

## Supporting Information

### **In situ synthesis of silver nanoparticle-loaded genetically engineered polypeptide nanogels for antibacterial and wound healing**

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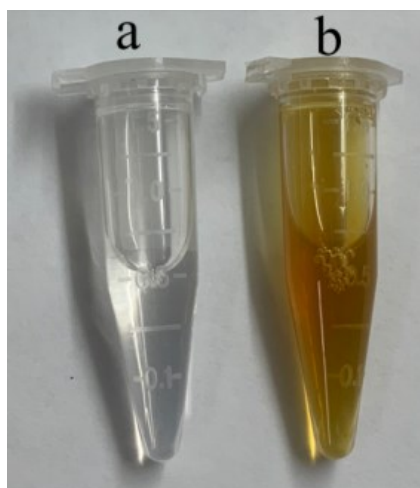


Figure S1 The photograph of the solution before (a) and after (b) the Ag@PC<sub>10</sub>ARGD nanogels was formed.

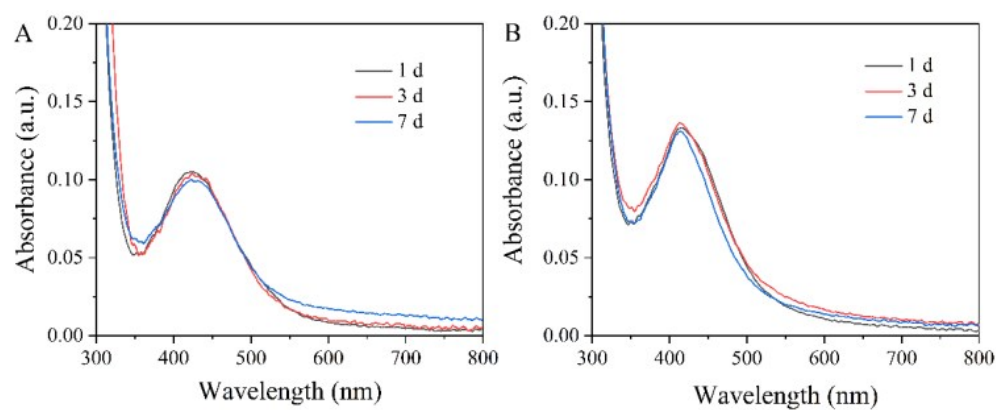


Figure S2 The stability of Ag@PC<sub>10</sub>ARGD nanogels in fetal bovine serum (FBS) and in PBS buffer for 1, 3, 7 days.

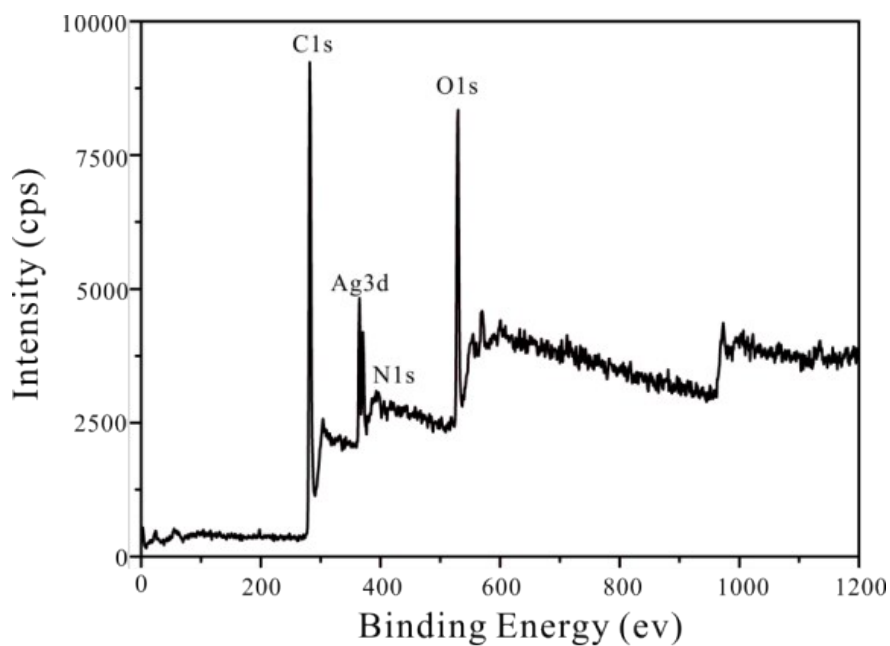


Figure S3 The XPS spectra of the Ag@PC<sub>10</sub>ARGD nanogels.

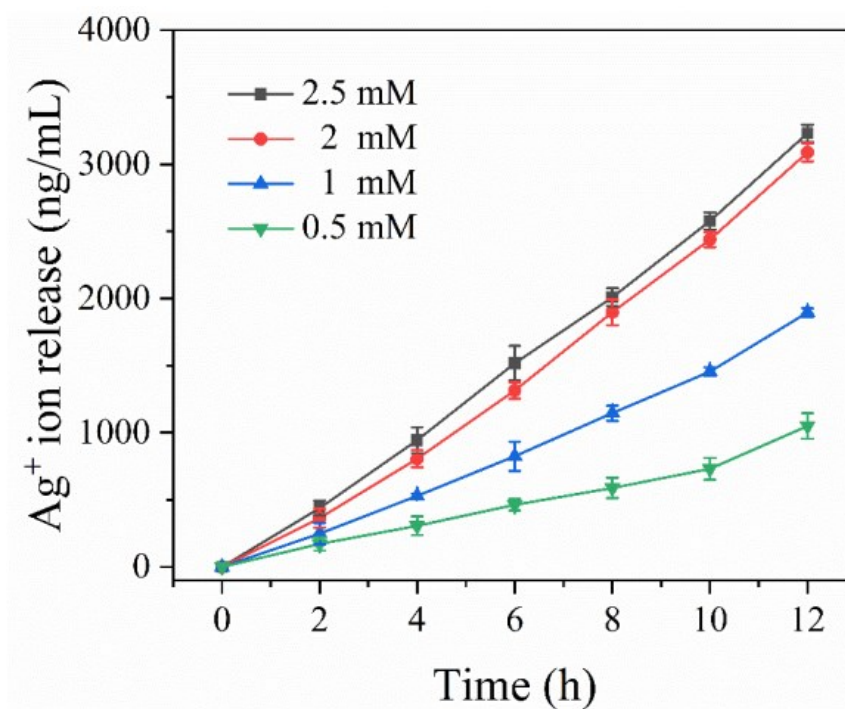


Figure S4 Cumulative release of Ag<sup>+</sup> ions from Ag@PC<sub>10</sub>ARGD nanogels synthesized from 0.5, 1, 2, 2.5 mM AgNO<sub>3</sub>. 1 mL Ag@PC<sub>10</sub>ARGD nanogels were loaded in dialysis tube immersed in 10 mL PBS at 37 °C.

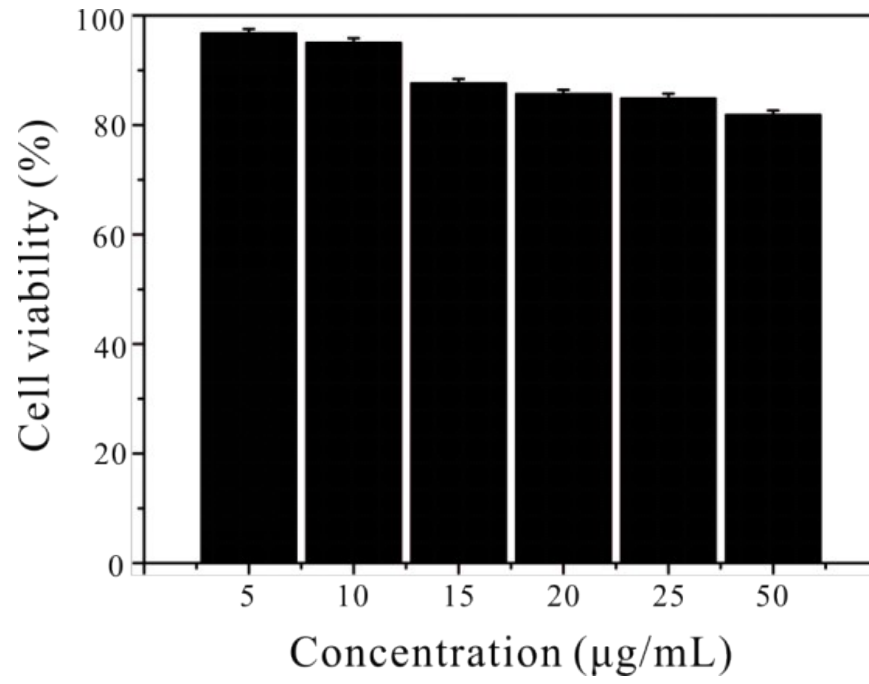


Figure S5 The cell viability of 3T3 cell incubating with different concentrations of the Ag@PC<sub>10</sub>ARGD nanogels.