

Supplementary Tables and Figure for

The role of zinc sulfate in enhancing cellular and humoral immune responses to foot-and-mouth disease vaccine

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Supplementary Table 1. List of primer sequences for qRT-PCR

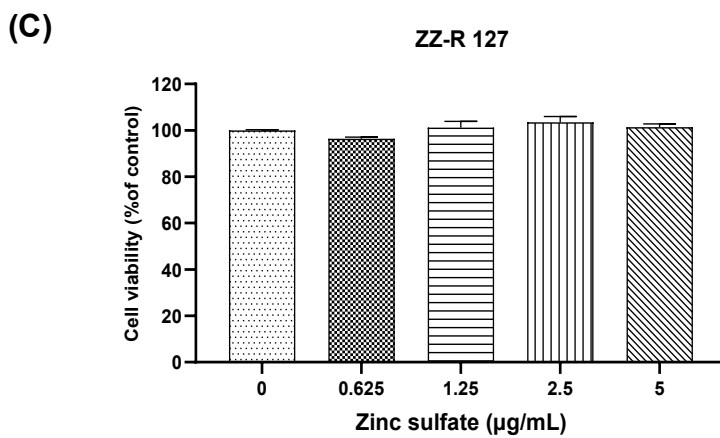
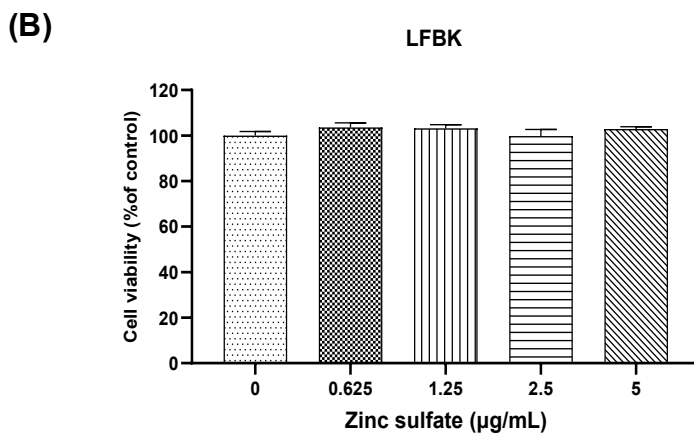
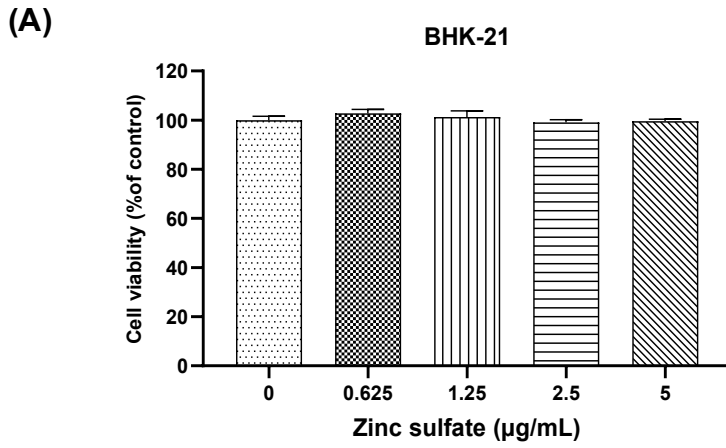
Target	Forward/Reverse	Sequence (5'- 3')	Length (mer)
RIG-I	RIG-I F	GCACCTCATACTTACAGCCCA	21
	RIG-I R	CCACAACCAGTAGGAGCACAT	21
TLR4	TLR4 F	GCAATAGCTTCTCCAGCTTTCC	22
	TLR4 R	CAGATACCCCTTGTGTGCGA	20
MyD88	MyD88 F	CCATTCGAGATGACCCCCTG	20
	MyD88 R	TGCACAAACTGGGTATCGCT	20
TRAF6	TRAF6 F	TCGCAGTAGCTCCTGTACCT	20
	TRAF6 R	AGCTCCCGGATTTGATGGTC	20
NF-κB	NFκB F	TCGCTGCCAAAGAAGGACAT	20
	NFκB R	AGCGTTCAGACCTTCACCGT	20
CARD9	CARD9 F	CCGCAGCTCTACAAGAAGGT	20
	CARD9 R	TCTGCAGCTTCATCACCTCG	20
STAT1	STAT1 F	TGCACGATGGTCTCAGCTTT	20
	STAT1 R	CAGCAGTGGGACCAAGAAGT	20
CD80	CD80 F	TCAGACACCCAGGTACACCA	20
	CD80 R	GACACATGGCTTCTGCTTGA	20
CD86	CD86 F	TTTGGCAGGACCAGGATAAC	20
	CD86 R	GCCCTTGTCCTTGATTTGAA	20
CD28	CD28 F	TCAAAGGAGTTCCGGGCATC	20
	CD28 R	CTGAAGCAGGCGGAGTAAT	20
CD19	CD19 F	GGACGACAGACTTCCTGAGC	20
	CD19 R	GTTCTGGCCCATCAGGATTA	20
CD21	CD21 F	TGCCATGCCTACAAAGCTGA	20
	CD21 R	GTAGTAACCAGGGCGGCATT	20

7 **Supplementary Table 1 (continued).**

Target	Forward/Reverse	Sequence (5'- 3')	Length (mer)
CD81	CD81 F	TCAACAAGGACCAGATCGCC	20
	CD81 R	GAGCGTCTCGTGGAAAGTCT	20
IFN α	IFN α F	CATCTGCTCTCTGGGCTGTG	20
	IFN α R	TGAGGGGATCCAAAGTCCCT	20
IFN β	IFN β F	TGCAACCACCACAATTCCAGA	21
	IFN β R	GGTTTCATTCCAGCCAGTGC	20
IFN γ	IFN γ F	GCCATTCAAAGGAGCATGGAT	21
	IFN γ R	CTGATGGCTTTGCGCTGGAT	20
IL-1 β	IL-1 β F	AGCCAGTCTTCATTGTTTCAGGT	22
	IL-1 β R	TCATCTCTTTGGGGCCATCAG	21
IL-6	IL-6 F	CTGCAGTCACAGAACGAGTG	20
	IL-6 R	CGGCATCAATCTCAGGTGCC	20
IL-12p40	IL-12p40 F	GGAGTATAAGAAGTACAGAGTGG	23
	IL-12p40 R	GATGTCCCTGATGAAGAAGC	20
IL-23p19	IL-23p19 F	CCATATCCAGTGCGGGGATG	20
	IL-23p19 R	AGGCCTTGGTGGATCCTTTG	20
IL-23R	IL-23R F	TCCCTCATTGCAAAGCACAA	20
	IL-23R R	GCATCTCCTCTTGCAAGCAAAT	22
IL-17A	IL-17A F	CTCGTGAAGGCGGGAATCAT	20
	IL-17A R	GGTGTGCTCCGGTTCAAGAT	20
HPRT	HPRT F	CCCAGCGTCGTGATTAGTGA	20
	HPRT R	GCCGTTCAAGTCTGTCCATA	20

9 **Supplementary Fig. 1.** Cellular cytotoxicity response of FMDV cell lines in zinc sulfate. Data
10 express the percentage of cell viability of exposure to BHK-21 (A); LFBK (B); and ZZ-R 127
11 (C). (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, and **** $p < 0.0001$).

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