

**Table S2.** Plasmids and primers used in the study

I.D.	Description <sup>a-b</sup>
<i>Plasmids</i>	
pDONR221	<i>E. coli</i> cloning vector, Km <sup>R</sup> , with attR sites for the Gateway cloning system
pDEST15	<i>E. coli</i> expression vector, Amp <sup>R</sup> , with attR sites for the Gateway cloning system
pDEST15_M12K	pDEST15 vector carrying a sequence encoding M12K (residues 423 - 484)
pDEST15_Mut1	pDEST15_M12K vector encoding for Mut1
pDEST15_Mut2	pDEST15_M12K vector encoding for Mut2
pDEST15_Mut3	pDEST15_M12K vector encoding for Mut3
pDEST15_Mut4	pDEST15_M12K vector encoding for Mut4
<i>Primers</i>	
	To amplify oligonucleotides encoding for M12K and Mut1
M12K <sub>423</sub> _up	<b>GGGGACAAGTTTGTACAAAAAAGCAGGCTTTAATAGCACATCAATGATGATG</b>
M12K <sub>484</sub> _low	<b>GGGGACCACTTTGTACAAGAAAGCTGGGTTTTAATTTTGTAGACATCATAGACAT</b>
	To amplify oligonucleotides encoding for Mut2, Mut3, Mut4
M12K <sub>423</sub> _up	<b>GGGGACAAGTTTGTACAAAAAAGCAGGCTTTAATAGCACATCAATGATGATG</b>
Mut4 <sub>483</sub> _low	<b>GGGGACCACTTTGTACAAGAAAGCTGGGTTTTAATTTGCAGACATCATAGACAT</b>

**a.** Km<sup>R</sup>, kanamycin resistance; Amp<sup>R</sup>, ampicillin resistance.

**b.** Recombination sites are indicated by nucleotides in bold.