

## GeDiPNet Cluster 563 -- 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 00:02:40

| Pathway                        | Source   | Overlap Genes | Overlap Gene Names                                                               | Pathway Gene Count | Cluster Gene Count | Fold Enrichment | P-value   | FDR Q-value |
|--------------------------------|----------|---------------|----------------------------------------------------------------------------------|--------------------|--------------------|-----------------|-----------|-------------|
| Melanoma                       | KEGG     | 8             | TP53, CDKN2A, PDGFRA, KRAS, BRAF, FGFR1, PIK3CA, RB1                             | 73                 | 19                 | 69.27           | 8.995e-14 | 2.135e-11   |
| Chronic myeloid leukemia       | KEGG     | 8             | TP53, CDKN2A, KRAS, STAT5B, PTPN11, BRAF, PIK3CA, RB1                            | 77                 | 19                 | 65.67           | 1.404e-13 | 3.162e-11   |
| Prostate cancer                | KEGG     | 8             | TP53, PDGFRA, CTNNB1, KRAS, BRAF, FGFR1, PIK3CA, RB1                             | 98                 | 19                 | 51.60           | 1.032e-12 | 1.959e-10   |
| Pathways in cancer             | KEGG     | 12            | TP53, CDKN2A, PDGFRA, CTNNB1, KRAS, STAT5B, SUFU, BRAF, FGFR1, PIK3CA, MLH1, RB1 | 533                | 19                 | 14.23           | 1.961e-12 | 3.485e-10   |
| Non-small cell lung cancer     | KEGG     | 7             | TP53, CDKN2A, KRAS, STAT5B, BRAF, PIK3CA, RB1                                    | 73                 | 19                 | 60.61           | 1.085e-11 | 1.638e-9    |
| Glioma                         | KEGG     | 7             | TP53, CDKN2A, PDGFRA, KRAS, BRAF, PIK3CA, RB1                                    | 76                 | 19                 | 58.22           | 1.453e-11 | 2.114e-9    |
| Endometrial cancer             | KEGG     | 6             | TP53, CTNNB1, KRAS, BRAF, PIK3CA, MLH1                                           | 59                 | 19                 | 64.28           | 2.796e-10 | 2.954e-8    |
| Downstream signal transduction | Reactome | 5             | PDGFRA, KRAS, STAT5B, PTPN11, PIK3CA                                             | 29                 | 19                 | 108.98          | 6.484e-10 | 6.333e-8    |
| Pancreatic cancer              | KEGG     | 6             | TP53, CDKN2A, KRAS, BRAF, PIK3CA, RB1                                            | 77                 | 19                 | 49.25           | 1.447e-9  | 1.299e-7    |
| Breast cancer                  | KEGG     | 7             | TP53, CTNNB1, KRAS, BRAF, FGFR1, PIK3CA, RB1                                     | 148                | 19                 | 29.90           | 1.666e-9  | 1.470e-7    |
| Gastric cancer                 | KEGG     | 7             | TP53, CTNNB1, KRAS, BRAF, PIK3CA, MLH1, RB1                                      | 150                | 19                 | 29.50           | 1.831e-9  | 1.601e-7    |
| Colorectal cancer              | KEGG     | 6             | TP53, CTNNB1, KRAS, BRAF, PIK3CA, MLH1                                           | 87                 | 19                 | 43.59           | 3.052e-9  | 2.556e-7    |
| Bladder cancer                 | KEGG     | 5             | TP53, CDKN2A, KRAS, BRAF, RB1                                                    | 41                 | 19                 | 77.09           | 4.044e-9  | 3.298e-7    |
| Hepatocellular carcinoma       | KEGG     | 7             | TP53, CDKN2A, CTNNB1, KRAS, BRAF, PIK3CA, RB1                                    | 170                | 19                 | 26.03           | 4.394e-9  | 3.547e-7    |
| Endocrine resistance           | KEGG     | 6             | TP53, CDKN2A, KRAS, BRAF, PIK3CA, RB1                                            | 99                 | 19                 | 38.31           | 6.698e-9  | 5.175e-7    |