

GeDiPNet Cluster 512 -- 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](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 00:02:57

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Steroid hormone biosynthesis	KEGG	8	HSD17B3, SRD5A2, CYP17A1, AKR1C2, AKR1C4, CYP11A1, AKR1C1, AKR1C3	63	19	80.27	2.613e-14	6.894e-12
Synthesis of bile acids and bile salts via 24-hydroxycholesterol	Reactome	4	AKR1C2, AKR1C4, AKR1C1, AKR1C3	14	19	180.60	4.433e-9	3.574e-7
Synthesis of bile acids and bile salts via 27-hydroxycholesterol	Reactome	4	AKR1C2, AKR1C4, AKR1C1, AKR1C3	15	19	168.56	6.039e-9	4.712e-7
Synthesis of bile acids and bile salts via 7alpha-hydroxycholesterol	Reactome	4	AKR1C2, AKR1C4, AKR1C1, AKR1C3	24	19	105.35	4.659e-8	2.858e-6
Androgen biosynthesis	Reactome	3	HSD17B3, SRD5A2, CYP17A1	11	19	172.39	5.495e-7	2.479e-5
Ovarian steroidogenesis	KEGG	4	CYP17A1, CYP11A1, LHCGR, AKR1C3	52	19	48.62	1.154e-6	4.726e-5
Retinoid metabolism and transport	Reactome	3	AKR1C4, AKR1C1, AKR1C3	41	19	46.25	3.445e-5	8.124e-4
Cortisol synthesis and secretion	KEGG	3	CYP17A1, CYP11A1, NR5A1	65	19	29.17	1.378e-4	2.443e-3
Glycoprotein hormones	Reactome	2	INHA, INHBB	12	19	105.35	1.550e-4	2.683e-3
Prolactin signaling pathway	KEGG	3	CYP17A1, LHCGR, ESR2	71	19	26.71	1.793e-4	3.010e-3
Metabolic pathways	KEGG	9	HSD17B3, SRD5A2, CYP17A1, AKR1C2, AKR1C4, CYP11A1, AKR1C1, AKR1C3, DHCR7	1563	19	3.64	2.831e-4	4.315e-3
Chemical carcinogenesis - reactive oxygen species	KEGG	4	AKR1C2, AKR1C4, AKR1C1, AKR1C3	227	19	11.14	3.854e-4	5.463e-3
Defective CYP17A1 causes Adrenal hyperplasia 5 (AH5)	Reactome	1	CYP17A1	1	19	632.11	1.582e-3	1.602e-2
Cushing syndrome	KEGG	3	CYP17A1, CYP11A1, NR5A1	155	19	12.23	1.755e-3	1.731e-2
Nuclear Receptor transcription pathway	Reactome	2	NR5A1, ESR2	52	19	24.31	2.999e-3	2.540e-2