

## *Supplementary Material*

**Supplementary Table 2.** Primers used in this work.

## Supplementary Material

T592A F	CGGGGCGAAAgccGAAGCCACGC	Oligonucleotides for CheA T591A mutant derivative construction
T592A R	TCCACGTCAAACACTTCCACAATTGACC	
S629A F	AAATCTGGAAgccAATTATCGCAAGGTACCGG	Oligonucleotides for CheA S628A mutant derivative construction
S629A R	TTGACCACCACCTGGTGC	
S647A F	GGGCGACGGCgccGTCGCGCTGA	Oligonucleotides for CheA S646A mutant derivative construction
S647A R	AGGATCGTCGCGGCCGAAATC	
F204A_F	TGGCGTGATGcgGGTAACCCGG	Oligonucleotides for RecA F203A mutant derivative construction
F204A_R	ATCTTCATACTGGATCTGG	
I229A_F	TATCCGTCGTgcggGGCGCGGTGA	Oligonucleotides for RecA I228A mutant derivative construction
I229A_R	TCAAGACGAACAGAGGCG	
R244A_F	TAGCGAAACGcgGTGAAAGTGGTAAAAACAA AATC	Oligonucleotides for RecA R243A mutant derivative construction
R244A_R	CCCACGACATTATCGCCC	
F256A_F	CGCCCGCGCCGcgAAGCAGGCCG	Oligonucleotides for RecA F255A mutant derivative construction
F256A_R	ATTTTGTCCCCACCACTTCACACCGCGTTTC	
Q258A_F	GCCGTTAACGcgGCCGAGTTCC	Oligonucleotides for RecA Q257A mutant derivative construction
Q258A_R	GCAGCGATTGTTTC	
K287A_F	GCTGATCGAGcgGCGGGCGCAT	Oligonucleotides for RecA K286A mutant derivative construction
K287A_R	TTCTCTTCACGCCAGG	
Q301A_F	GAAGATTGGCcgGGTAAAGCGAACG	Oligonucleotides for RecA Q300A mutant derivative construction
Q301A_R	TCGCCGTTTAGCTGTAC	