

Supporting Information

Oxygen-rich Chemotherapy *via* Modified Abraxane to Inhibit Growth and Metastasis of Triple Negative Breast Cancer

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Table S1. Dynamic Light Scattering Data of Different Nanoparticles.

	Diameter (nm)
coumarin 6@Abx	110.12 $\pm$ 2.33
IR775@Abx	121.99 $\pm$ 0.96

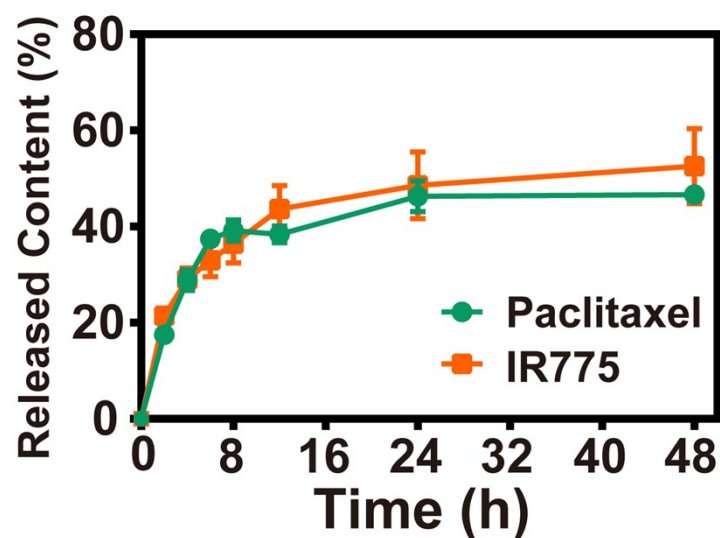


Fig.S1. Release profile of paclitaxel and IR775. Data was shown as mean $\pm$ SD (n=3).

Table S2. The concentration of manganese element in the M-Abx.*

	Mn (mg/mL)
M-Abx	0.61
Abx	N.D.#

* The measurement was conducted on the inductively coupled plasma emission spectrometer (ICP, Optima 5300DV, PE, America).

N.D. represented not detected. The concentration of manganese element in the Abx was below 1 μ g/mL.

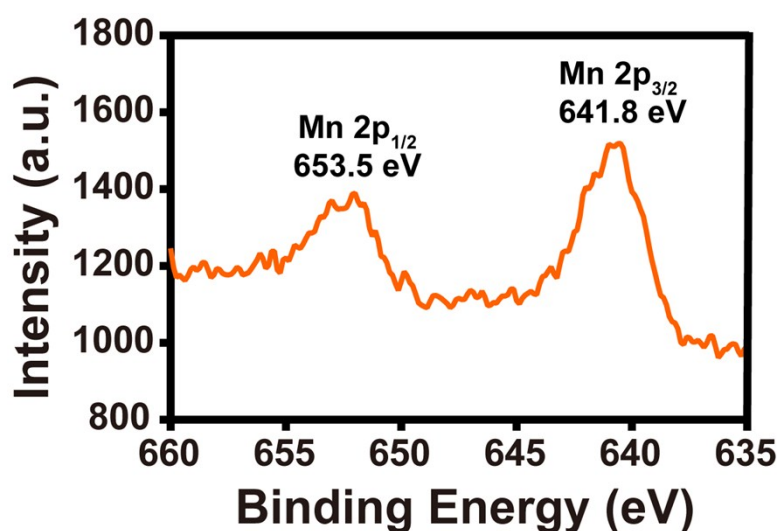


Fig.S2. XPS spectrum of M-Abx. The assay was performed on X-ray photoelectron spectroscopy (XPS, UIVAC-PHI, PHI 5000 VersaProbe, Japan). Two characteristic peaks at 641.8 and 653.5 eV indicated the Mn (IV) 2p_{2/3} and Mn (IV) 2p_{1/2} spin-orbit peaks of MnO₂, respectively.

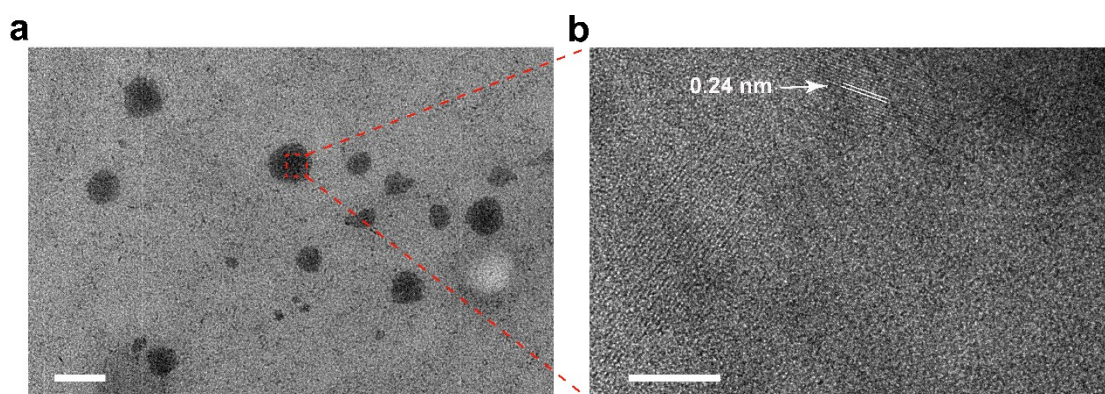


Fig.S3. (a) TEM image of M-Abx, scale bar= 200 nm. (b) Enlarged HRTEM image of indicated region, scale bar= 10 nm. The experiment was conducted with transmission electron microscopy (TEM, JEM-200CX, JEOL, Japan).



Fig.S4. Photos of tumor masses collected from 4T1 tumor bearing mice on day 15.

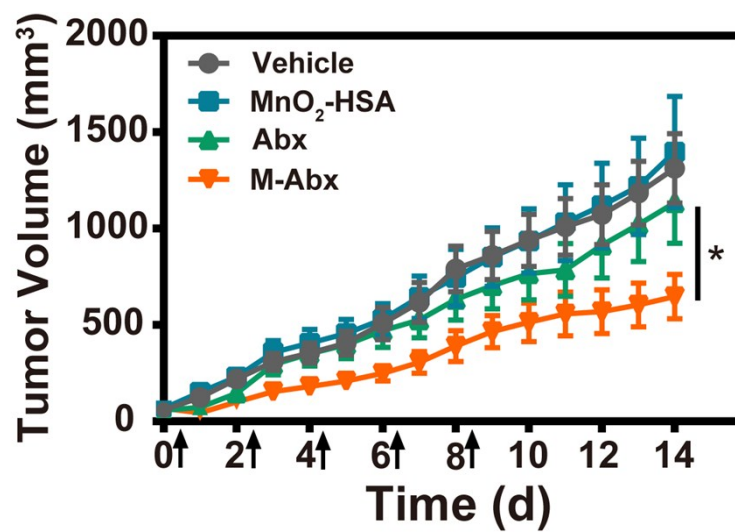


Fig.S5. Tumor growth curves of CT26 tumor bearing mice. The treatments were performed on days 0, 2, 4, 6, 8. Data was shown as mean $\pm$ SEM (n=6). * $p < 0.05$ versus Abx group.

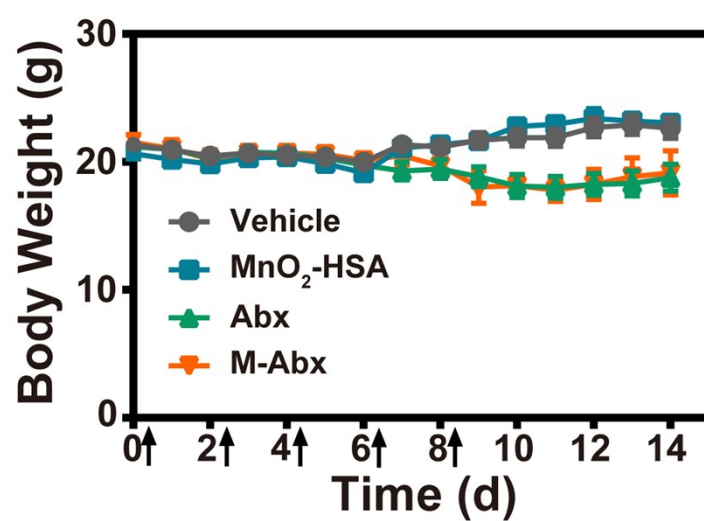


Fig.S6. Dynamic body weight of mice in different groups. Data was shown as mean $\pm$ SD (n=6).

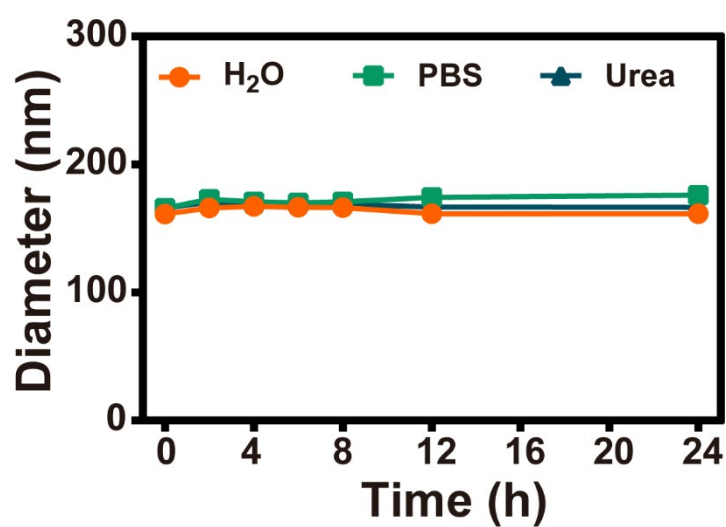


Fig.S7. The dynamic diameter of M-Abx in the indicated medium at 25 °C including PBS (10 mM), urea (150 mM). Urea was hydrogen bond breaker and PBS acted as ionic bond breaker. Data was shown as mean $\pm$ SD (n=3).

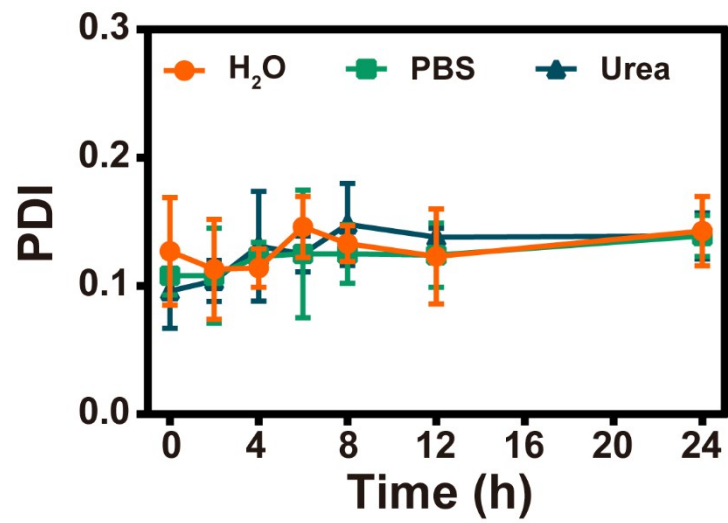


Fig.S8. The dynamic polydispersity index (PDI) of M-Abx in the indicated medium at 25 °C. Data was shown as mean ±SD (n=3).

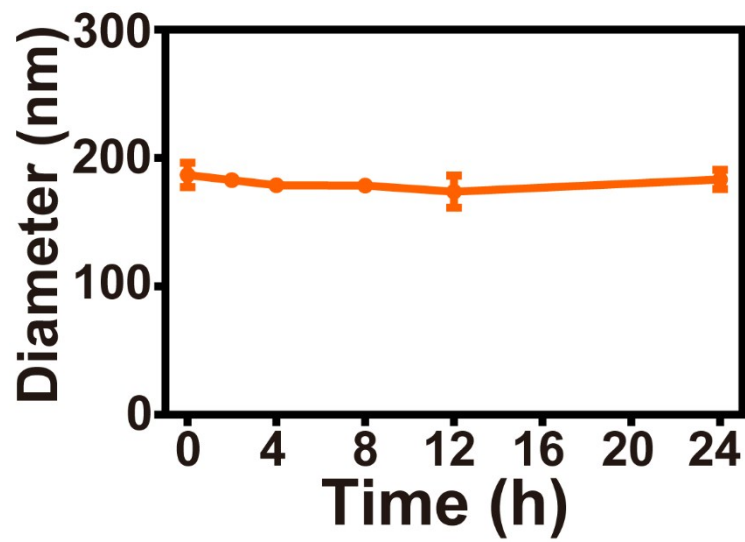


Fig.S9. The stability of M-Abx in the serum at 37 °C. Data was shown as mean ±SD (n=3).

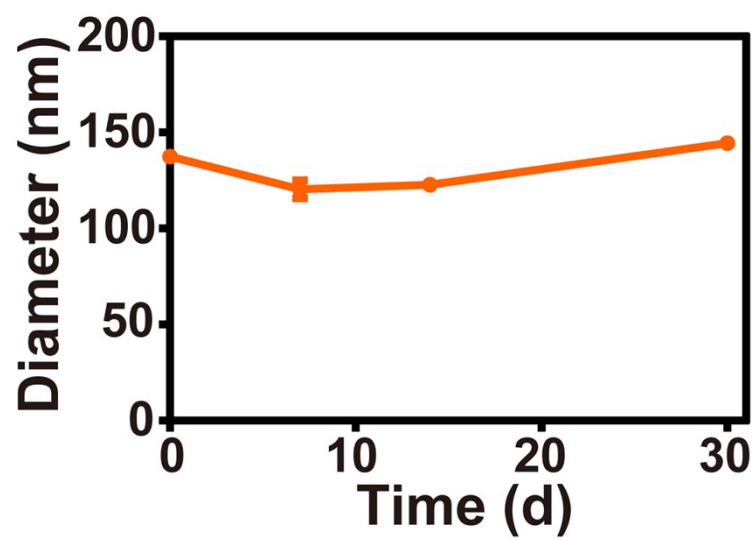


Fig.S10. The long-term storage stability of M-Abx at 4 °C. Data was shown as mean $\pm$ SD (n=3).