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| Supplementary Table 1. DNA repair genes with chromosomal location and number of SNPs analyzed. |
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| Gene abbreviation | Full gene name | Location | Number of SNPs |
| ***ALKBH3*** | alkylation repair homolog 3 | 11p11.2 | ***24*** |
| ***APEX1*** | APEX nuclease (multifunctional DNA repair enzyme) 1  | 14q11.2 | ***3*** |
| ***ATR*** | ATR serine/threonine kinase | 3q23 | ***5*** |
| ***BLM*** | Bloom syndrome, RecQ helicase-like  | 15q26.1 | ***2*** |
| ***BRCA2*** | breast cancer 2, early onset | 13q12.3 | ***1*** |
| ***BRIP1*** | BRCA1 interacting protein C-terminal helicase 1 | 17q22.2 | ***4*** |
| ***CHEK1*** | checkpoint kinase 1 | 11q24.2 | ***1*** |
| ***CHEK2*** | checkpoint kinase 2 | 22q12.1 | ***1*** |
| ***DCLRE1B*** | DNA cross-link repair 1B | 1p13.2 | ***1*** |
| ***DCLRE1B*** | DNA cross-link repair 1B | 1p13.2 | ***1*** |
| ***DDB2/NR1H3*** | damage-specific DNA binding protein 2 | 11p12-p11 | ***3*** |
| ***EME1*** | essential meiotic structure-specific endonuclease 1 | 17q21.33 | ***1*** |
| ***EME2*** | essential meiotic structure-specific endonuclease 2 | 16p13.3 | ***3*** |
| ***ERCC5*** | excision repair cross-complementation group 5 | 13q33 | ***15*** |
| ***EXO1*** | exonuclease 1 | 1q43 | ***1*** |
| ***FANCD2*** | Fanconi anemia, complementation group D2  | 3p26 | ***2*** |
| ***FANCL*** | Fanconi anemia, complementation group L | 2p16.1 | ***1*** |
| ***FLJ35220*** | endonuclease V | 17q25.3 | ***1*** |
| ***GTF2H3*** | general transcription factor IIH, polypeptide 3 | 12q24.31 | ***1*** |
| ***HEL308*** | helicase, POLQ-like | 4q21.23 | ***1*** |
| ***HUS1*** | HUS1 checkpoint homolog | 7p13-p12 | ***7*** |
| ***LIG1*** | ligase I, DNA, ATP-dependent  | 19q13.2-q13.3 | ***10*** |
| ***LIG4*** | ligase IV, DNA, ATP-dependent | 13q33-q34 | ***15*** |
| ***MAD2L2*** | MAD2 mitotic arrest deficient-like 2  | 1p36 | ***3*** |
| ***MBD4*** | methyl-CpG binding domain protein 4  | 3q21.3 | ***5*** |
| ***MGMT*** | O-6-methylguanine-DNA methyltransferase | 10q26 | ***61*** |
| ***MLH1*** | mutL homolog 1  | 3p21.3 | ***1*** |
| ***NEIL2*** | nei endonuclease VIII-like 2 | 8p23.1 | ***4*** |
| ***OGG1/TADA3L*** | 8-oxoguanine DNA glycosylase | 3p26.2 | ***6*** |
| ***PARP1*** | poly (ADP-ribose) polymerase 1 | 1q41-q42 | ***5*** |
| ***PARP4*** | poly (ADP-ribose) polymerase family, member 4 | 13q11 | ***4*** |
| ***PNKP*** | polynucleotide kinase 3'-phosphatase  | 19q13.3-q13.4 | ***2*** |
| ***POLL*** | polymerase (DNA directed), lambda  | 10q23 | ***1*** |
| ***POLM*** | polymerase (DNA directed), mu | 7p13 | ***1*** |
| ***PRKDC/MCM4*** | protein kinase, DNA activated, catalytic polypeptide | 8q11 | ***1*** |
| ***RAD23B*** | RAD23 homolog B | 9q31.2 | ***2*** |
| ***RAD51AP1*** | RAD51 associated protein 1 | 12p13.2-p13.1 | ***2*** |
| ***RAD54B*** | RAD54 homolog B | 8q22.1 | ***12*** |
| ***RAD54L*** | RAD54-like | 1p32 | ***3*** |
| ***RECQL*** | RecQ helicase-like | 12p12 | ***19*** |
| ***REV1*** | REV1, polymerase (DNA directed) | 2q11.1-q11.2 | ***5*** |
| ***RPA1*** | replication protein A1 | 17p13.3 | ***3*** |
| ***RPA3*** | replication protein A3 | 7p22 | ***3*** |
| ***SMUG1*** | single-strand-selective monofunctional uracil-DNA glycosylase 1 | 12q13.13 | ***3*** |
| ***TDG*** | thymine-DNA glycosylase | 12q24.1 | ***18*** |
| ***TOPBP1*** | topoisomerase (DNA) II binding protein 1 | 3q22.1 | ***10*** |
| ***TSC2/NTHL1*** | nth endonuclease III-like 1 | 16p13.3 | ***2*** |
| ***UBE2A*** | ubiquitin-conjugating enzyme E2A  | Xq24 | ***2*** |
| ***UBE2N*** | ubiquitin-conjugating enzyme E2N | 12q22 | ***2*** |
| ***XAB2/RETN*** | XPA binding protein 2 | 19p13.2 | ***2*** |
| ***XPA*** | xeroderma pigmentosum, complementation group A | 9q22.3 | ***3*** |
| ***XPC*** | xeroderma pigmentosum, complementation group C | 3p25.1 | ***6*** |
| ***XRCC2*** | X-ray repair complementing defective repair in Chinese hamster cells 2  | 7q36.1 | ***1*** |
| ***XRCC4*** | X-ray repair complementing defective repair in Chinese hamster cells 4 | 5q14.2 | ***4*** |