

**Supplementary Table 1.** Plasmids and primers used in this study.

Plasmid name	Wickens archive name	Genbank accession # of insert (AA #s of partial inserts)	Amino acids mutated/deleted	Method made	Cut Site	Primer Sequence
pCS2+3HA:MS2-XTUT7-C	CPL7	KC493152	None	RE digests and ligation	Stul	GAAGGCCTGTTGAGAAACCAATGAAC TG
					XhoI	CCGCTCGAGTCA TGAGAGCCACACAAGAAATC
pCS2+3HA:MS2-XTUT7-C-DADA	CPL8	KC493152	D149A, D151A	SDM	NA	GCTTTGGCTTCAAACAGAGTGCTCTAGCTATCTGCATGACTTTTGATGG
					NA	CCATCAAAGTCATGCAGATAGCTAGAGCACTCTGTTTGAAGCCAAAGC
pCS2+3HA:MS2-XTUT4-C	CPL12	KC493153	None	RE digests, ligation, SDM	XhoI	NA
					XbaI	NA
pCS2+3HA:MS2-XTUT7-C-ΔZ1	CPL42	KC493152	56-69	SDM	NA	GGCAAGCTGCCTACAGTTGTGCCAGAAGATTTC AAGAAAATT
					NA	AATTTCTTGAATCTTCTGGCACA ACTGTAGGCAGCTTGCC
pCS2+3HA:MS2-XTUT7-C-ΔZ123	CPL46	KC493152	56-69; 437-451; 543-556	SDM	NA	GAACTTGCTCCCAATGATCGACCCATGAGAAGAAA CAGAGTG
					NA	CACCTGTTTCTTCTCATGGGTCGATCATTGGGAGCAAGTTC
					NA	AGAGATGTGAGGGAGAAACGCCACAGTACAAAGGCCAGTA
					NA	TACTGGGCTTTGTACTGTGGGCGTTTCCCTCACATCTCT
pCS2+3HA:MS2-XTUT7-C-ΔBR	CPL47	KC493152	453-470	SDM	NA	AAAATTGGCCACTTATGAAGGACTGTCCCTACCCGAGGCAAGAGTCCAAGAAAGACA
					NA	TGCTTTCTTGGACTTCTTGCCTCGGGTAGGGACAGTCTTATAAAGTGCCCAATTT
pCS2+3HA:MS2-XTUT7-ΔZ123ΔBR	CPL48	KC493152 (78-425)	None	RE digests and ligation	Stul	GCATAGGCCTCTTGATCCTTTGCCTCTCTTAC
					XhoI	GCATCTCGAGTCACTTCAGGATCGAAAAATATTC
pCS2+3HA:MS2-XTUT7-FL	CPL69	KC493151	None	RE digests and ligation	XhoI	CCGCTCGAGGTGCTGCCAAACAAGTCAAAC
					XbaI	GATCTAGATCACTTCTGATTGGCTTTTCC
pCS2+3HA:MS2-XTUT7-FL-DADA	CPL70	KC493151	D1041A; D1043A	SDM	NA	GGCTTTGGCTTCAAACAGAGTGCTCTTGAATCTGCATGACTATTGATGGT
					NA	ACCATCAATAGTCATGCAGATTGCAAGAGCACTCTGTTGAAGCCAAAGCC
pCS2+3HA:MS2-XT-TUT7-C	CPL71	KC493151 (837-1514)	None	RE digests and ligation	XhoI	GATCTAGACAATAAGTTTGTATGATGAGGAG
					XbaI	GATCTAGATCACTTCTGATTGGCTTTTCC
pCS2+3HA:MS2-XT-TUT7-C-DADA	CPL72	KC493151 (837-1514)	D1041A; D1043A	SDM	NA	GGCTTTGGCTTCAAACAGAGTGCTCTTGAATCTGCATGACTATTGATGGT
					NA	ACCATCAATAGTCATGCAGATTGCAAGAGCACTCTGTTGAAGCCAAAGCC
pCS2+3HA:MS2-GLD2	CPL73	NM_001094423	None	SDM	NA	GGATTGGTACAAGAATCAGTGATGCAGATTGTGCCTGGTTTAAAAGAG
					NA	CTCTTTAAAACAGGCACA AATCTGCATCACTGATCTTGTACCAAATCC
pCS2+3HA:MS2-GLD2-D242A	AC079	NM_001094423	D242A	NA	NA	
pCS2+3HA:MS2-XTUT7-H1269L	CPL95	KC493152	H377L	SDM	NA	GTTATTGAAGACCTTTTGATTTAAATTTGAACCTTGGAGCTGGCTTGTCAAGAAAG
					NA	CTTCTTGACAAGCCAGCTCCAAGGTTCAAATTTAAATCAAAGGGTCTTCAATAAC
pHMTc-TUT7-BR-WT	CPL100	KC493152 (453-540)	None	RE digests and ligation	XbaI	ATCGAGGAAAACCTGTATTTTCAGGGCGAATTCGGATCCCCAAAATCGGATCTGGTTCCG
					NA	AACGACGGCCAGTGCCAAGCTTGCCTGCAGTGC ACTCAATGATGATGATGATGCTC
pHMTc-TUT7-BR-R1-6A	CPL101	KC493152 (453-540)	R454A; R455A; R457A; R459-461A	SDM	NA	CGTGGATCCCCGAAATTTCCGGGTGCAATGGCAACACGCCGTGGCAGCTGCAAACAATGAGAATGCTGGAACCAAAGATAC
					NA	GTATCTTTGGTTTCCAGCATTCTATTGTTGCAGCTGCCACGGCGTTTGTGCCATTCGACCCGGGAATCCGGGGATCCAGC
pCS2-XTUT7-C	CPL102	KC493152	None	SDM	NA	ttccagattacgctccatgggctaggcctgttgagaacc
					NA	ggtttccaacaggcctagccatggagcgttaactctggaa

AA = amino acid

SDM= site directed mutagenesis

NA = not available

RE = restriction digests