

## GeDiPNet Cluster 127 -- 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](https://scripts/build_cluster_enrichment.php) on [gedipnet.bicnirrh.res.in](https://gedipnet.bicnirrh.res.in). Data as of: 2026-10-07 03:30:09. · Rows: 15 · Generated: 2026-10-07 07:48:47

| Pathway                                                  | Source   | Overlap Genes | Overlap Gene Names                                                                       | Pathway Gene Count | Cluster Gene Count | Fold Enrichment | P-value   | FDR Q-value |
|----------------------------------------------------------|----------|---------------|------------------------------------------------------------------------------------------|--------------------|--------------------|-----------------|-----------|-------------|
| Proteoglycans in cancer                                  | KEGG     | 55            | COL1A1, COL1A2, WNT1, WNT11, ACTB, BRAF, CBL, CDC42, FGFR1, FLNA, FN1, FZD2              | 204                | 705                | 4.59            | 1.820e-22 | 2.284e-19   |
| Pathways in cancer                                       | KEGG     | 91            | LRP5, WNT1, WNT11, APC2, BMP2, BRAF, CBL, CDC42, CREBBP, CSF1R, DLL3, DLL4               | 533                | 705                | 2.91            | 5.028e-21 | 4.706e-18   |
| Signaling pathways regulating pluripotency of stem cells | KEGG     | 41            | LIFR, WNT1, WNT11, ACVR1, APC2, BMPR1B, DLX5, DVL1, DVL3, FGFR1, FGFR2, FGFR3            | 144                | 705                | 4.85            | 5.710e-18 | 3.251e-15   |
| Breast cancer                                            | KEGG     | 41            | LRP5, WNT1, WNT11, APC2, BRAF, DLL3, DLL4, DVL1, DVL3, FGF10, FGF23, FGF8                | 148                | 705                | 4.72            | 1.698e-17 | 8.844e-15   |
| Hepatocellular carcinoma                                 | KEGG     | 44            | LRP5, WNT1, WNT11, ACTB, APC2, ARID1B, BRAF, DVL1, DVL3, FZD2, HRAS, IGF1R               | 170                | 705                | 4.41            | 1.872e-17 | 9.662e-15   |
| Parathyroid hormone synthesis, secretion and action      | KEGG     | 36            | CREB3L1, LRP5, BRAF, CASR, CYP27B1, FGF23, FGFR1, GCM2, GNAI3, GNAS, KL, MAFB            | 115                | 705                | 5.33            | 2.103e-17 | 1.070e-14   |
| Gastric cancer                                           | KEGG     | 41            | LRP5, WNT1, WNT11, APC2, BRAF, DVL1, DVL3, FGF10, FGF23, FGF8, FGF9, FGFR2               | 150                | 705                | 4.66            | 2.882e-17 | 1.421e-14   |
| Hedgehog 'off' state                                     | Reactome | 24            | DYNC2H1, FUZ, GLI2, GLI3, GNAS, GPR161, IFT122, IFT140, IFT172, IFT52, INTU, KIF7        | 56                 | 705                | 7.30            | 1.397e-15 | 5.249e-13   |
| Melanogenesis                                            | KEGG     | 31            | CREB3L1, WNT1, WNT11, CREBBP, DVL1, DVL3, EDN1, EP300, FZD2, GNAI3, GNAS, HRAS           | 101                | 705                | 5.23            | 6.761e-15 | 2.229e-12   |
| Signaling by high-kinase activity BRAF mutants           | Reactome | 17            | ACTB, BRAF, FN1, HRAS, KRAS, MAP2K1, MAP2K2, MAPK1, NRAS, RAF1, ACTG1, FGA               | 36                 | 705                | 8.04            | 2.902e-12 | 5.753e-10   |
| Chronic myeloid leukemia                                 | KEGG     | 24            | BRAF, CBL, HRAS, IKBKB, IKBKG, KRAS, MAP2K1, MAP2K2, MAPK1, MECOM, NRAS, PIK3R1          | 77                 | 705                | 5.31            | 5.414e-12 | 1.022e-9    |
| Endocrine resistance                                     | KEGG     | 27            | BRAF, DLL3, DLL4, GNAS, HRAS, IGF1, IGF1R, KRAS, MAP2K1, MAP2K2, MAPK1, MMP2             | 99                 | 705                | 4.65            | 8.688e-12 | 1.573e-9    |
| AGE-RAGE signaling pathway in diabetic complications     | KEGG     | 27            | COL1A1, COL1A2, CDC42, EDN1, FN1, HRAS, KRAS, MAPK1, MMP2, NRAS, PIK3R1, PLCB3           | 101                | 705                | 4.55            | 1.452e-11 | 2.498e-9    |
| Human papillomavirus infection                           | KEGG     | 53            | COL1A1, COL1A2, CREB3L1, WNT1, WNT11, APC2, ATP6V0A2, ATR, CDC42, COL2A1, COL9A1, COL9A2 | 333                | 705                | 2.71            | 2.146e-11 | 3.570e-9    |
| MAP2K and MAPK activation                                | Reactome | 17            | ACTB, BRAF, FN1, HRAS, KRAS, MAP2K1, MAP2K2, MAPK1, NRAS, RAF1, ACTG1, FGA               | 40                 | 705                | 7.24            | 2.398e-11 | 3.929e-9    |