

1 **Supplemental Information for**

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3 **Low-temperature Pulverization-specific *Sargassum horneri* Extract Accelerates Wound**

4 **Healing and Attenuates Inflammation in a Mouse Burn Model**

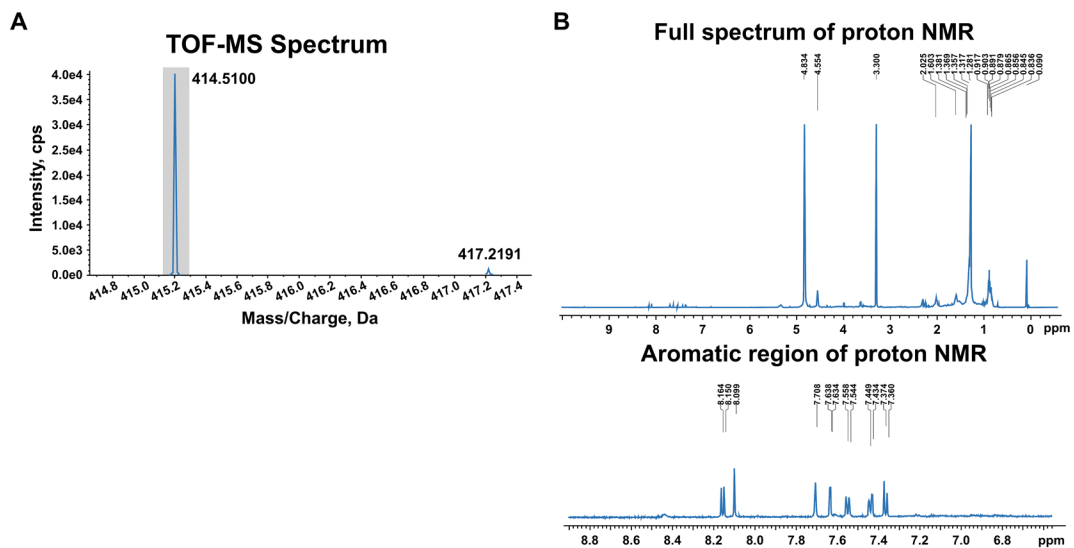
5 **Supplemental Figures**

6 **Figure S1.** Characterization of LPSHE extracted from *S. horneri*

7 **Figure S2.** Damage caused by *S. horneri* along the coast of Korean peninsula

8 **Figure S3.** Histological analysis of immune cells infiltration (H&E staining)

9 **Figure S4.** Histological analysis of immune cells infiltration (IHC)

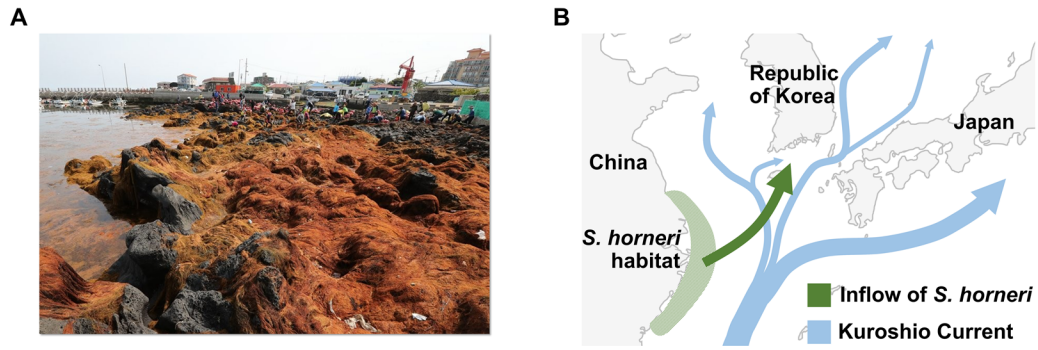


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11 **Figure S1. Characterization of LPSHE extracted from *S. horneri***

12 (A) LC-MS/MS spectrum of LPSHE at m/z 414.5. (B) Full spectrum and aromatic region of

13 proton NMR analysis of LPSHE.



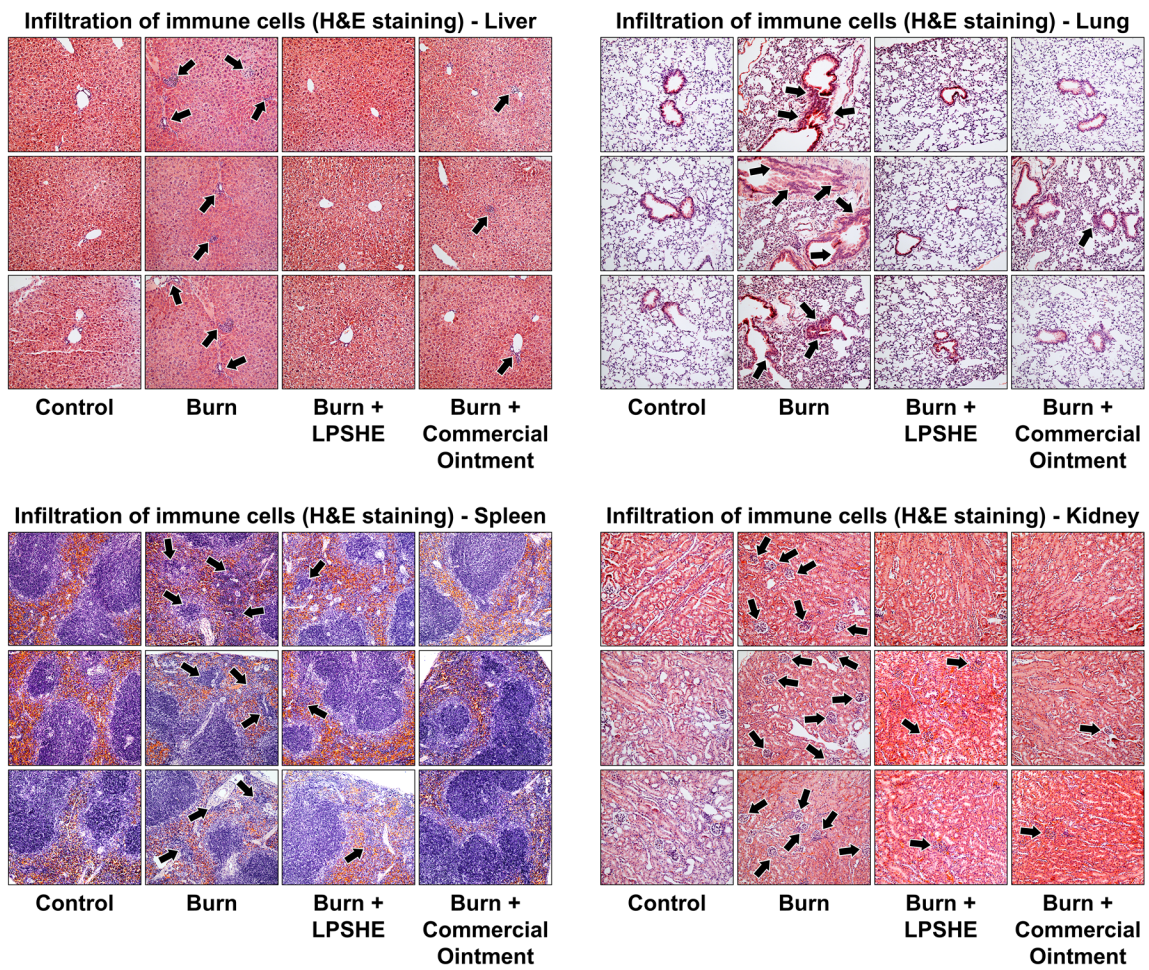
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15 **Figure S2. Damage caused by *S. horneri* along the coast of Korean peninsula**

16 (A) Representative image of accumulated *S. horneri* along the coastlines in Korean peninsula.

17 (B) The scheme of *S. horneri* inflow through Kuroshio Current.

A



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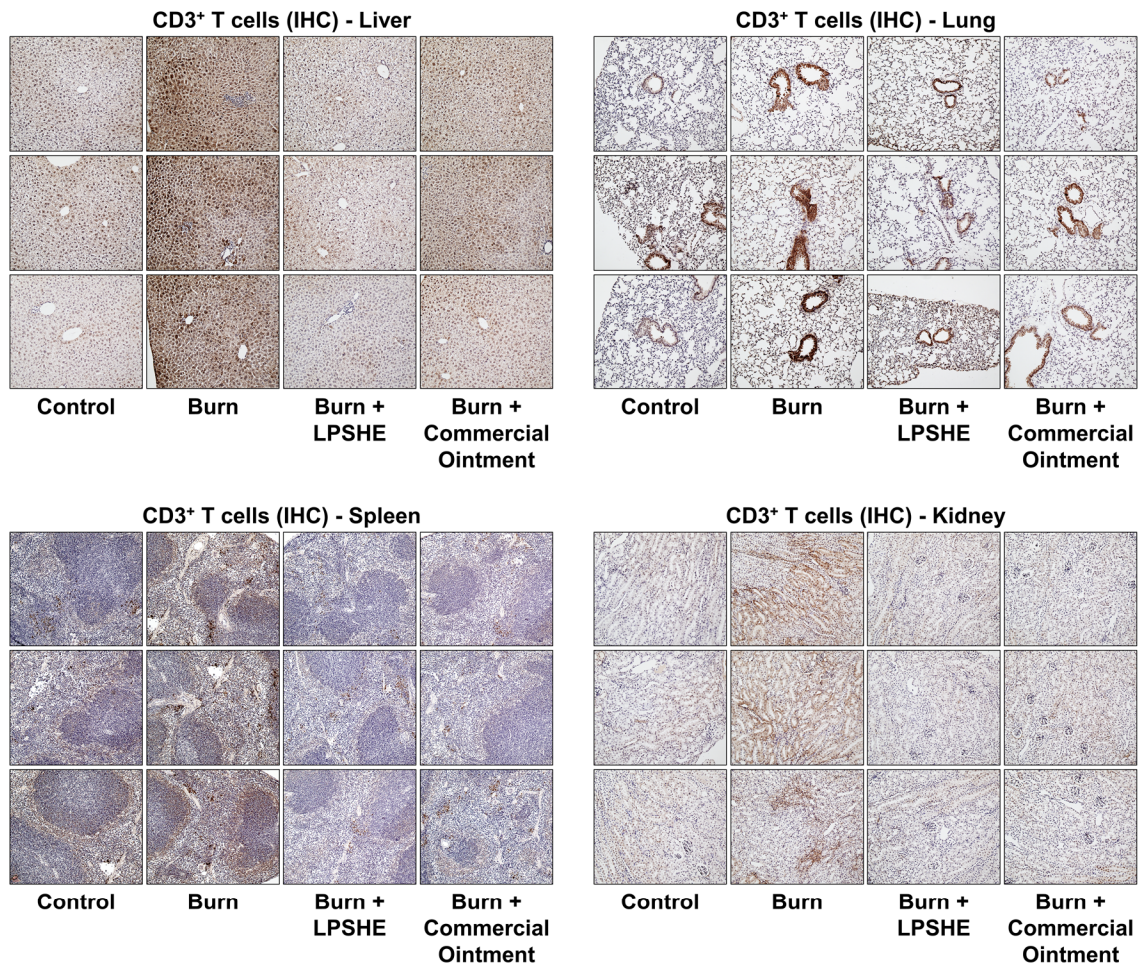
19 **Figure S3. Histological analysis of immune cells infiltration (H&E staining)**

20 (A) Raw data of H&E staining results showed that LPSHE or Commercial ointment treatment

21 alleviated burn-induced inflammation. Arrows indicate inflammatory infiltrates (magnification:

22 X200).

A



B

Inflammation score

Burn	LPSHE	Commercial Ointment	Liver_1	Liver_2	Liver_3	Lung_1	Lung_2	Lung_3	Spleen_1	Spleen_2	Spleen_3	Kidney_1	Kidney_2	Kidney_3
-	-	-	0	0	0	0	1	0	1	1	1	0	0	0
+	-	-	3	3	3	2	3	2	3	3	3	3	3	3
+	+	-	0	1	0	1	0	1	2	1	1	1	1	1
+	-	+	1	2	0	0	2	1	1	1	1	0	1	1

23

24 **Figure S4. Histological analysis of immune cells infiltration (IHC)**

25 (A) Raw data of IHC analysis showed infiltration of CD3⁺ T cell in the organs (magnification:

26 X200). (B) Inflammation scores of each organ, evaluated based on the inflammatory infiltration

27 observed in histological analysis (from 0 score to 5 score).