

S3 Table. Primer sequences and PCR amplification program for site-directed mutagenesis in this study^{a,b,c}

SNP site	Forward primer sequence (5' to 3')	Reverse primer sequence (5' to 3')
Step-1 PCR to generate fragments A and B		
rs1838169-A	CGCCC <u>ACGTGA</u> AAGGCTGCCGAC	ATAAGAAGAGCAAGGAAG <u>G</u> CCCGGTGGCCGCGAGGGG
rs1838169-B	CCCCTCGCGGCCACCGGG <u>C</u> CTTCCTTGCTCTTCTTAT	GTGTAACAGGCAGGTGGATTTCCTG
rs17720428-A	CGCCC <u>ACGTGA</u> AAGGCTGCCGAC	CCTAAAATTGGTCCCA <u>G</u> TTGGATCTTTCCTTAGCAAC
rs17720428-B	GTTGCTAAGGAAAGATCC <u>CA</u> ATGGGACCAATTTTAGG	GTGTAACAGGCAGGTGGATTTCCTG
Step-2 overlap extension PCR to join fragments A and B together		
rs1838169 & rs17720428	CGCCC <u>ACGTGA</u> AAGGCTGCCGAC Pml1 site	GTGTAACAGGCAGGTGGATTTCCTG Aar1 site

^aThe bold letters with underlines in primers indicate the substitutive residues whereas the Italic letters with underlines indicate the restriction enzyme sites.

^bFor the Step-1 PCR, 0.1 ng wild type plasmid was utilized as the template for PCR. For the Step-2 overlap extension PCR, 10 ng fragments A and B were used as the template.

^cPCR cycles were performed by using an ABI 2720 Thermal Cycler (Applied Biosystems, Carlsband, CA) and the cycling conditions were: 95°C for 10 mins, followed by 30 cycles of 95°C for 15 seconds, 55°C for 15 seconds, 72°C for 1 min, and finally 72°C for 5 mins.