

GeDiPNet Cluster 126 -- 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 09:09:49

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Ferroptosis	KEGG	8	ATG5, ATG7, SLC11A2, SLC40A1, TF, GCLC, HMOX1, GSS	42	137	16.70	1.988e-8	1.557e-6
Erythrocytes take up oxygen and release carbon dioxide	Reactome	5	HBA1, HBA2, HBB, RHAG, SLC4A1	9	137	48.70	2.181e-8	1.696e-6
Scavenging of heme from plasma	Reactome	5	APOL1, HBA1, HBA2, HBB, HP	13	137	33.72	2.147e-7	1.276e-5
Erythrocytes take up carbon dioxide and release oxygen	Reactome	5	HBA1, HBA2, HBB, RHAG, SLC4A1	13	137	33.72	2.147e-7	1.276e-5
Glycolysis	Reactome	6	HK1, GPI, PGK1, PKLR, TPI1, BPGM	28	137	18.79	6.050e-7	3.150e-5
Pathways in cancer	KEGG	19	AGT, CDK6, EPO, EPOR, IFNA2, IGF2, IL2, IL3, ITGA3, JAK2, KRAS, NRAS	533	137	3.12	9.581e-6	3.300e-4
Iron uptake and transport	Reactome	5	SLC11A2, SLC40A1, SLC46A1, TF, HMOX1	28	137	15.65	1.429e-5	4.581e-4
PI3K-Akt signaling pathway	KEGG	15	CDK6, CSF3, EPO, EPOR, GH1, IFNA2, IGF2, IL2, IL3, ITGA3, JAK2, KRAS	361	137	3.64	1.534e-5	4.872e-4
Hematopoietic cell lineage	KEGG	8	CSF2, CSF3, EPO, EPOR, IL3, ITGA3, TNF, CD59	100	137	7.01	1.799e-5	5.578e-4
AGE-RAGE signaling pathway in diabetic complications	KEGG	8	AGT, JAK2, KRAS, NRAS, PRKCE, TNF, COL4A1, PRKCZ	101	137	6.94	1.935e-5	5.941e-4
JAK-STAT signaling pathway	KEGG	10	CSF2, CSF3, EPO, EPOR, GH1, IFNA2, IL2, IL3, JAK2, PRL	168	137	5.22	2.184e-5	6.551e-4
Estrogen-stimulated signaling through PRKCZ	Reactome	3	KRAS, NRAS, PRKCZ	6	137	43.83	2.832e-5	8.104e-4
HIF-1 signaling pathway	KEGG	8	EPO, HK1, TF, HMOX1, PGK1, EGLN1, EPAS1, VHL	110	137	6.38	3.601e-5	9.870e-4
African trypanosomiasis	KEGG	5	APOL1, HBA1, HBA2, HBB, TNF	37	137	11.85	5.835e-5	1.466e-3
Mineral absorption	KEGG	6	ATP7A, SLC11A2, SLC40A1, SLC46A1, TF, HMOX1	61	137	8.62	6.550e-5	1.610e-3