

GeDiPNet Cluster 175 -- 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 03:57:42

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Activation of the pre-replicative complex	Reactome	10	ORC1, CDC45, CDC6, CDT1, GMNN, MCM3, MCM7, ORC4, ORC6, MCM5	33	22	165.43	3.420e-21	3.372e-18
Assembly of the pre-replicative complex	Reactome	8	ORC1, CDC6, CDT1, MCM3, MCM7, ORC4, ORC6, MCM5	15	22	291.15	1.907e-19	1.395e-16
Activation of ATR in response to replication stress	Reactome	8	ORC1, CDC45, CDC6, MCM3, MCM7, ORC4, ORC6, MCM5	37	22	118.03	1.118e-15	4.289e-13
Orc1 removal from chromatin	Reactome	8	ORC1, CDC6, CDT1, MCM3, MCM7, ORC4, ORC6, MCM5	71	22	61.51	2.975e-13	7.006e-11
Cell cycle	KEGG	9	ORC1, CDC45, CDC6, CDT1, MCM3, MCM7, ORC4, ORC6, MCM5	158	22	31.10	4.035e-12	7.777e-10
CDT1 association with the CDC6:ORC:origin complex	Reactome	6	ORC1, CDC6, CDT1, GMNN, ORC4, ORC6	59	22	55.52	7.601e-10	8.765e-8
CDC6 association with the ORC:origin complex	Reactome	4	ORC1, CDC6, ORC4, ORC6	11	22	198.51	2.763e-9	2.766e-7
G1/S-Specific Transcription	Reactome	4	ORC1, CDC45, CDC6, CDT1	24	22	90.98	8.758e-8	5.838e-6
Assembly of the ORC complex at the origin of replication	Reactome	3	ORC1, ORC4, ORC6	6	22	272.95	1.063e-7	6.899e-6
Switching of origins to a post-replicative state	Reactome	3	MCM3, MCM7, MCM5	6	22	272.95	1.063e-7	6.899e-6
DNA replication	KEGG	3	MCM3, MCM7, MCM5	36	22	45.49	3.663e-5	9.862e-4
WNT ligand biogenesis and trafficking	Reactome	2	WNT4, VPS35	25	22	43.67	9.368e-4	1.292e-2
Signaling by FGFR2 amplification mutants	Reactome	1	FGFR2	1	22	545.91	1.832e-3	2.135e-2
Signaling by FGFR2 fusions	Reactome	1	FGFR2	1	22	545.91	1.832e-3	2.135e-2
Loss of MECP2 binding ability to 5mC-DNA	Reactome	1	SIN3A	3	22	181.97	5.486e-3	4.649e-2