e-19
Pancreatic cancer	KEGG	55	AKT1, AKT2, ARAF, BAX, BRCA2, CCND1, CDKN2A, E2F1, EGF, EGFR, ERBB2, KRAS	77	2396	3.58	1.763e-22	1.996e-19
Bladder cancer	KEGG	37	ARAF, CCND1, CDH1, CDKN2A, CXCL8, E2F1, EGF, EGFR, ERBB2, HRAS, KRAS, MDM2	41	2396	4.52	4.327e-22	4.487e-19
Hepatocellular carcinoma	KEGG	90	AKT1, AKT2, APC2, ARAF, ARID1A, BAX, CCND1, CDKN2A, CTNNB1, E2F1, EGFR, GSK3B	170	2396	2.65	6.993e-22	6.747e-19
Platinum drug resistance	KEGG	53	AKT1, AKT2, ATM, ATP7B, BAX, BCL2, BIRC2, BIRC5, BRCA1, CASP8, CDKN2A, ERBB2	75	2396	3.54	2.331e-21	1.990e-18
Melanoma	KEGG	52	AKT1, AKT2, ARAF, BAX, CCND1, CDH1, CDKN2A, E2F1, EGF, EGFR, FGF10, FGF3	73	2396	3.57	3.094e-21	2.524e-18
Interleukin-4 and Interleukin-13 signaling	Reactome	66	AKT1, BCL2, BIRC5, CCND1, CXCL8, FN1, FOS, HIF1A, HMOX1, HSP90AA1, IL10, IL1B	108	2396	3.06	6.693e-21	5.121e-18