

Supporting Information

Doxorubicin-loaded nanoscale metal-organic framework for tumor targeting combined chemotherapy and chemodynamic therapy

Ting Xue, ‡^a Caina Xu, ‡^b Yu Wang, ^c Yanbing Wang, ^b Huayu Tian, ^b and Yingchao Zhang, ^{*a}

^a Department of Breast Surgery, Second Hospital of Jilin University, Changchun 130041, China.

E-mail: zhang_yc@jlu.edu.cn

^b Key Laboratory of Polymer Ecomaterials, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, China.

^c Department of Hepatobiliary and Pancreatic surgery, Second Hospital of Jilin University, Changchun 130041, China.

‡These authors contributed equally to this work.

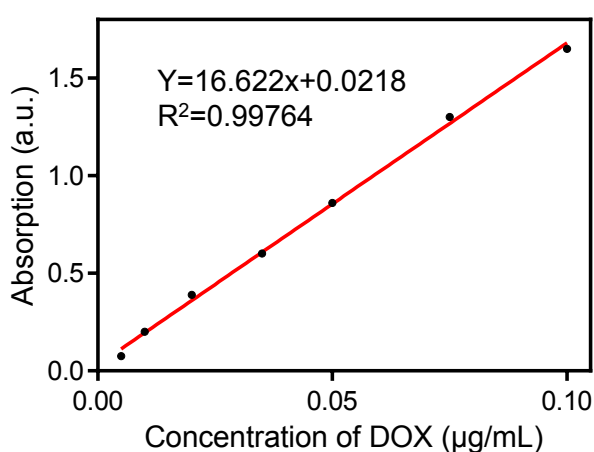


Fig. S1 Standard curve of DOX.

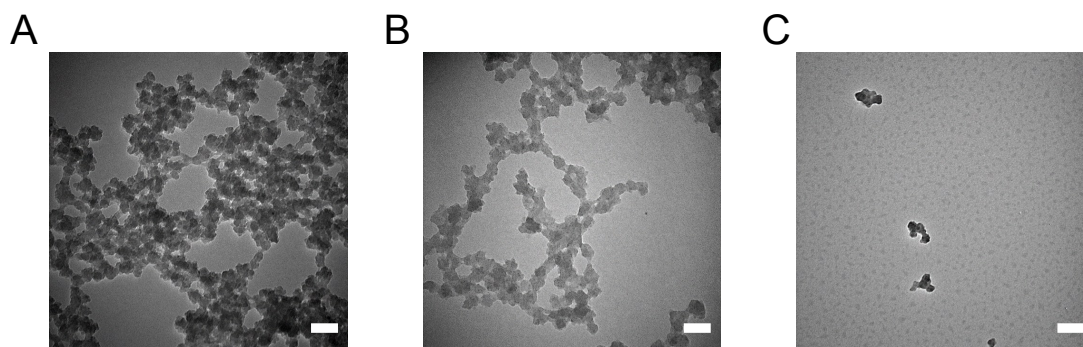


Fig. S2 TEM images of (A) MIL-100, (B) DM NPs, and (C) DMH NPs. (Scale bar: 200 nm).

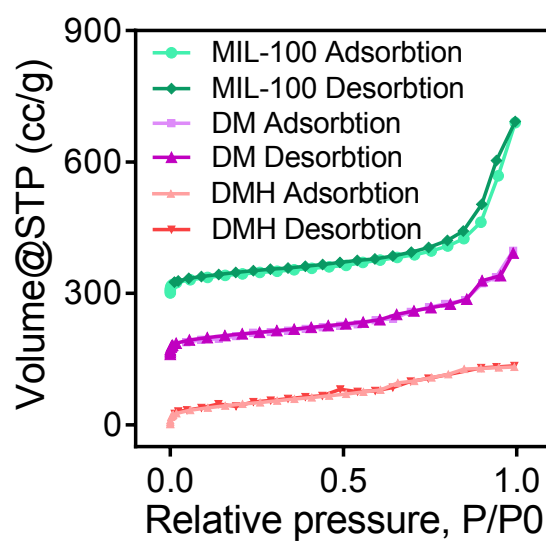


Fig. S3 Nitrogen absorption curves of MIL-100, DM NPs, and DMH NPs.

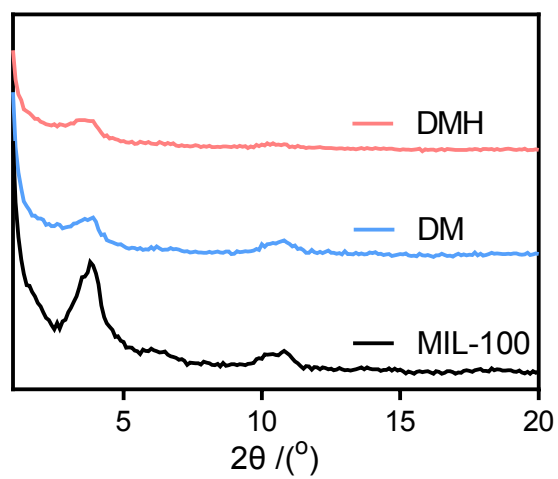


Fig. S4 XRD spectra of MIL-100, DM NPs, and DMH NPs.

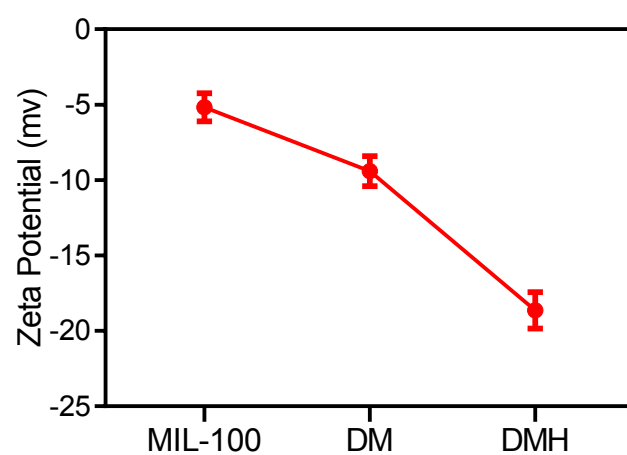


Fig. S5 Zeta potential of MIL-100, DM NPs, and DMH NPs, respectively.

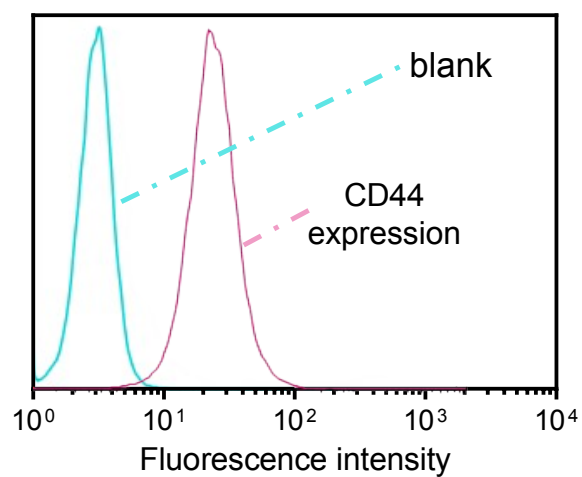


Fig. S6 The expression of CD44 in MCF cells.

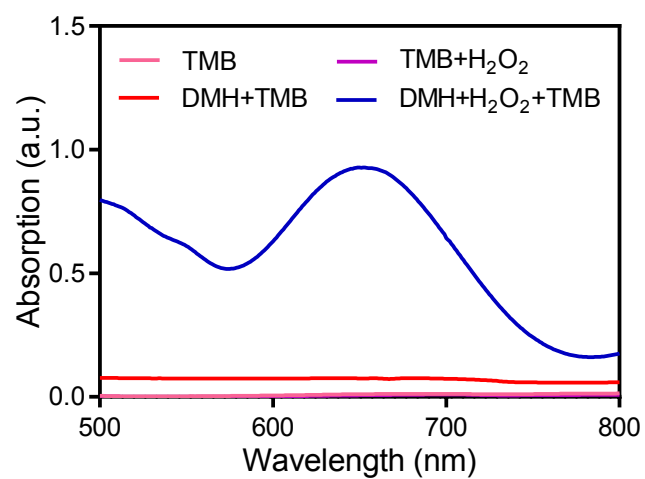


Fig. S7 Detection of $\cdot\text{OH}$ using TMB.

Table S1. DLC % and DLE % of the obtained DM NPs by incubating MIL-100 and DOX with different weight ratio.

MIL-100/DOX (w/w)	Drug loading efficiency (DLE %)	Drug loading content (DLC %)
1:0.25	50.0	11.0
1:0.5	80.0	28.0
1:1	47.0	31.3
1:1.5	48.2	32.5
1:2	25.8	20.4

Table S2. The elemental analysis results of MIL-100, DM NPs, and DMH NPs.

Sample	Content of Fe element (%)
MIL-100	15.9
DM NPs	11.3
DMH NPs	2.7

Table S3. The particle size of the DM NPs/HA (w/w) with different weight ratio.

DM NPs/HA (w/w)	Particle size (nm)
1:0.25	148.2±6.2
1:0.5	132.7±3.4
1:1	152.6±1.2
1:1.5	159.1±0.6
1:2	183.7±0.9