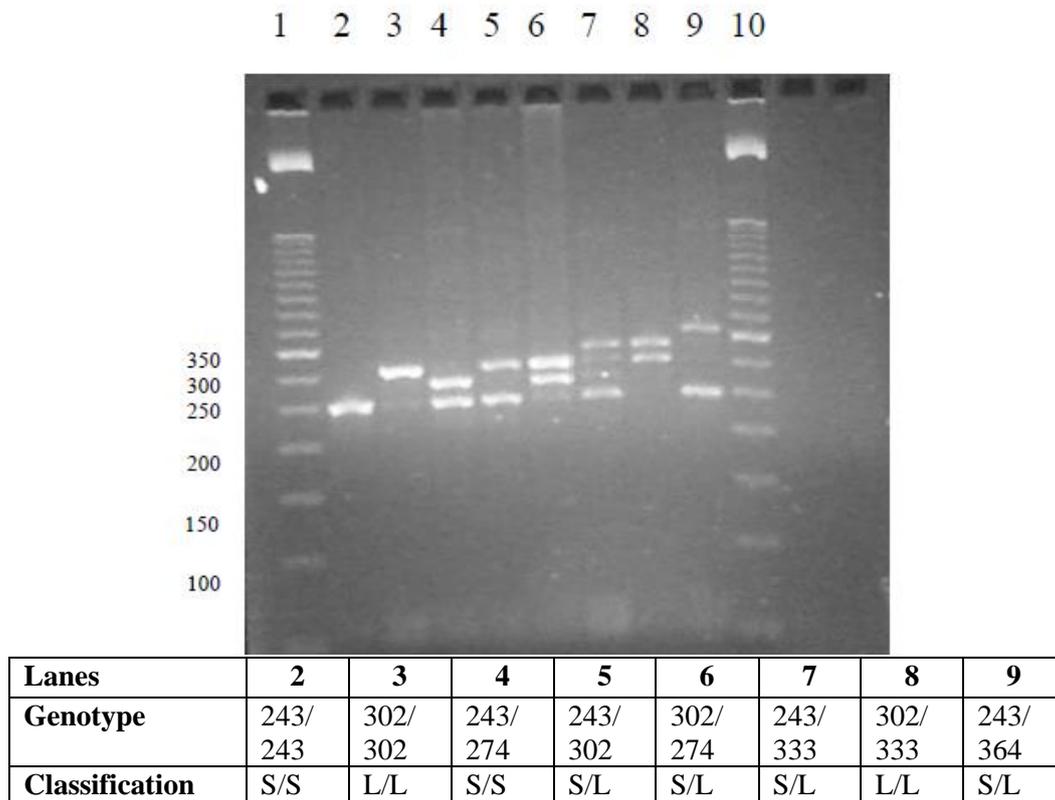


## Supplementary Materials and Methods

### Genotyping

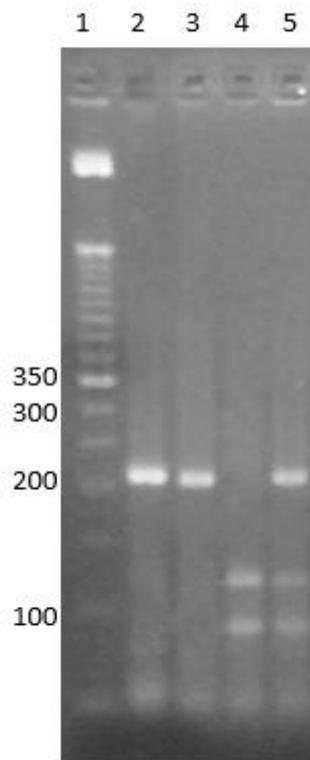
TERT VNTR MNS16A was genotyped according to the allelic-specific PCR method as previously reported (Wang et al., 2003). The primers were: forward: 5'AGGATTCTGATCTCTGAAGGGTG 3' and reverse 5'TCTGCCTGAGGAAGGACGTATG 3' (Sigma-Aldrich, MO USA). The amplification procedure consisted of an initial denaturing step for 5' at 95°C followed by 35 cycles for 1 min a 95°C, 1 min a 60°C and 1 min a 72°C and a final extension step for 10 min a 72°C. The PCR products were visualized on 2.5% agarose gel containing 0.25 mg/ml ethidium bromide (Figure S1), genotypes were classified as previously reported (Wang et al., 2003): short allele (S) corresponds to 243 and 274 bp bands and long allele (L) corresponds to 302 and 333 bp bands. Thus, the MNS16A genotypes were: L/L, L/S and S/S.



**Figure S1.** Genotyping of TERT MNS16A. Lanes 1, 10: 50 bp ladder. Lanes 2-9: see table.

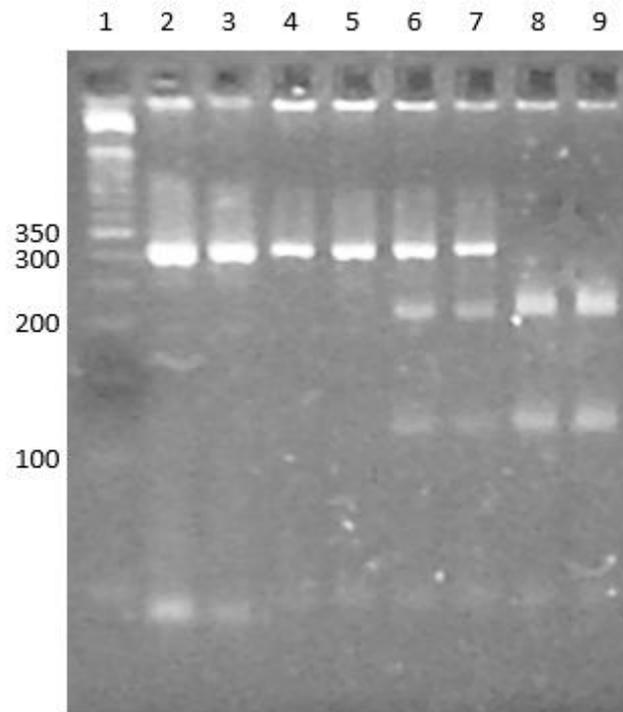
TERT SNPs (rs2853691 and rs33954691) were investigated by polymerase chain reaction amplification followed by restriction fragment length polymorphism (PCR-RFLP).

The primers for TERT rs2853691 were forward: 5'GGGTAGGGGATAGACAGTGGGA 3'and reverse: 5'CCAGGCTTCCCCATCTTCCCCG 3' (Sigma-Aldrich, MO USA). The amplification procedure consisted of an initial denaturing step for 5' at 95°C followed by 35 cycles for 1 min a 95°C,1 min a 60°C, 1 min a 72°C and a final extension step for 10 min a 72°C. The PCR product was digested overnight by the restriction enzyme NciI and then visualized on 2.5% agarose gel (Figure S2).



**Figure S2.** Genotyping of TERT rs2853691. Lanes 1: 50 bp ladder. Lane 2: PCR product, 211 bp. Lane 3: genotype A/A, 211 bp. Lane 4: genotype G/G, 121, 90 bp. Lane 5: genotype A/G, 211, 121, 90 bp.

The primers for TERT rs33954691 were forward: 5'CATTTCATGCACGCACACAGGCA3'and reverse: 5' TCCTAAGCCCAGATT CACTCA 3' (Sigma-Aldrich, MO USA).The amplification procedure consisted of an initial denaturing step for 5' at 95°C followed by 35 cycles for 1 min a 95°C,1 min a 56°C,1 min a 72°C and a final extension step for 10 min a 72°C. The PCR product was digested overnight by the restriction enzyme NsiI and then visualized on 2.5% agarose gel (Figure S3).



**Figure S3.** Genotyping of TERT rs33954691. Lane 1: 50 bp ladder. Lanes 2, 3: PCR product, 313 bp. Lanes 4, 5: genotype C/C, 313 bp. Lanes 6, 7: genotype C/T, 313, 205, 107 bp. Lanes 8, 9: genotype T/T, 205, 107 bp.

Genotyping of the TERC SNPs (rs12696304, rs3772190 and rs16847897) and TERT SNP rs2736098 was carried out by allelic discrimination using predesigned TaqMan SNP genotyping assays (Applied Biosystems, Carlsbad, CA, USA). DNA was amplified in a total volume of 20  $\mu$ l containing 10  $\mu$ l of TaqMan Genotyping Master Mix (Applied Biosystems), 36  $\mu$ M of each primer, 8  $\mu$ M of each probe, and approximately 100 ng of template DNA. PCR was performed using a 7300 real-time PCR instrument (Applied Biosystems) under standard conditions.