

## **Supplementary Information for**

Coinfection of porcine circovirus 2 and pseudorabies virus enhances immunosuppression and inflammation through NF- $\kappa$ B, JAK/STAT, MAPK, and NLRP3 pathways

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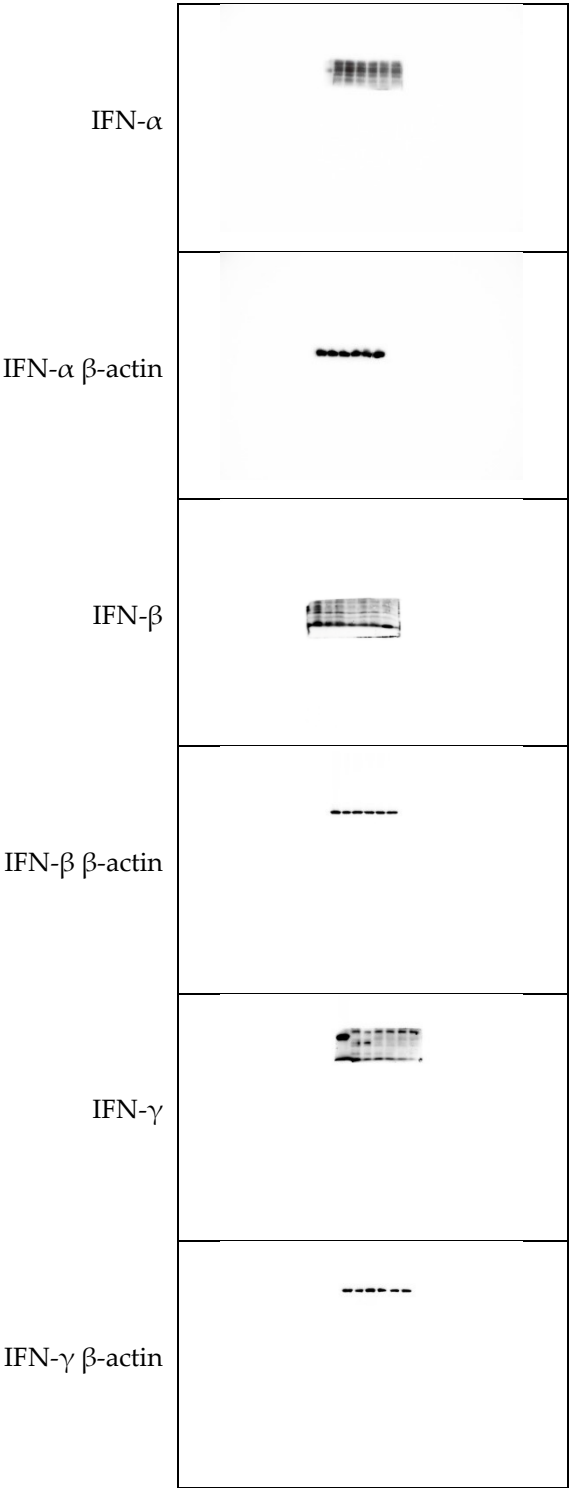
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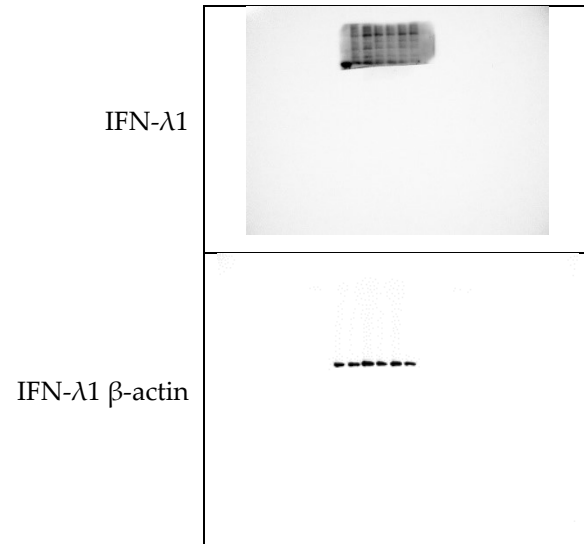
Figures S1 to S7

Tables S1

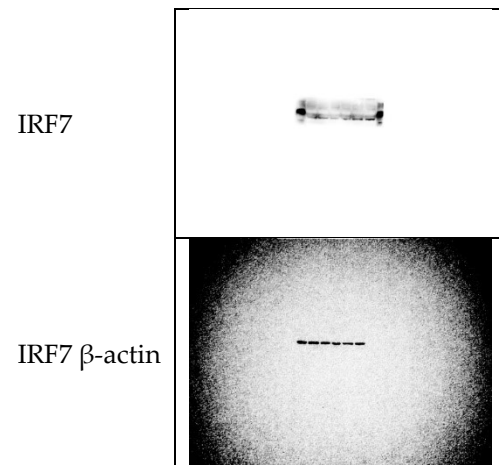
SI References

Supplemental figures

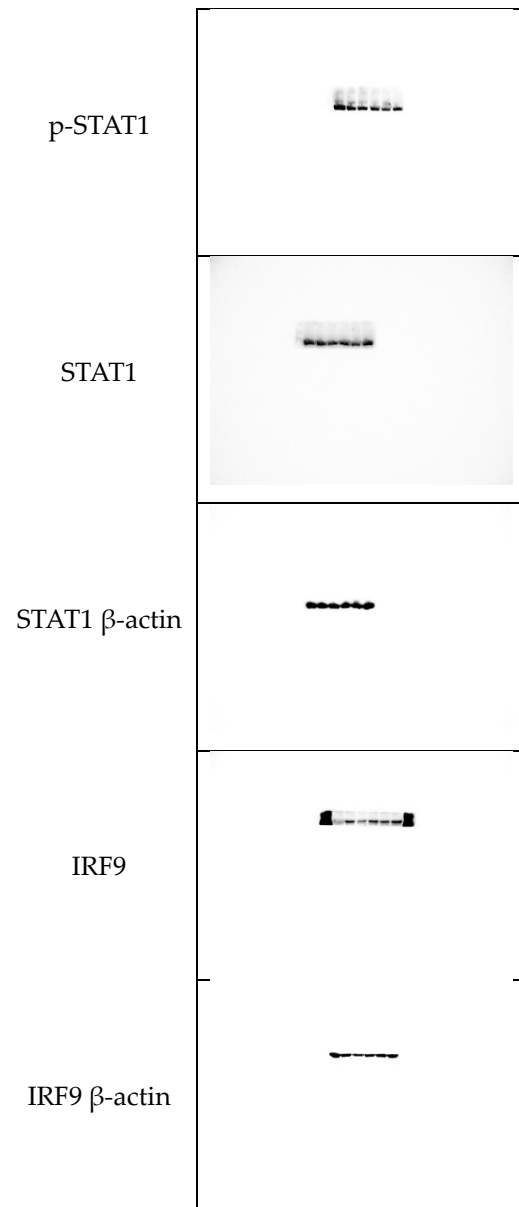




**Figure S1: Original Western images used for preparing Figure 2.**



**Figure S2: Original Western images used for preparing Figure 3C.**



**Figure S3 Original Western images used for preparing Figure 4E.**

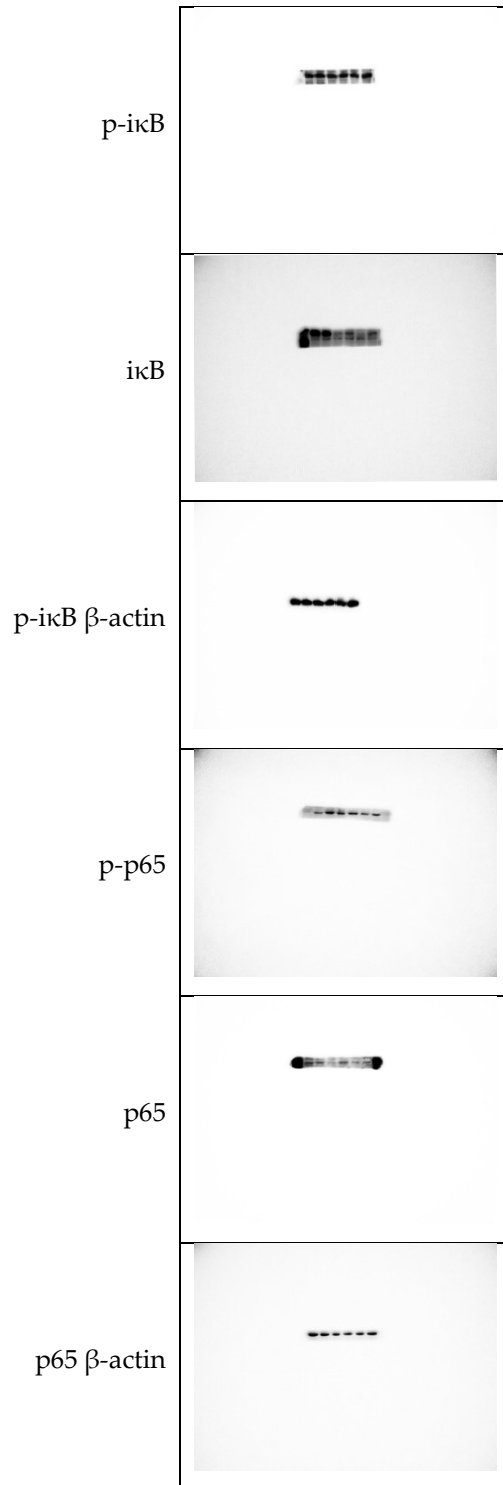


Figure S4 Original Western images used for preparing Figure 5C.

IL1 $\alpha$



IL1 $\alpha$   $\beta$ -actin



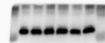
TNF $\alpha$



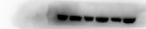
TNF $\alpha$   $\beta$ -actin



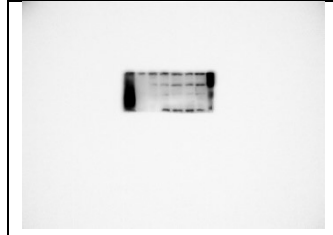
IL6



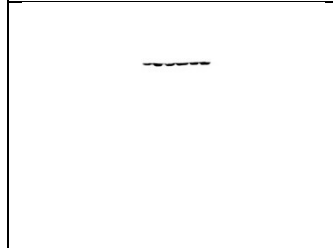
IL6  $\beta$ -actin



pro-IL1 $\beta$   
and IL1 $\beta$ -cleaved

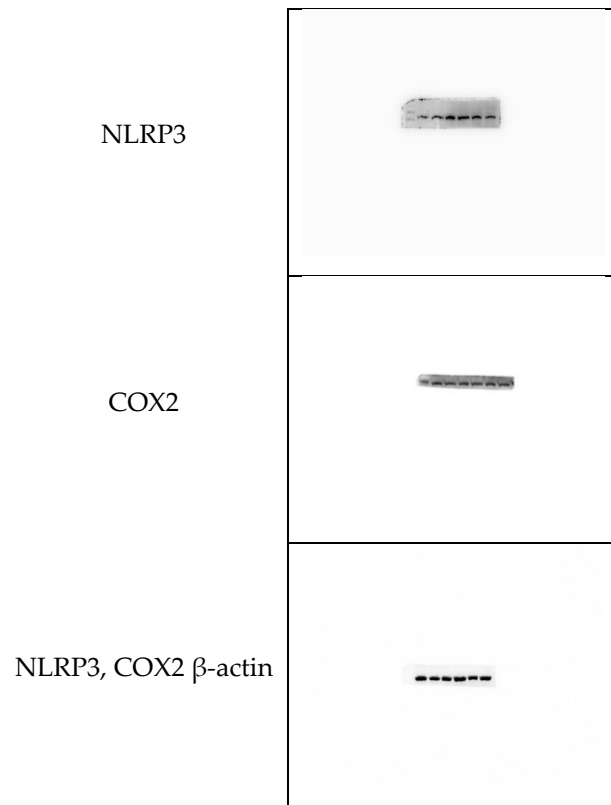


IL1 $\beta$  actin

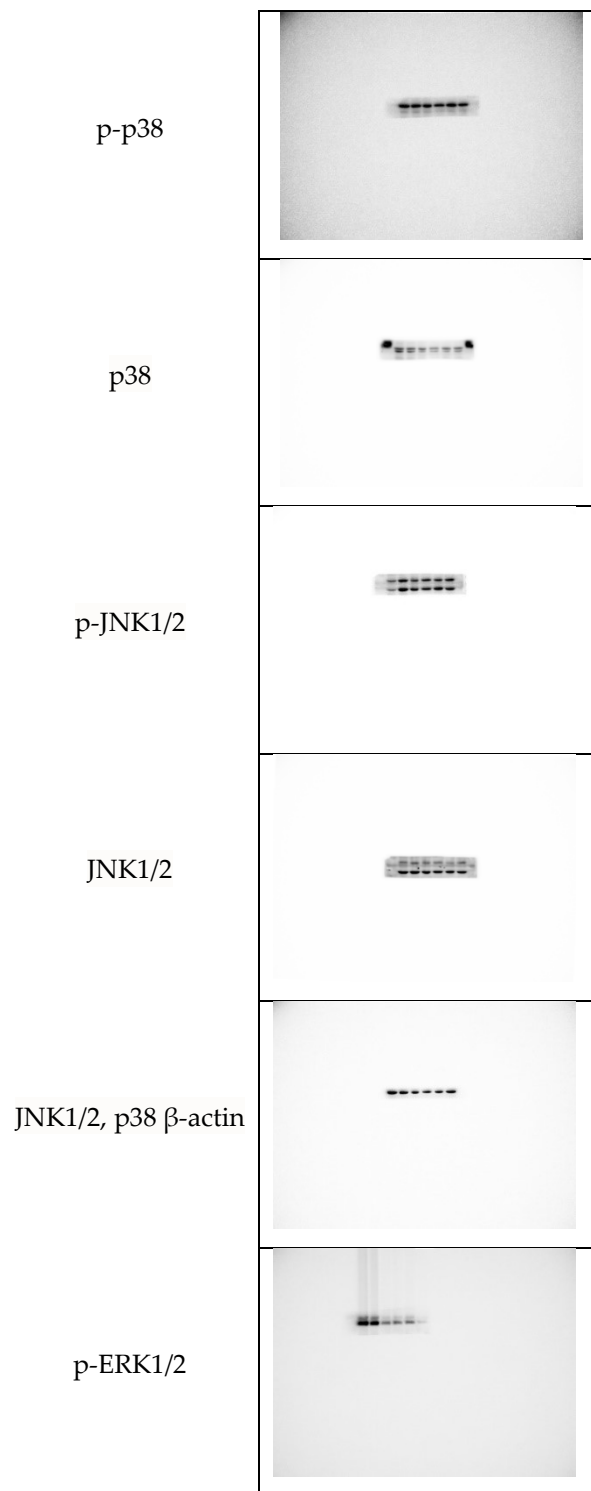


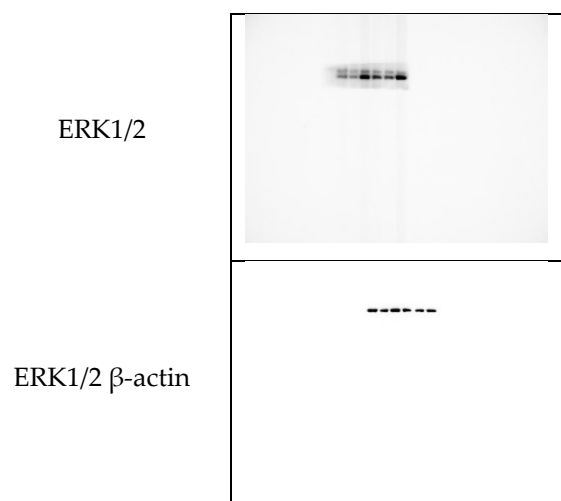
**Figure S5 Original Western images used for preparing Figure 6E.**





**Figure S6 Original Western images used for preparing Figure 7C.**





**Figure S7 Original Western images used for preparing Figure 8D.**

## Supplemental Tables

**Table S1 Sequence of primers**

Primer	Sequence (5'-3')	GenBank No.	Reference
PCV2 Cap-Q-F	TGTAGTATTCAAAGGGCACAGAGC	NC_005148 (1,034..1,735)	(1)
PCV2 Cap-Q-R	CGGATATACTATCAAGAAAACCAC		
PRV gD-Q-F	GGTTCAACGAGGGCCAGTACCG	NC_006151 (121,075..122,277)	(2)
PRV gD-Q-R	GCGTCAGGAATCGCATCACGT		
GAPDH-F	GCCATCACCATCTTCCAGG	NM_001206359	(1)
GAPDH-R	TCACGCCCATCACAACAT		
Pig ISG15-F	GGCAATGTGCTTCAGGATGG	NM_001128469	This study
Pig ISG15-R	CAGACCTCATAGGCGTTGCT	NM_001244363	This study
Pig ISG56-F	GCCTCTCCTTTTAGCCACAGA		
Pig ISG56-R	GCCCATGTTGCTGTTATGTCC	NM_214029	This study
Pig IL-1A-F	TGGGAGGACCAGGGTACTG		
Pig IL-1A-R	GGTCCATCAGCAACTTAAAGGCA	NM_214022	This study
Pig TNF $\alpha$ -F	AACCTCAGATAAGCCCCGTCG		
Pig TNF $\alpha$ -R	GGCATACCCACTCTGCCATT	NM_214399	This study
Pig IL-6-F	ATCCAGACCCTGAGGCAAAA		
Pig IL-6-R	AGGTGCCCCAGCTACATTAT	NM_214055	This study
Pig IL1 $\beta$ -F	ACCCTCTCCAGCCAGTCTTCATT		
Pig IL1 $\beta$ -R	TTGCAGCTGGATGCTCCCAT	NM_213770	This study
Pig IRF3-F	CCCACCTGGAAGAGGAATTT		
Pig IRF3-R	CTCCTGAGGTCACAAACTATTAG	NM_001097428	This study
Pig IRF7-F	AGCCCTCTACCCCATCTGT		
Pig IRF7-R	AGCCAGTCTCCGAAGAGCAC	NM_001078670	This study
Pig IRF9-F	GGAAGTGGGTGGTGGAGCAA		
Pig IRF9-R	CTCTTGTGAGGGCACAGCG	NM_001114281	This study
Pig RELA/p65-F	TGGTGGGAAAACACGGAGAG		
Pig RELA/p65-R	ATGCCTCTGTCTTCGTGCT	NM_001005150	This study
Pig I $\kappa$ B $\alpha$ -F	CCTGGTGTCTCTCTGTGTA		
Pig I $\kappa$ B $\alpha$ -R	GCTGCTGTATCCGAGTGCTT	NM_214114	This study
Pig Jak1-F	CCAGGCAAGAGTGCATAGAA		
Pig Jak1-R	GTGGTTCCAAAGCTCCATTTG	NM_001204768	This study
Pig SOCS1-F	TCAGTGTGAAGATGGCTTCGG		
Pig SOCS1-R	AGCTCGAAGAGGCAGTCGAA	NM_001123196	This study
Pig SOCS3-F	ATCCCTCTGGTGTGAGCCG		
Pig SOCS3-R	AGTGGGGCATCGTACTGGTC	NM_213769	This study
Pig STAT1-F	CCCTGACGGTCTTATTC		
Pig STAT1-R	ATAGTCGTTCCCTCGCTCT	NM_001044580	This study
Pig STAT3-F	TTCAAACACCTGACCCCTG		
Pig STAT3-R	TCAGCACCAGTAGAGGTTG	XM_003356615	This study
Pig p38/MAPK14-F	GAAAGCAGGGACCTCCTTATAG		
Pig p38/MAPK14-R	CGGATTCTCAAGACTCCATCTC	NM_001198922	This study
Pig ERK2-F	ACCTCAGCAACGACCATA		
Pig ERK2-R	AGACACTGAAACCCAACC	XM_021073087	This study
Pig JNK1-F	AGTTGGATGAAAGGGAACACACA		
Pig JNK1-R	ACTGCTGCACCTGTGCTAAA	NM_001256770	This study
Pig NLRP3-F	ACCTGCAAAAACCTGGGGTTGG		
Pig NLRP3-R	TCACCCAGGTCATTGTTGCCT	NM_214321	This study
Pig COX2/PTGS2-F	GAGGTCTTTGGTCTGGTGCCT		
Pig COX2/PTGS2-R	CAGCCGTTTCATCGTCCCATTC		

## Reference

1. H. G. Shen *et al.*, Protective immunity against porcine circovirus 2 by vaccination with ORF2-based DNA and subunit vaccines in mice. *J Gen Virol* **89**, 1857-1865 (2008).
2. Z. Peng *et al.*, Pseudorabies virus can escape from CRISPR-Cas9-mediated inhibition. *Virus Res* **223**, 197-205 (2016).