Supporting Information

Table S1. Primers for mutagenesis[a].

Mutation	Primer
I_0	FW: GCTCTGGCTTGTGCTCTGGCTATGGACGCTCTGGCTCTGGCTGGCACAACCTATGGCATG
	RV: AGCCAGAGCCAGAGCGTCCATAGCCAGAGCACAAGCCAGAGCGCCTGATGTTAACTTCAC
N154A	FW: TCGGAAAACCATGGGGCTTATTCAGCG
	RV: GCCCCATGGTTTTCCGAAGTGGTGGTT
BC	FW: ACGCTGCTGCTGCTGCTCCCTGCAAAATTCCGATT
	RV: GGAGCAGCAGCAGCAGCGTAGGAGAGTTCAATGAC
DE	FW:CGGCTGCTGCTGCCGCTTCAAAGGTGCTGGTCGAG
	RV:GAAGCGGCAGCAGCAGCCGCGACGAAGGGGTTCAC
FG	FW:TTGCTGCTGCTGCTGCTCAGATCAACCACCATTGG
	RV:TGAGCAGCAGCAGCAGCAACTACGATGTAGGAGTC
kl	FW:TCATCATCAGAGTACTCAAGCTCATCAAAGTCAACATCAGGCCACCTGAAA
	RV:TGACTTTGATGAGCTTGAGTACTCTGATGATGAGGCTCCTGCCAACGCCTG
ij	FW:GGCGGCTGCCACAGCTCAGTCCGTTGTTGCTCTT
	RV:ACTGAGCTGTGGCAGCCGCCTCTTCAAACTCCAT
R9A	FW: CTGGGAATGGGCAATGCTGACTTCATA
	RV: GCATTGCCCATTCCCAGACAATTAAAA
E373A	FW: CAAAGGTGCTGGTCGCGATGGAACCC
	RV: GCGACCAGCACCTTTGAATTGGCACT
H144A	FW: GTTGGCATTTTTGTGGCTGGAACCACC
	RV: GCCACAAAAATGCCAACTTCGTATTTG
H319A	FW: CCGGCGGACACTGGTGCCGGAACAGTT
	RV: GCACCAGTGTCCGCCGGATTTTTCGCG
F407A	FW: ACGCTGGGCAAAGCCGCTTCAACAACT
	RV: GCGGCTTTGCCCAGCGTGCTTCCAGCT
T410A	FW: AAAGCCTTTTCAACAGCTTTGAAGGG
	RV: CTGTTGAAAAGGCTTTGCCCAGCGTG
L221S	FW: GAATGGTTTCATGACTCCGCTCTCCCC
	RV: GAGTCATGAAACCATTCCCTATGGACC
W217A	FW: CTGGTCCATAGGGAAGCGTTTCATGAC
	RV: GCTTCCCTATGGACCAGAAATGACTTT
Q258A	FW: GTTGCTCTTGGGTCAGCGGAAGGAGGC
	RV: GCTGACCCAAGAGCAACAACGGACTGT

[a] Pairs of forward (FW) and reverse (RV) primers was used to generate mutations in

4 infectious clone, CprME and prME plasmids.