

Table S2. Mutant primer sequences.

Mutant site	Primer sequence	Primer length
P79L	Forward primer: CACTGTCCtAAAGATGCTAGTGAACATCCAGTCTC	35
	Reverse primer: GCATCTTTaGGACAGTGGTAGAGACGAAGCAG	32
M105G	Forward primer: TgTGGCTTTTGTGAGTGGATGATTTCCTCC	32
	Reverse primer: CTCCAACAAAAGCCAcAAAAAATACACCTGAGTGAGGCA	41
G108F	Forward primer: GGCTTTTTtTTGGAGTGGATGATTTCCTCCTGA	32
	Reverse primer: CCACTCCAAaAAAAGCCATAAAAAAATACACCTGAG	37
M133V	Forward primer: TGCACTACgTGGTCATCATGAACGCCCCGCCTC	32
	Reverse primer: GATGACCAcGTAGTGCAGGGGGTGGCAGATGG	32
F178A	Forward primer: CACATTTcgcCTGTGAACTGGCTCAGCTTCTCA	33
	Reverse primer: GTTCACAGgcGAAATGTGGGATTTCGTGCCTA	33
N195A	Forward primer: CTCTCATCgcTGACATCTGTTTGTATGTGGCCA	34
	Reverse primer: AGATGTCAgcGATGAGAGTGTCTGAGCAGGCTG	35
L199A	Forward primer: ACATCTGTgcGTATGTGGCCACTGCCCTGCTGG	34
	Reverse primer: CCACATACgcACAGATGTCATTGATGAGAGTGTCTG	36
A202T	Forward primer: TGTATGTGGtCACTGCCCTGCTGGGTGTGTTT	32
	Reverse primer: GGCAGTGaCCACATACAAACAGATGTCATTGATG	34
A202V	Forward primer: TATGTGGCCAtTGCCCTGCTGGGTGTGTTTCC	33
	Reverse primer: AGGGCAaTGGCCACATACAAACAGATGTCATT	32
T203A	Forward primer: TGTTTGTATGTGGCCgcTGCCCTGCTGGGTGTGTTT	36
	Reverse primer: AgcGGCCACATACAAACAGATGTCATTGATGAG	33
P210A	Forward primer: GTGTGTTTgCTCTCACTGGGATCCTCTTTTCTT	33
	Reverse primer: AGTGAGAGcAAACACACCCAGCAGGGCAGTGG	33
Y278A	Forward primer: TTGCCTCAGTGATGgcCACCGTGGTCACCCCCAT	34
	Reverse primer: TGgcCATCACTGAGGCAATGGAGCTTCTACGGG	33
T279A	Forward primer: TCAGTGATGTACgCCGTGGTCACCCCCATGCT	32
	Reverse primer: ACGGcGTACATCACTGAGGCAATGGAGCTTCT	32