

Electronic Supplementary Material

Histopathology of *Porcine kobuvirus* in Chinese piglets

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Table S1. List of oligonucleotide primers designed for detection and sequencing.

Target viruses ^a	Target gene ^b	Primer sequence ^c (5'-3')	Product size (bp)	Reference
PKoV	3D protein	F: TGGATTACAAGTGTTTTGGATGC R: TGTCGTAGAACTCCTTGATGAA	351	Established for this study
CSFV	E2	F: GCATCAACCAYKGCATTCC R: GTCTGTGTGGGTRATTAAGTTCCCTA	475	(Chen et al., 2008)
		nF: CTRGTRACTGGGGCACAAGG nR: ACCAGCRGCGAGTTGYTCTG	180	
GARV	VP6	F: AAAGATGCTAGGGACAAAATT R: TTCAGATTGTGGAGCTATTCCA	308	(Gouvea et al., 1991)
		nF: GACAAAATTGTCTGAAGGCACATTATA' nR: TCGGTAGATTACCAATTCCTCCAG	121	
GBRV	NSP2	F: CTATTCAAGTGTGTCGTGAGAGG R: GCAGACAAGCTAGCCCGCTTCG	434	(Gouvea et al., 1991)
GCRV	VP6	F: CTCGATGCTACTACAGAATCAG R: AGCCACATAGTTACATTTTCATCC	366	(Gouvea et al., 1991)
		nF: CTCGATGCTACTACAGAATCAG nR: GGGATCATCCACGTCATGCGT	328	
PSaV PNoV	RdRp	F: GATTACTCCAAGTGGGACTCCAC R: TGACAATGTAATATCACCATA	319	(Kim Hyun-Jeong et al., 2010)
PToV	S	F: ACCCCTGCCTGAGGTTTCYTT R: AGCACGACGTTGTCTRCGTGT	451	Established by our own Laboratory
PEDV	S	F: TTCTGAGTCACGAACAGCCA R: CATATGCAGCCTGCTCTGAA	651	(Kim So Y et al., 2001)
PRRSV	ORF7	F: CCAAATAACAACGGCAAGCA R: ATGCTGAGGGTGATGCTGTGA	332	(Mao et al., 2013)
TGEV	ORF1	F: GGGTAAGTTGCTCATTAGAAATAATGG R: CTTCTTCAAAGCTAGGGACTG	1006	(Kim Hyun-Jeong et al., 2010)
PRV	gE	F: ATGGGCATCGGCGACTACCT R: CCACCGCCACAAAGAACACG	178	Established by our own Laboratory
PCV2	ORF2	F: CACGGATATTGTAGTCTCTGGT R: CCGCACCTTCGGATATACTGTC	348	(Caprioli et al., 2006)
PPV	NS1	F: GAATAGGATGCGAGGAAAG R: GTGGAAATCTGAGAGTCTGT	271	(Yue et al., 2009)
PBoV	VP1/2	F: GGGCGAGAACATTGAAGAGGT R: TTGTGAGTATGGGTATTGGTG	496	(Zhai et al., 2010)
JEV	E	F: GTTGAAAAGGCCTTGCCCAG R: ATGATTAACATCGAAGCTAGCC	1206	Established by our own Laboratory
BVDV	5'UTR	F: TAGCAACAGTGGTGAGTT R: TGCTATTACCCGACCTGC	466	(Suo et al., 2013)

^a BVDV: bovine viral diarrhoea virus; CSFV: classic swine fever virus; GARV: group A *Rotavirus*; GBRV: group B *Rotavirus*; GCRV: group C *Rotavirus*; JEV: Japanese encephalitis vaccine; PBoV: porcine *Bocavirus*; PCV2: porcine *Circovirus* type 2; PEDV: porcine epidemic diarrhoea virus; PKoV: porcine kobuvirus; PNoV: porcine *Norovirus*; PPV: porcine *Parvovirus*; PRRSV: porcine reproductive and respiratory syndrome virus; PRV: porcine pseudorabies virus; PSaV: porcine *Sapovirus*; PToV: porcine *Torovirus*; TGEV: transmissible gastroenteritis virus.

^b 5'UTR: 5'-Non-coding region; E: structural protein E; E2: membrane protein E2; gE: glycoprotein gE; N: nucleocapsid; NS1: non-structural protein NS1; NSP2: non-structural protein NSP2; ORF: open reading frame; RdRp: RNA-dependent RNA polymerase; S: structural protein S; VP: structural protein VP.

^c F: upstream primer; nF: upstream primer for nested PCR; nR: downstream primer for nested PCR; R: downstream primer.

Table S2. The lesions of those infected piglets.

	Control group	Experimental group 1	Experimental group 2	Experimental group 3
2 dpi	No clinical manifestations	No clinical manifestations	No clinical manifestations	No clinical manifestations
4 dpi	No clinical manifestations	Diarrhea, emaciation, nausea; Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence	Diarrhea, emaciation, nausea; Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence	Diarrhea, emaciation, nausea; Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence
6 dpi	No clinical manifestations	1 piglets dead; Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence	1 piglets dead; Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence	Petechial hemorrhage on kidney surface; Milk agglutination; Flatulence
8 dpi	No clinical manifestations	Clinical manifestations began to disappear; Petechial hemorrhage on kidney surface; Milk agglutination	Clinical manifestations began to disappear; Petechial hemorrhage on kidney surface	Clinical manifestations began to disappear; Petechial hemorrhage on kidney surface; Milk agglutination
10 dpi	No clinical manifestations	No clinical manifestations; Petechial hemorrhage on kidney surface; Milk agglutination	No clinical manifestations; Petechial hemorrhage on kidney surface; Milk agglutination	No clinical manifestations; Petechial hemorrhage on kidney surface; Milk agglutination