Supplementary Information

Krill oil prevents lipopolysaccharide-evoked acute liver injury in mice through inhibition of oxidative stress and inflammation

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Table S1 Composition analysis of KO and FO. Values are expressed as mean ± standard deviation (SD) (n=3).

Table S2 Antibodies used in this study.

Table S3 Sequences of primers used for qRT-PCR.

Figure S1 KO pretreatment mitigated LPS-induced hepatic overexpression of pro-inflammatory mediators in mice. The relative mRNA levels of TNF-α (A), IL-1β (B), IL-6 (C), iNOS (D) and COX-2 (E) in liver. The mRNA levels for target genes were measured by qRT-PCR and the housekeeping gene *Gapdh* was used as an internal control. Values are expressed as mean ± SD (n=7), $^{\#}P < 0.05$, $^{\#\#}P < 0.01$ as compared to control group; $^{*}P < 0.05$, $^{**}P < 0.01$ as compared to LPS group; $^{\&}P < 0.05$, $^{\&\&}P < 0.01$ as compared to LPS+KO group.

Table S1 Composition analysis of KO and FO

Ingredients	Krill oil	Fish oil
Astaxanthin (mg/kg)	232.15 ± 10.86	-
Total phospholipids (g/100g)	55.06 ± 1.69	-
Fatty acid composition (%/total fatty acids)		
C12:0	0.22 ± 0.01	0.14 ± 0.01
C14:0	10.51 ± 0.37	8.08 ± 0.30
C14:0	10.51 ± 0.37	8.08 ± 0.30
C16:0	25.77 ± 0.86	18.18 ± 0.61
C16:1	6.15 ± 0.28	9.65 ± 0.35
C18:0	0.28 ± 0.01	4.03 ± 0.14
C18:1	14.20 ± 0.45	10.81 ± 0.28
C18:2	1.33 ± 0.03	4.26 ± 0.04
C18:3 n-3	0.24 ± 0.01	0.29 ± 0.01
C18:3 n-6	1.35 ± 0.04	0.89 ± 0.02
C20:0	-	0.29 ± 0.01
C20:1	0.05 ± 0.00	-
C20:2	0.13 ± 0.01	0.45 ± 0.02
C20:3	0.27 ± 0.01	0.21 ± 0.01
C20:4 (AA)	0.73 ± 0.03	1.48 ± 0.08
C20:5 (EPA)	22.89 ± 0.72	23.61 ± 0.75
C22:6 (DHA)	13.83 ± 0.41	13.84 ± 0.36

Values are expressed as mean ± SD (n=3).

Table S2 Antibodies used in this study

Antibody	Source	Venodr	Catalog No.	Dilution
ASC	Rabbit	Cell Signaling Technology	67824	1:1000
Caspase-1	Mouse	AdipoGen	AG-20B-0042	1:1000
COX2	Rabbit	Cell Signaling Technology	12282	1:1000
F4/80	Rabbit	Cell Signaling Technology	70076	1:400
GAPDH	Rabbit	Cell Signaling Technology	2118	1:1000
Phospho-IκBα	Rabbit	Cell Signaling Technology	2859	1:1000
IκBα	Rabbit	Cell Signaling Technology	4812	1:1000
IL-1β	Mouse	Cell Signaling Technology	12242	1:1000
iNOS	Rabbit	Cell Signaling Technology	13120	1:1000
MyD88	Rabbit	Cell Signaling Technology	4283	1:1000
Phospho-NF-κB p65	Rabbit	Cell Signaling Technology	3033	1:1000
NF-κB p65	Rabbit	Cell Signaling Technology	8242	1:1000
NLRP3	Rabbit	Cell Signaling Technology	15101	1:1000
TLR4	Rabbit	Cell Signaling Technology	14358	1:1000
Anti-rabbit HRP-linked antibody	Goat	Cell Signaling Technology	7074	1:10000
Anti-mouse HRP-linked antibody	Goat	Proteintech	PR30009	1:10000

Table S3 Sequences of primers used for qRT-PCR

Gene	Sequences (5'-3')
Cox-2	Forward: ATGCTCCTGCTTGAGTATGT
	Reverse: CACTACATCCTGACCCACTT
Il-1β	Forward: AGTTGACGGACCCCAAAAG
	Reverse: AGCTGGATGCTCTCATCAGG
Il-6	Forward: GCTACCAAACTGGATATAATCAGGA
	Reverse: CCAGGTAGCTATGGTACT
inos	Forward: ATCTTGGAGCGAGTTGTGGATTGTC
	Reverse: TAGGTGAGGGCTTGGCTGAGTG
Tnf-α	Forward: TCTTCTCATTCCTGCTTGTGG
	Reverse: GGTCTGGGCCATAGAACTGA
Gapdh	Forward: TGGTGAAGGTCGGTGTGAAC
	Reverse: GCTCCTGGAAGATGGTGATGG

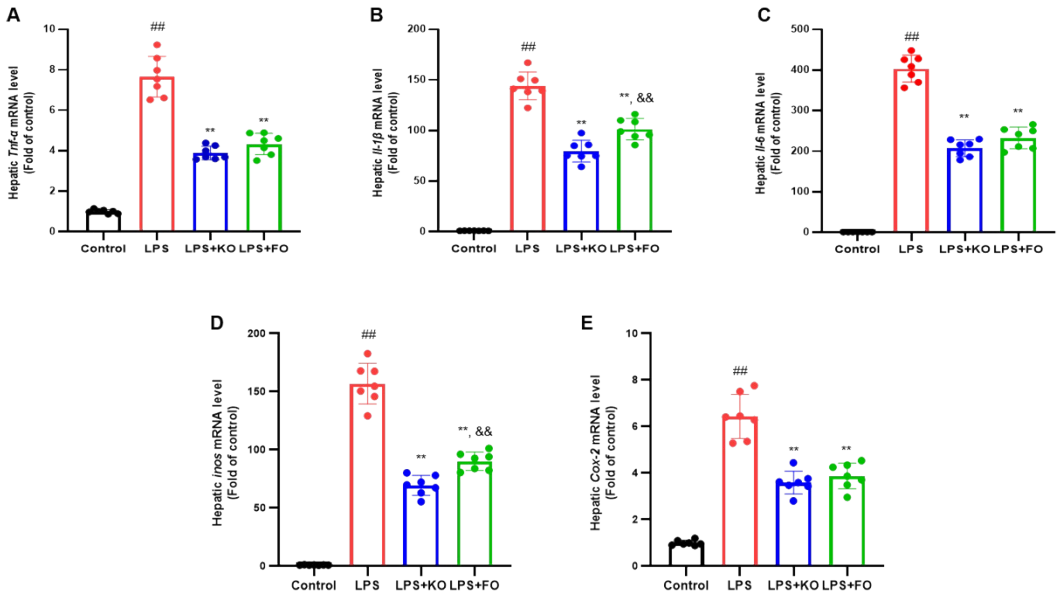

Figure S1 KO pretreatment mitigated LPS-induced hepatic overexpression of pro-inflammatory mediators in mice.