

Table S1. Sequences of primers and probes used in this study.

Primer name	5'- sequence -3'	Target	Reference
PDCoV-RTF	5'-CGACCACATGGCTCCAATTC-3'	M	(Zhu et al., 2022)
PDCoV-RTR	5'-CAGCTCTTGCCCATGTAGCTT-3'		
PDCoV-RTP	5'-FAM-CACACCAGTCGTTAAGCATGGCAAGC-BHQ1-3'		
PEDV-RTF	5'-GATACTTTGGCCTCTTGTGT-3'	M	(X. Huang et al., 2019)
PEDV-RTR	5'-CACAACCGAATGCTATTGACG-3'		
PEDV-RTP	5'-FAM-TTCAGCATCCTTATGGCTTGCATC-BHQ1-3'		
TGEV-RTF	5'-TGCCATGAACAAACCAAC-3'	N	
TGEV-RTR	5'-GGCACTTTACCATCGAAT-3'		
TGEV-RTP	5'-FAM-FATAGCACCACGACTACCAAGC-BHQ1-3'		
RVA-RTF	5'-GCTAGGGAYAAA ATTGTTGAAGGTA-3'	VP6	(Marthaler et al., 2014)
RVA-RTR	5'-ATTGGCAAATTT CCTATT CCTCC-3'		
RVA-RTP	5'-FAM-ATGAATGGA AATAATTTTCAAAC-BHQ1-3'		
RVA-RTF	5'-GGCTTTTAAACGAAGTCTTC-3'		This study
RVA-RTR	5'-GGTCACATCCTCTCACT-3'		

Table S2. Comparison of nucleotide and amino acid characteristics of RVA/Pig/China/JS/2023/G5P[23] strain with the closest strains in the GenBank database.

Gene	Genotype	Closely related strains	Nucleotide (%)	Amino acid (%)	Accession
VP1	R1	RVA/Pig-tc/USA/Gottfried/1983/G4P6	99.0	94.8	KR052746
VP2	C1	RVA/Pig-tc/USA/OSU/1977/G5P7	98.4	92.1	KR052758
VP3	M1	RVA/Human-tc/USA/Wa/1974/G1P8	96.8	87.4	MT796880
VP4	P[23]	P23-RVA/Pig-tc/VEN/A34/1985/G5P23	84.5	89.5	AY174094
VP6	I5	RVA/Pig-tc/MEX/YM/1983/G11P7	90.5	89.1	X69487
VP7	G5	RVA/Human-tc/BRA/IAL28/1992/G5P8	91.9	87.2	EF672588
NSP1	A8	RVA/Pig-tc/MEX/YM/1983/G11P7	93.2	89.3	D38154
NSP2	N1	RVA/Human-wt/BGD/Dhaka25/2002/G12P8	90.1	95.5	DQ146656
NSP3	T1	RVA/Pig-tc/MEX/YM/1983/G11P7	87.6	88.9	GU199518
NSP4	E1	RVA/Human-tc/USA/P/1974/G3[P8]	89.8	88.1	EF672603.1
NSP5	H1	RVA/Pig-tc/USA/Gottfried/1983/G4P6	89.5	96.1	KR052745