

Table S1. Primers used for construction of recombinant MCMVs.

Virus	method	Forward primers	Reverse primers
MCMV- Δ m14-16	ET recombination	5'-ATGCGTCGTCTGGGTATAGTTATTGTCATCGCGTCTCTCCTGAGCGCTGTCGTCGTGGAATGCCTTCGAATTC-3'	5'-TTAGGATAAAAGTATTGCGTATAAGACACTTATAATTGTCATGATTAAGAACAAGGACGACGACGACAAGTAA-3'
MCMV- Δ m15	ET recombination	5'-GCGACGATGAGCAGAACATTTGAATCTGATTTATCGATATATGTCCAGACGTCGTGGAATGCCTTCGAATTC-3'	5'-TCGAGTACAACGGCAGCTTCGACCACATCAAGCATCA CAAGCTCCCATGACAAGGACGACGACGACAAGTAA-3'
MCMV-Rev	Generation of pST76K-SR-DEST	5'-GGGGACAAGTTTGTACAAAAAAGCAGGCTTCGCGATCGTGCTCGTATCTGC-3'	5'-GGGGACCACTTTGTACAAGAAAGCTGGTCATACGTACCCGGTGGGAGAC-3'
MCMV- Δ 5'm15	Seamless ET recombination	5'-GATATATTTTACTATATGTGATCGCTCTGTCTAGACCTGCATTGCGTCGTGGAATGCCTTCGAATTC-3'	5'-TGGTGGCGAATTATAAGTAGAATTGAATAGAATAGACTGTATAACACAAGGACGACGACGACAAGTAA-3'
MCMV- Δ 5'm15	SOE PCR	A: 5'-CGGTCGTCTTAGGGGTAA-3' C: 5'-TGTCTAGACCTGCATTGCGCCACCACAATATAGCGG-3'	B: 5'-CCGCTATATTGTGGTGGCCGAATGCAGGTCTAGACA-3' D: 5'-TTGCGTGTGTGATGCTT-3'
MCMV-m14stop	1 st round ET recombination	5'-TAATTCTTATCAATCGCACCAGAGTCTCGTATTTTGATTTCGGAGCGTCGTGGAATGCCTTCGAATTC-3'	5'-CTCCGCAGAACTGTTATGTGAAAGGACGTACTGCTTATCAGACGAACAAGGACGACGACGACAAGTAA-3'
MCMV-m14stop	SOE PCR	Primer A: 5'-GGACACGAAAAGAATCAA-3' Primer C: 5'-AGCGCTGTTTAATCTACAGAG-3'	Primer B: 5'-CTCTGTAGATTAAACAGCGCT-3' Primer D: 5'-ATAGGTTTCGTCCATCTTCGA-3'
MCMV-m15stop	Seamless ET recombination	5'-GATATATTTTACTATATGTGATCGCTCTGTCTAGACCTGCATTGCGTCGTGGAATGCCTTCGAATTC-3'	5'-TGGTGGCGAATTATAAGTAGAATTGAATAGAATAGACTGTATAACACAAGGACGACGACGACAAGTAA-3'
MCMV-m15stop	SOE PCR	Primer A: 5'-TCGTCTGATCGATATACC-3' Primer C: 5'-CACGTCCGATAAATTTTA-3'	Primer B: 5'-TAAATTTATCCGACGTG-3' Primer D: 5'-CAACCTGGGTGATATACA-3'
MCMV-m16stop	Seamless ET recombination	5'-AAATTCAGATTCAAATGTTCTGCTCATCGTCGCCATGAGCCTCCTCGTCGTGGAATGCCTTCGAATTC-3'	5'-TCTAAGATCGGTGGTGGTTAGACGCGGTCTTGTGTCCTAGCGTTACAAGGACGACGACGACAAGTAA-3'
MCMV-m16stop	SOE PCR	Primer A: 5'-CGGTCGTCTTAGGGGTAA-3' Primer C: 5'-CCTCGACCTTAAAGATGACA-3'	Primer B: 5'-TGTCATCTTTAAGGTGAGG-3' Primer D: 5'-CGATTTTCAGACCCTGTT-3'
MCMV-m16stopAl t	SOE PCR	Primer A: 5'-ACCGATATCATATGGATCATC-3' Primer C: 5'-GCTTTGTTTTAACATAGATTT-3'	Primer B: 5'-AAATCTATGTTAAAACAAAGC-3' Primer D: 5'-TTAGGATAAAAGTATTGC-3'