

Supplementary Material

Dual-targeted and pH-sensitive Doxorubicin Prodrug-Microbubble Complex with Ultrasound for Tumor Treatment

Wanxian Luo, Ge Wen, Li Yang, Jiao Tang, Jianguo Wang, Jihui Wang, Shiyu Zhang, Li Zhang,

Fei Ma, Liling Xiao, Ying Wang, Yingjia Li

Table S1. Characterization of DP and DPMC determined by UV-vis analysis and BCA protein assay.

	DP	DPMC
DOX loading content	18.9% (w/w)	70.9 μg DOX/ 10^8 MBs
Folate loading content	10.7% (w/w)	40.1 μg Folate/ 10^8 MBs
cRGD loading content	7.6% (w/w)	28.5 μg cRGD/ 10^8 MBs

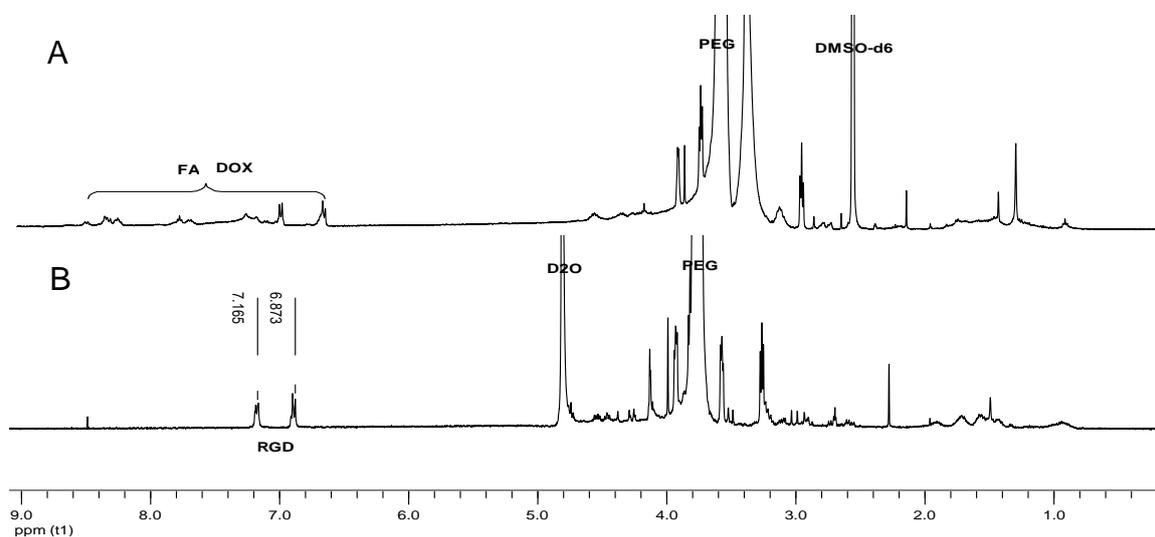


Figure S1. ^1H NMR spectra of DP in (A)DMSO- d_6 and (B)D $_2$ O.

DP: δ 3.55 ppm (PEG), 6.62, 6.93, 7.71, 8.3 ppm (FA), 7.15, 7.21 ppm (DOX) in DMSO- d_6 .

δ 3.76 ppm (PEG), 6.87 and 7.16 ppm (cRGD fragment) in D $_2$ O.

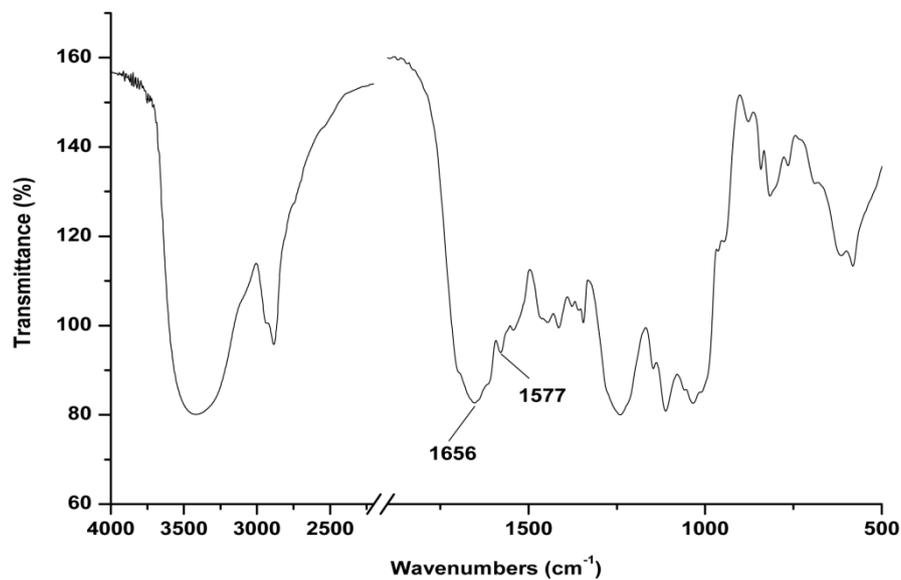


Figure S2. FT-IR spectrum of DP. Hydrazone bond (C=N) was overlaid with amido bond (1656 cm⁻¹ C=O and 1577 cm⁻¹ N-H).

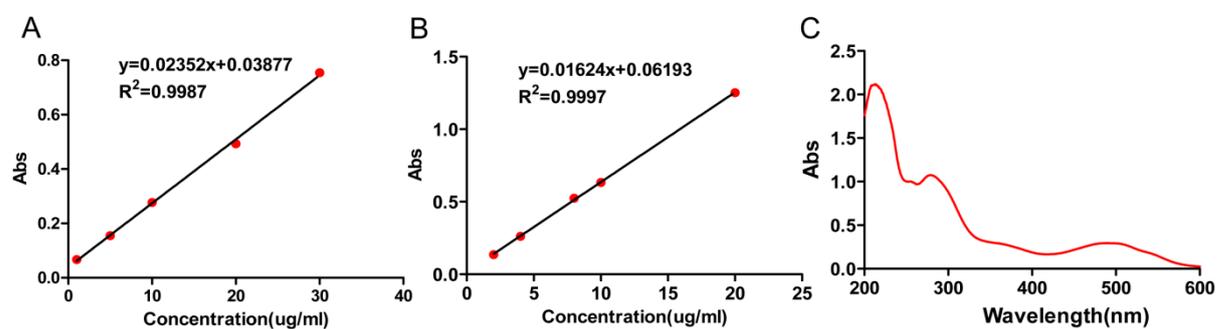


Figure S3. Quantitative analysis of DOX and Folate by UV spectrophotometry. Standard curve of (A) DOX and (B) Folate. (C) UV spectra of DP.