## **Supporting Information**

## Synthesis and self-assembly of bioconjugates composed of thermalresponsive polymer chains and pendant lysozyme molecules

Xiaotian Ji, Li Liu and Hanying Zhao

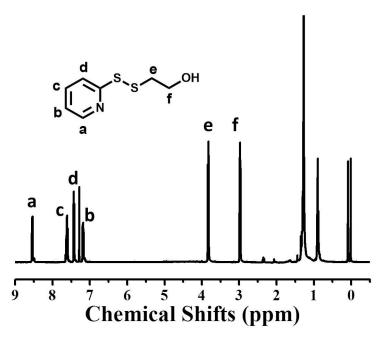


Fig. S1 <sup>1</sup>H NMR spectrum of 2-(pyridine-2-yldisulfanyl)ethanol in CDCl<sub>3</sub>.

Fig. S2 Scheme for the synthesis of 2-(pyridine-2-yldisulfanyl) ethyl methacrylate (PDSMA).

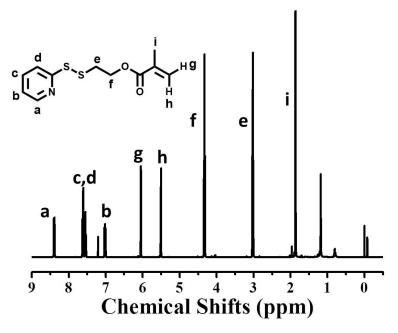
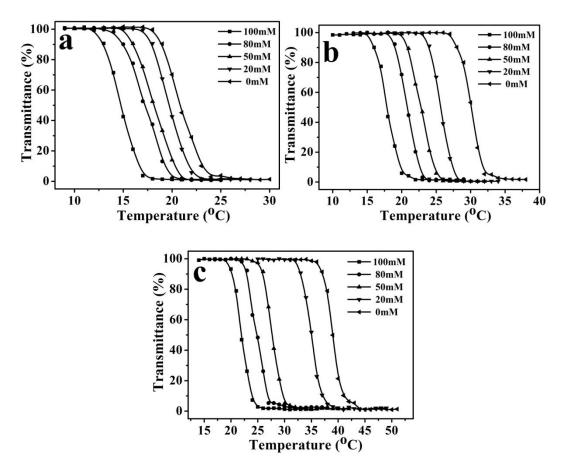


Fig. S3 <sup>1</sup>H NMR spectrum of 2-(pyridine-2-yldisulfanyl) ethyl methacrylate (PDSMA) in CDCl<sub>3</sub>.



**Fig. S4** (a) Plots of transmittances of poly(DEGMA $_{250}$ -co-PDSMA $_{12}$ ) copolymer vs temperatures at different PBS concentrations, (b) Plots of transmittances of G-1 vs temperatures at different PBS concentrations, (c) Plots of transmittances of G-2 vs temperatures at different PBS concentrations.

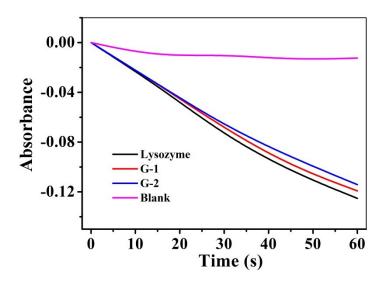


Fig. S5 Plots of absorbances of the solutions at 450 nm versus reaction time at 25 °C.