

## Supporting Information

### **Skin-permissible NIR-actuated hyperthermia by a photothermally responsive hydrogel membrane for the effective treatment of antibiotic-resistant bacterial infection**

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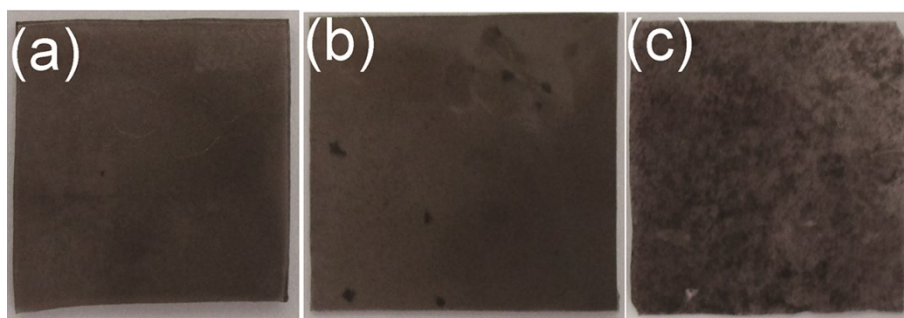
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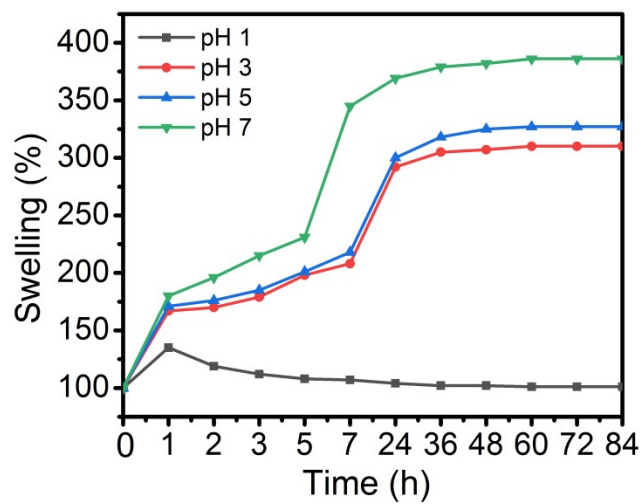
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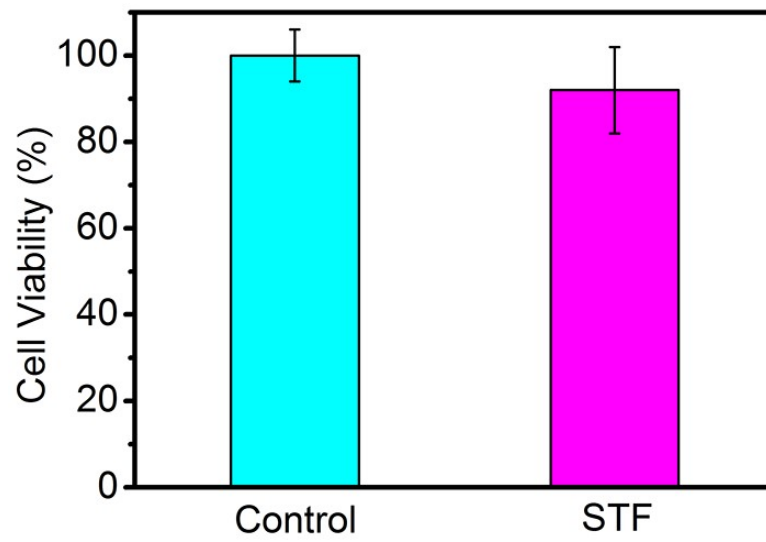
**Fig. S1** The photograph of STF with different concentrations of TA (a) 40%, (b) 60% and (c) 80%.



**Fig. S2** The swelling studies of STF in the solution with various pH values of 1, 3, 5, and 7.



**Fig. S3** Photographs of STF with diverse shapes (square, circle, triangle).



**Fig. S4** The MTT assay for evaluating the cytocompatibility of STF.