

Table S1: Primer sequences used to amplify EHV-1 T953 target genes.

EHV-1 genes (Acc. No: KM593996)	Primers	Sequence (5' to 3')	Product Size (bp)
ORF30 DNA polymerase	Forward	CATAGCACACGTCTGGCAGA	3919
	Reverse	GTTTAAGCAAGGTTGGCGGG	
ORF31 Major DNA-binding protein	Forward	GCCAACCTTGCTTAAACGCT	3823
	Reverse	TACAAACACAACGGGGGAGG	
ORF7 Helicase-primase subunit	Forward	TTGGCAGCAATCCCATCCTT	3600
	Reverse	GTGTTGTCGGCAGAGGAGAT	
ORF74 Glycoprotein E	Forward	ACAGTTCTCCACTTTGGCGT	1854
	Reverse	GAGCCGGATCTGGGATAACG	

ORF: Open Reading Frame; bp: Base pair

Table S2: Sequences of primers used to amplify the sgRNA-CRISPR/Cas9 targeted regions for gene edition confirmation.

Target	Primer direction	Sequence (5' to 3')	Expected size (bp)
sgRNA ORF30_1	Forward	CGTCGAGTTTGTAGCTGGGT	555
	Reverse	CTGCCTGGCCCGACTATAAG	
sgRNA ORF30_2	Forward	CAGCTCGTACTCGCTGTCAA	490
	Reverse	CGACAACTTTCACCCGGAGA	
sgRNA ORF30_3	Forward	CAAGCAGTGCCTGGGTTTTTC	405
	Reverse	CGCACCTCACCGTCTACTTT	
sgRNA ORF30_4	Forward	GGCCTGGATAATGCTTGGGT	598
	Reverse	ACCCAGCTACAAACTCGACG	
sgRNA ORF31_1	Forward	CGGAGGTTTGGCTTTTCTGC	511
	Reverse	GGGTGGAGTCAAACAGCGTA	
sgRNA ORF31_2	Forward	TACTTTGCCAACCTGGTGCT	523
	Reverse	TCTGAACCATCGGTCCTCCT	
sgRNA ORF31_3	Forward	GACTGTGACGTGCTGGGTAA	507
	Reverse	CACTGGCTGAAACTGGTTGC	
sgRNA ORF31_4	Forward	GCCTGGATCGACCGTACAAT	412
	Reverse	TCTGAACCATCGGTCCTCCT	
sgRNA ORF7_1	Forward	TGTACGGTGGCATCGGAAAA	524
	Reverse	CGGCGGCTATTACACATTGC	
sgRNA ORF7_2	Forward	TCCATGGCCGCATAGTCATC	453
	Reverse	AGCCGGGTTTGGAGAGATTG	
sgRNA ORF7_3	Forward	CACGTCGACAACAAACGCTT	548
	Reverse	ACGCATGCGAGTGTACAGAA	
sgRNA ORF7_4	Forward	GCACAATCTCCCTCTCTCCG	431
	Reverse	TGCTAGTGACGAGCCACAAG	
sgRNA ORF74_1	Forward	ATTCGTGGCCTTCTAGGTGC	527
	Reverse	GTCAGAGTCCGAAGCTAGGC	
sgRNA ORF74_2	Forward	TACCTCGCCTTTTGTGCTGGT	528
	Reverse	TGTTTCTGACAGGGTTGCGT	
sgRNA ORF74_3	Forward	ATGAAACACTCCGTCGTGCT	545
	Reverse	ACAAACACATACAGCCCGGT	
sgRNA ORF74_4	Forward	TGGACGTATACGCTGCTGTC	450
	Reverse	CTGGTATGGTGGGAGCTGTG	

sgRNA: Single-guide RNA; ORF: Open Reading Frame; bp: Base pair

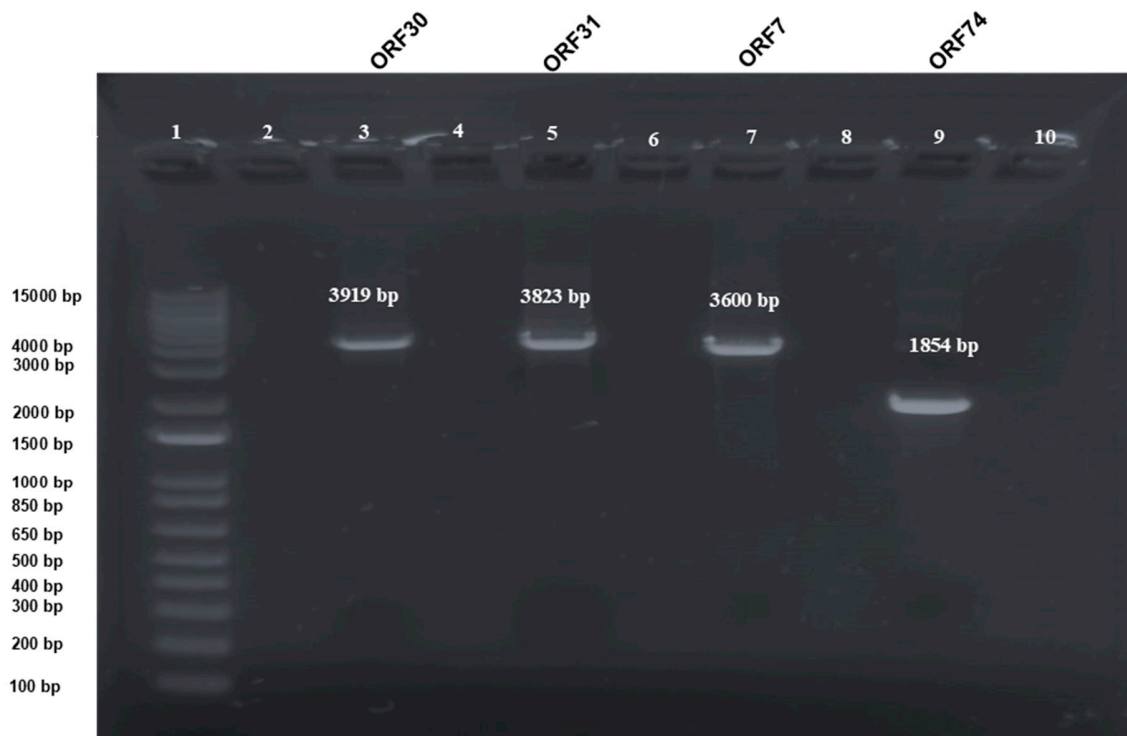


Figure S1: Gel electrophoresis of the EHV-1 target genes (ORF30, ORF31, ORF7 and ORF74) after amplification. Lane (1) 1 Kb plus DNA ladder, lane (3) shows a specific band for ORF30 at 3919 bp, Lane (5) shows a specific band for ORF31 at 3823 bp, Lane (7) shows a specific band for ORF7 at 3600 bp and Lane (9) shows a specific band for ORF74 at 1,854 bp.