

*Electronic Supplementary Information*

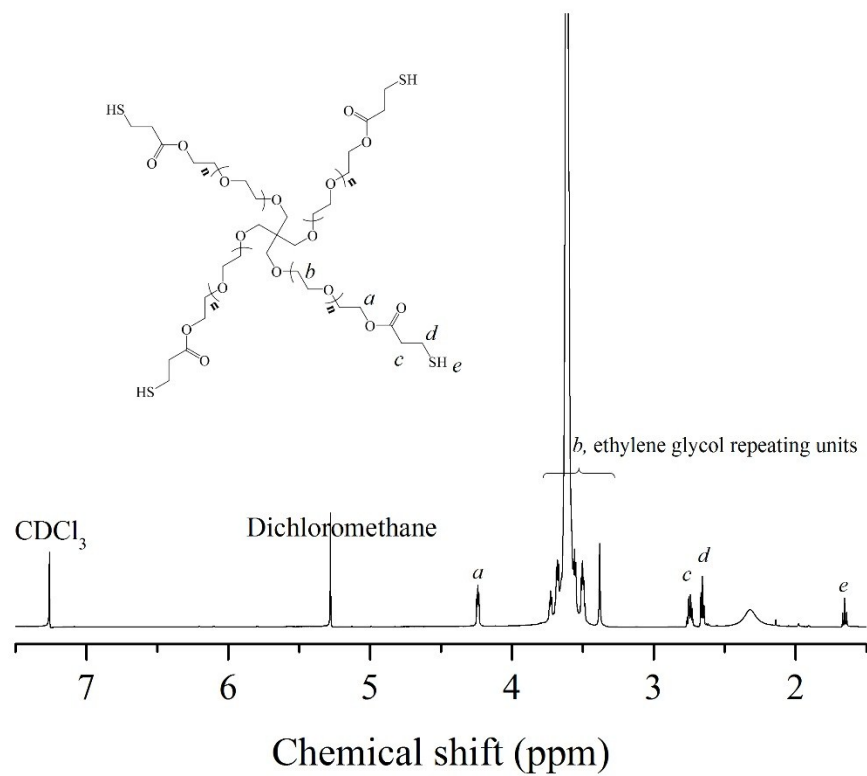
**PEG-based Hydrogels Prepared by Catalyst-free Thiol-yne Addition and  
Their Post-antibacterial Modification**

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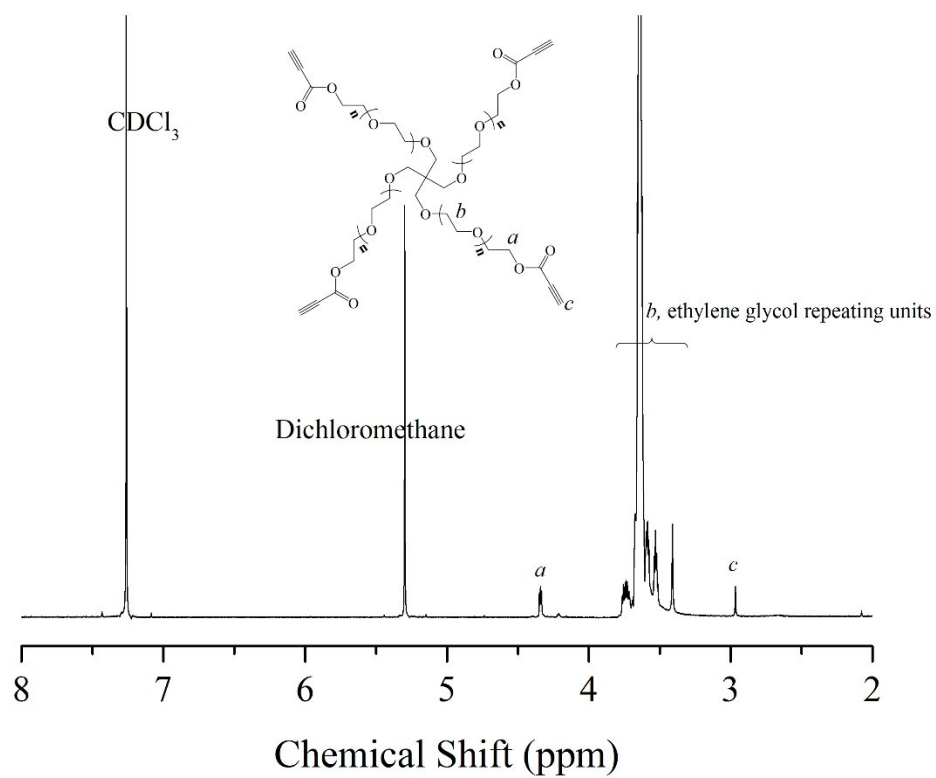
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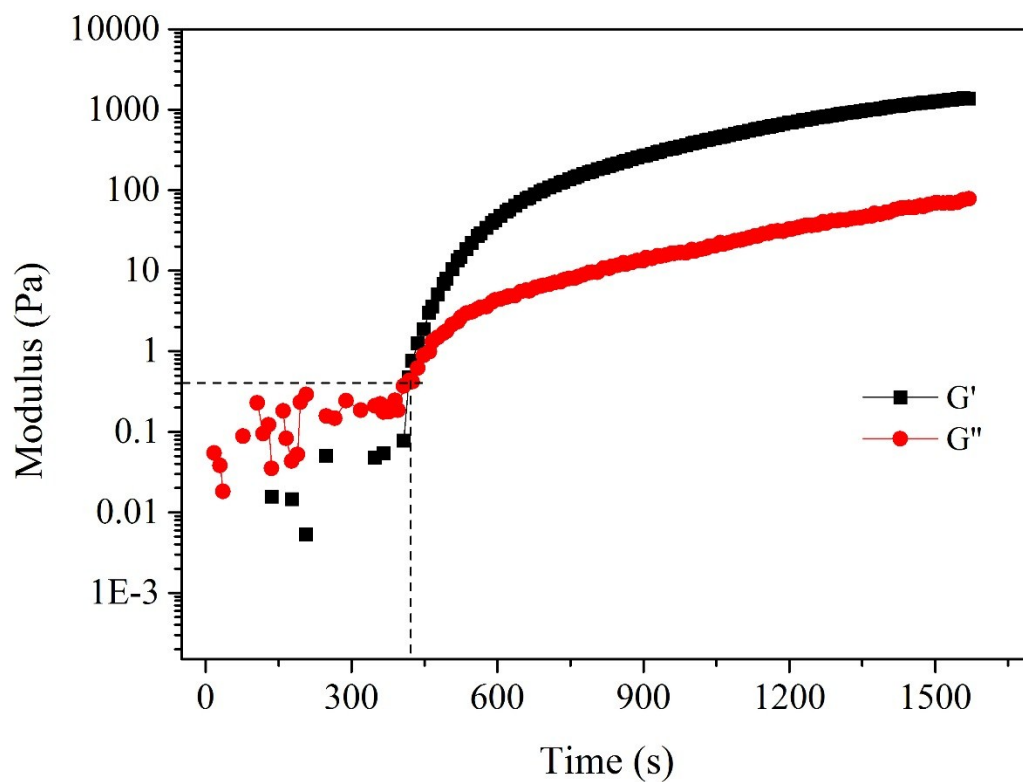
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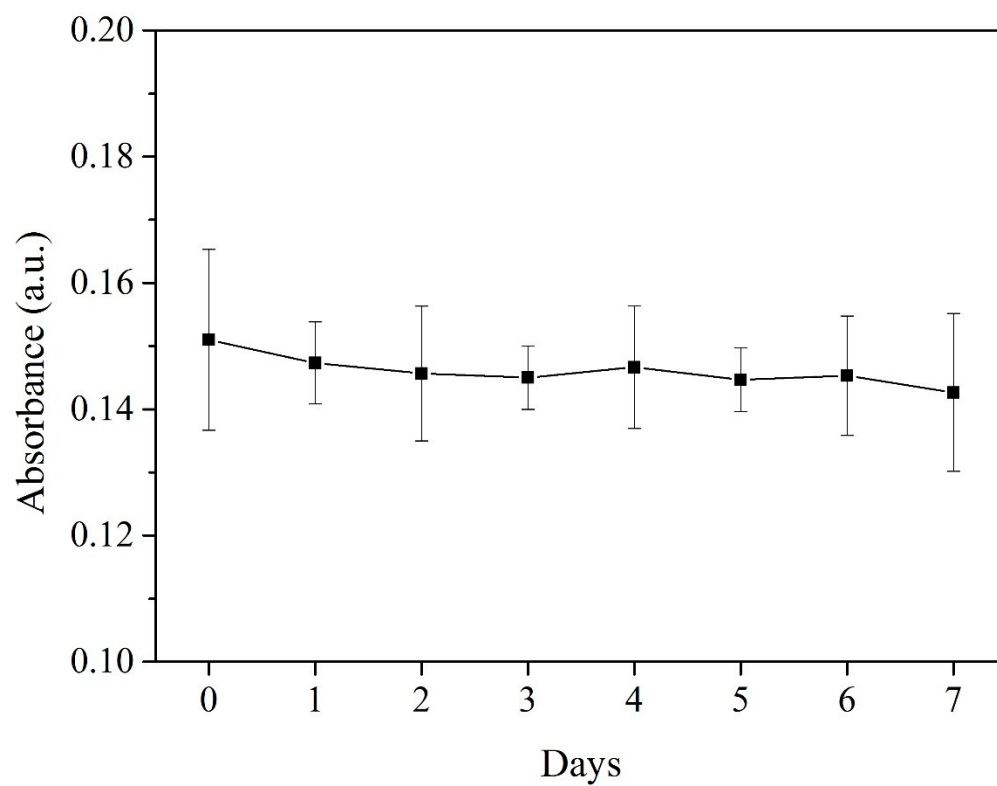
**Figure S1.**  $^1\text{H}$  NMR spectrum of PEG<sub>10k</sub>-4-SH in  $\text{CDCl}_3$ .



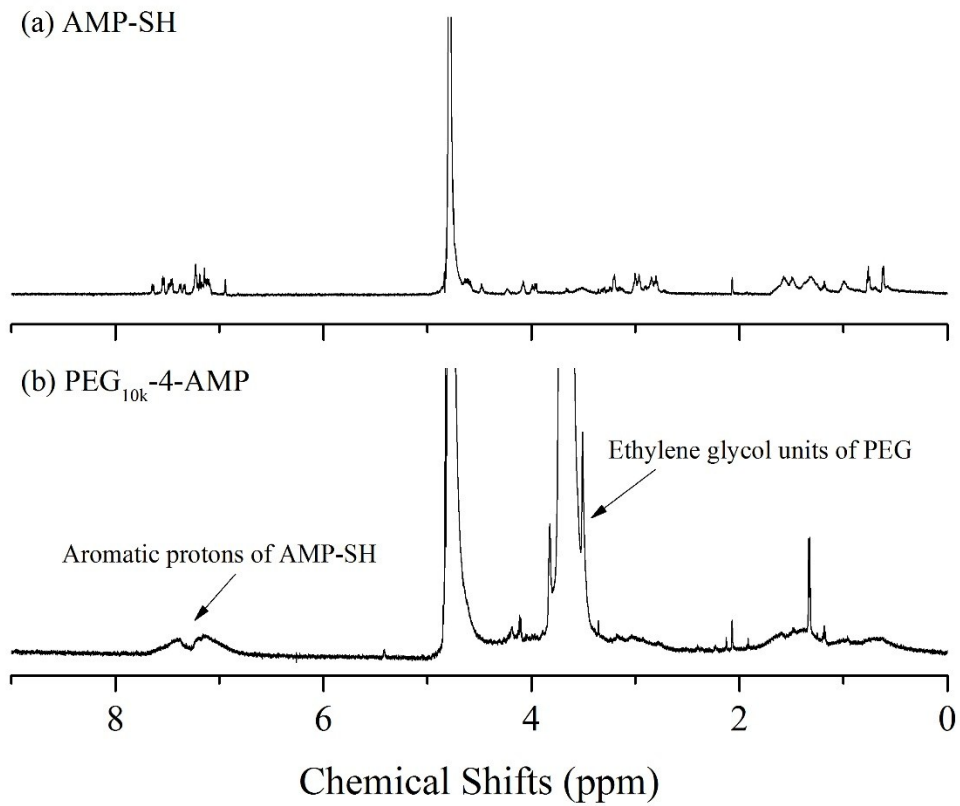
**Figure S2.**  $^1\text{H}$  NMR spectrum of  $\text{PEG}_{10\text{k}}\text{-4-PP}$  in  $\text{CDCl}_3$ .



**Figure S3.** Time-dependent storage modulus ( $G'$ ) and loss modulus ( $G''$ ) evolution of gel precursors at PEG concentration of 10 wt% with equivalent PEG<sub>10k</sub>-4-SH to PEG<sub>10k</sub>-4-PP weight ratio.



**Figure S4.** Absorption maximum (at 555 nm) of the fluorescence dye-functionalized hydrogels in the wells of 96-well plate, upon immersion in PBS solution for several days.



**Figure S5.** <sup>1</sup>H NMR spectra of AMP-SH and PEG<sub>10k</sub>-4-AMP in D<sub>2</sub>O.