

**Table S1.** Primer set for disease diagnosis.

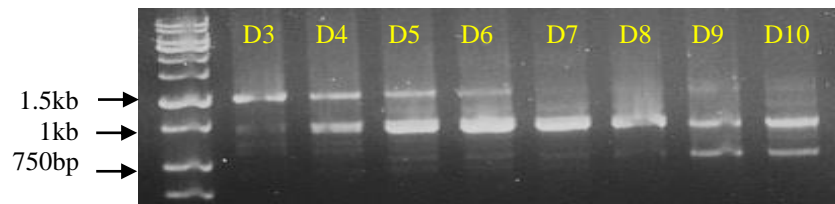
No.	Target gene (Protein)	Primer	Forward (5' to 3')	Reverse (5' to 3')	Amplicon (bp)	Usage
1	L	aMPV-L	GTTGCCTTGCATGCCATTG	GCCTGTCAATTGGGTCTTCTAC	210	Viral RNA detection (RT, qRT-PCR)
2	N	FR1	ACGAGAAAAAACGCATTCAAGTCAC	GCATTCCCCAAAACAACAC	1032	Full genome sequencing, Gene cloning
3	P	FR2	CATCTTCATGCAAGCTTATGGAG	GGCACACCTTGATAGGTATC	1374	
4	M	FR3	CAAAAATAGGAGATGGGAGTGTG	GGTTACAGTGCTGCATGATTC	1107	
5	F	FR4	CTCGGTGCAGGAACACAAG	CTCCAAATATTGGGAGTTGC	1012	
6	F, M2-1	FR5	CAGTGCAGGAATAACTTCC	GTCTCGTGCAGATTTACATCA	1363	
7	M2-2. SH	FR6	GACCATGTATTGTTAGTGCG	GTTCTTGGTGCACATACAGTG	1196	
8	G	FR7	AAACTCTGATGGATGCCTAG	TTATTGACTAGTACAGCACCAC	1510	
9	L	FR8	CAGCAAATCAACTCCTCCAG	GTACCACTTAACAATCATC	1575	
10	L	FR9	CATCATTTGGCTGCATCTTG	CATGCCTATAAGTGCATATC	1500	
11	L	FR10	CTATCTTCAGTGAAAGCTAG	CTATTGTTGTGACGCAATTC	1526	
12	L	FR11	GTTATGCAAGATGTAGGGCCTG	GATTGTGGTGTACATACAGCATC	1446	
13	L	FR12	CATGGTTCCTGATGAGCTTC	ACGGCAAAAAAACCGTATTCAATACA	1803	

**Table S2.** Accession number registered in Genbank.

aMPV strain	Accession number
SNU21004WT	OM249786
SNU21004-V <sub>12</sub>	OR461284
SNU21004-V <sub>12</sub> E <sub>5</sub>	OR461285

**Table S3.** Primer set for the detection of innate immune-related genes.

Target gene		Sequence (5' -> 3' direction)
IFN- $\alpha$	F	ATCCTCCAGCACCTCTTCAA
	R	AATCGTTGTCGTGGAGGAAG
IFN- $\beta$	F	CCTCCAACACCTCTTCAACATG
	R	TGGCGTGTGCGGTCAAT
IFN- $\gamma$	F	GTGAAGAAGGTGAAAGATATCATGGA
	R	GCTTTGCGCTGGATTCTCA
IL-6	F	GCTCGCCGGCTTCGA
	R	GGTAGGTCTGAAAGGCGAACAG
IL-12	F	TGGTCCACGCTTTGCAGAT
	R	AAGGTTAAGGCGTGGCTTCTTA
IL-18	F	ACGTGGCAGCTTTTGAAGAT
	R	GCGGTGGTTTTGTAACAGTG
GAPDH	F	CCCAATGTCTCTGTTGTTGAC
	R	CAGCCTTCACTACCCTCTTGAT
Mouse <i>Actb</i>	F	ATT GGCAACGAGCGGTTCC
	R	AGCACTGTGTTG GCATAGAGG
Mouse <i>Rig-i</i>	F	GAGAGTCACGGGACCCACT
	R	CGGTCTTAGCATCTCCAACG
Mouse <i>Mda5</i>	F	TGATGCACTATTCCAAGAACTAACA
	R	TCTGTGAGACGAGTTAGCCAAG
Mouse <i>Lgp2</i>	F	CAGCCTAGTCTGCTGCTATTC
	R	CCAGAGCAGGTAAGATCACTT
Mouse <i>Mavs</i>	F	CTGGCTGATCAAGTGACTCG
	R	AATGCAGAGGGTCCAGAAAC



**Figure S1.** During multi-passage, additional deletion of the SH-G occurred in the SNU21004-V<sub>12</sub>D<sub>x</sub> virus.