

## Supporting Information

### Reduction-responsive and tumour-targeted polyprodrug nanocarriers for targeting therapy of hepatocellular carcinoma

Wei Shi,<sup>a</sup> XiaoQing Xu,<sup>a</sup> JinYuan Tian,<sup>a</sup> ZiYi Zhang<sup>a</sup> and ZhanJun Liu<sup>\*a</sup>

a. School of Pharmacy, North China University of Science and Technology, Tangshan 063210, China.

E-mail address of Corresponding author: liuzhanjun@ncst.edu.cn

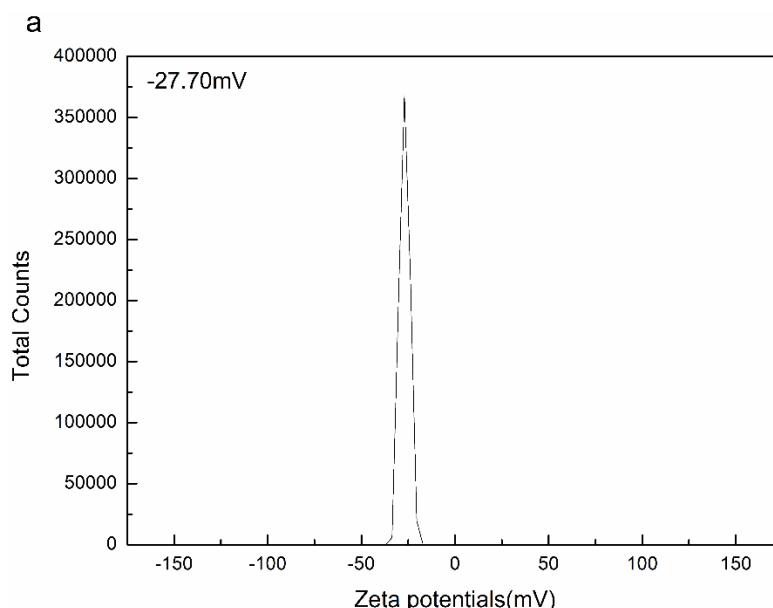
1. Table S1 Nanoparticle size, PDI, zeta potential and critical aggregation concentration (CAC) affected by HA-SS-PFA at different ratios

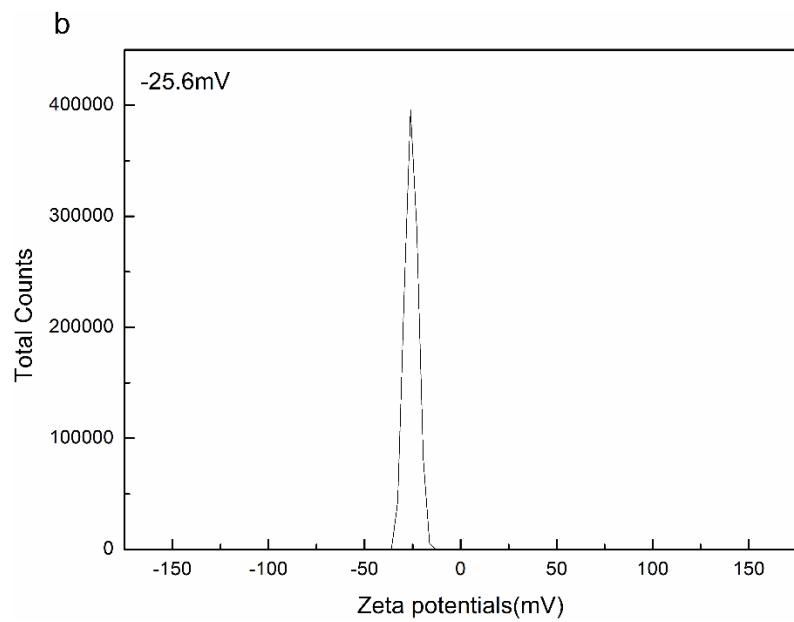
| HA-SS@PFA | Size<br>(nm) | Zeta<br>(mV) | PDI         | CAC<br>(mg·mL <sup>-1</sup> ) |
|-----------|--------------|--------------|-------------|-------------------------------|
| 2:1       | 247.4±4.1    | -23.45±0.23  | 0.432±0.023 | 0.0821                        |
| 1:1       | 163.4±3.2    | -25.61±0.35  | 0.255±0.014 | 0.0604                        |
| 1:2       | 145.4±2.8    | -27.70±0.12  | 0.195±0.064 | 0.0589                        |
| 1:3       | 178.9±3.6    | -19.13±0.74  | 0.188±0.042 | 0.0642                        |
| 1:4       | 220.2±1.5    | -20.43±0.63  | 0.367±0.031 | 0.0974                        |

2. The content of DOX in nano-preparation was determined by HPLC.

Chromatographic conditions: Diamonsil C18 column (250 mm × 4.6 mm, 5.0 μm); mobile phase: acetonitrile–2% glacial acetic acid solution (v/v = 35/65); flow rate: 1.0 mL·min<sup>-1</sup>; UV detection wavelength: 481 nm; sample size: 20 μL; column temperature: 30°C.

3. Zeta potential graphs of HA-SS-PFA NPs (a) and DOX@HA-SS-PFA NPs (b).





4. Critical aggregation concentration (CAC) of HA-SS-PFA NPs.

