Supporting Information

Enzyme-instructed self-assembly of the hydrogelators consisting of nucleobase, amino acids, and saccharide

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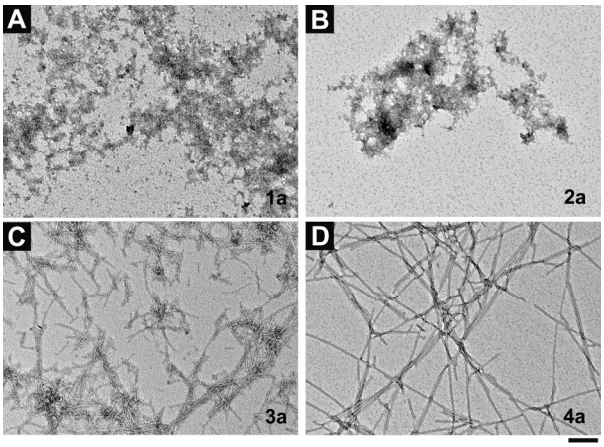

Fig. S1. Transmission electron micrograph (TEM) images of solution (A) **1a**, (B) **2a**, (C) **3a**, (D) **4a** shown in Fig. 1. They all dissolve in PBS buffer. **1a**, **2a**, and **4a** are at the concentration of 1.0 wt %; **3a** is at the concentration of 0.5 wt %. Scale bar = 100 nm.

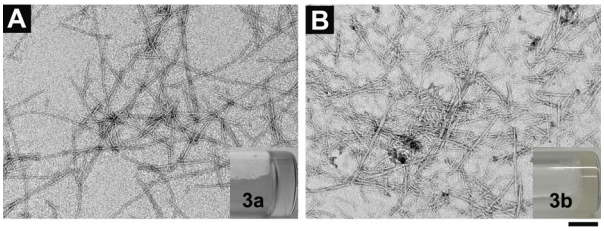

Fig. S2. TEM images of **3a** and **3b** at the concentration of 1 wt% in PBS buffer. Inserts are the corresponding optical images. Scale bar = 100 nm.

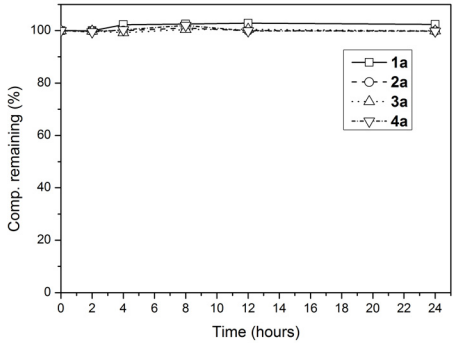

Fig. S3. Digestion curves of precursors **1a**–**4a** (0.02wt%) by proteinase *K* (3.2 U/mL) in 10 mM HEPES buffer.

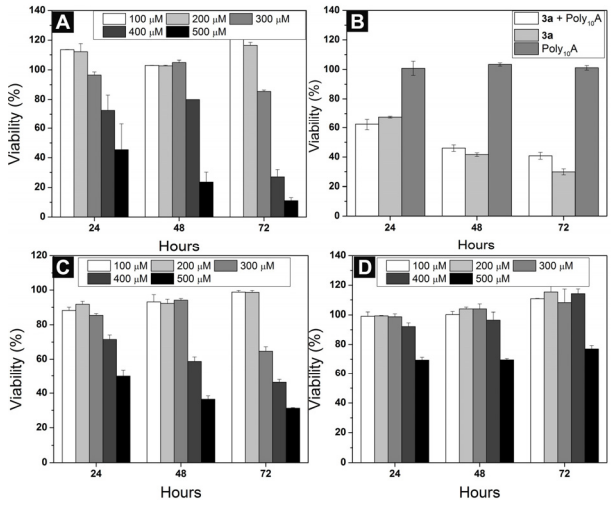

Fig. S4. Cell viability test of (A) **3a**, (B) **3a** at the concentration of 500 μM with and without $Poly_{10}A$ (50 μM),(C) **3b**, (B) **4b** against HeLa cells for 72 hours.

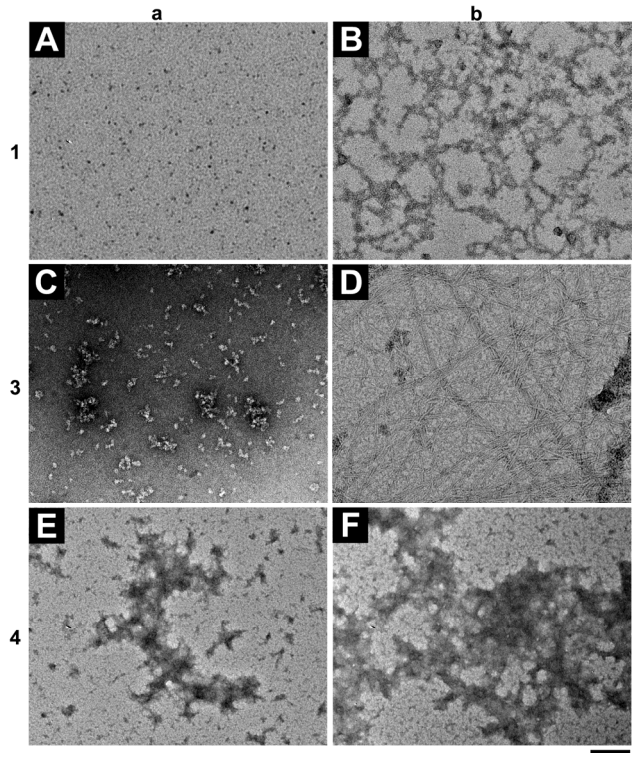

Fig. S5.TEM images of the solutions of precursors before and after adding ALP (1.0 U/mL) at the concentration of 500 μM in PBS buffer (A) **1a**, (B) **1b**, (C) **3a**, (D) **3b**, (E) **4a**, (F) **4b**. Scale bar = 100 nm.