

**S4 Table.** Top 5 canonical pathways for the the 4 miRNA signature and associated downstream/upstream molecules.

| <b>Canonical Pathway</b>                   | <b>-log(p-value)</b> | <b>p-value</b> | <b>Molecules Associated</b>       |
|--|----------------------|----------------|-----------------------------------|
| <b>PTEN signaling</b>                      | 8.439                | 3.64E-09       | AKT1, BCL2, BCL2L11, CDKN1B, KRAS |
| <b>Prostate Cancer Signaling</b>           | 6.998                | 1E-07          | AKT1, BCL2, CDKN1B, KRAS          |
| <b>Pancreatic Adenocarcinoma Signaling</b> | 6.548                | 2.83E-07       | AKT1, BCL2, CDKN1B, KRAS          |
| <b>PI3K/AKT Signaling</b>                  | 6.288                | 5.15E-07       | AKT1, BCL2, CDKN1B, KRAS          |
| <b>Molecular Mechanisms of Cancer</b>      | 5.989                | 1.02E-06       | AKT1, BCL2, BCL2L11, CDKN1B, KRAS |