

Supplementary Materials

Construction and Activity Study of a Natural Antibacterial Patch Based on Natural Active Substance-Green Porous Structures

Xiangfan Gao ^{1,†}, Yuan Zhou ^{2,3,†}, Jinhui Gu ¹, Xiping Liu ⁴ and Zhijun Zhang ^{1,*}

¹ Department of Chemistry, Key Laboratory of Surface & Interface Science of Polymer Materials of Zhejiang Province, Zhejiang Sci-Tech University, Hangzhou 310018, China

² Department of Pharmacy, Taihe Hospital, Hubei University of Medicine, Shiyan 44200, China

³ College of Pharmacy, Hubei University of Traditional Chinese Medicine, Wuhan 430065, China

⁴ School of Pharmaceutical Science, University of South China, Hengyang 421001, China

* Correspondence: zjzhang@zstu.edu.cn

† These authors contributed equally to this work.

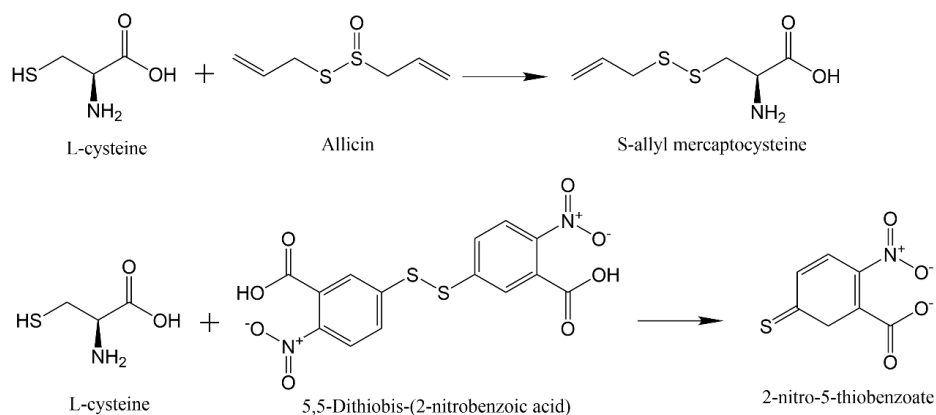


Figure S1. NTB is the reaction process of detecting allicin content by the signal substrate.

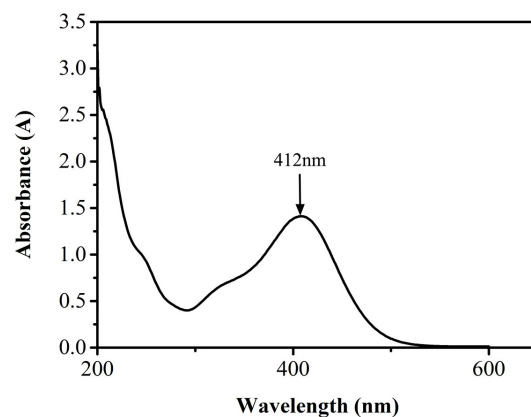


Figure S2. UV-vis absorption of NTB.

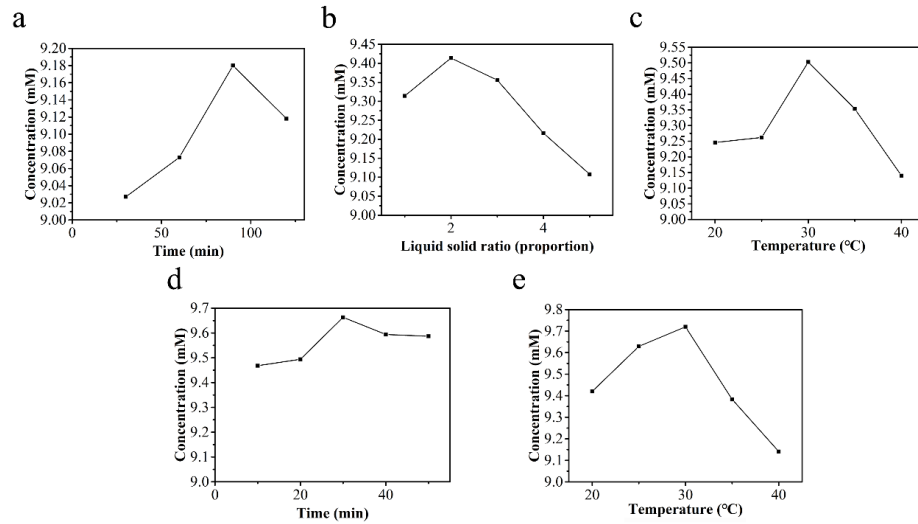


Figure S3. Optimal conditions for extracting allicin. (a) Different extraction times with extraction temperature was 35 °C, the enzymolysis time was 30 min, the liquid-solid ratio was 5, and the enzymolysis temperature was 35 °C. (b) Different liquid-solid ratios (m/m) with extraction time were 60 min, the extraction temperature was 35 °C, the enzymolysis time was 30 min, and the enzymolysis temperature was 35 °C. (c) Different enzymatic hydrolysis temperatures with extraction time were 60 min, the extraction temperature was 35 °C, the enzymolysis time was 30 min, the liquid-solid ratio was 5, and the enzymolysis temperature was 35 °C. (d) Different enzymatic hydrolysis times with extraction time was 60 min, the extraction temperature was 35 °C, the liquid-solid ratio was 5, and the enzymolysis temperature was 35 °C. (e) Different extraction temperatures with extraction time were 60 min, the enzymolysis time was 30 min, the liquid-solid ratio was 5, and the enzymolysis temperature was 35 °C.

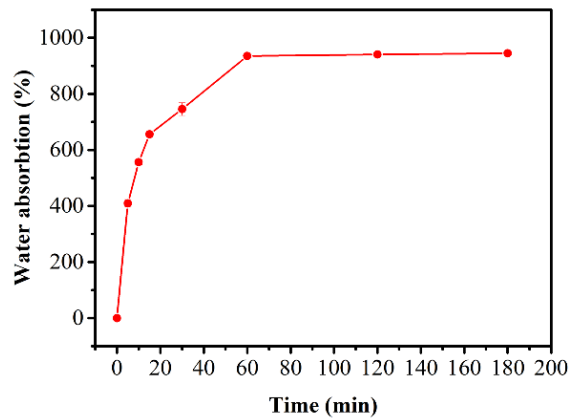


Figure S4. Water absorption of the antibacterial patches.

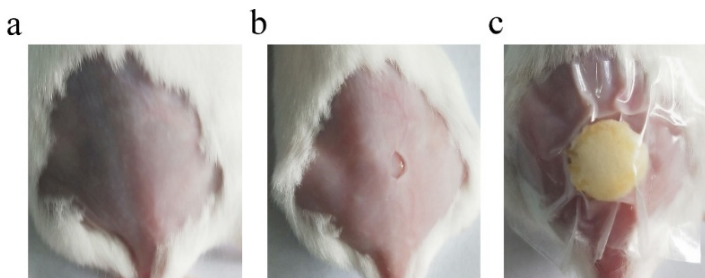


Figure S5. Photographs of the process of establishing a mice wound model. (a) Photographs of shaved mice. (b) Photographs of mice injected with *B. subtilis*. (c) Mice with "Antibacterial patches".