

GeDiPNet Cluster 346 -- 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: 2026-10-10 03:30:08. · Rows: 15 · Generated: 2026-10-10 06:09:13

| 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     | 8             | CYP17A1, ADCY8, CYP11A1, CYP11B1, CYP21A2, HSD3B2, STAR, NR0B1          | 65                 | 23                 | 64.27           | 2.169e-13 | 5.207e-11   |
| Ovarian steroidogenesis                                 | KEGG     | 7             | CYP17A1, ADCY8, CYP19A1, FSHB, CYP11A1, HSD3B2, STAR                    | 52                 | 23                 | 70.29           | 4.359e-12 | 8.385e-10   |
| Steroid hormone biosynthesis                            | KEGG     | 6             | CYP17A1, CYP19A1, CYP11A1, CYP11B1, CYP21A2, HSD3B2                     | 63                 | 23                 | 49.73           | 1.537e-9  | 1.711e-7    |
| Glucocorticoid biosynthesis                             | Reactome | 4             | CYP17A1, CYP11B1, CYP21A2, HSD3B2                                       | 10                 | 23                 | 208.87          | 2.130e-9  | 2.306e-7    |
| Cushing syndrome                                        | KEGG     | 7             | CYP17A1, ADCY8, CYP11A1, CYP11B1, CYP21A2, HSD3B2, STAR                 | 155                | 23                 | 23.58           | 1.073e-8  | 9.738e-7    |
| Endogenous sterols                                      | Reactome | 4             | CYP19A1, CYP11A1, CYP11B1, CYP21A2                                      | 25                 | 23                 | 83.55           | 1.259e-7  | 8.591e-6    |
| Aldosterone synthesis and secretion                     | KEGG     | 5             | ADCY8, CYP11A1, CYP21A2, HSD3B2, STAR                                   | 98                 | 23                 | 26.64           | 9.776e-7  | 5.122e-5    |
| Mineralocorticoid biosynthesis                          | Reactome | 2             | CYP21A2, HSD3B2                                                         | 6                  | 23                 | 174.06          | 5.238e-5  | 1.388e-3    |
| Androgen biosynthesis                                   | Reactome | 2             | CYP17A1, HSD3B2                                                         | 11                 | 23                 | 94.94           | 1.909e-4  | 3.878e-3    |
| Pregnenolone biosynthesis                               | Reactome | 2             | CYP11A1, STAR                                                           | 12                 | 23                 | 87.03           | 2.289e-4  | 4.458e-3    |
| Hormone signaling                                       | KEGG     | 4             | ADCY8, CALCR, FSHB, PRL                                                 | 219                | 23                 | 9.54            | 7.254e-4  | 1.100e-2    |
| Metabolic pathways                                      | KEGG     | 9             | CYP17A1, ADCY8, CYP19A1, DERA, PPCDC, CYP11A1, CYP11B1, CYP21A2, HSD3B2 | 1563               | 23                 | 3.01            | 1.538e-3  | 1.953e-2    |
| ADORA2B mediated anti-inflammatory cytokines production | Reactome | 3             | ADCY8, CALCR, FSHB                                                      | 128                | 23                 | 12.24           | 1.792e-3  | 2.189e-2    |
| Defective CYP11B1 causes Adrenal hyperplasia 4 (AH4)    | Reactome | 1             | CYP11B1                                                                 | 1                  | 23                 | 522.17          | 1.915e-3  | 2.292e-2    |
| Defective CYP17A1 causes Adrenal hyperplasia 5 (AH5)    | Reactome | 1             | CYP17A1                                                                 | 1                  | 23                 | 522.17          | 1.915e-3  | 2.292e-2    |