Supplementary Information

For the Article

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

Zhe Yang^{1,†}, Huiyan Luo^{1,2,†}, Zhong Cao¹, Ya Chen¹, Jinbiao Gao¹, Yingqin Li¹, Qing Jiang¹, Ruihua Xu^{2,*}, Jie Liu^{1,*}

¹ Department of Biomedical Engineering, School of Engineering, Sun Yat-sen University, Guangzhou, Guangdong 510006, China

² Department of Medical Oncology, Sun Yat-sen University Cancer Center; State Key Laboratory of Oncology in South China; Collaborative Innovation Center for Cancer Medicine, Guangzhou 510060, China

[†] These authors contribute equally to this work.

* E-mail: liujie56@mail.sysu.edu.cn

xurh@sysucc.org.cn



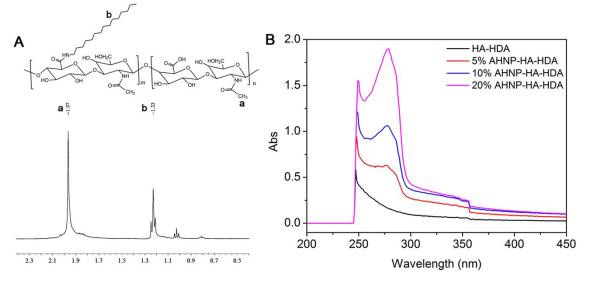


Figure S1. Characterization of the composition of the HA-HDA and the AHNP-HA-HDA. (A) The ¹H-NMR of HA-HDA. (B) The UV-Vis spectrums of HA-HDA and AHNP-HA-HDA with varying AHNP conjugation percent.



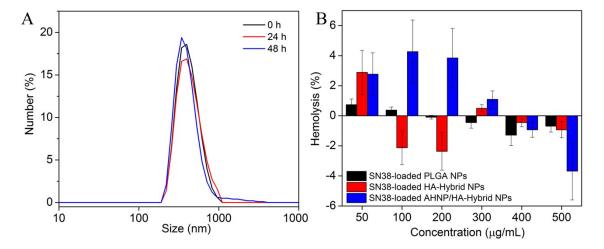


Figure S2. (A) The particle size distribution of the SN38-loaded AHNP/HA-hybrid NPs incubated in PBS (pH=7.4, 0.01 M) containing 10% FBS at different time intervals. (B) Hemolytic activity of SN38-loaded NPs with varying NP concentrations after incubation with erythrocytes for 12 h. Data are given as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



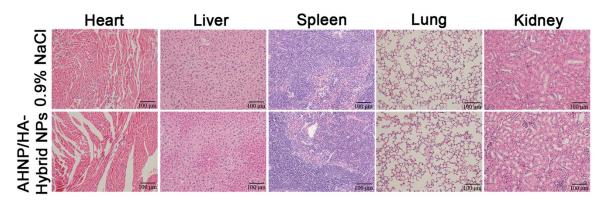


Figure S3. H&E staining analysis of the main organs slices from mice on day 18 after the treatment of 0.9% NaCl and AHNP/HA-Hybrid NPs at SN38 dose of 10 mg/kg. (Scale bar: $100 \mu m$)



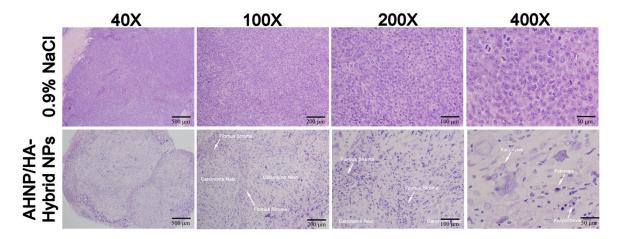


Figure S4. The images with different magnifications of the tumor slices from mice on day 18 after the first treatment of 0.9% NaCl and AHNP/HA-Hybrid NPs at SN38 dose of 10 mg/kg after H&E staining. The arrows indicate the pyknosis, the karyorrhexis, the karyolysis, the fibrous stroma and the carcinoma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