

Human DNA Damage Signaling Pathway PCR Array

ATM/ATR Signaling: ATM, ATR, ATRIP, BARD1, BRCA1, CDC25A, CHEK1, CHEK2 (RAD53), CSNK2A2, FANCD2, H2AFX, HUS1, MDC1, PARP1 (ADPRT1), RAD1, RAD17, RAD50, RAD9A, RBBP8, RNF168, RNF8, SMC1A, TOPBP1, TP53.

DNA Repair:

Nucleotide Excision Repair: CDK7, DDB1, DDB2, ERCC1, ERCC2 (XPB), LIG1, NTHL1, OGG1, PCNA, PNKP, RPA1, SIRT1, TP53, XPA, XPC.

Base-Excision Repair: APEX1, FEN1, LIG1, MBD4, MPG, NTHL1, OGG1, PARP1 (ADPRT1), PCNA, TP53, UNG, XRCC1.

Mismatch Repair: ABL1, EXO1, MLH1, MLH3, MSH2, MSH3, PCNA, PMS1, PMS2, TP73.

Double Strand Break Repair: ATM, BLM, BRCA1, CHEK1, H2AFX, HUS1, LIG1, MDC1, MLH1, MRE11A, NBN (NBS1), PRKDC, RAD50, RAD51, RPA1, TP53BP1, XRCC2, XRCC6 (G22P1).

Other Genes: ATR, ATRIP, ATRX, BARD1, BRIP1, CHEK2 (RAD53), CIB1, CRY1, FANCA, FANCD2, FANCG, GADD45A, GADD45G, RAD1, RAD17, RAD18, RAD21, RAD51B, RAD9A, RBBP8, REV1, RNF168, RNF8, SMC1A, SUMO1, TOPBP1, XRCC3.

Apoptosis: ABL1, ATM, BARD1, BAX, BBC3, BRCA1, CDKN1A (p21CIP1/WAF1), CHEK2 (RAD53), CIB1, CSNK2A2, PPP1R15A (GADD34), PRKDC, RAD21, RAD9A, SIRT1, TP53, TP73.

Cell Cycle: ATM, ATR, ATRIP, CDC25A, CDC25C, CDK7, CDKN1A (p21CIP1/WAF1), CHEK1, CHEK2 (RAD53), DDIT3 (GADD153/CHOP), MAPK12, MCPH1, MDC1, PPM1D, PPP1R15A (GADD34), TP53, TP73.