

S1 Table. Primers used to construct recombinant and site-direct mutated infectious clones.

Infectious clones	Primer name	Primers 5'-3'	Templates
pCMV GI	HDVr-F	GGGTCGGCATGGCATCTC	pCMV GIII
	CMV-R	GGTTCACTAAACCAGCTCTGCTTATATAG	
	JGI 5'UTR-F	5'p-AGAAGTTTATCTGTGTGAACTTCTTGGC	GI virus cDNA
	JGI 3'UTR-R	5'p-AGATCCTGTGTTCTTCCTCACCAC	
pCMV GIII/GI UTR	JGI 3'UTR-F	TAGATAGGATTAAGTCATGTGTGTAATGTG	pCMV GI
	JGI 5'UTR-R	GGTTGTTCTTCCGTTCTAAAAAAC	pCMV GIII
	Vector-GIII capsid-F	ttagaacggaagaacaaccATGACTAAAAAACAGGAGG	
	Vector-GIII NS5-R	acatgacttaatcctatctaGATGACCCTGTCTTCCTG	
pCMV GIII/GI C-E	JGIII NS1-F	GCACTGGATGTGCCATTGAC	pCMV GIII
	JGIII 5'UTR-R	GGTTATCTTCCGTTCTAAAAAACTGTT	
	JGI capsid-F	5'p-ATGACTAAAAAACAGGAGGGCC	GI virus cDNA
	JGI E-R	5'p-GGCATGCACGTTGGTCGCTAA	
pCMV GIII/GI NS1-5	JGIII 3'UTR-F	TAGTGTGATTTAAGGTAGAAAAGTAGACTATGT	pCMV GIII
	JGIII E-R	AGCATGCACATTGGTCGCTA	
	JGI NS1-F	5'p-GATACTGGCTGTGCCATTGATATCAC	GI virus cDNA
	JGI NS5-R	5'p-AATGACCCTGTCCCTCCTGAATCAATAC	
pCMV GIII/GI NS1-3	JGIII 3'UTR-F	TAGTGTGATTTAAGGTAGAAAAGTAGACTATGT	pCMV GIII/GI NS1-5
	JGI NS3-R	TCTCTTGCCCGCTGCAAATCC	
	vector-GIII NS4A-F	atthtcagcgggcaagagaTCAGCCGTTAGCTTCATAG	pCMV GIII

	vector-GIII NS5-R	tttaccttaaatcacactaGATGACCCTGTCTTCCTG	
pCMV GIII/GI NS4-5	JGIII 3'UTR-F	TAGTGTGATTTAAGGTAGAAAAGTAGACTATGT	pCMV GIII
	JGIII NS3-R	TCTCTTTCCTGCTGCGAAGTCT	
	vector-GI NS4A-F	acttcgcagcaggaaagagaTCAGCCGTCAGTTTCATAG	pCMV GI
	vector-GI NS5-R	tacttttctaccttaaatcacactaAATGACCCTGTCTCCTGAATCAATACATC	
pCMV GI/GIII NS1-5	JGI 3'UTR-F	TAGATAGGATTAAGTCATGTGTGTAATGTG	pCMV GI
	JGI E-R	5'p-GGCATGCACGTTGGTCGCTAA	
	Vector-GIII NS1-F	tagcgaccaacgtgcatgccGACACTGGATGTGCCATTG	pCMV GIII
	Vector-GIII NS5-R	acatgacttaatcctatctaGATGACCCTGTCTTCCTG	
pCMV GI/GIII NS1-3	JGI NS4A-F	TCAGCCGTCAGTTTCATAGAGGTG	pCMV GI
	JGI E-R	5'p-GGCATGCACGTTGGTCGCTAA	
	vector-GIII NS1-F	tagcgaccaatgtgcatgctGACACTGGATGTGCCATTG	pCMV GIII
	vector-GIII NS3-R	tctatgaaactgacggctgaTCTCTTTCCTGCTGCGAAG	
pCMV GIII/GI NS1-3 mutants	NS1 Q51K	ACCCCGCACACTCCTTCcttATGTGCTTTATGGACGATCTTC	pCMV GIII/GI NS1-3
	NS1 S70A	CATTCAGTTCGTCCCGCACggcTTCCACATCTGGTGTTC	
	NS1 R147H	GCATGCTATTCCAGGCTCTgtgCTCATCAGGGCATTCCCTTG	
	NS1 L206Y	CTCAAGTTTCCAGGTGTCATTgtaACGGCTCTCAATCCAGTATGA	
	NS1 R251K	TCTCCGGTTGTGCTTGCTtttCGGTCCAGCTATGGTGTGT	
	NS1 I298V	CTTTCCACTGTCAGTAGTAGTTCTgacTGAGGGACCCCTCTTGC	
	NS2A I6V	CCCAGCTGAAAAGGGTcaacCATTTGCGCGTTGAAAGC	
	NS2A A97T	CTCTTGGTTCGTCCATCTcgtGCTAAGCATGTTTCATGACCAGA	
	NS2A T149S	GACTGGCATGGCAACggaAGAAGTTGTGGGAAATGTGATCG	

	NS2A R187K	TCTTCTTCGCCATGGTCTTtttCCTCTCTTGCAGCAGGGA	
	NS2B E65D	GGCTACTTCCTGTGATTGCAGCcatcCATCTCCCAGCTGATATCGG	
	NS2B L99V	GCCGATACAAGACATACGCAAagacCCAGACTTTCCATGGAACACC	
	NS3 S78A	CTCCACGGGCCTCCATAagcTATGCGGTCTTCCTTCACACT	
	NS3 P105A	GGTTTTGTCTGGATGTTTACTGCagcTTTCCCTGGTTCCACCACG	
	NS3 D177E	AGCATGCTTGGAGTGTAGGCttcTGGAAGTGGTTCCTCTTGACG	
	NS3 S182N	AGTCATCTGTCTCTTTTTTCAGCATgttTGGAGTGTAGGCATCTGGAAC	
pCMV GIII NS2B/NS3 mutants	NS2B V99L	AATGCAAGACATGCGCAGgagCCAGACCTTCCATGGAACAC	pCMV GIII
	NS3 A78S	CTCCATGGGCCTCCGTAgctTATGCGGTCTTCTTTCACACTAC	
	NS3 E177D	CAACATGTTTGGGGTGTAAAGCcatcTGGGACTGGTTCCTCCTG	