

Porcine TRIM21 enhances PCV2 infection and immune responses but inhibits apoptosis in PCV2-infected cells

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Running title: Porcine TRIM21 increases PCV2 infection

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Supplemental Table S1

Figures S1 to S6

Supplemental Table S1

Supplemental Table S1 Sequence of primers and oligonucleotides

Primer and oligonucleotide	Sequence (5'-3')	Length (bp)	Annealing temperature
TRIM2-F	TGACATCCATTCCACCTTTGA	111	60
TRIM2-R	GACTGCAGGACTTTGTGTTTG		
TRIM16-F	AGCGTCTACATCGGACTCAA	97	60
TRIM16-R	CCTTGTAATCCTGCAGCAACT		
TRIM21-F	CCGTCTCCTTCTACAACATCAG	121	60
TRIM21-R	GCATTCTTCCACCGTCATTG		
TRIM24-F	ATACTTACGTCCCTGCTCTTG	196	60
TRIM24-R	GGTCGTCCTCTTTCCTTGT		
TRIM33-F	CAGCTCCTGGTTATACTCCTAATG	105	60
TRIM33-R	GAAGTCGAAGCTGTGCTAAGT		
TRIM37-F	GAGGGAGAACTCATGGAAGATG	115	60
TRIM37-R	TGGTAGCAGCAGAGCATAAG		
TRIM38-F	GGTGGGATTTAGGAGTCTGTATG	149	60
TRIM38-R	CCCTCAGTTGAAGGGAAGTTAG		
TRIM59-F	TCACCTGCCCTGAACATTAC	90	60
TRIM59-R	GGATGACCATGATGTTGACCTA		
TRIM21-1F	ATGGCCTCAGCACTGCCCTTGGCAAGGATG	753	56
TRIM21-1R	CTTCCAGGACACTCTTCACCTCCTGTAG		
TRIM21-2F	GGTGAAGAGTGTCTGGAAAGGAGTGAGTCTTGGAACCT	672	56
TRIM21-2R	CCAGCCCGTCCTCAGTGGACAGAGGGTCAGGGGGGGT		
PCV2-F (1)	TGTAGTATTCAAAGGGCACAGAGC	131	60
PCV2-R (1)	CGGATATACTATCAAGCGAACCAC		
TRIM21-sgRNA1 *	Forward: CACCGAAGCTTCACCTGTTCTGTA Reverse: AAACCTACAGAACAGGTGAAGCTTC	24	58
TRIM21-sgRNA2 *	Forward: CACCGTCGGCAGGTGGCCAACATGG Reverse: AAACCCATGTTGGCCACCTGCCGAC	24	
TRIM21-KO-F	CCTCACACAGCTCTTCTCATCGCCTTCTTTC	545	58
TRIM21-KO-R	GCCTGCTCGTGCCCAGGTGCCTCCGGGCT		
TRIM21-OE-F	GTAACAACCTCCGCCCCATTGAC	399	58
TRIM21-OE-R	GCTTCTCTCCGTGCACCGCAC		
GAPDH-F	GCCATCACCATCTTCCAGG	437	60
GAPDH-R	TCACGCCCATCACAAACAT		
MNDAL-F	CTCTCCTGACACCCAGAAATG	90	60
MNDAL-R	CACTGTGGAAACCATCCTCT		
TNF-F	CACGTTGTAGCCAATGTCAAAG	136	60
TNF-R	GAAGAGGACCTGGGAGTAGAT		
IL-6-F	ACCTGGACTACCTCCAGAAA	111	60
IL-6-R	GGTGGCTTTGTCTGGATTCT		
IFN α -F	CATCCTGGCTGTGAGGAAATA	142	60
IFN α -R	CCTTCTTCCTGAGTCTGTCTTG		

IFN β -F	GGAGACAATCCTGGAGGAAATC	104	60
IFN β -R	TACTCCTTGGACTTCAGGTACT		
IFN γ -F	AGCCATCAGTGAATCATCAA	81	60
IFN γ -R	CTCTCTGGCCTTGGAACATAG		

* Note: sgRNAs were incubated at 95 °C for 5 min, followed by slow cooling to room temperature.

Supplemental figures

Figure S1 Original Western images used for preparing Figure 1C.

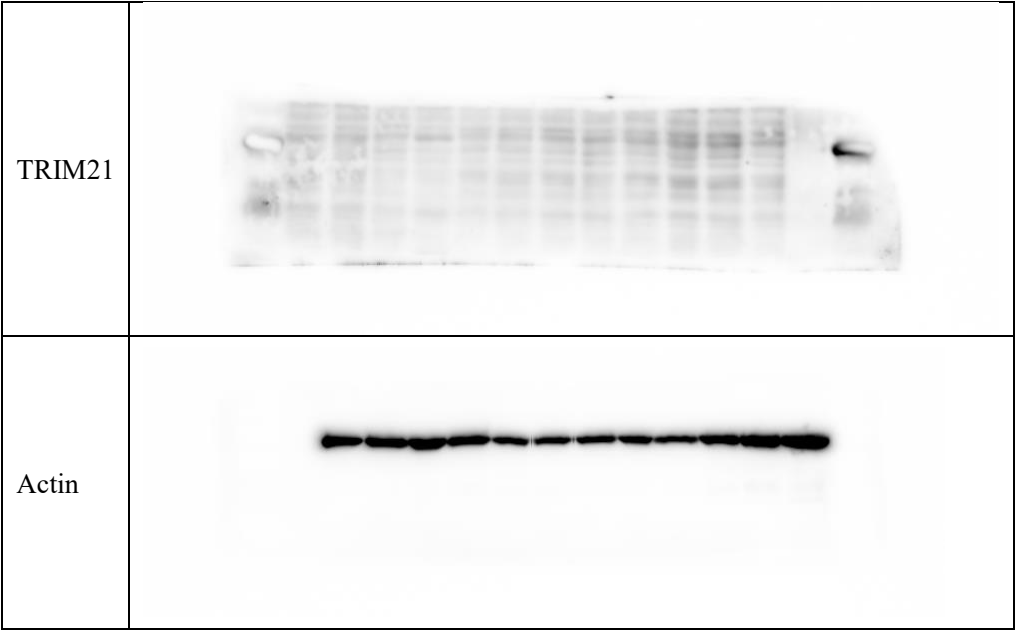


Figure S2 Original Western images used for preparing Figure 2B and 2D.

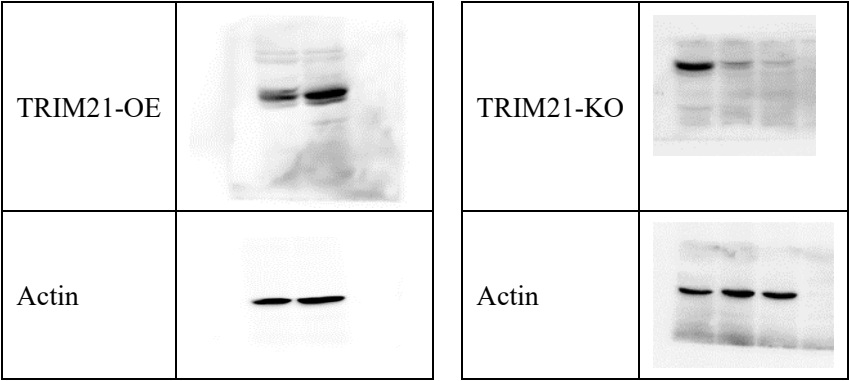
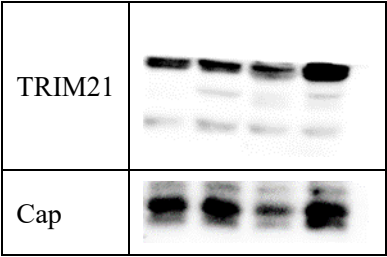


Figure S3 Original Western images used for preparing Figure 3B.



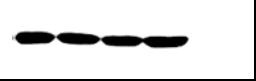
Actin	
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Figure S4 Original Western images used for preparing Figure 4A and 4C.

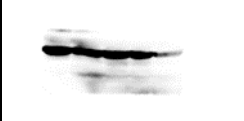
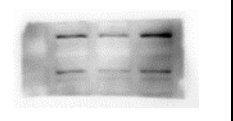
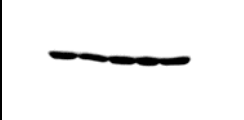
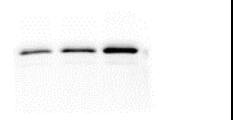

P53		TRIM21	
Actin		BCL-2	
		Actin	

Figure S5 Original Western images used for preparing Figure 5A and 5B.

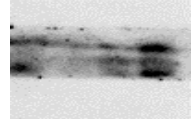
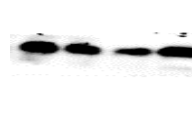

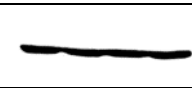
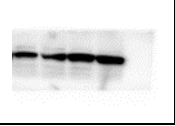
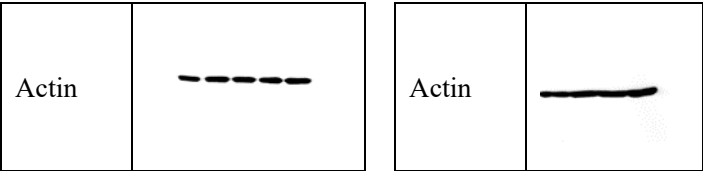
IFN- β	
IFN- γ	
IFN- α	
Actin	

Figure S6 Original Western images used for preparing Figure 6B and 6C.

MNDAL		MNDAL	
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Reference

1. Liu X, Ouyang T, Ouyang H, et al. Human cells are permissive for the productive infection of porcine circovirus type 2 in vitro. *Sci Rep* 2019;9:5638.