

1 **Supporting Information**

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3 **Enhancing antitumor activity of tea polyphenols**
4 **encapsulated in biodegradable nanogels by**
5 **macromolecular self-assembly**

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Fig. S1. (A) Mechanism process for free radical damages normal cell. (B) Mechanism of tea polyphenols inducing apoptosis in cancer cells. G_0 : A phase where the cell has left the cycle and has stopped dividing. G_1 : A phase that everything is ready for DNA synthesis. G_2 : During the gap between DNA synthesis and mitosis, the cell will continue to grow. S: DNA replication occurs during this phase. M: Cell growth stops at this stage and cellular energy are focused on the orderly division into two daughter cells.

Fig. S2. SEM images of Ly-CMC COAs and NGs. (A) Ly-CMC COAs in the absence of chitosanase. (B) Ly-CMC COAs in the presence of chitosanase. (C) Ly-CMC NGs in the absence of chitosanase. (D) Ly-CMC NGs in the presence of chitosanase.

Fig. S3. SEM images of Ly-CMC NGs. (A) Ly-CMC NGs after heating. (B) TP-loaded NGs.

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Fig. S5. Representative HPLC chromatography of TP solution dispersed in 0.1 M phosphate buffer. (A) Free TP without heating. (B) Free TP after heating for 20 min. (C) TP-loaded NGs after heating for 20 min and cultivate for 24h. (D) TP-loaded NGs after heating for 20 min and cultivate for 48h. Detection wavelength is set at 274nm.

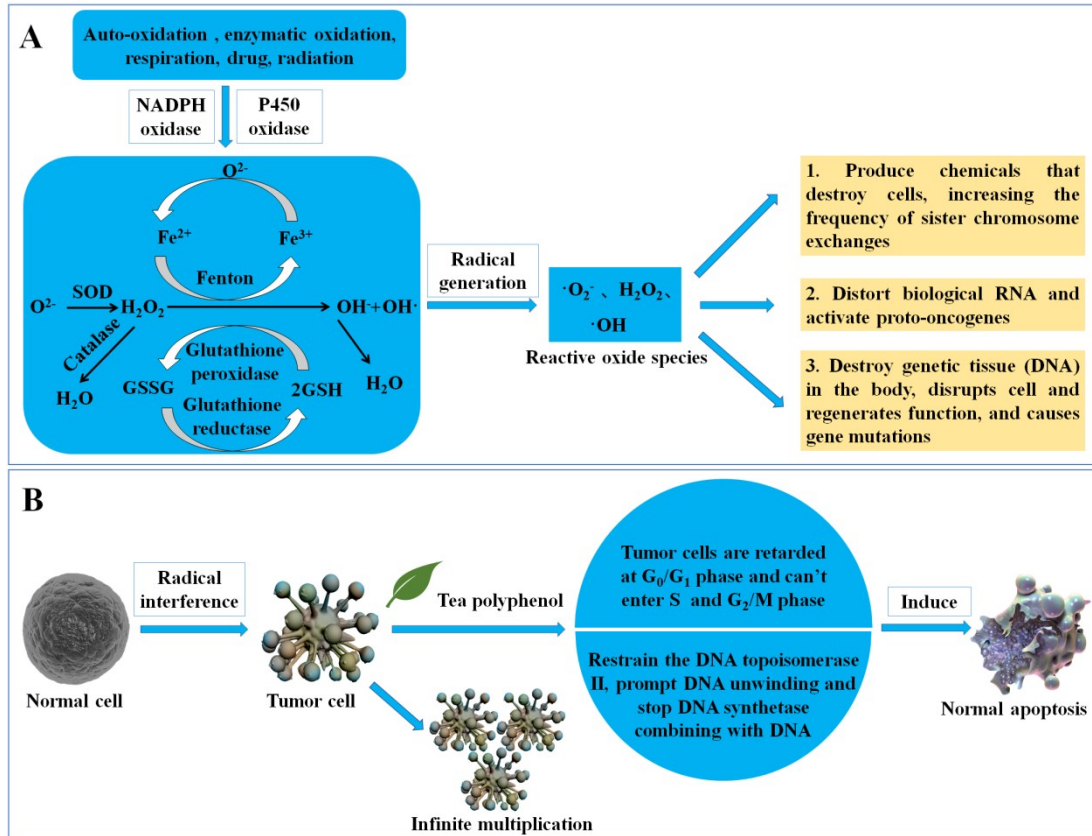


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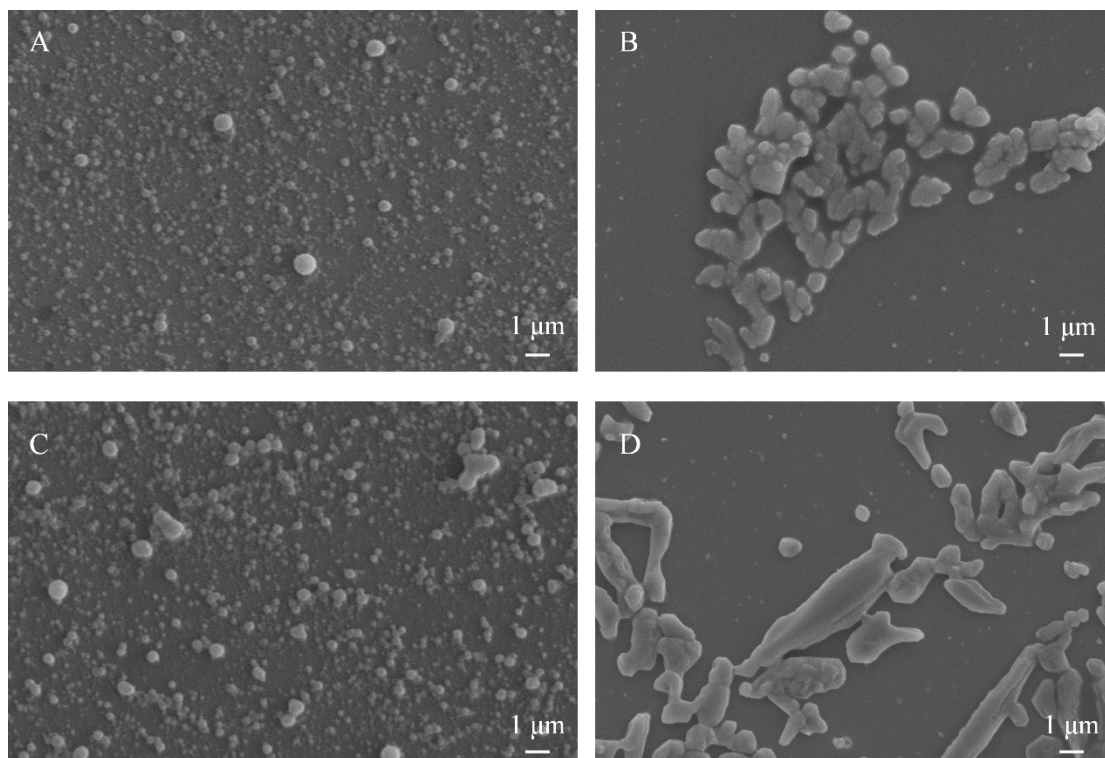


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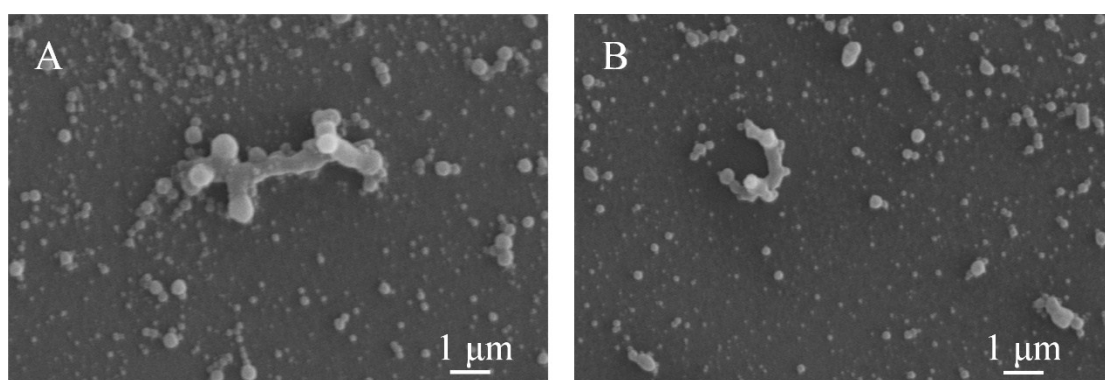


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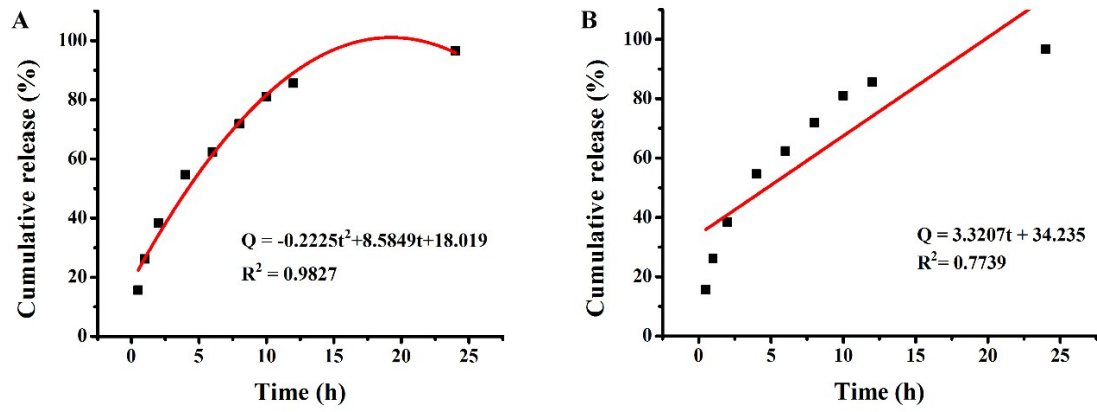


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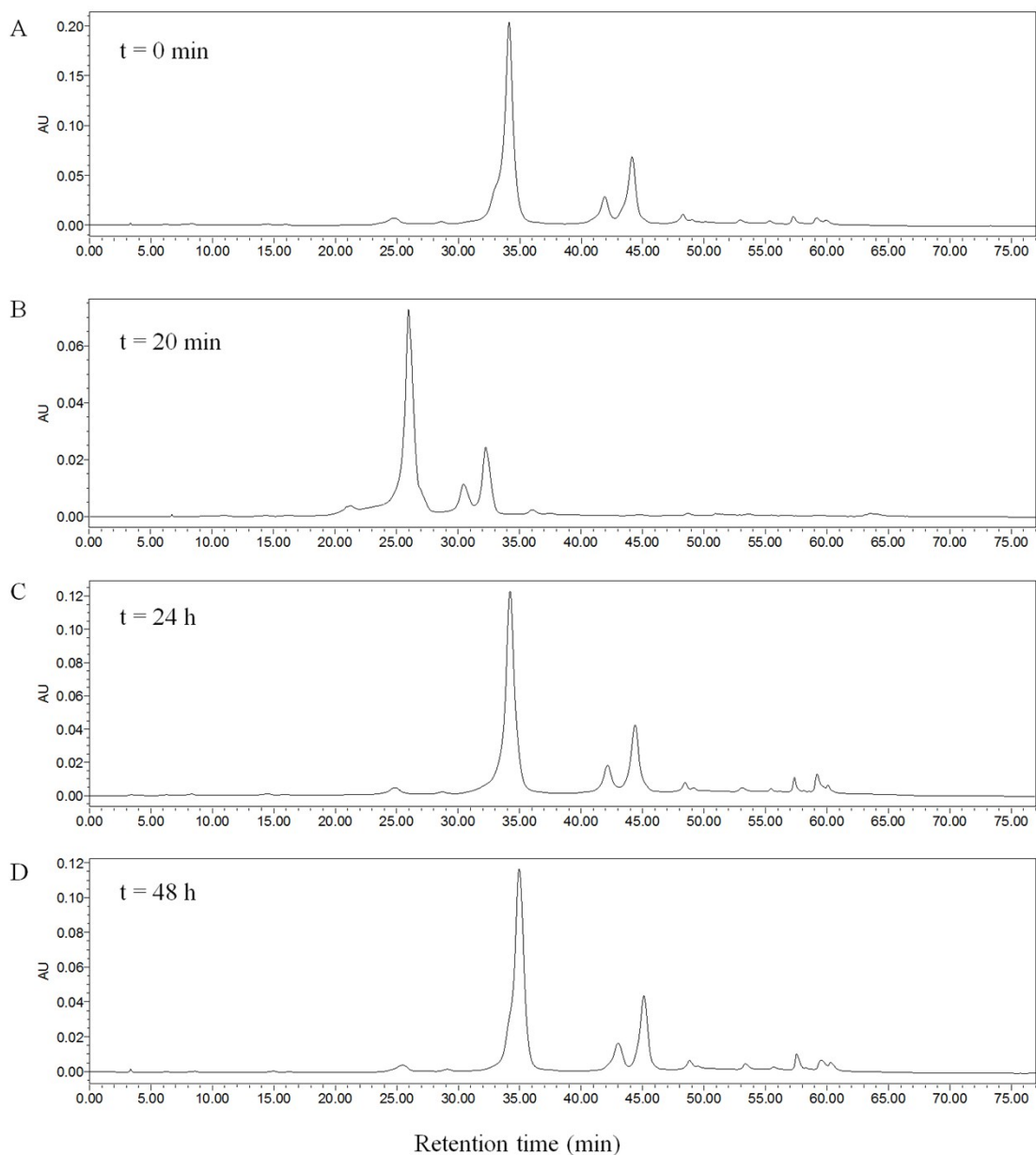


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