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Corrigendum: Coral-derived endophytic fungal product, butyrolactone-I, alleviates LPS induced intestinal epithelial cell inflammatory response through TLR4/NF- κ B and MAPK signaling pathways: An *in vitro* and *in vivo* studies

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A corrigendum on

Coral-derived endophytic fungal product, butyrolactone-I, alleviates LPS induced intestinal epithelial cell inflammatory response through TLR4/NF- κ B and MAPK signaling pathways: An *in vitro* and *in vivo* studies

by Chen, S., Zhang, Y., Niu, X., Mohyuddin, S. G., Wen, J., Bao, M., Yu, T., Wu, L., Hu, C., Yong, Y., Liu, X., Abd El-Aty, A. M., and Ju, X. (2021). *Front. Nutr.* 8:748118. doi: 10.3389/fnut.2021.748118

In the published article, there was an error in the legend for Figure 3 as published. This sentence previously stated:

“The consequences of BTL-1 on the expression of cytokines were determined by ELISA (50 μ M) for 24 h and then treated with LPS (50 μ m/mL) for another 1 h.”

The corrected legend appears below.

“Impact of BTL-1 on inflammatory cytokines production in LPS-induced IPEC-J2 cell. The outcome of BTL-1 on IPEC-J2 cell viability (A,B). The consequences of BTL-1 on the expression of cytokines were determined by ELISA (C-F) and qPCR (G-J). The consequences of BTL-1 on the expression of cytokines were determined by ELISA. The cells were treated with BTL-1 (10, 20, and 50 μ M) for 24 h and then treated with LPS (50 μ g/mL) for another 1 h. The data shown are representative of three independent experiments. The results were expressed as the means \pm SEM. # P < 0.05, ## P < 0.01, compared to non-treated group, * P < 0.05, ** P < 0.01 compared to LPS group.”

In the published article, there was an error in [Table 1](#) as published. Since our qPCR primers are designed by Shanghai Sangong Biotechnology Co., Ltd., there were a large number of primer sequences in the same account, which led to our submission error. At the same time, we also found that the primer of β -actin gene was missing. The corrected [Table 1](#) and its caption appear below.

In the published article, there was an error in [Figure 10](#) as published. Due to the poor shooting effect of some tissue sections, we adjusted the angle of the sections, and the remarks were not clear enough, resulting in mistakenly uploading two images of the same tissue section, namely, the HE staining sections of the low dose group and the medium dose group. The corrected [Figure 10](#) and its caption appear below.

In the published article, there was an error in **Materials and Methods**, Subsection “*Induction of Experimental Colitis.*” This sentence previously stated:

“The animals were randomly allocated to one of the following five groups ($n = 5$): normal control (only given food and water without DSS), DSS model (administered DSS in drinking water), low-concentration BTL-1 (administered 10 mg/kg DSS, p.o), middle-concentration BTL-1 (taken 20 mg/kg DSS, p.o), and high-concentration BTL-1 group (given 50 mg/kg DSS, p.o) group.”

The corrected sentence appears below:

“The animals were randomly allocated to one of the following five groups ($n = 5$): normal control (only given food and water without DSS), DSS model (administered DSS in drinking water), low-concentration BTL-1 (administered 1 mg/kg BTL-1, p.o), middle-concentration BTL-1 (taken 2 mg/kg BTL-1, p.o), and high-concentration BTL-1 group (given 5 mg/kg BTL-1, p.o) group.”

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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TABLE 1 Primer sequence.

Gene ID	Primer	Sequence (5'-3')
414396	pig β -actin Forward	GCTGTCCCTGTATGCCTCT
	pig β -actin Reverse	GATGTCACGCACGATTTC
399500	pig IL-6 Forward	ATAAGGGAAATGTCGAGGCTGTGC
	pig IL-6 Reverse	GGGTGGTGGCTTTGTCTGGATTC
397122	pig IL-1 β Forward	CAAGCCAGAGAAGCAAGGTGTC
	pig IL-1 β Reverse	GCCGTCTCAGCAGCAAGAAG
397106	pig IL-10 Forward	AGCCAGCATTAAAGTCTGAGAACAGC
	pig IL-10 Reverse	GGTCAGCAACAAGTCGCCATC
397086	pig TNF- α Forward	AAAGGACACCATGAGCACGGAAAG
	pig TNF- α Reverse	CGCCACGAGCAGGAATGAGAAG
399541	pig TLR4 Forward	GCCATCGCTGCTAACATCATC
	pig TLR4 Reverse	CTCATACTCAAAGATACACCATCGG
100135665	pig P65 Forward	CTGAGGCTATAACTCGCTTGGTGAC
	pig P65 Reverse	CATGTCCGCAATGGAGGAGAAGTC
100157586	pig I κ B Forward	GGCAGTGACATGAGTGGCAGATAC
	pig I κ B Reverse	CTTCCTTGAGGCTGTGCTTCTTCC
445013	pig ERK1 Forward	ACGTCATTGGCATCCGAGACATTC
	pig ERK1 Reverse	GAGGAAGTAGCAGATGTGGTCGTTG
100626611	pig P38 Forward	CGCCTGTGAAGACCTCCTTGAAC
	pig P38 Reverse	TTCTGTCTCCACCTTCCGAAG
396610	pig JNK Forward	ACTACAGAGCACCTGAGGTCATCC
	pig JNK Reverse	ATTCTCCATAATGCACCCACAG
397236	pig Occludin Forward	CAGTGTAAGTGGAGGCGTCTTC
	pig Occludin Reverse	CGTCGTGTAGTCTGTCTCGTAATGG
100736682	pig ZO-1 Forward	CCAGGGAGAGAAGTGCCAGTAGG
	pig ZO-1 Reverse	TTTGGTGGGTTTGGTGGGTTGAC
100625166	pig Claudin1 Forward	AGAAGATGCGGATGGCTGTCATTG
	pig Claudin1 Reverse	ACCATACCATGCTGTGGCAACTAAG
11461	mouse β -actin Forward	GTGACGTTGACATCCGTAAGA
	mouse β -actin Reverse	GCCGGACTCATCGTACTCC
16193	mouse IL-6 Forward	CTCCCAACAGACCTGTCTATAC
	mouse IL-6 Reverse	CCATTGCACAACCTCTTTCTCA

(Continued)

TABLE 1 (Continued)

Gene ID	Primer	Sequence (5'-3')
16176	mouse IL-1 β Forward	GAAATGCCACCTTTTGACAGTG
	mouse IL-1 β Reverse	TGGATGCTCATCAGGACAG
16153	mouse IL-10 Forward	TTCTTTCAAACAAAGGACCAGC
	mouse IL-10 Reverse	GCAACCCAAGTAACCCTTAAAG
21926	mouse TNF- α Forward	ATGTCTCAGCCTCTTCTCATTC
	mouse TNF- α Reverse	GCTTGTCACTCGAATTTGAGA
21898	mouse TLR4 Forward	GCCATCATTATGAGTGCCAATT
	mouse TLR4 Reverse	AGGGATAAGAACGCTGAGAATT
19697	mouse P65 Forward	TGCGATTCCGCTATAAATGCG
	mouse P65 Reverse	ACAAGTTCATGTGGATGAGGC
12675	mouse I κ B Forward	TTGGGTATGCCAAAGATGTG
	mouse I κ B Reverse	GCTGTGTACGGCTTATTTCAA
26417	mouse ERK1 Forward	CAGCTCAACCACATTCTAGGTA
	mouse ERK1 Reverse	TCAAGAGCTTTGGAGTCAGATT
26416	mouse P38 Forward	AGGAATCAATGACGTGTACCT
	mouse P38 Reverse	AGGTCCCTGTGAATTATGTCAG
26419	mouse JNK1 Forward	TTGAAAACAGGCCTAAATACGC
	mouse JNK1 Reverse	GTTTGTATGCTCTGAGTCAGC
18260	mouse Occludin Forward	TGCTTCATCGCTTCCCTTAGTAA
	mouse Occludin Reverse	GGGTCACTCCATTATGTACA
21872	mouse ZO-1 Forward	CTGGTGAAGTCTCGGAAAAATG
	mouse ZO-1 Reverse	CATCTCTGTGCGCAAACTATC
12737	mouse Claudin1 Forward	AGATACAGTGCAAAGTCTTCGA
	mouse Claudin1 Reverse	CAGGATGCCAATTACCATCAAG

