

Supporting Information

## Highly Penetrative Liposome Nanomedicine Generated by Biomimetic Strategy for Enhanced Cancer Chemotherapy

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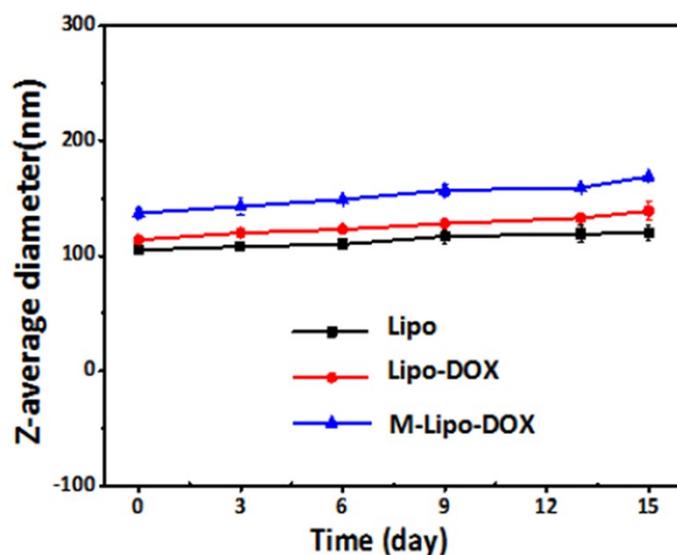


Fig. S1 Z-average diameter changes of the liposomes detected by DLS measurement after 15 days of storage in PBS buffer.

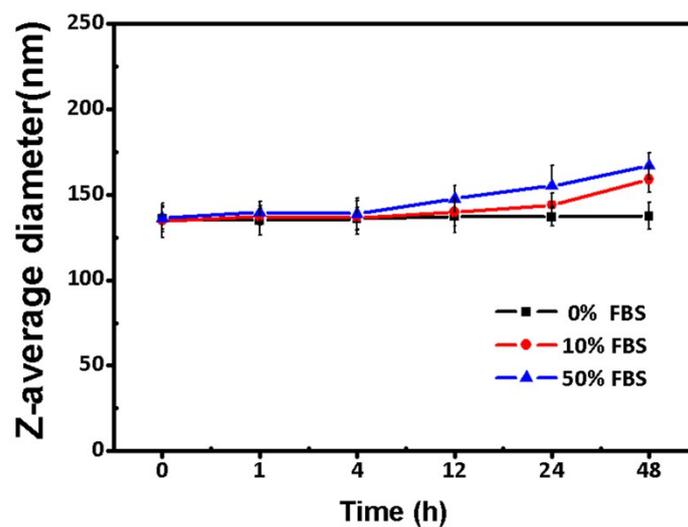


Fig. S2 Diameter changes of M-Lipo-DOX after storage in FBS containing different

concentrations of FBS.

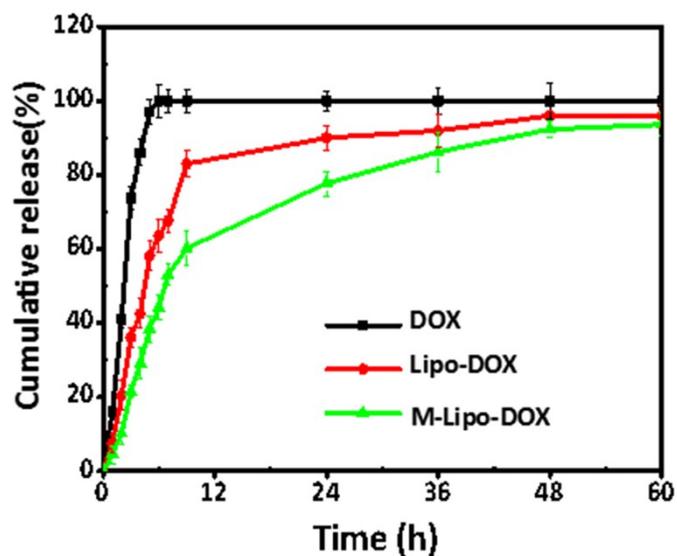


Fig. S3 Analysis of *in vitro* release profile of DOX using the dialysis method.

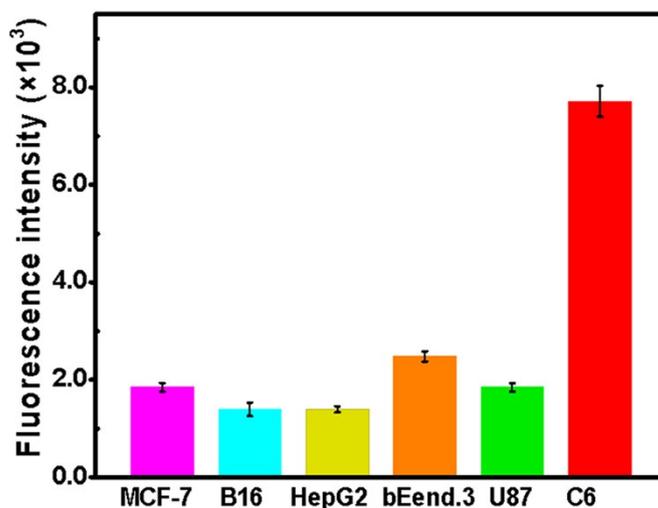
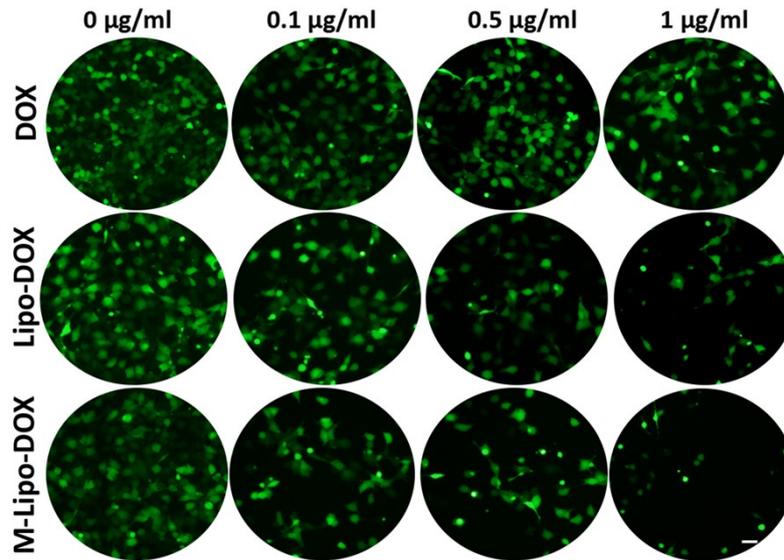
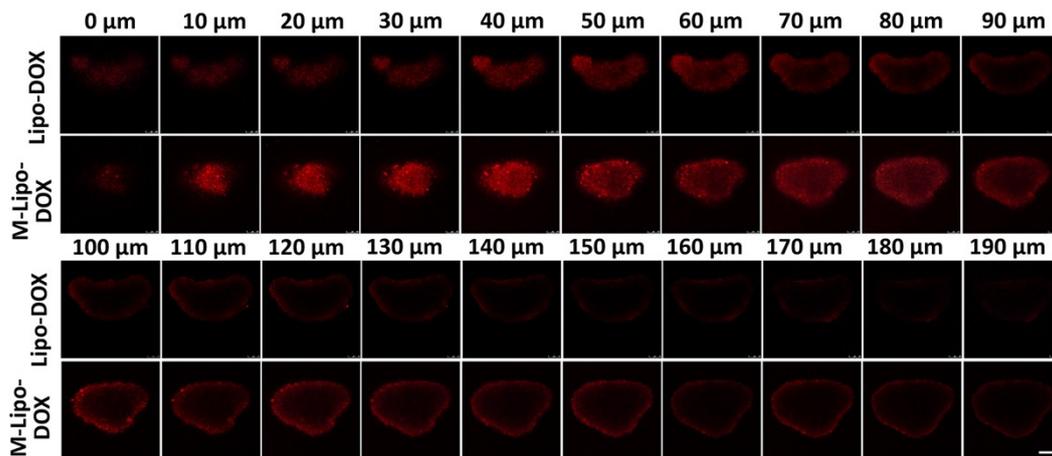


Fig. S4 DOX fluorescence intensity of different cells after incubation with M-Lipo-DOX.



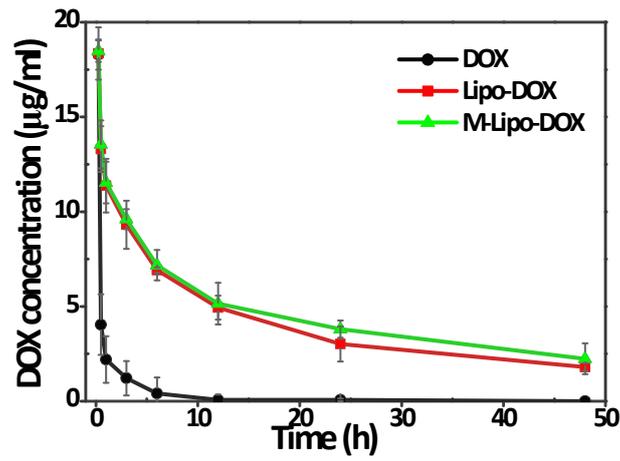
**Fig. S5** Fluorescence images of C6-GFP treated with DOX, Lipo-DOX, and M-Lipo-DOX for 24

h. The bar indicates 20 µm.

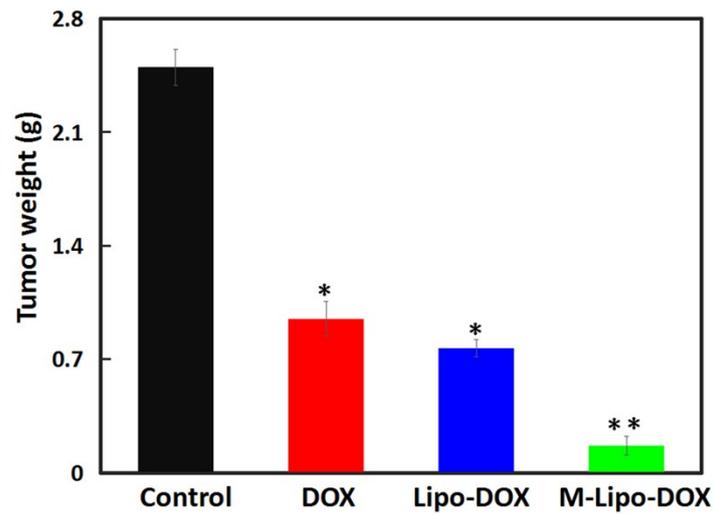


**Fig. S6** Multi-level scan of the penetration of Lipo-DOX and M-Lipo-DOX, respectively, the

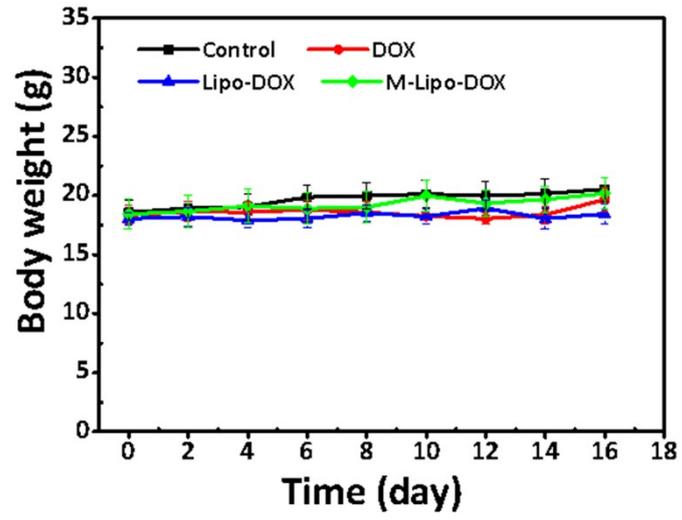
interval between the consecutive slides was 10 µm. The bar indicates 100 µm.



**Fig. S7** Blood circulation time of DOX after intravenous administration with DOX, Lipo-DOX, and M-Lipo-DOX, respectively.



**Fig. S8** Tumor weight in different groups on the 18th day after treatment. \* $p < 0.05$ , \*\* $p < 0.01$  versus the control.



**Fig. S9** Body weight curve of C6 tumor-bearing nude mice during treatment.