

Supplemental Table I: Nucleotide sequence of primers.

Mutant name	Primer nucleotide sequence F: forward primer, R: Reverse primer (bold type indicates those nucleotides different from wild-type.)
ABI5 ⁹¹⁻⁴⁴²	F: GCAGGTTACATTCTGTTCC R: CGAGCCTGCTTTTTTGATC
ABI5 ¹⁷⁹⁻⁴⁴²	F: CGTAGTAGTAGTAGTAATGGACAGAAC R: CGAGCCTGCTTTTTTGATC
ABI5 ²⁷¹⁻⁴⁴²	F: TCAGGTTATGCTAAAAGGACAG R: CGAGCCTGCTTTTTTGATC
ABI5 ¹⁷⁹⁻²⁷⁰	F: GACCCAGCTTTCTTGACAAAAGTTGG R: TGGGTCACCCACACCCATA
ABI5 ¹⁻²⁷⁰	F: GACCCAGCTTTCTTGACAAAAGTTGG R: TGGGTCACCCACACCCATA
ABI5 ¹⁻³⁴³	F: GACCCAGCTTTCTTGACAAAAGTTGG R: CCTTCCCCTTAGCCCTCCCAT
ABI5 ^{Δ344-376}	F: CAAGCATATACAGTGGAATTGGAAGC R: CCTTCCCCTTAGCCCTCCCATATCT
ABI5 ^{Δ377-409}	F: CAACAGTATTTTGAGAGTTTGAAGTCAAG R: TTTTCTTGCTCTAGATCTAGCAG
ABI5 ^{Δ406-409}	F: CAACAGTATTTTGAGAGTTTGAAGTCAAG R: CTCCAACCTCCGCCAATGCA
ABI5 ^{Δ406-442}	F: GACCCAGCTTTCTTGACAAAAGTTGG R: CTCCAACCTCCGCCAATGCA
ABI5 ^{S42A}	F: GGGGAAGACAATCC G TATCTACTCATTG R: AAAGAAGTAAACGGATGATTCTCACCAC
ABI5 ^{S42D}	F: GGGGAAGACAATCC G A T ATCTACTCATTG R: AAAGAAGTAAACGGATGATTCTCACCAC
ABI5 ^{S145A}	F: CCTCGACAAGGCGCTTTGACACTTCC R: AAGACTAGACTCGTTCGCTATCCCTCTCT
ABI5 ^{S145D}	F: CCTCGACAAGGCG A TTT G ACACTTCC R: AAGACTAGACTCGTTCGCTATCCCTCTCT
ABI5 ^{T201A}	F: GCTAGACAACCG G CTTTTGGAGAGA R: CGCAGTCTCACCGCGTTCT
ABI5 ^{T201D}	F: GCTAGACAACCG G A T TTTGGAGAGA R: CGCAGTCTCACCGCGTTCT
ABI5 ^{S439A}	F: GATGAGGAACCCG G CTTGCCACTC R: AATGTCCGCAATCTCCCGTTCCG
ABI5 ^{S439D}	F: GATGAGGAACCCG G A T TG T CCACTC R: AATGTCCGCAATCTCCCGTTCCG
ABI5 ^{K344/353A}	F: GGTCCAGTGGAG G CAGTAGTGGAGA R: ATCCACTACTCTT G CCCTTCCCCT
ABI5 ^{K364/376A}	F: GCTAGATCTAGAGCAAGAG G CACAAGCATAT R: AGCAGACTCGCGGTT C GC G ATCATCC
ABI5 ^{K344A}	F: GGTCCAGTGGAGAAAGTAGTGGAGA R: ATCCACTACTCTT G CCCTTCCCCT
ABI5 ^{K353A}	F: GGTCCAGTGGAG G CAGTAGTGGAGA R: ATCCACTACTCTTTTCCCTTCCCCT