

## **Supporting Information**

### **Voltage-Responsive Micelles Based on Assembly of Two**

#### **Biocompatible Homopolymers**

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#### **1. <sup>1</sup>H NMR and FT-IR spectra of PEG-MAh**

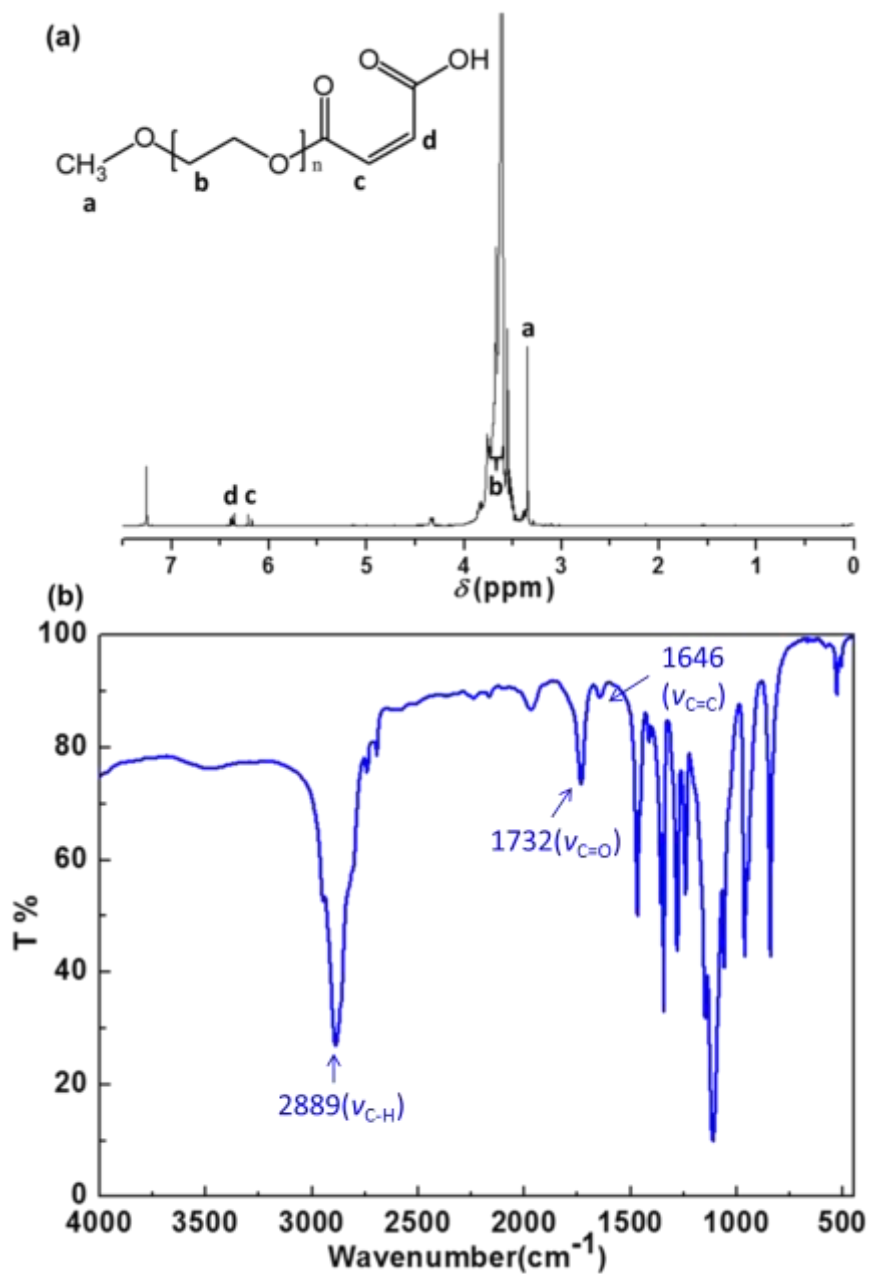
The structure of PEG-MAh was characterized by <sup>1</sup>H NMR and FT-IR and the results are shown in supplemental Fig. 1.

#### **2. GPC characterization of PEG-MAH and PEG-β-CD**

The GPC characterization of PEG-MAh and PEG-β-CD are shown in supplemental Fig. 2.

#### **3. 2D NOESY NMR spectra**

The 2D NOESY NMR spectra of PEG-β-CD and FcCH<sub>2</sub>OH, PEG-β-CD and PLLA-Fc are shown in supplemental Fig. 3 and supplemental Fig. 4.



**Fig. S1** (a) <sup>1</sup>H NMR spectrum of PEG-MAh (Solvent: CDCl<sub>3</sub>); (b) FT-IR spectrum of PEG-MAh (KBr, cm<sup>-1</sup>)

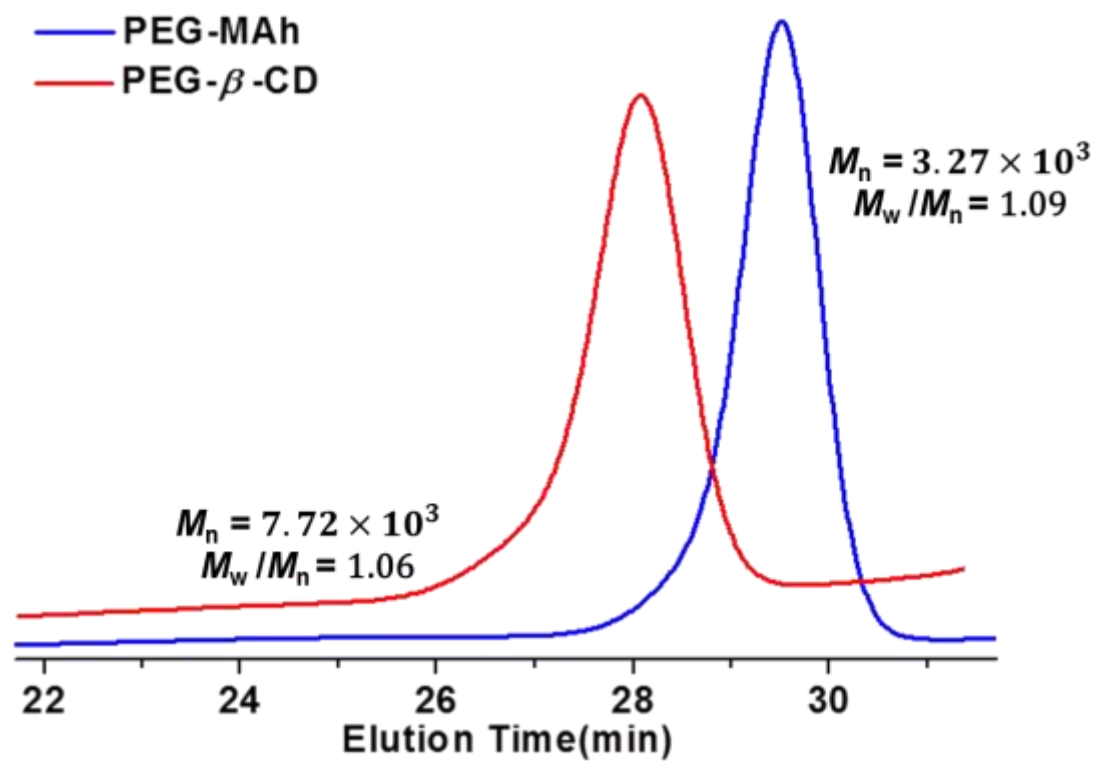
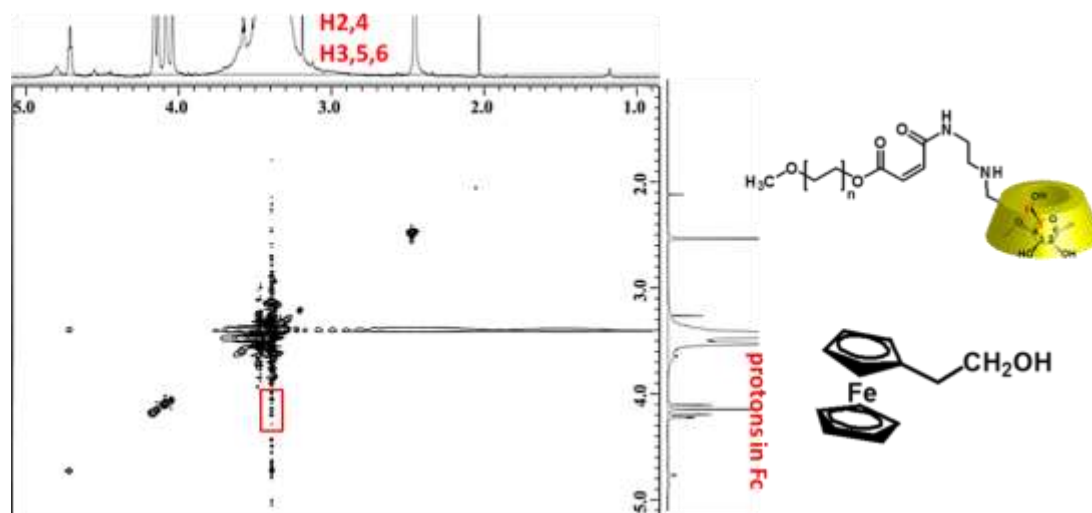
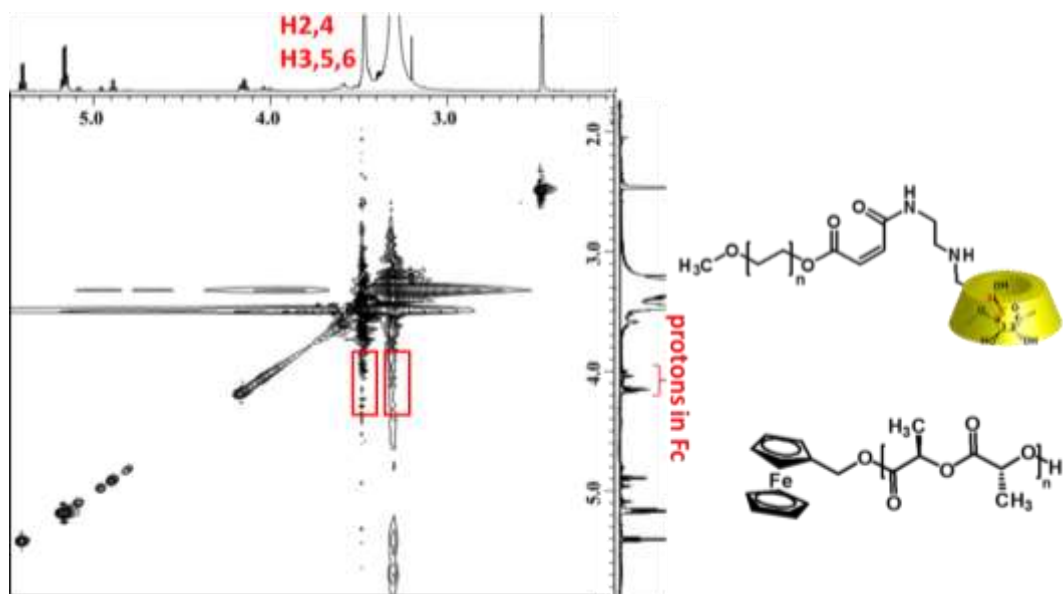


Fig. S2 GPC results of PEG-MAh and PEG- $\beta$ -CD



**Fig. S3** 2D NOESY NMR spectrum of PEG- $\beta$ -CD and FcCH<sub>2</sub>OH (left, solvent: DMSO-*d*<sub>6</sub>) and their structures (right)



**Fig. S4** 2D NOESY NMR spectrum of PEG-β-CD and PLLA-Fc (left, solvent: DMSO-*d*<sub>6</sub>) and their structures (right)