

Supplementary Information

for

Dual-targeting Selenium Nanoparticles Antagonize Hyperinsulinemia-Promoted Tumor Growth via Activating Cell Autophagy

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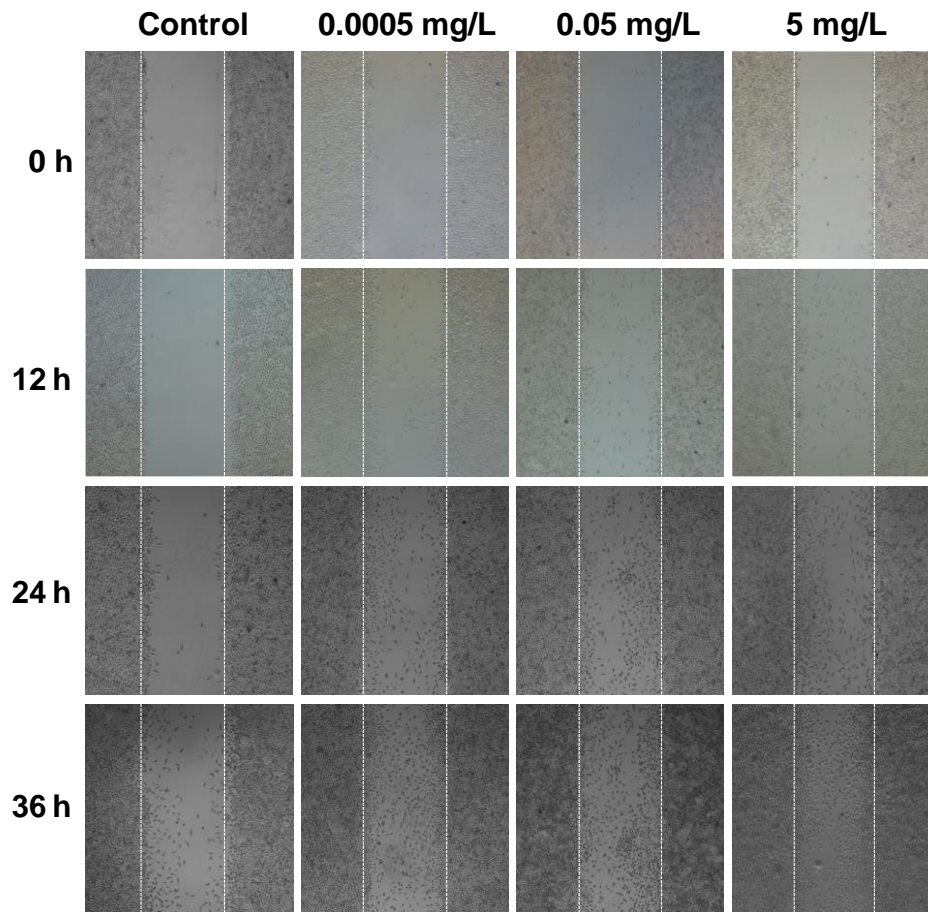


Figure S1. Promotion of HepG2 cells migration by different concentrations (0.0005 mg L⁻¹, 0.05 mg L⁻¹, 5 mg L⁻¹) of insulin for 36 h.

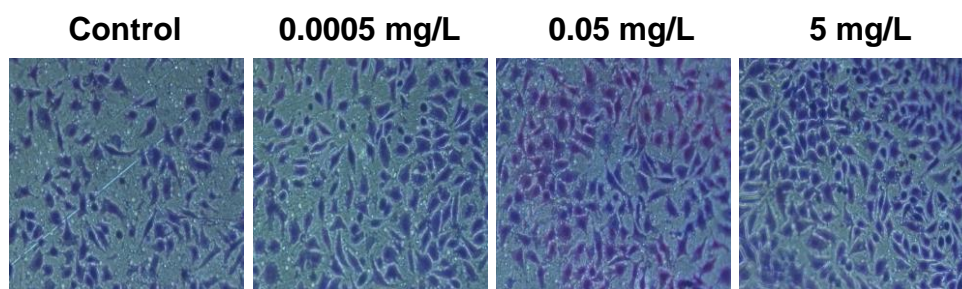


Figure S2. Promotion of HepG2 cells invasion different concentrations (0.0005 mg L⁻¹, 0.05 mg L⁻¹, 5 mg L⁻¹) of insulin for 36h.

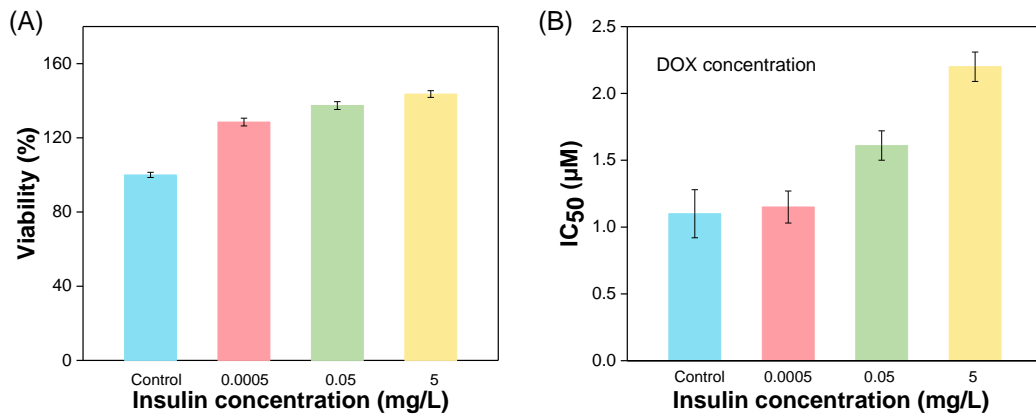


Figure S3. **A)** Promotion of HepG2 cells proliferation by insulin (0.0005 mg L⁻¹, 0.05 mg L⁻¹, 5 mg L⁻¹); **B)** HepG2 cells drug resistance on DOX by insulin (0.0005 mg L⁻¹, 0.05 mg L⁻¹, 5 mg L⁻¹).

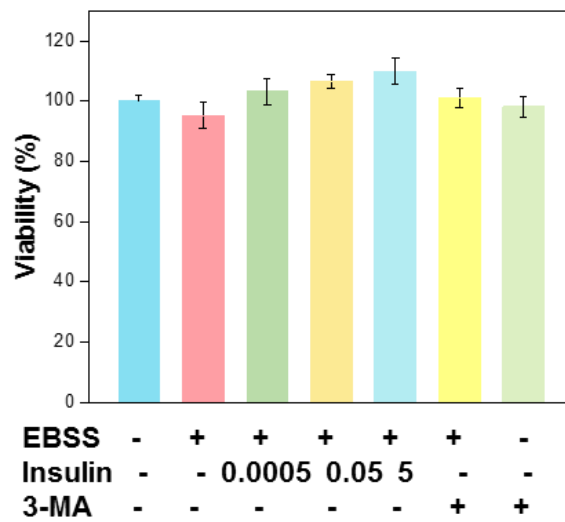


Figure S4. HepG2 cells viability incubated by EBSS (2 mL), Insulin (0.0005 mg L⁻¹, 0.05 mg L⁻¹, 5 mg L⁻¹) and 3-MA (5 mM).

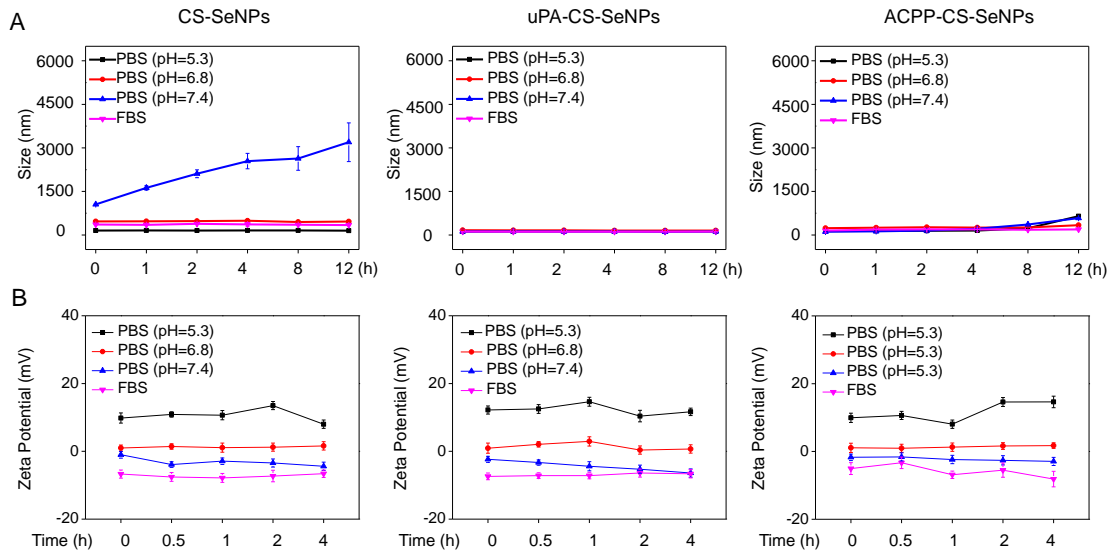


Figure S5. Stability of different nanoparticles. Size changes (A) and zeta potential (B) changes in different solution for 12 h.

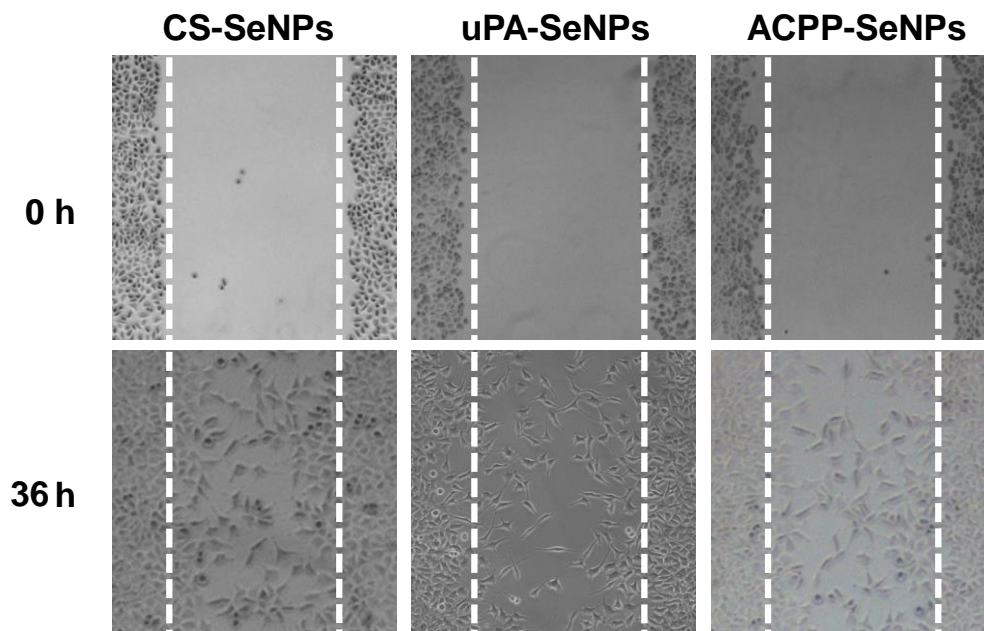


Figure S6. Inhibition of HepG2 cells migration by different nanoparticles ($0.5 \mu\text{M}$) for 36 h.

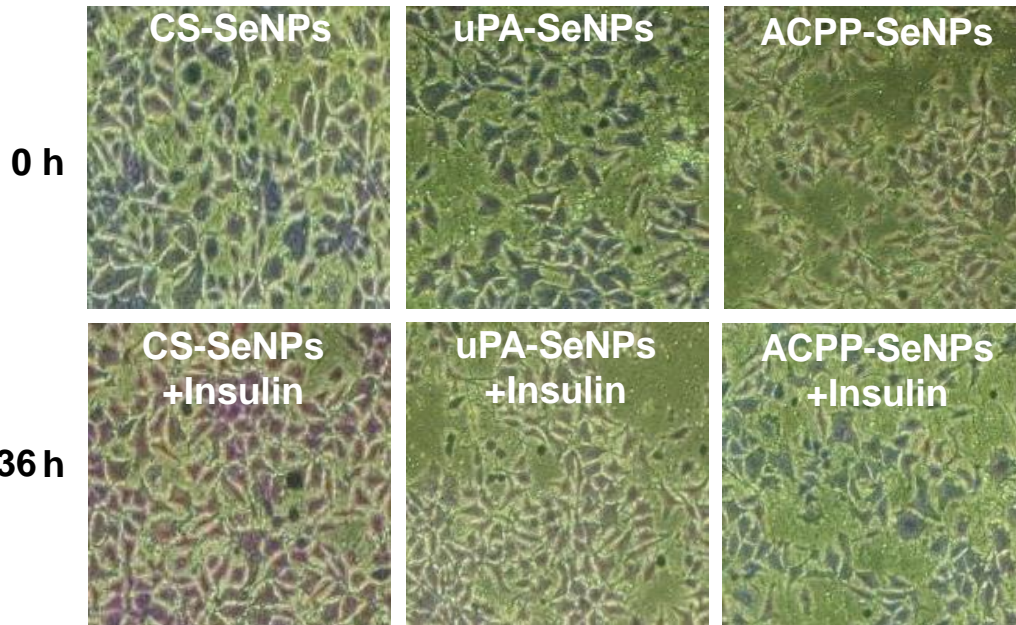


Figure S7. Inhibition of HepG2 cells invasion by different nanoparticles (0.5 μM) for 36 h.

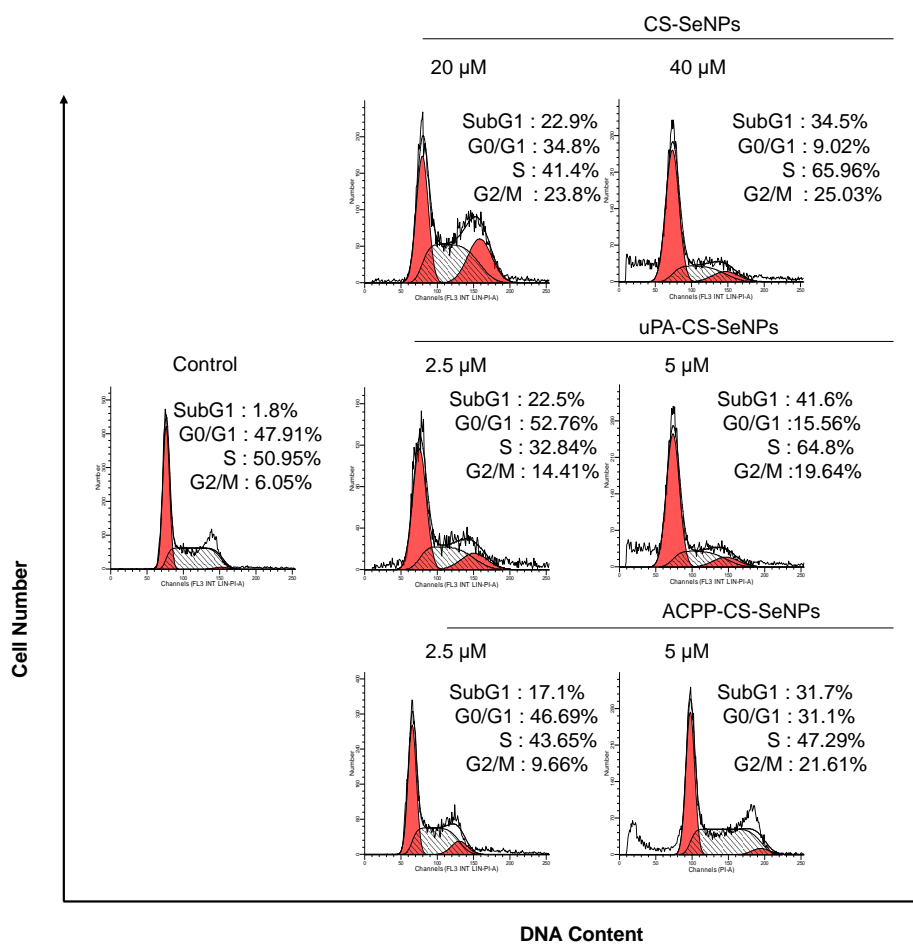


Figure S8. Cell cycle of HepG2 cells treated by different concentrations of CS-SeNPs, uPA-SeNPs and ACPP-SeNPs.

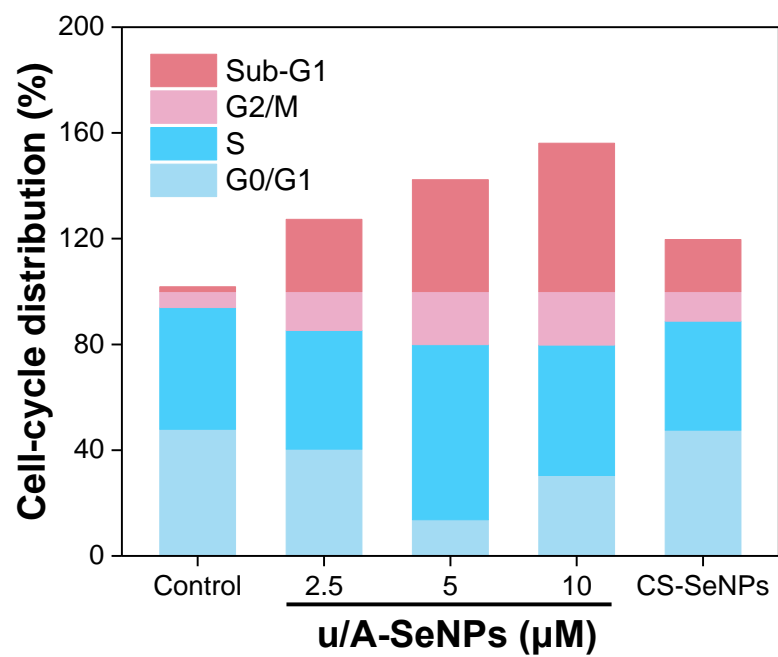


Figure S9. Quantitative analysis of cell cycle.

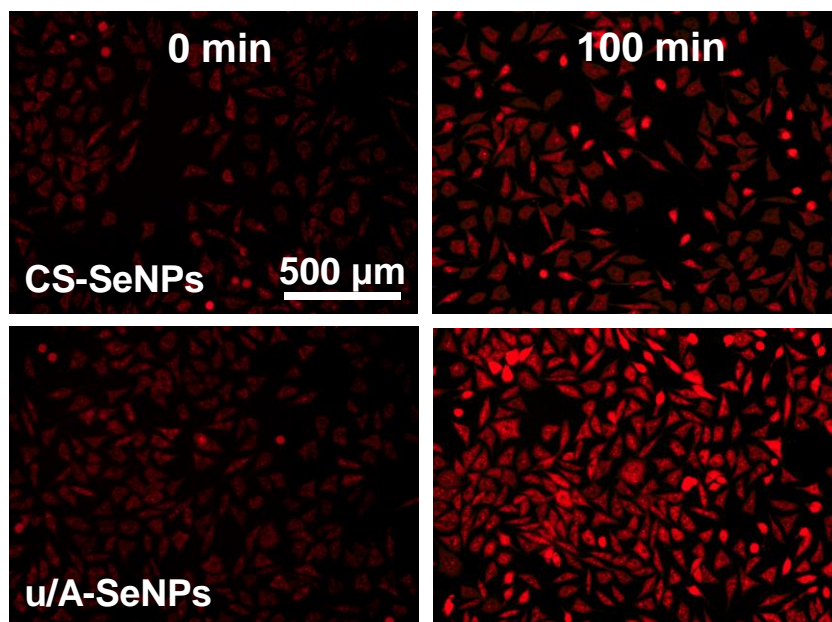


Figure S10. Representative photos of ROS produced by CS-SeNPs and u/A-SeNPs.

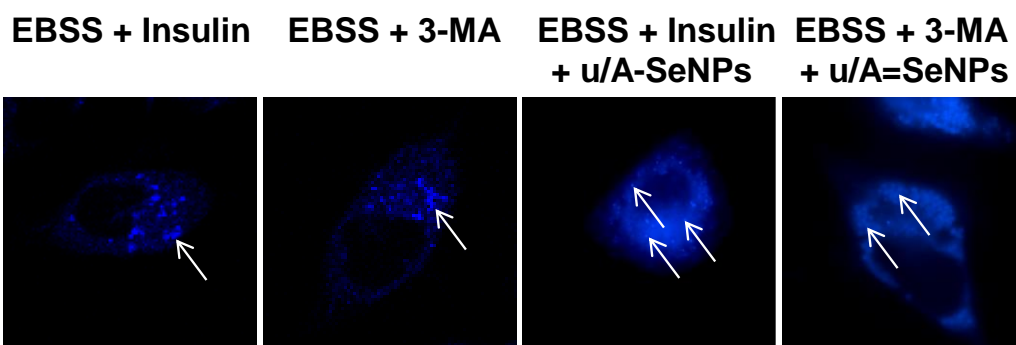


Figure S11. Images of HepG2 cells after MDC staining with 10 μ M u/A-SeNPs and other solution.

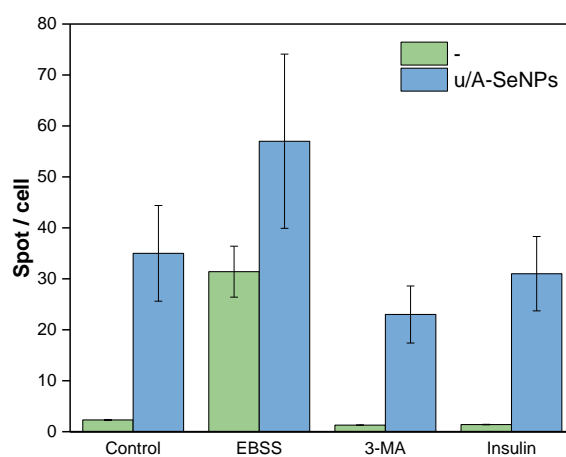


Figure S12. Blue spots in HepG2 after MDC staining and 10 μ M u/A-SeNPs treatment.