

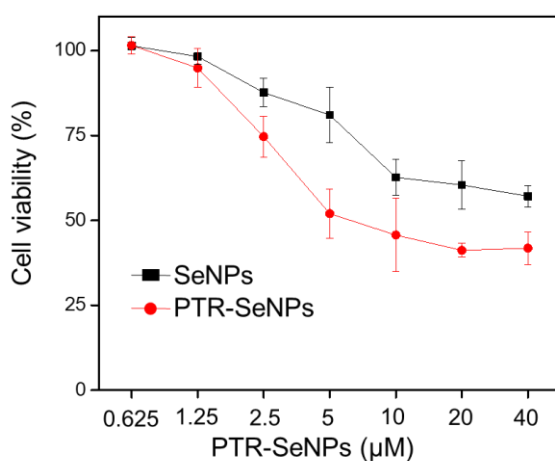
## Supporting Information

for

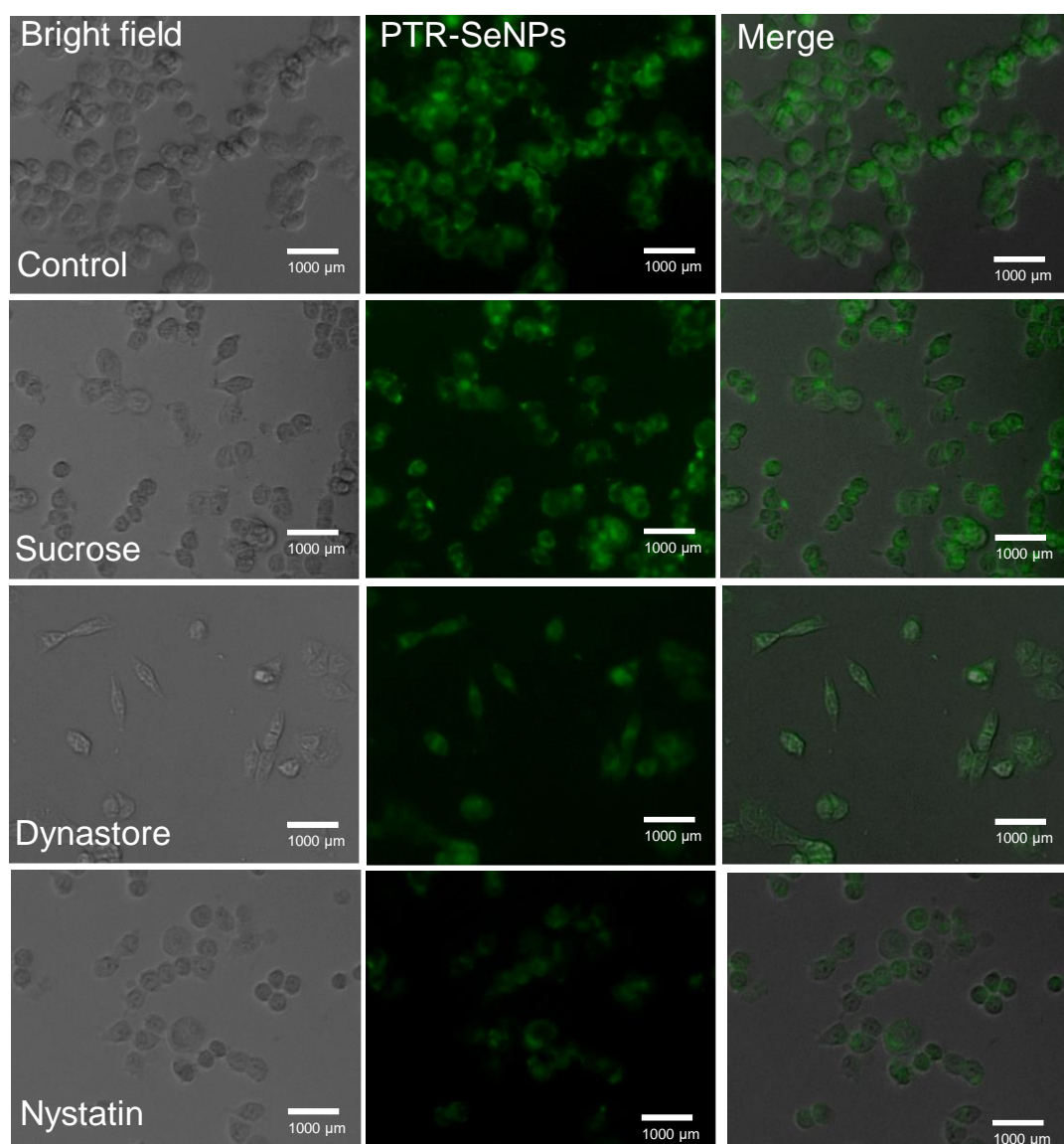
### Autophagy is an Important Action Mode for Functionalized Selenium Nanoparticles to Exhibit Anti-colorectal Cancer Activity

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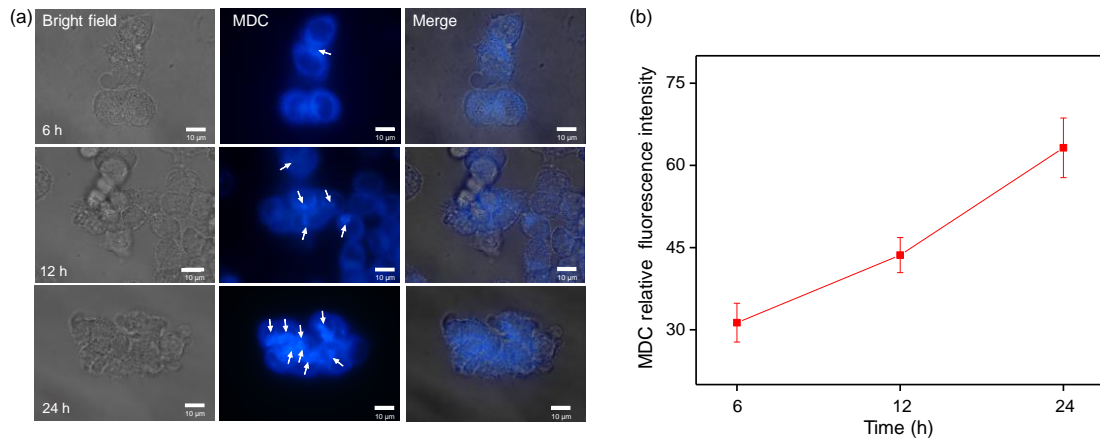
#### Results:



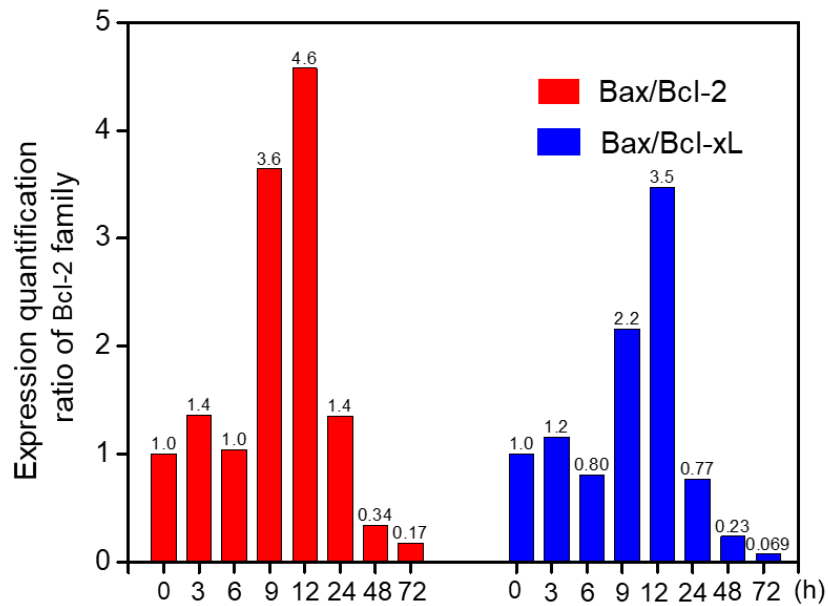
**Figure S1.** Cell viability of HCT 116 cells treated by SeNPs and PTR-SeNPs for 72 h. Each value represents means  $\pm$  SD (n = 3).



**Figure S2.** Effects of endocytosis inhibitors on the cellular uptake. Cellular uptake of C6-PTR-SeNPs (green) in HCT 116 cells were examined by fluorescence microscope after pre-treated with sucrose, dynastore and nystatin for 1 h before adding 10  $\mu$ M of C6-PTR-SeNPs and incubated at 37  $^{\circ}$ C for 2 h.



**Figure S3.** Autophagic flux measurements of PTR-SeNPs in HCT 116 cells. (a) PTR-SeNPs (10 µM) induced autophagy in HCT 116 cells at 6, 12 and 24 h by MDC staining. Autophagosome punta (arrows) were seen in the cytosol; (b) Blue (MDC) dots in cells were counted using the Image J ( $n \pm 3$ , means  $\pm$  S.D.).



**Figure S4.** Western blot analysis of protein expression ratio of Bax/Bcl-2 and Bax/Bcl-xL after 72-h treatment.