## **Electronic Supplementary Information**

## Antitumor efficacy of a PLGA composite nanofiber embedded with doxorubicin@MSNs and hydroxycamptothecin@HANPs

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**Fig. S1** Size distribution and structure of MSNs. (A): size distribution; (B): nitrogen adsorption–desorption isotherms; (C): pore size distribution; (D): specific surface area of MSNs.



Fig. S2 Nitrogen adsorption –desorption isotherms of HANPs.



**Fig. S3** Micrograph and diameter distribution of PLGA/ MSNs& HANPs composite nanofibers. (A), (B), (E), (F), (I) and (J) are SEM images; (C), (G) and (K) are TEM images; (D), (H) and (L) are diameter distributions. (A)-(D): PLGA/5% MSNs & 2.5% HANPs composite nanofibers; (E)-(H): PLGA/2.5% MSNs & 5% HANPs composite nanofibers; (I)-(L): PLGA/5% MSNs & 5% HANPs composite nanofibers.



Fig. S4 Cell viabilities of HeLa cells after treatment with different samples for 24 and 48 h in vitro.



**Fig. S5** Confocal laser scanning microscopy images of HeLa cells treated with different samples for 24 and 48 h. Green represents Alexa Fluor@488 phalloidin-stained Factin. Scale bars represent 100µm.



Fig. S6 Confocal laser scanning microscopy images of HeLa cells treated with different samples

for 48 h. DOX and CPT concentration was 5.55 and 9.6 µg/mL, respectively. Blue, green and red fluorescence respectively represent the released CPT, Alexa Fluor@488 phalloidin-stained F-actin and the released DOX. Scale bars represent 100µm.



**Fig. S7** Confocal laser scanning microscopy images of HeLa cells treated with different samples for 24 and 48 h. DOX and CPT concentration was 5.55 and 9.6 μg/mL, respectively. Blue, green and red fluorescence respectively represent the released CPT, Alexa Fluor@488 phalloidin-stained F-actin and the released DOX. Scale bars represent 100μm.