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## **Supporting information**

for

## pH-Responsive Cancer-targeted Selenium Nanoparticles: A Transformable Drug Carrier with Enhanced Theranostic Effects

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Running title: In Vitro Action of pH-Responsive Transformable Selenium Nanoparticles.

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## **RESULTS**

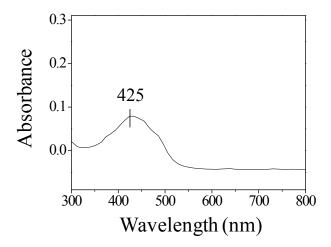
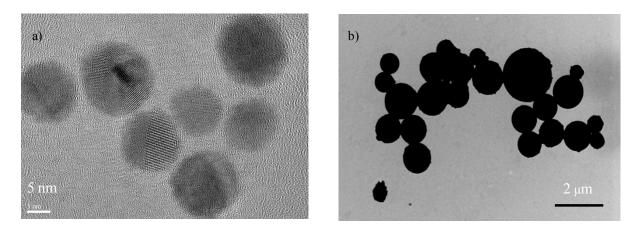
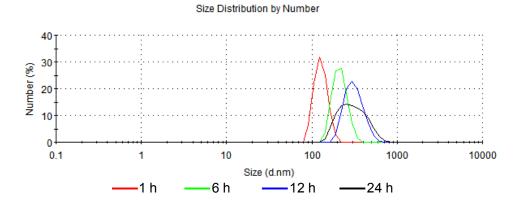


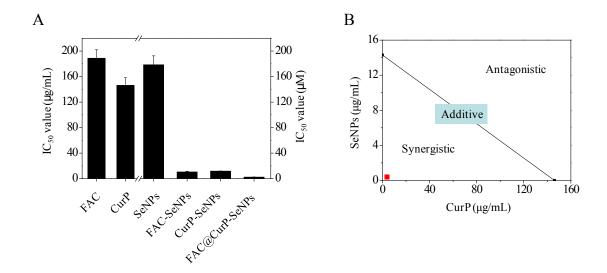
Fig. S1. Representative UV-vis spectrum of CurP.



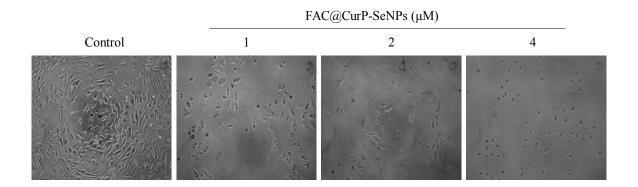
**Fig. S2.** Representative HRTEM images of CurP-SeNPs(a) and TEM images of SeNPs (b).



**Fig. S3.** Representative size distribution of FAC@CurP-SeNPs diffused in PBS solution (pH 5.3) for different time.



**Fig. S4.** (A) Growth inhibition of FAC@CurP-SeNPs and corresponding IC<sub>50</sub> value of FAC, CurP, SeNPs, FAC-SeNPs and CurP-SeNPs on MCF-7. Cell viability was determined by a colorimetric MTT assay. Under the corresponding conditions, the IC<sub>50</sub> values for FAC, CurP, SeNPs, FAC-SeNPs, CurP-SeNPs and FAC@CurP-SeNPs on MCF-7 cells were found at 188.8 μg/mL, 146.1 μg/mL, 178.5 μM (14.3 μg/mL), 10.3 μM (0.824 μg/mL), 11.7 μM (0.944 μg/mL) and 2.4 μM (0.912 μg/mL), respectively. (B) Isobologram analysis of the antiproliferative effects of SeNPs and CurP on MCF-7 cells, CI of the IC<sub>50</sub> value of FAC@CurP-SeNPs was found at 0.056. Each IC<sub>50</sub> value represents the mean  $\pm$  S.D. of three independent experiments.



**Fig. S5.** Morphology of MCF-7 cells treated with FAC@CurP-SeNPs for 72 h.