

## Human p53 Signaling Pathway PCR Array

**p53 Activation:** ATM, ATR, BBC3, BRCA1, CDKN1A (p21CIP1/WAF1), CDKN2A (p16INK4), CHEK1, CHEK2 (RAD53), FOXO3, GML, MDM2, MSH2, SIRT1, TP63, TP73.

**p53 Regulators & Interactors:** CDKN2A (p16INK4), DNMT1, HDAC1, KAT2B, MDM2, MDM4, SIRT1, TADA3, TP53AIP1, TP53BP2, TP63 (TP73L), TP73.

### Target Genes:

Apoptosis: APAF1, BAX, BBC3, BTG2, CASP9, EGFR, EI24, ESR1 (ER $\alpha$ ), FAS (TNFRSF6), PRKCA, TNF, TNFRSF10B (DR5), TP53, TP53AIP1, TP73.

Cell Cycle: CCNG1, CDC25A, CDC25C, CDKN1A (p21CIP1/WAF1), E2F1, E2F3, GML, MDM2, MYC, PPM1D, RB1, RPRM, SESN2, SIAH1.

DNA Repair: BRCA1, BTG2, EGFR, GADD45A, PCNA, PTTG1.

Angiogenesis: BAI1, IL6, PTEN.

### Downstream Responses:

Apoptosis: APAF1, BCL2, BCL2A1, BID, BIRC5, CASP2, CASP9, CRADD, FADD, FASLG (TNFSF6), IGF1R, MCL1, NF1, NFKB1, PIDD (LRDD), RELA, TNFRSF10D, TRAF2, WT1.

Cell Cycle: CCNB1, CCNE1, CCNG1, CCNH, CDK1 (CDC2), CDK4, PRC1, TSC1.

DNA Repair: BRCA2, MLH1, XRCC5.

Transcription Factors & Regulators: BRCA2, EGR1, JUN, MYOD1, NFKB1, RELA, STAT1.

Other Genes: HK2, KRAS.