

Supplementary Information

pH-Responsive Polypeptides nanoparticles based on Schiff base for efficient drug encapsulation and cancer therapy

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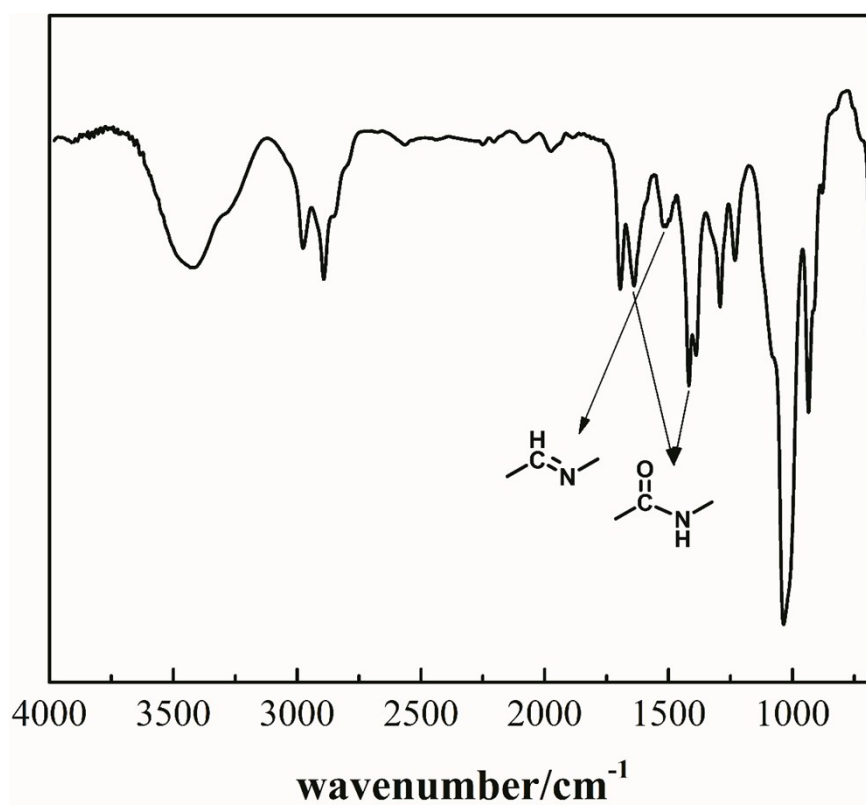


Figure S1. FT-IR spectra of MPEG-PEI-PBLL

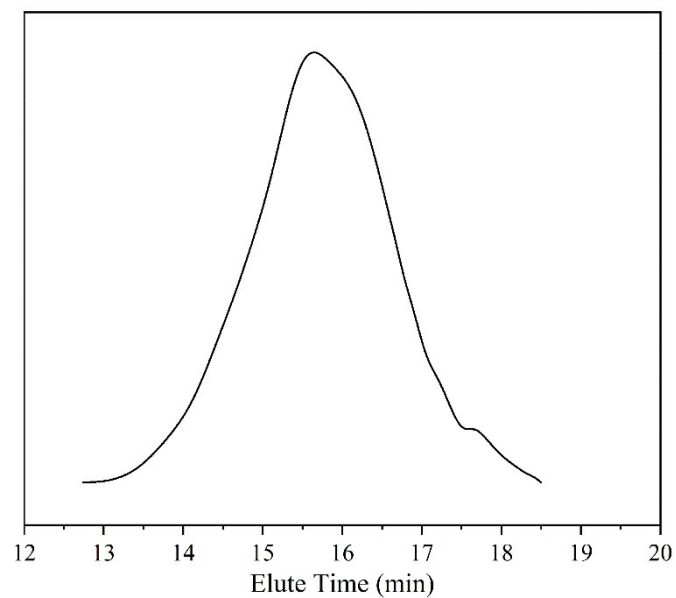


Figure S2. GPC profiles of MPEG-PEI-PBLL (Elution: DMF, PS standards).

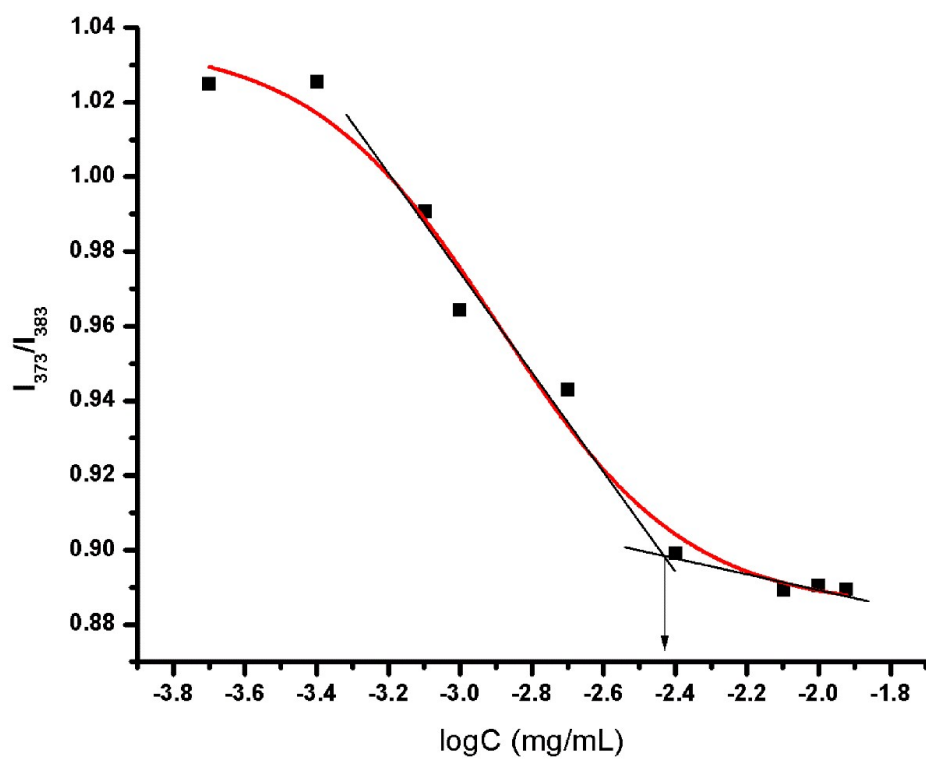


Figure S3. Critical micelle concentration (CMC) of the MPEG-PEI-PBLL micelles

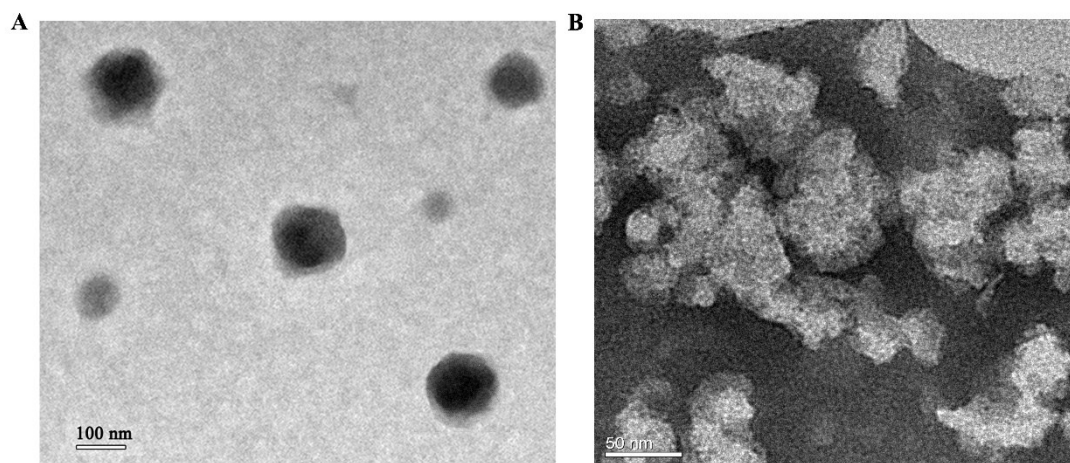


Figure S4. TEM images of (A) DOX-loaded micelles and (B) blank micelles incubated in PBS at pH 5.0 after 48 h.

Table S1 Pharmacokinetic parameters of BALB/c female mice after intravenous administration of DOX and the DOX-loaded micelles at doses of 10 mg DOX/kg (n = 3).

Parameters	Free DOX	DOX-loaded micelles
AUC ₀₋₂₄ (μ g/mL*h)	4.51 \pm 0.67	19.53 \pm 1.72
CL (mL/h/kg)	255.96 \pm 70.51	1212.33 \pm 468.00
C _{max} (mg/L)	2.08 \pm 0.91	12.12 \pm 3.02

AUC: area under the time concentration curve; CL: clearance; C_{max}: peak concentration

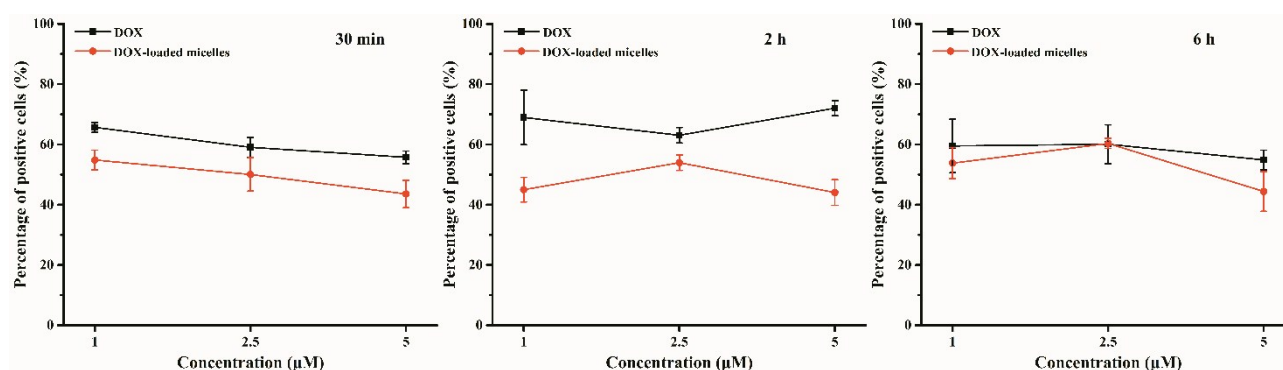


Figure S5 the percentage of positive cells after incubated with DOX and DOX-loaded micelles in different concentration and time