

## GeDiPNet Cluster 237 -- 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: 2026-10-08 01:34:34

| Pathway                                         | Source   | Overlap Genes | Overlap Gene Names | Pathway Gene Count | Cluster Gene Count | Fold Enrichment | P-value  | FDR Q-value |
|-------------------------------------------------|----------|---------------|--------------------|--------------------|--------------------|-----------------|----------|-------------|
| Phase 2 - plateau phase                         | Reactome | 1             | CACNA1F            | 25                 | 2                  | 240.20          | 4.159e-3 | 3.931e-2    |
| Phase 0 - rapid depolarisation                  | Reactome | 1             | CACNA1F            | 44                 | 2                  | 136.48          | 7.314e-3 | 5.741e-2    |
| Cortisol synthesis and secretion                | KEGG     | 1             | CACNA1F            | 65                 | 2                  | 92.38           | 1.080e-2 | 7.353e-2    |
| GnRH secretion                                  | KEGG     | 1             | CACNA1F            | 65                 | 2                  | 92.38           | 1.080e-2 | 7.353e-2    |
| Renin secretion                                 | KEGG     | 1             | CACNA1F            | 69                 | 2                  | 87.03           | 1.146e-2 | 7.601e-2    |
| Insulin secretion                               | KEGG     | 1             | CACNA1F            | 86                 | 2                  | 69.83           | 1.427e-2 | 8.683e-2    |
| Arrhythmogenic right ventricular cardiomyopathy | KEGG     | 1             | CACNA1F            | 86                 | 2                  | 69.83           | 1.427e-2 | 8.683e-2    |
| Cardiac muscle contraction                      | KEGG     | 1             | CACNA1F            | 87                 | 2                  | 69.02           | 1.444e-2 | 8.750e-2    |
| GABAergic synapse                               | KEGG     | 1             | CACNA1F            | 89                 | 2                  | 67.47           | 1.477e-2 | 8.882e-2    |
| GnRH signaling pathway                          | KEGG     | 1             | CACNA1F            | 93                 | 2                  | 64.57           | 1.543e-2 | 9.123e-2    |
| Aldosterone synthesis and secretion             | KEGG     | 1             | CACNA1F            | 98                 | 2                  | 61.28           | 1.625e-2 | 9.434e-2    |
| Hypertrophic cardiomyopathy                     | KEGG     | 1             | CACNA1F            | 99                 | 2                  | 60.66           | 1.642e-2 | 9.469e-2    |
| Dilated cardiomyopathy                          | KEGG     | 1             | CACNA1F            | 105                | 2                  | 57.19           | 1.741e-2 | 9.799e-2    |
| Cholinergic synapse                             | KEGG     | 1             | CACNA1F            | 115                | 2                  | 52.22           | 1.906e-2 | 1.033e-1    |
| Serotonergic synapse                            | KEGG     | 1             | CACNA1F            | 115                | 2                  | 52.22           | 1.906e-2 | 1.033e-1    |