## **Supplementary Information**

For the Article

## Dual-targeting Hybrid Nanoparticles for SN38 delivery to Her2 and CD44 overexpressed Human Gastric Cancer

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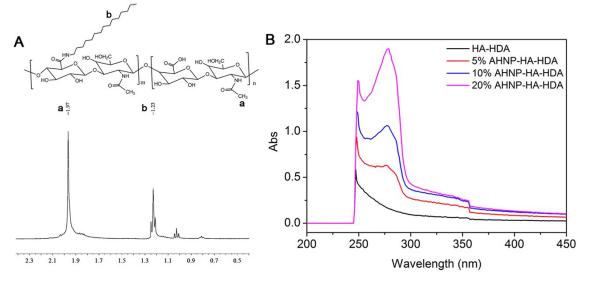
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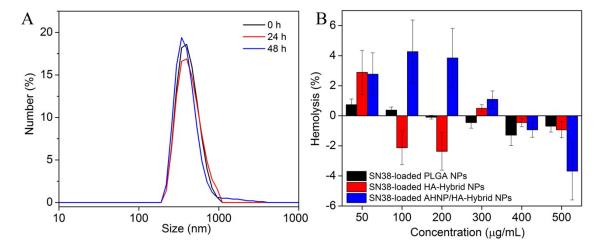
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**Figure S1.** Characterization of the composition of the HA-HDA and the AHNP-HA-HDA. (A) The <sup>1</sup>H-NMR of HA-HDA. (B) The UV-Vis spectrums of HA-HDA and AHNP-HA-HDA with varying AHNP conjugation percent.





**Figure S2.** (A) The particle size distribution of the SN38-loaded AHNP/HA-hybrid NPs incubated in PBS (pH=7.4, 0.01 M) containing 10% FBS at different time intervals. (B) Hemolytic activity of SN38-loaded NPs with varying NP concentrations after incubation with erythrocytes for 12 h. Data are given as mean  $\pm$  SD (n = 3).



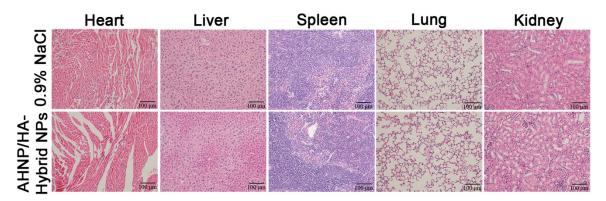
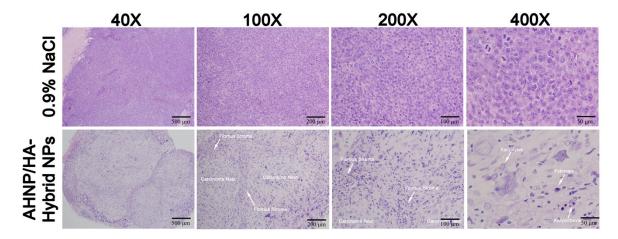


Figure S3. H&E staining analysis of the main organs slices from mice on day 18 after the treatment of 0.9% NaCl and AHNP/HA-Hybrid NPs at SN38 dose of 10 mg/kg. (Scale bar:  $100 \mu m$ )





**Figure S4.** The images with different magnifications of the tumor slices from mice on day 18 after the first treatment of 0.9% NaCl and AHNP/HA-Hybrid NPs at SN38 dose of 10 mg/kg after H&E staining. The arrows indicate the pyknosis, the karyorrhexis, the karyolysis, the fibrous stroma and the carcinoma nest, respectively.