

GeDiPNet Cluster 100 -- 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 00:42:21

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	AGTR1, CDKN2A, HES1, HEY1, HEY2, JAG1, JAG2, KITLG, KRAS, NFE2L2, NOTCH1, NOTCH3	533	117	5.97	2.769e-16	1.045e-13
AGE-RAGE signaling pathway in diabetic complications	KEGG	16	AGTR1, KRAS, RELA, VEGFA, MAPK14, NOS3, TGFB1, AKT1, AGT, CCL2, COL3A1, EDN1	101	117	16.26	1.844e-15	6.180e-13
Notch signaling pathway	KEGG	11	DTX1, DTX4, HES1, HEY1, HEY2, JAG1, JAG2, NOTCH1, NOTCH3, NOTCH4, ITCH	62	117	18.21	1.558e-11	2.544e-9
Endocrine resistance	KEGG	12	CDKN2A, JAG1, JAG2, KRAS, NOTCH1, NOTCH3, NOTCH4, GNAS, MTOR, MAPK14, AKT1, GPER1	99	117	12.44	1.869e-10	2.403e-8
Lipid and atherosclerosis	KEGG	15	HSPA1A, HSPA1B, KRAS, MAP3K7, NFE2L2, RELA, MAPK14, NOS3, AKT1, CAMK2A, CYBA, CYP1A1	216	117	7.13	2.564e-9	2.511e-7
Relaxin signaling pathway	KEGG	12	KRAS, RELA, VEGFA, GNAS, MAPK14, NOS2, NOS3, TGFB1, AKT1, ACTA2, COL3A1, EDN1	130	117	9.48	4.529e-9	4.178e-7
NOTCH4 Intracellular Domain Regulates Transcription	Reactome	6	HES1, HEY1, HEY2, NOTCH1, NOTCH4, ACTA2	17	117	36.23	8.519e-9	7.328e-7
Apelin signaling pathway	KEGG	12	AGTR1, JAG1, KRAS, NOTCH3, MTOR, NOS2, NOS3, AKT1, ACTA2, CDH1, SERPINE1, SMAD3	140	117	8.80	1.056e-8	8.895e-7
Diabetic cardiomyopathy	KEGG	14	AGTR1, RELA, MTOR, MAPK14, NOS3, TGFB1, AKT1, CAMK2A, CYBA, PPARA, AGT, COL3A1	205	117	7.01	1.121e-8	9.384e-7
Fluid shear stress and atherosclerosis	KEGG	12	MAP3K7, NFE2L2, RELA, VEGFA, KEAP1, MAPK14, NOS3, AKT1, CYBA, CCL2, EDN1, NPPC	141	117	8.74	1.145e-8	9.551e-7
Activated NOTCH1 Transmits Signal to the Nucleus	Reactome	5	DTX1, DTX4, JAG2, NOTCH1, ITCH	10	117	51.32	1.952e-8	1.536e-6
Cellular senescence	KEGG	12	CDKN2A, KRAS, RELA, MTOR, SIRT1, MAPK14, TGFB1, AKT1, HIPK2, SERPINE1, SMAD3, TGFB2	157	117	7.85	3.839e-8	2.795e-6
Pancreatic cancer	KEGG	9	CDKN2A, KRAS, RELA, VEGFA, MTOR, TGFB1, AKT1, SMAD3, TGFB2	77	117	12.00	5.367e-8	3.769e-6
HIF-1 signaling pathway	KEGG	10	RELA, VEGFA, MTOR, NOS2, NOS3, AKT1, CAMK2A, EDN1, NPPA, SERPINE1	110	117	9.33	1.081e-7	7.003e-6
Toxoplasmosis	KEGG	10	HSPA1A, HSPA1B, MAP3K7, RELA, MAPK14, NOS2, TGFB1, AKT1, LDLR, TGFB2	112	117	9.17	1.284e-7	8.154e-6