



Supplementary Information

A Moexitecan Magnetic Liposomal Strategy for Ferroptosis-Enhanced Chemotherapy

Weiling Miao [†], Yang Liu [†], Jian Tang, Tiandong Chen and Fang Yang ^{*}

State Key Laboratory of Digital Medical Engineering, Jiangsu Key Laboratory for Biomaterials and Devices, School of Biological Sciences and Medical Engineering, Southeast University; Nanjing 210096, China; weiling_miao@seu.edu.cn (W.M.); lyseubme@seu.edu.cn (Y.L.); jiantang@seu.edu.cn (J.T.); 230218251@seu.edu.cn (T.C.)

* Correspondence: yangfang2080@seu.edu.cn

[†] These authors contributed equally to this work.

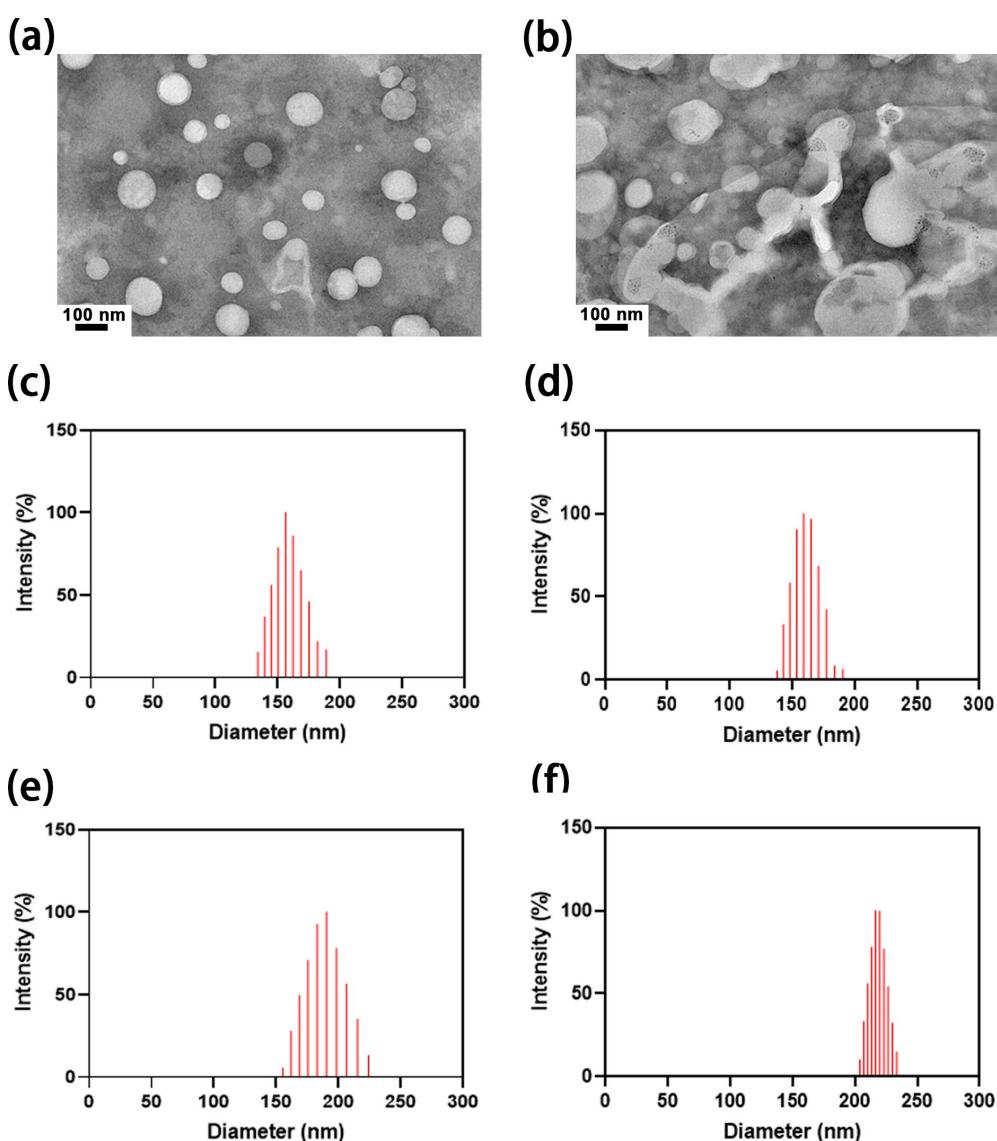


Figure S1. TEM images of (a) DIO/Mex@Lipo and (b) DIO/Mex@MLipo; Hydrodynamic size distribution of (c,d) Mex@Lipo and (e,f) Mex@MLipo.

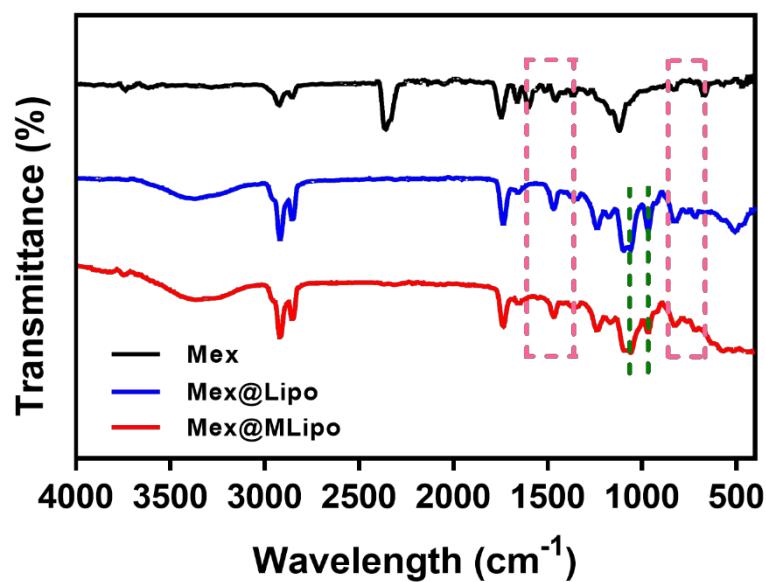


Figure S2. The Fourier transform infrared spectroscopy (FT-IR) spectrum of the Mex, Mex@Lipo and Mex@MLipo.

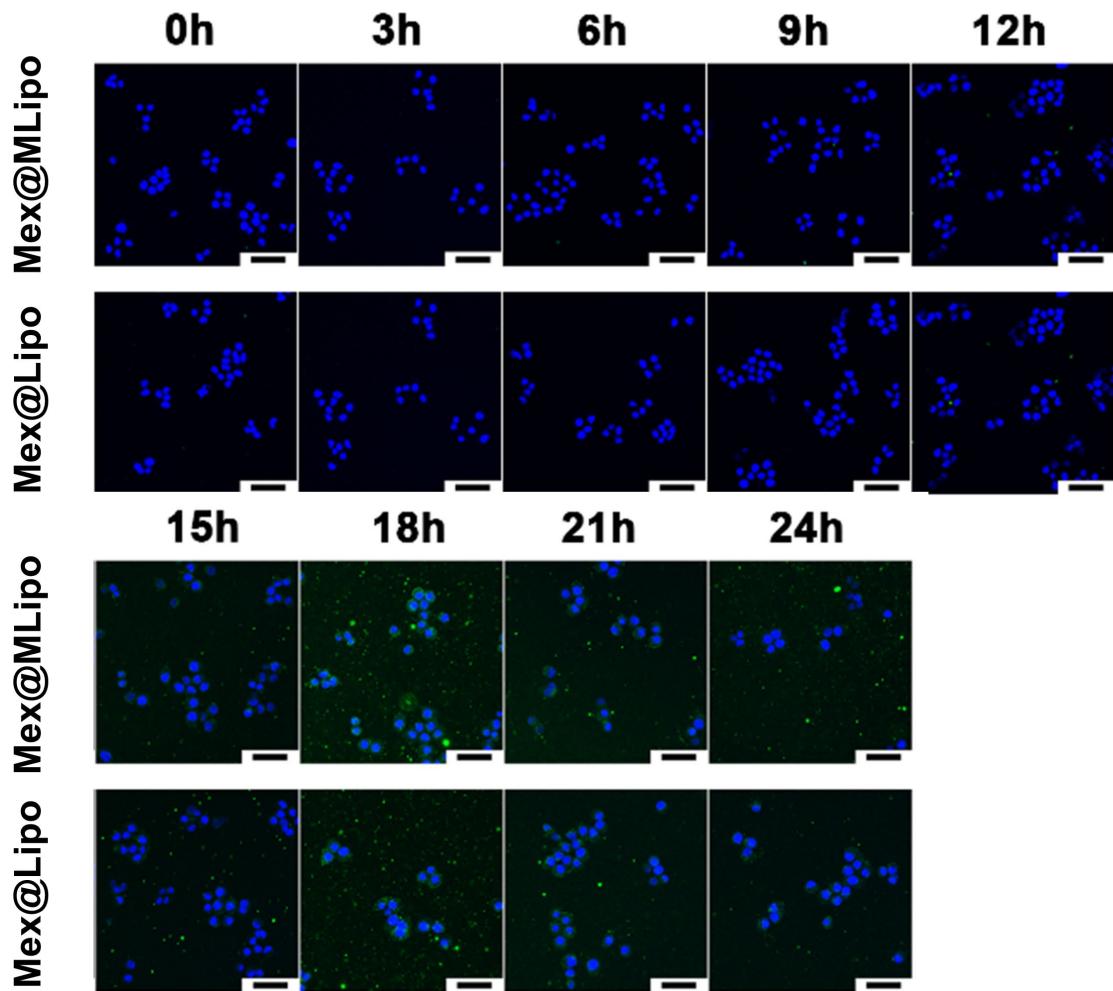


Figure S3. Confocal images of HT-29 cells co-cultured with DIO/Mex@MLipo and DIO/Mex@Lipo at 0, 3, 6, 9, 12, 15, 18, 21, and 24 h. Blue fluorescence represents nucleus and green fluorescence represents liposome materials. All scale bars: 50 μ m.

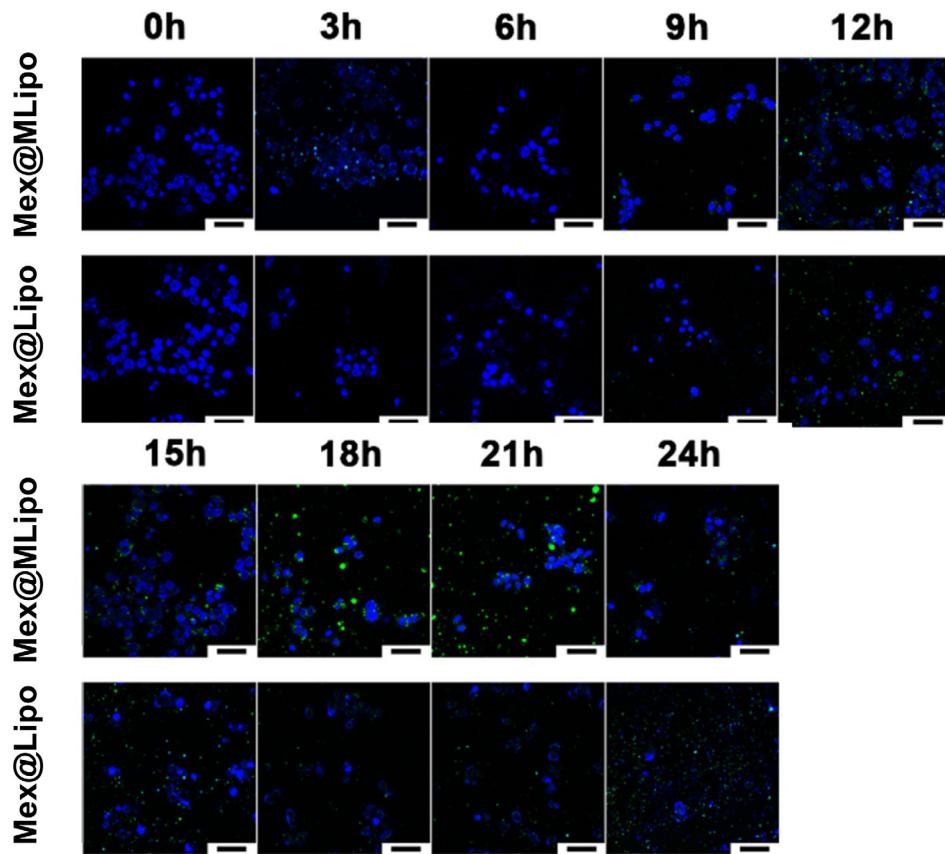


Figure S4. Confocal images of HepG-2 cells co-cultured with DIO/Mex@MLipo and DIO/Mex@Lipo at 0, 3, 6, 9, 12, 15, 18, 21, and 24 h. Blue fluorescence represents nucleus and green fluorescence represents liposome materials. All scale bars: 50 μ m.

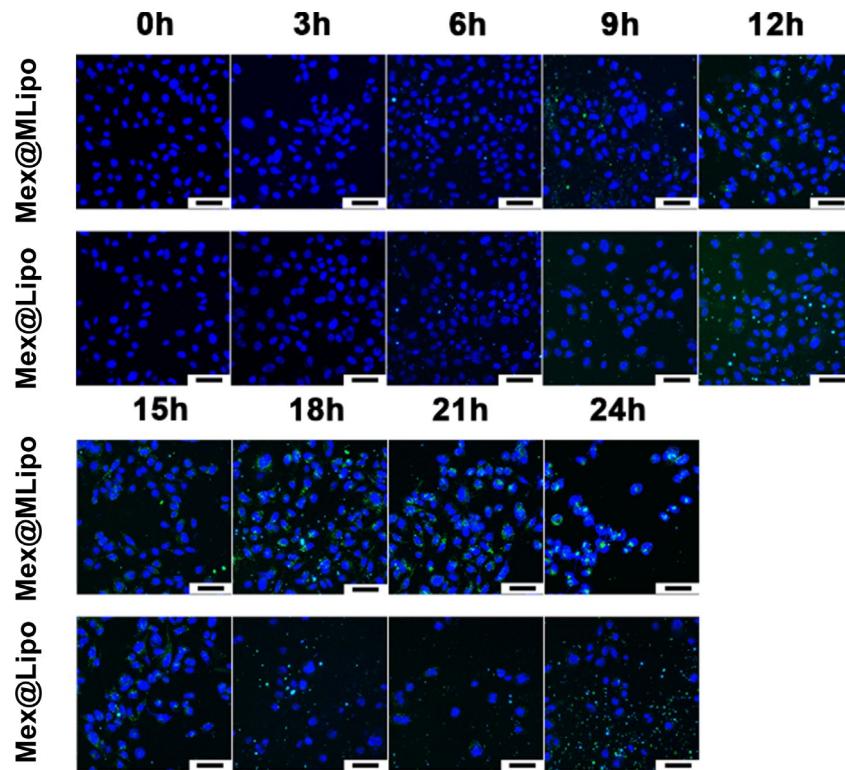


Figure S5. Confocal images of PC-3 cells co-cultured with DIO/Mex@MLipo and DIO/Mex@Lipo at 0, 3, 6, 9, 12, 15, 18, 21, and 24 h. Blue fluorescence represents nucleus and green fluorescence represents liposome materials. All scale bars: 50 μ m.

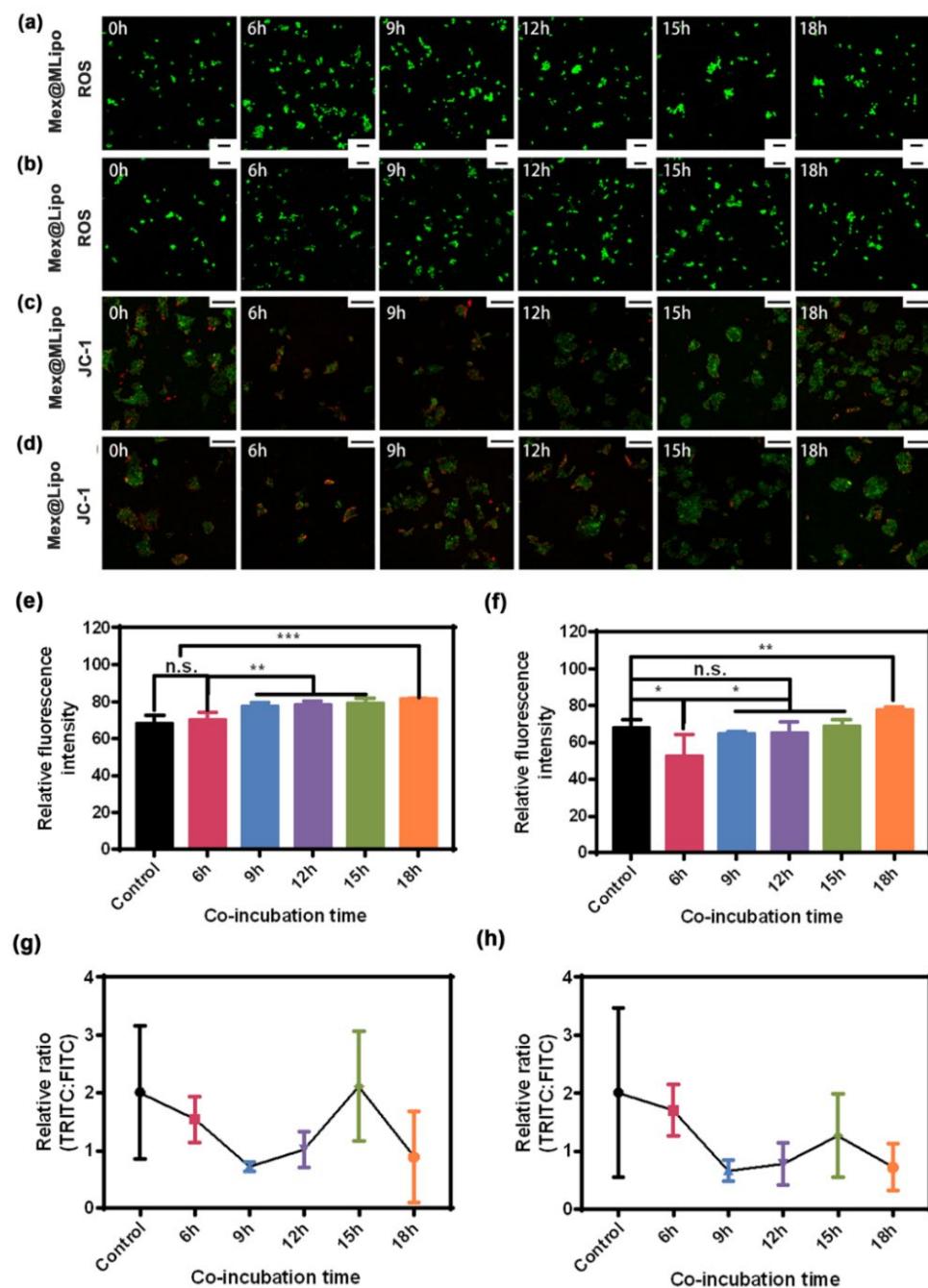


Figure S6. Images of intracellular ROS fluorescence of HepG-2 cells after co-incubation with Mex@MLipo **(a)** and Mex@Lipo **(b)** and quantitative analysis of fluorescence intensity respectively **(e,f)**; Images of JC-1 fluorescence of HepG-2 cells after co-incubation with Mex@MLipo **(c)** and Mex@Lipo **(d)** and quantitative analysis of fluorescence intensity respectively **(g,h)**. All scale bars: 100 μ m. Error bars: mean \pm SD (n = 5). The statistical significance is indicated by n.s.: not statistically significant, $0.0001 < ^{***}p \leq 0.001$, $0.001 < ^{*}p \leq 0.01$ and $0.01 < ^{**}p \leq 0.05$, using an unpaired Student's t-test (two-tailed).

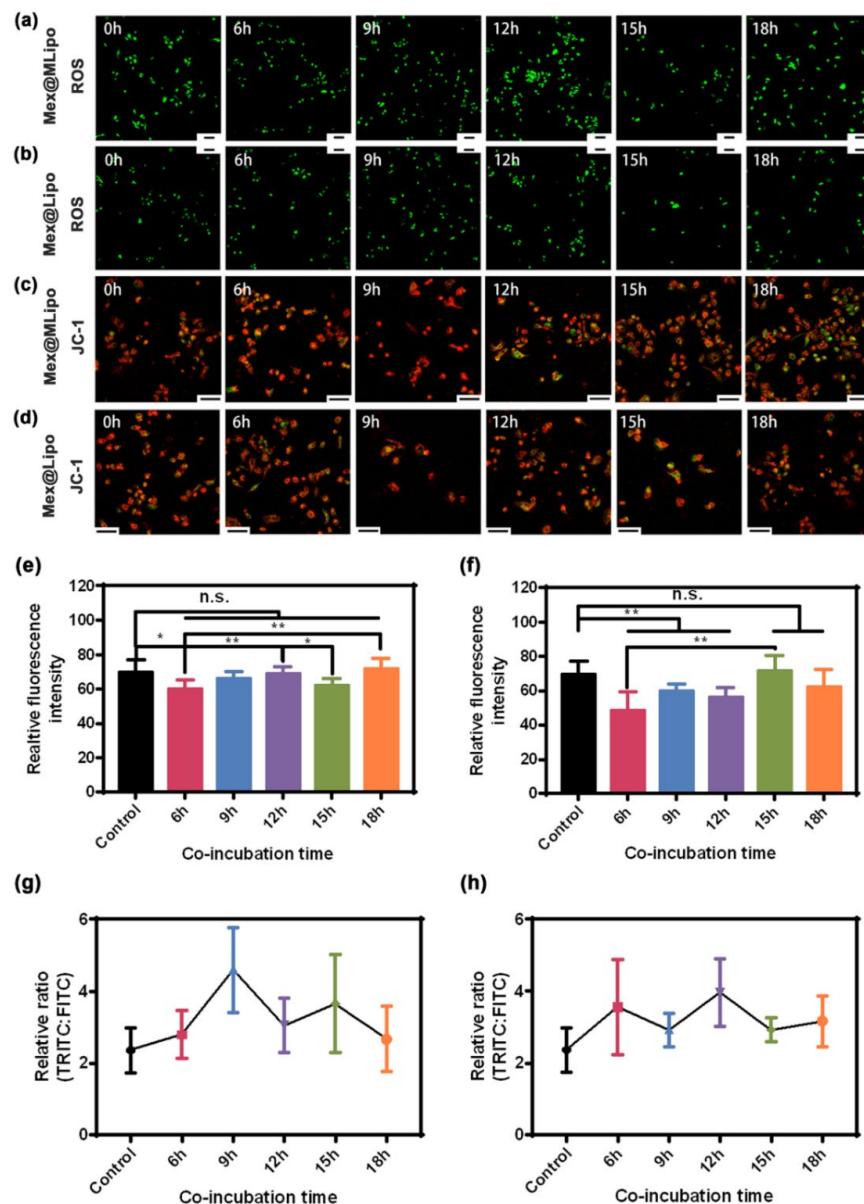


Figure S7. Images of intracellular ROS fluorescence of PC-3 cells after co-incubation with Mex@MLipo (a) and Mex@Lipo (b) and quantitative analysis of fluorescence intensity respectively (e,f); Images of JC-1 fluorescence of PC-3 cells after co-incubation with Mex@MLipo (c) and Mex@Lipo (d) and quantitative analysis of fluorescence intensity respectively (g,h). All scale bars: 100 μ m. Error bars: mean \pm SD (n = 5). The statistical significance is indicated by n.s.: not statistically significant, $0.001 < ** p \leq 0.01$ and $0.01 < * p \leq 0.05$, using an unpaired Student's t-test (two-tailed).

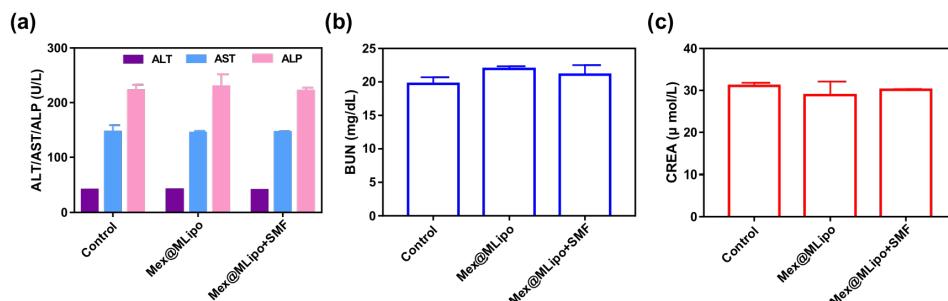


Figure S8. (a) Serum levels of ALT, AST and ALP in the different treatment groups. (b) BUN and (c) CREA levels in different treatment groups of mice.