

GeDiPNet Cluster 80 -- 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 13:52:02

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Pathways in cancer	KEGG	31	RELA, AGTR1, CDKN2A, HES1, HEY1, HEY2, JAG1, JAG2, KITLG, KRAS, NFE2L2, NOTCH1	533	131	5.33	8.571e-15	2.712e-12
AGE-RAGE signaling pathway in diabetic complications	KEGG	16	RELA, AGTR1, KRAS, VEGFA, MAPK14, NOS3, TGFB1, AKT1, AGT, CCL2, COL3A1, EDN1	101	131	14.52	1.154e-14	3.569e-12
Notch signaling pathway	KEGG	11	DTX1, DTX4, HES1, HEY1, HEY2, JAG1, JAG2, NOTCH1, NOTCH3, NOTCH4, ITCH	62	131	16.27	5.391e-11	8.222e-9
Endocrine resistance	KEGG	12	CDKN2A, JAG1, JAG2, KRAS, NOTCH1, NOTCH3, NOTCH4, GNAS, MTOR, MAPK14, AKT1, GPER1	99	131	11.11	7.041e-10	8.177e-8
Lipid and atherosclerosis	KEGG	15	RELA, HSPA1A, HSPA1B, KRAS, MAP3K7, NFE2L2, MAPK14, NOS3, AKT1, CAMK2A, CYBA, CYP1A1	216	131	6.37	1.242e-8	1.049e-6
Relaxin signaling pathway	KEGG	12	RELA, KRAS, VEGFA, GNAS, MAPK14, NOS2, NOS3, TGFB1, AKT1, ACTA2, COL3A1, EDN1	130	131	8.46	1.650e-8	1.349e-6
NOTCH4 Intracellular Domain Regulates Transcription	Reactome	6	HES1, HEY1, HEY2, NOTCH1, NOTCH4, ACTA2	17	131	32.36	1.684e-8	1.374e-6
Activated NOTCH1 Transmits Signal to the Nucleus	Reactome	5	DTX1, DTX4, JAG2, NOTCH1, ITCH	10	131	45.84	3.450e-8	2.573e-6
Apelin signaling pathway	KEGG	12	AGTR1, JAG1, KRAS, NOTCH3, MTOR, NOS2, NOS3, AKT1, ACTA2, CDH1, SERPINE1, SMAD3	140	131	7.86	3.805e-8	2.800e-6
Fluid shear stress and atherosclerosis	KEGG	12	RELA, MAP3K7, NFE2L2, VEGFA, KEAP1, MAPK14, NOS3, AKT1, CYBA, CCL2, EDN1, NPPC	141	131	7.80	4.121e-8	3.000e-6
Diabetic cardiomyopathy	KEGG	14	RELA, AGTR1, MTOR, MAPK14, NOS3, TGFB1, AKT1, CAMK2A, CYBA, PPARA, AGT, COL3A1	205	131	6.26	4.840e-8	3.471e-6
Cellular senescence	KEGG	12	RELA, CDKN2A, KRAS, MTOR, SIRT1, MAPK14, TGFB1, AKT1, HIPK2, SERPINE1, SMAD3, TGFB2	157	131	7.01	1.358e-7	8.532e-6
Pancreatic cancer	KEGG	9	RELA, CDKN2A, KRAS, VEGFA, MTOR, TGFB1, AKT1, SMAD3, TGFB2	77	131	10.72	1.430e-7	8.912e-6
HIF-1 signaling pathway	KEGG	10	RELA, VEGFA, MTOR, NOS2, NOS3, AKT1, CAMK2A, EDN1, NPPA, SERPINE1	110	131	8.33	3.143e-7	1.784e-5
Toxoplasmosis	KEGG	10	RELA, HSPA1A, HSPA1B, MAP3K7, MAPK14, NOS2, TGFB1, AKT1, LDLR, TGFB2	112	131	8.19	3.723e-7	2.077e-5