

GeDiPNet Cluster 58 -- 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 18:15:34

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
cAMP signaling pathway	KEGG	29	AKT3, ATP2A2, BRAF, CACNA1C, CREB5, DRD2, GRIN2A, PDE4B, NPPA, NPY, RYR2, HTR1B	226	816	1.89	6.877e-4	1.044e-2
ERBB2 Regulates Cell Motility	Reactome	5	ERBB3, ERBB4, DIAPH1, NRG3, BTC	15	816	4.91	2.419e-3	2.680e-2
Dopamine receptors	Reactome	3	DRD2, DRD3, DRD4	5	816	8.83	2.817e-3	2.996e-2
SHC1 events in ERBB2 signaling	Reactome	5	ERBB3, ERBB4, NRG3, BTC, PRKCE	17	816	4.33	4.449e-3	4.120e-2
Signaling by ERBB4	Reactome	4	ERBB3, ERBB4, NRG3, BTC	11	816	5.35	4.745e-3	4.296e-2
Pre-NOTCH Processing in Golgi	Reactome	3	FURIN, NOTCH3, NOTCH1	6	816	7.36	5.350e-3	4.670e-2
Serotonin receptors	Reactome	4	HTR1B, HTR1D, HTR2A, HTR1A	12	816	4.91	6.739e-3	5.445e-2
Nectin/Necl trans heterodimerization	Reactome	3	CADM1, CADM3, NECTIN1	7	816	6.31	8.891e-3	6.525e-2
ERBB2 Activates PTK6 Signaling	Reactome	4	ERBB3, ERBB4, NRG3, BTC	13	816	4.53	9.218e-3	6.664e-2
Effects of PIP2 hydrolysis	Reactome	5	DGKI, DGKZ, PRKCE, ITPR1, PRKCH	20	816	3.68	9.407e-3	6.755e-2
Adherens junction	KEGG	13	CTNND1, FGFR1, PTPRF, CCM2, IGF1R, KRIT1, SMAD4, CTNNA1, BAIAP2, LMO7, NECTIN1, CTNNA3	93	816	2.06	9.899e-3	6.966e-2
GnRH secretion	KEGG	10	AKT3, CACNA1C, CACNA1I, ESR2, HCN1, HRAS, PRKCB, TRPC4, GABBR1, ITPR1	65	816	2.26	1.177e-2	7.736e-2
Regulation of TP53 Activity through Association with Co-factors	Reactome	4	AKT3, PPP1R13B, TP53BP2, ZNF385A	14	816	4.21	1.222e-2	7.931e-2
SHC1 events in ERBB4 signaling	Reactome	4	ERBB4, NRG3, HRAS, BTC	14	816	4.21	1.222e-2	7.931e-2
GRB2 events in ERBB2 signaling	Reactome	4	ERBB4, NRG3, HRAS, BTC	14	816	4.21	1.222e-2	7.931e-2