

Fig S1. The synthesis process of I-P and R-P.

Table S1. The parameters of I-P, R-P and RITC-labeled copolymers.

Polymer	Mw (KDa)	PDI	RITC (mol%)	Zeta potential
I-P	41.6	1.34	-	-22.4mV
R-P	40.2	1.23	-	-17.5mV
RITC-I-P	43.8	1.45	1.62%	-21.8mV
RITC-R-P	40.6	1.61	1.56%	-17.6mV

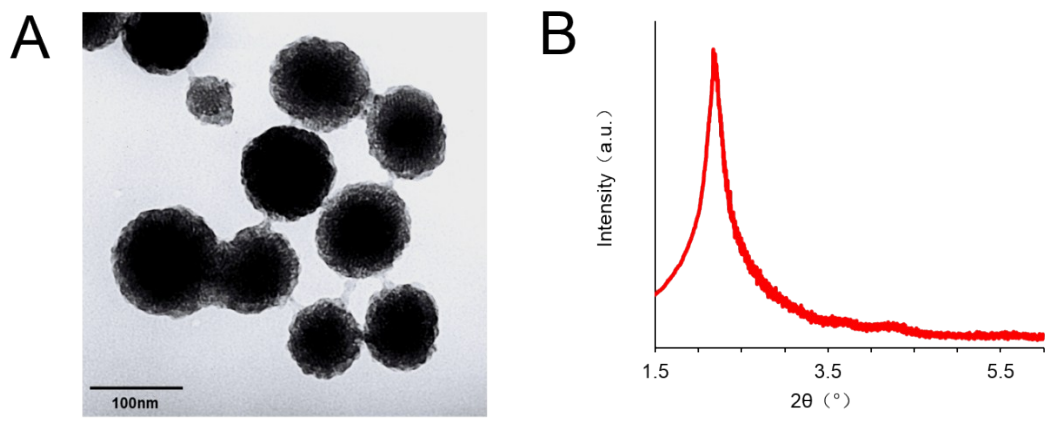


Fig S2. A) TEM detection and B) SA-XRD patterns of drug-unloading MSN.

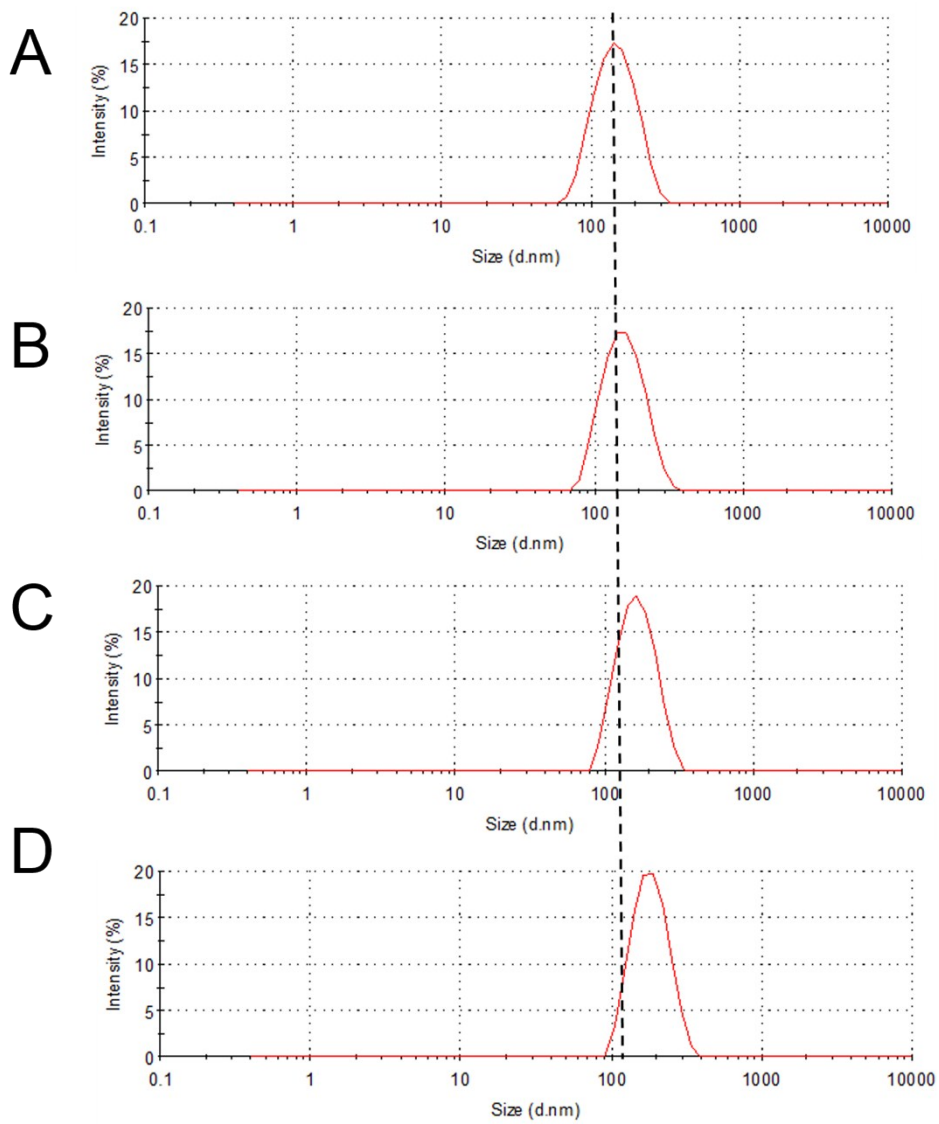


Fig S3. The DLS images of A)MSN, B)MSN-DTX, C)I-P@MSN-DTX, D)R-P@MSN-DTX.

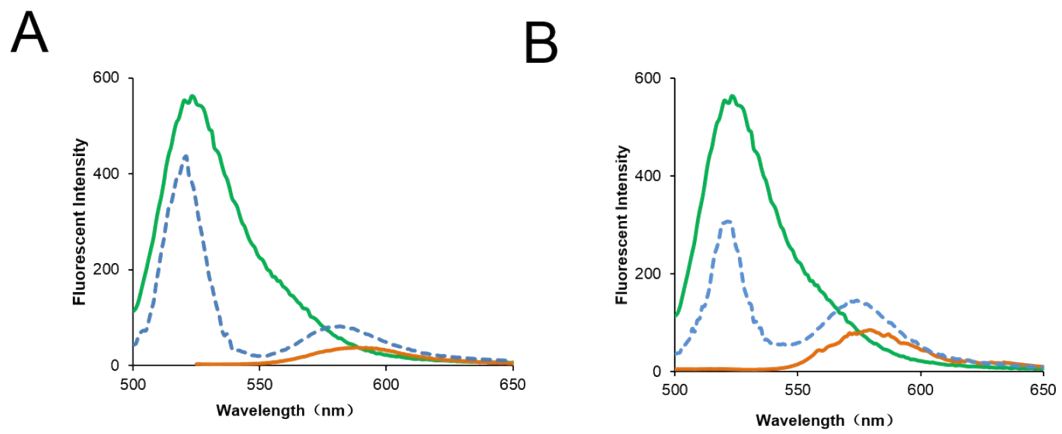
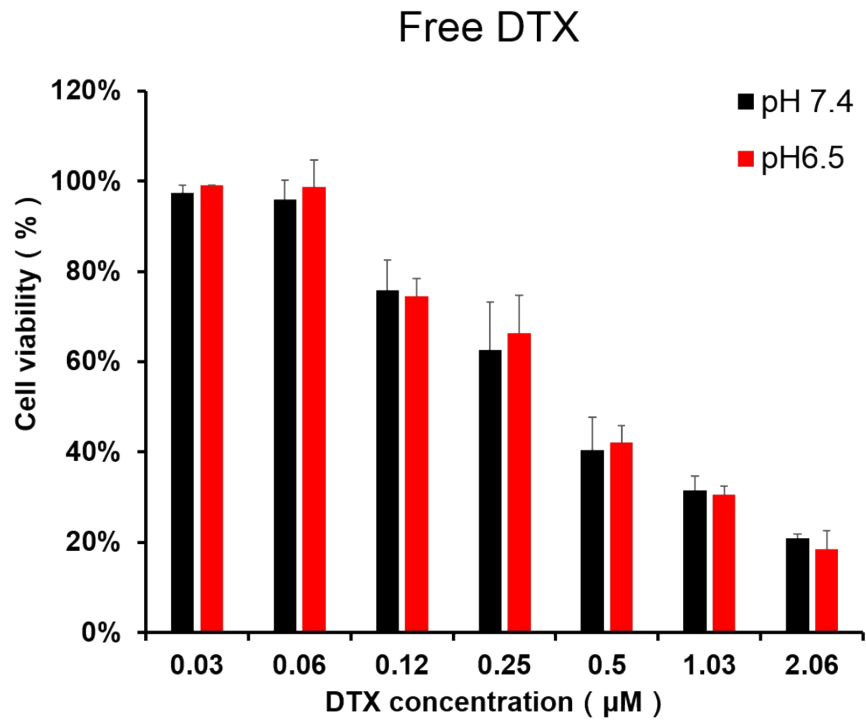


Fig S4. Emission spectrum of A) RITC-I-P@FITC-MSN-DTX and B) RITC-R-P@FITC-MSN-DTX with excitation at 440 nm.



FigS5. The cell viability assay of free DTX incubated in different pH values for 24h.