

GeDiPNet Cluster 539 -- 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: 2026-10-20 03:30:09. · Rows: 15 · Generated: 2026-10-20 00:02:58

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Cortisol synthesis and secretion	KEGG	7	CYP11A1, CYP11B1, CYP17A1, CYP21A2, HSD3B2, STAR, NR0B1	65	13	99.49	1.632e-13	3.612e-11
Steroid hormone biosynthesis	KEGG	6	CYP11A1, CYP11B1, CYP17A1, CYP21A2, HSD3B2, CYP19A1	63	13	87.99	2.722e-11	3.757e-9
Glucocorticoid biosynthesis	Reactome	4	CYP11B1, CYP17A1, CYP21A2, HSD3B2	10	13	369.54	1.727e-10	1.896e-8
Ovarian steroidogenesis	KEGG	5	CYP11A1, CYP17A1, HSD3B2, STAR, CYP19A1	52	13	88.83	1.566e-9	1.393e-7
Cushing syndrome	KEGG	6	CYP11A1, CYP11B1, CYP17A1, CYP21A2, HSD3B2, STAR	155	13	35.76	6.680e-9	5.164e-7
Endogenous sterols	Reactome	4	CYP11A1, CYP11B1, CYP21A2, CYP19A1	25	13	147.82	1.031e-8	7.608e-7
Aldosterone synthesis and secretion	KEGG	4	CYP11A1, CYP21A2, HSD3B2, STAR	98	13	37.71	2.817e-6	1.012e-4
Mineralocorticoid biosynthesis	Reactome	2	CYP21A2, HSD3B2	6	13	307.95	1.618e-5	4.362e-4
Androgen biosynthesis	Reactome	2	CYP17A1, HSD3B2	11	13	167.97	5.916e-5	1.247e-3
Pregnenolone biosynthesis	Reactome	2	CYP11A1, STAR	12	13	153.97	7.095e-5	1.442e-3
Defective CYP11B1 causes Adrenal hyperplasia 4 (AH4)	Reactome	1	CYP11B1	1	13	923.85	1.082e-3	1.201e-2
Defective CYP17A1 causes Adrenal hyperplasia 5 (AH5)	Reactome	1	CYP17A1	1	13	923.85	1.082e-3	1.201e-2
Defective CYP19A1 causes Aromatase excess syndrome (AEXS)	Reactome	1	CYP19A1	1	13	923.85	1.082e-3	1.201e-2
Defective CYP21A2 causes Adrenal hyperplasia 3 (AH3)	Reactome	1	CYP21A2	1	13	923.85	1.082e-3	1.201e-2
Signaling by FGFR2 amplification mutants	Reactome	1	FGFR2	1	13	923.85	1.082e-3	1.201e-2