

GeDiPNet Cluster 75 -- 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: 2026-10-07 22:02:24

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Spinocerebellar ataxia	KEGG	23	AFG3L2, ATXN1, ATXN1L, ATXN2, CACNA1A, FGF14, GRM1, NOP56, PRKCG, SPTBN2, TRPC3, ITPR1	144	227	8.45	2.657e-15	8.594e-13
Pathways of neurodegeneration - multiple diseases	KEGG	30	ATXN1, ATXN1L, ATXN2, GRM1, LRRK2, PRKCG, SPTBN2, TRPC3, ITPR1, PDYN, COX3, ATP6	480	227	3.31	7.453e-9	6.516e-7
Parkinson disease	KEGG	19	LRRK2, ITPR1, COX3, ATP6, ATP8, COX1, COX2, MFN2, ND1, ND2, ND3, ND4	268	227	3.75	7.672e-7	3.850e-5
Oxidative phosphorylation	KEGG	13	COX3, ATP6, ATP6V0A1, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5	137	227	5.02	1.881e-6	8.413e-5
Prion disease	KEGG	18	ITPR1, COX3, ATP6, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5	275	227	3.46	4.702e-6	1.840e-4
Huntington disease	KEGG	19	EP300, ITPR1, COX3, ATP6, ATP8, COX1, COX2, KCNJ10, ND1, ND2, ND3, ND4	308	227	3.26	6.022e-6	2.248e-4
Respiratory electron transport	Reactome	9	COX3, COX1, COX2, ND1, ND2, ND3, ND4, ND5, SURF1	83	227	5.74	2.564e-5	7.491e-4
Diabetic cardiomyopathy	KEGG	14	PRKCG, COX3, ATP6, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5	205	227	3.61	3.454e-5	9.539e-4
Amyotrophic lateral sclerosis	KEGG	19	ATXN2, COX3, ATP6, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5	368	227	2.73	7.129e-5	1.718e-3
Anchoring of the basal body to the plasma membrane	Reactome	9	TTBK2, DYNC1H1, CSNK1E, RPGRIP1L, TPTEP2-CSNK1E, CEP290, MKS1, TMEM67, TUBA4A	98	227	4.86	9.609e-5	2.198e-3
Chemical carcinogenesis - reactive oxygen species	KEGG	14	COX3, ATP6, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5, ATP5F1B	227	227	3.26	1.044e-4	2.351e-3
Retrograde endocannabinoid signaling	KEGG	11	CACNA1A, GRM1, PRKCG, DAGLA, ITPR1, ND1, ND2, ND3, ND4, ND4L, ND5	149	227	3.91	1.210e-4	2.639e-3
Alzheimer disease	KEGG	19	MME, ITPR1, COX3, ATP6, ATP8, COX1, COX2, CSNK1E, ND1, ND2, ND3, ND4	388	227	2.59	1.429e-4	3.021e-3
Thermogenesis	KEGG	13	COX3, ATP6, ATP8, COX1, COX2, ND1, ND2, ND3, ND4, ND4L, ND5, ATP5F1B	234	227	2.94	5.065e-4	8.204e-3
Hedgehog 'off' state	Reactome	6	KIF7, RPGRIP1L, MKS1, TUBB3, TUBA4A, TUBB6	56	227	5.67	6.294e-4	9.737e-3