

Supporting Information

Porphyrin metal-organic framework enhances photodynamic therapy through lymphatic circulation

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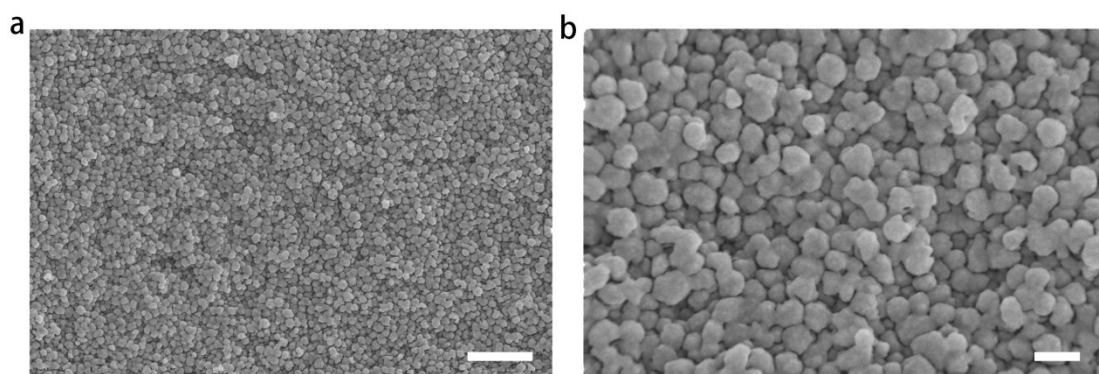


Figure S1. TEM image (a) and enlarged-TEM image (b) of MOF. Scale bars are 1 μm (left) and 200 nm (right).

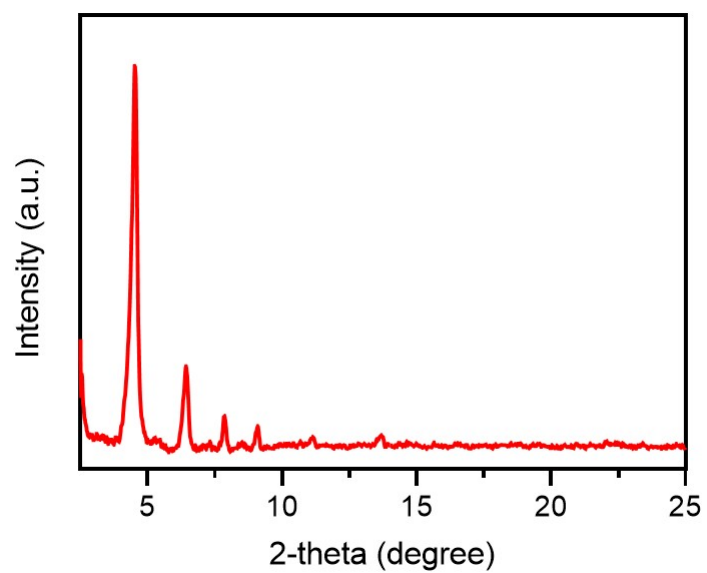


Figure S2. XRD pattern of MOFs.

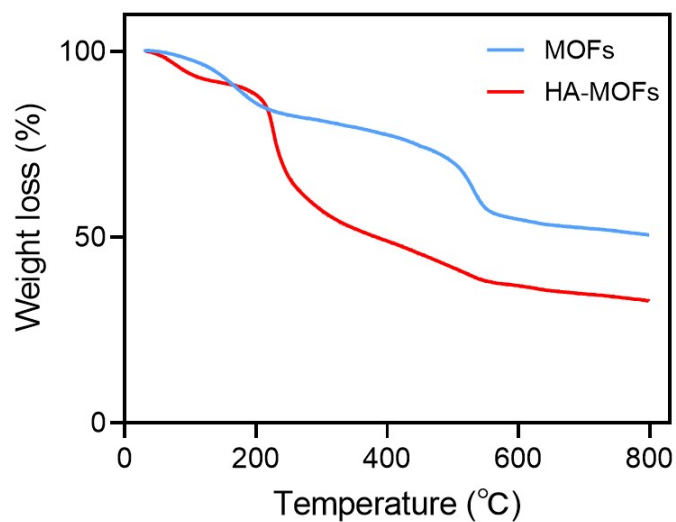


Figure S3. TG analysis of MOFs and HA-MOFs.

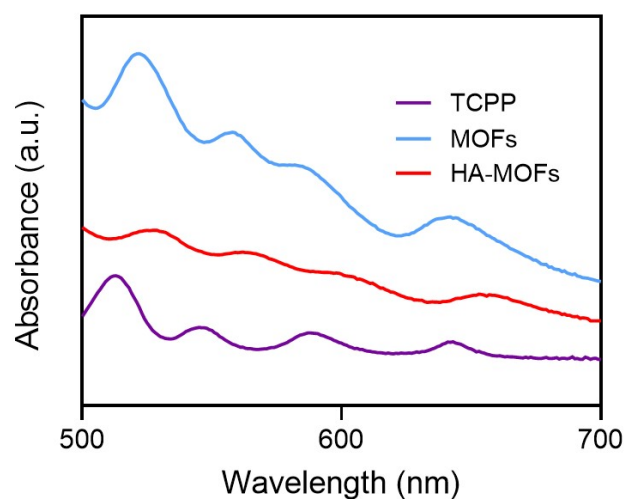


Figure S4. UV-vis spectra of TCPP, MOFs and HA-MOFs in the 500-700 nm range.

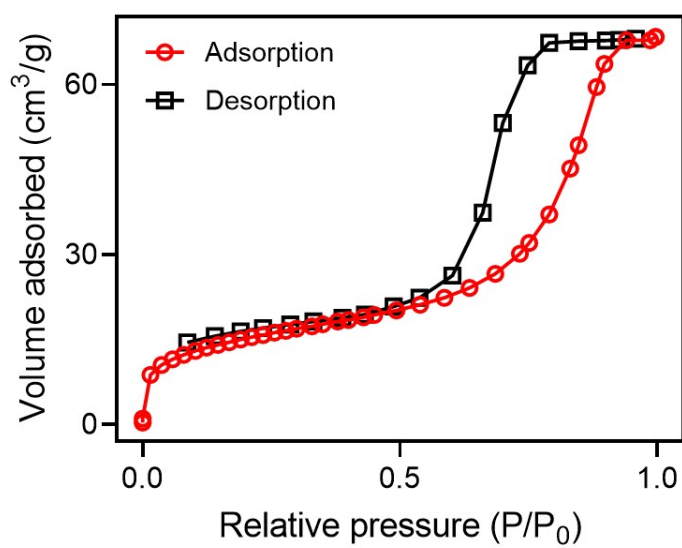


Figure S5. N₂ adsorption-desorption isotherms of MOFs.

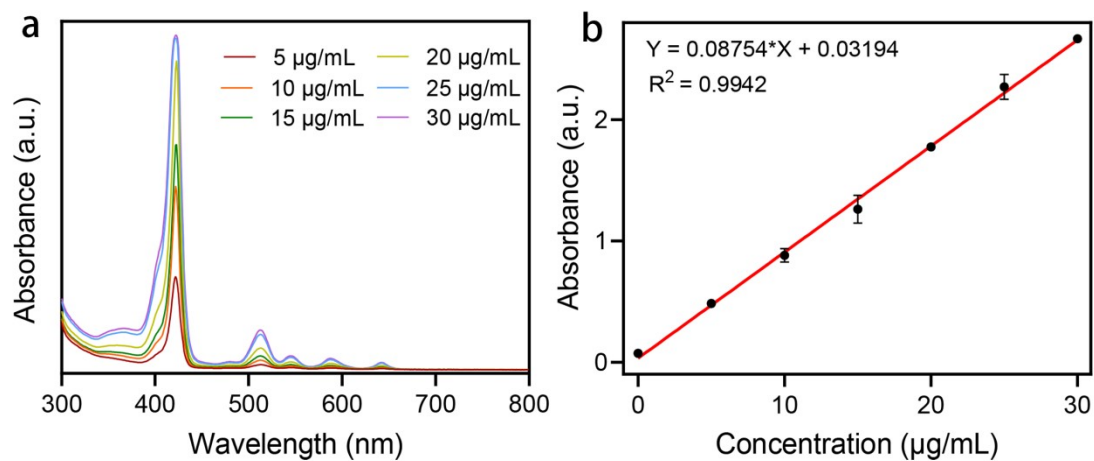


Figure S6. Concentration-dependent UV-Vis absorption spectrum of TCPP (a). Standard curve based on absorbance at 416 nm and TCPP concentration (b).

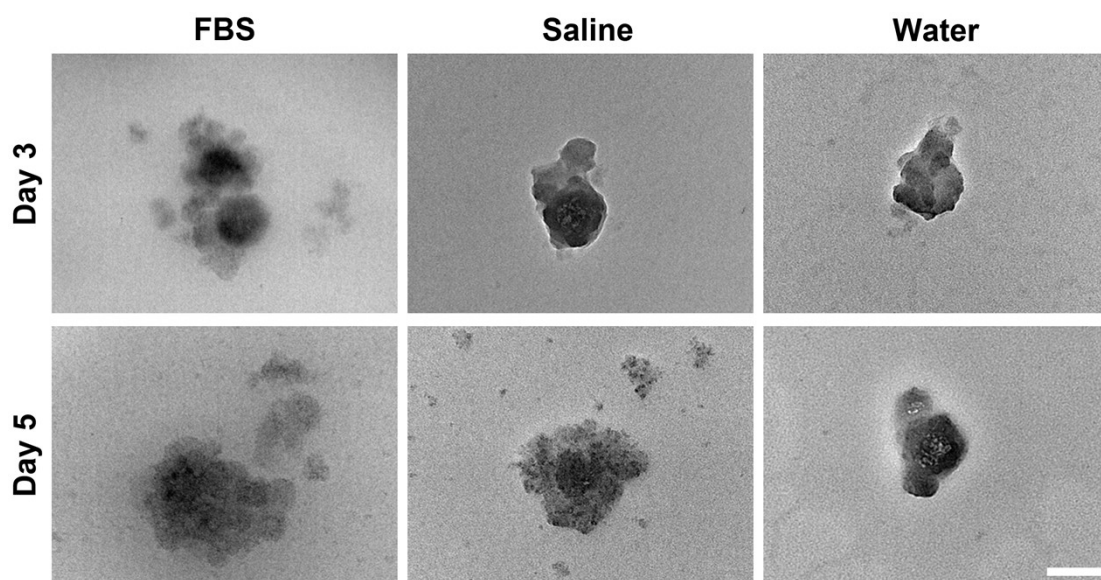
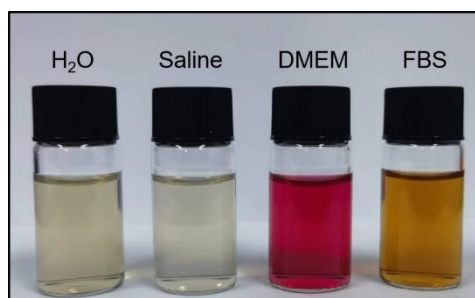


Figure S7. TEM images of HA-MOFs on days 3 and 5 in different media. Scale bar is 100 nm.



20 $\mu\text{g mL}^{-1}$

Figure S8. Photograph of HA-MOFs dissolved in different solutions.

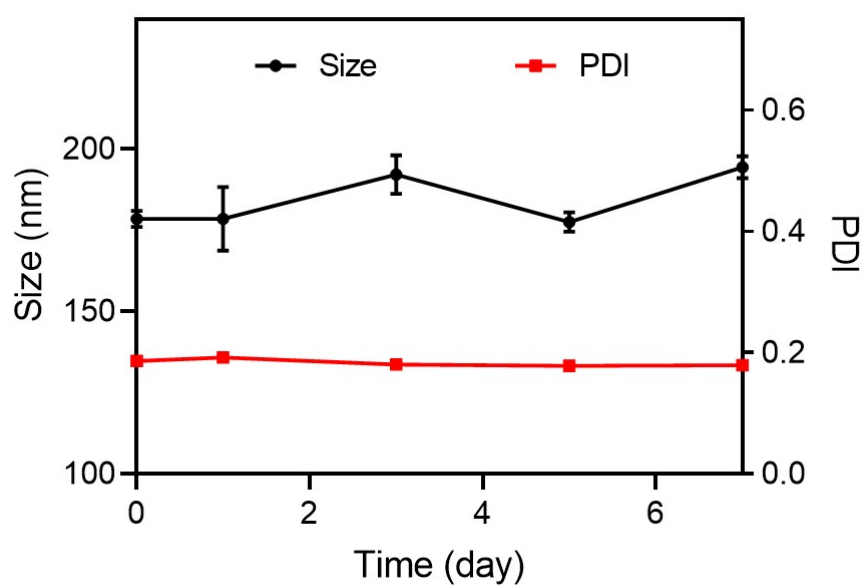


Figure S9. The hydrodynamic size and PDI value of HA-MOFs during storage in PBS buffer for different days.

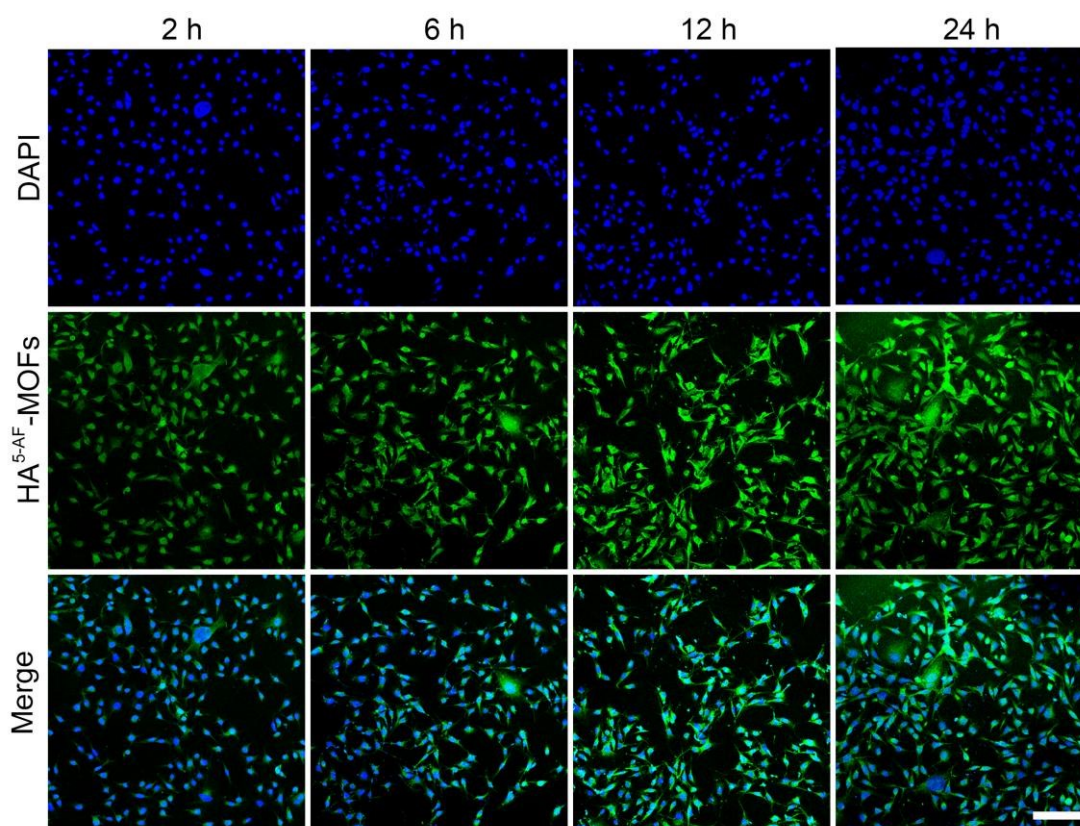


Figure S10. Fluorescence images of B16F10 cells incubated with of HA^{5-AF}-MOFs at different time points. Scale bar is 100 μ m.

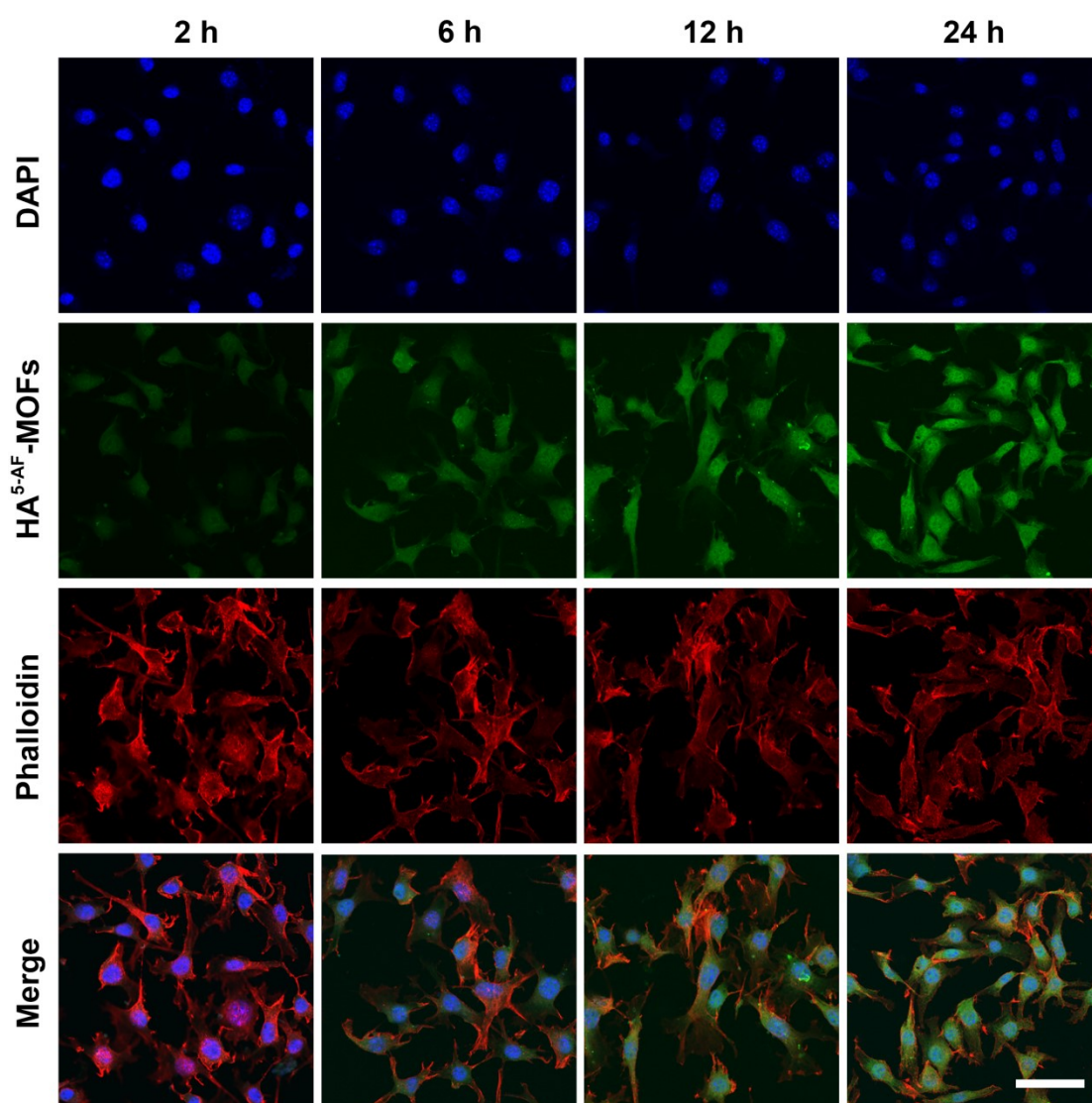


Figure S11. Fluorescence localization images of HA^{5-AF}-MOF in B16F10 cells at different time points. Scale bar is 50 μ m.

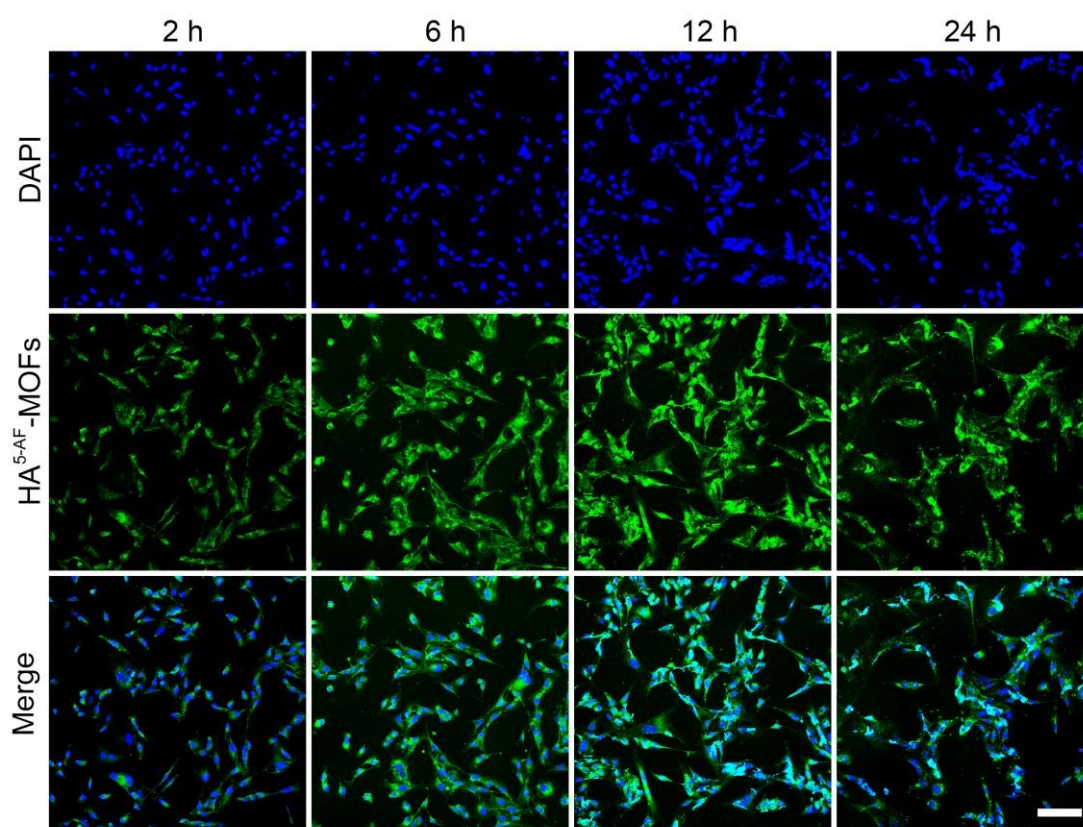


Figure S12. Fluorescence images of H1975 cells incubated with of HA^{5-AF}-MOFs at different time points. Scale bar is 100 μm .

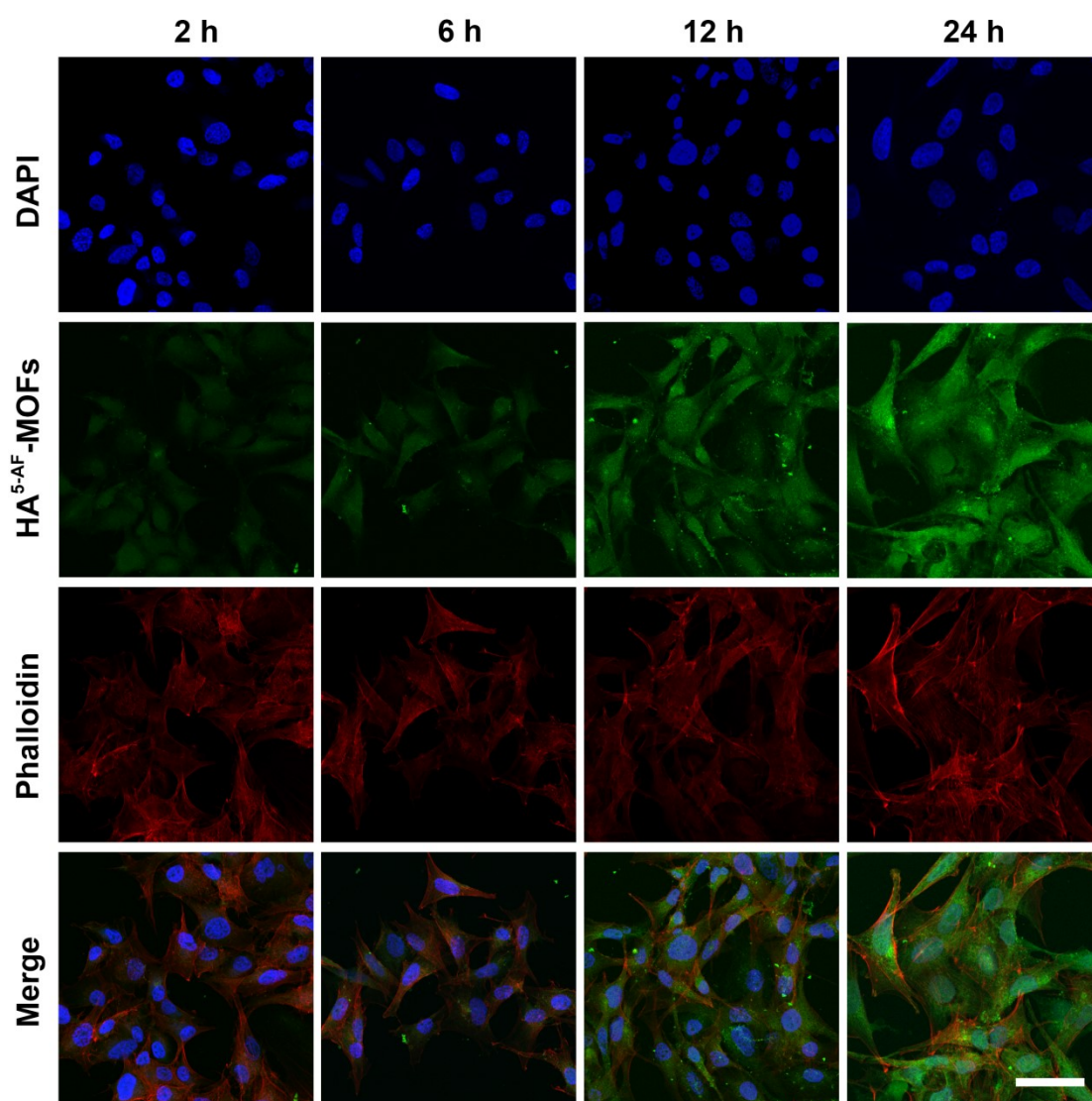


Figure S13. Fluorescence localization images of HA^{5-AF}-MOF in H1975 cells at different time points. Scale bar is 50 μ m.

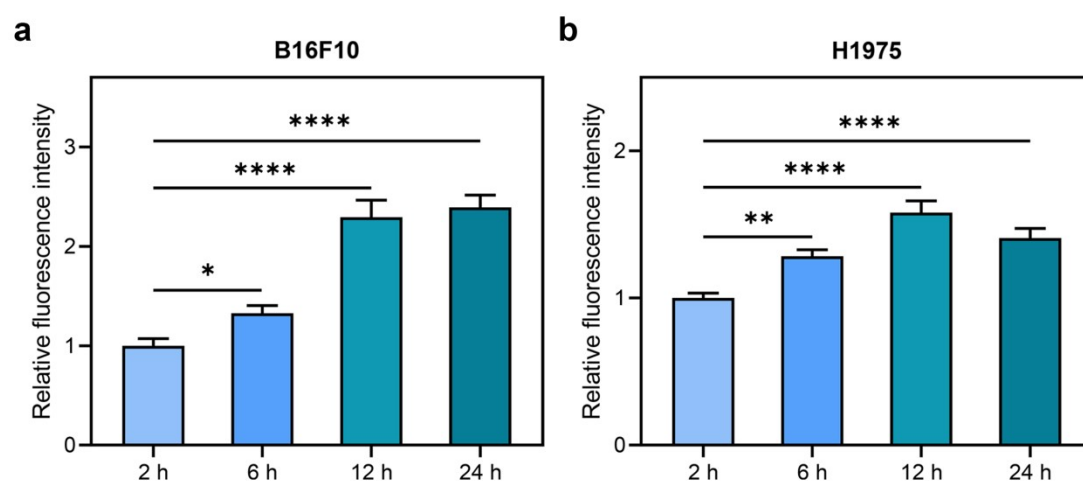


Figure S14. Fluorescence intensity quantification of HA^{5-AF}-MOFs uptake by (a) B16F10 and (b) H1975 cells.

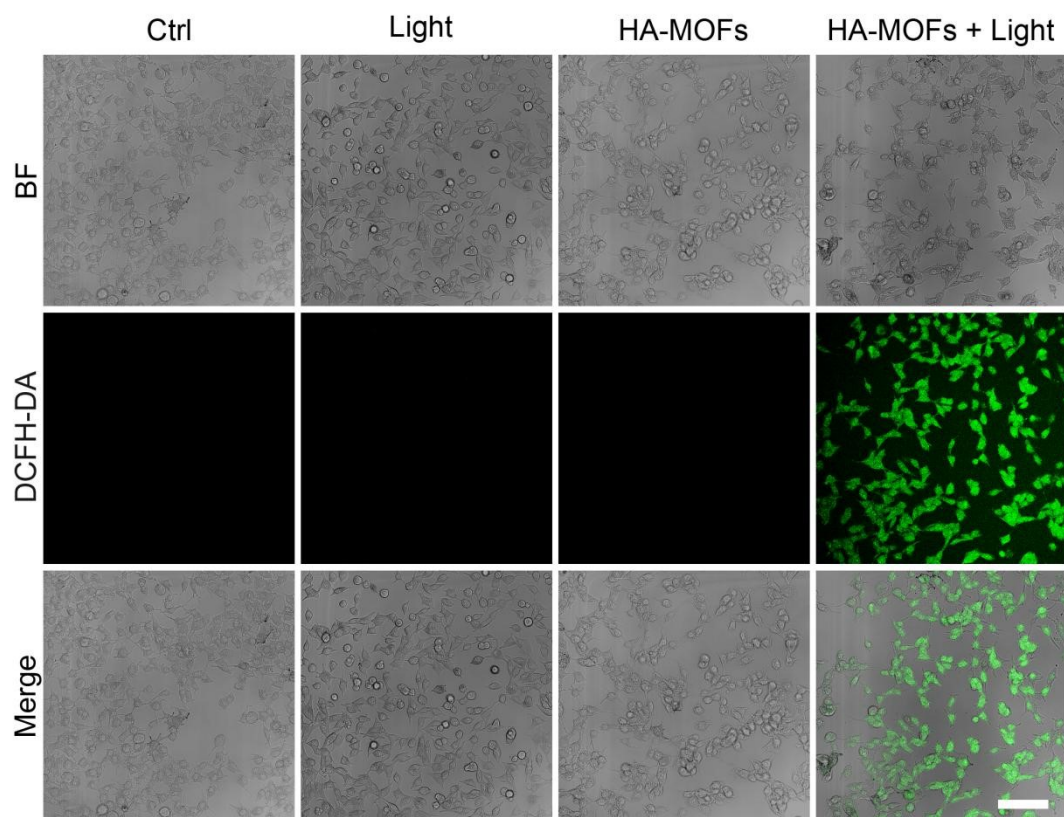


Figure S15. Cellular images of light-induced ROS generation in B16F10 cells incubated with HA-MOFs upon 650 nm laser irradiation. Scale bar is 100 μm .

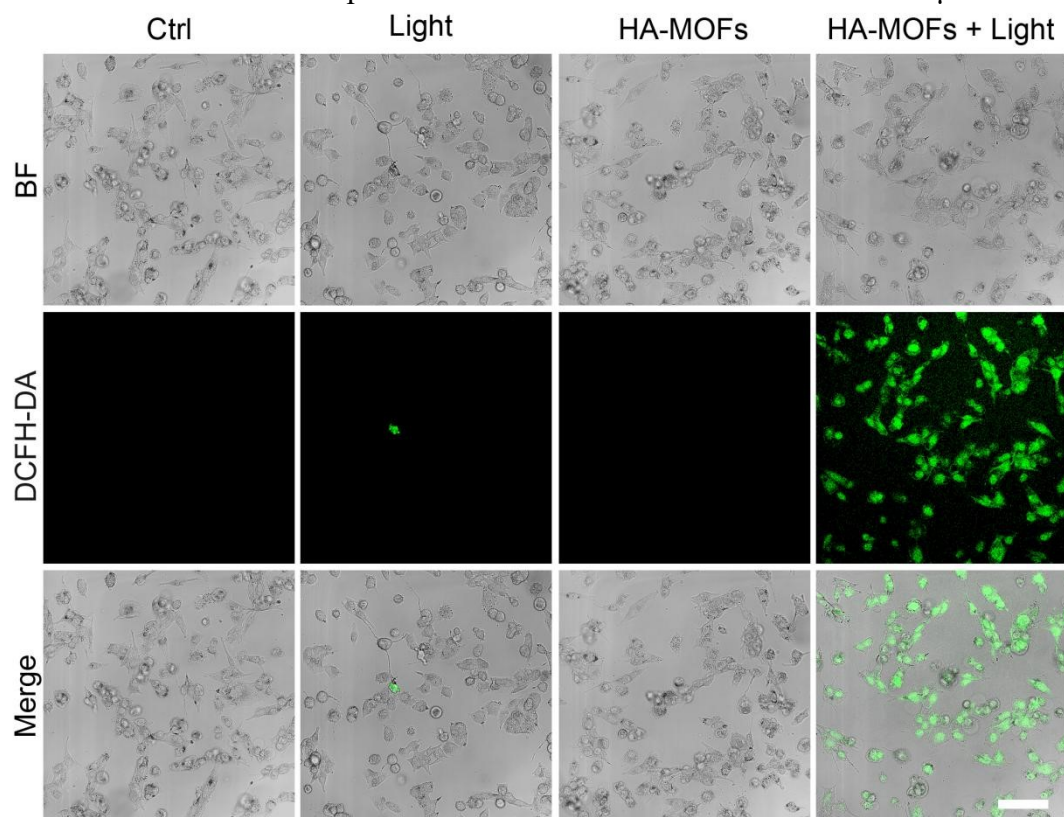


Figure S16. Cellular images of light-induced ROS generation in H1975 cells incubated with HA-MOFs upon 650 nm laser irradiation. Scale bar is 100 μm .

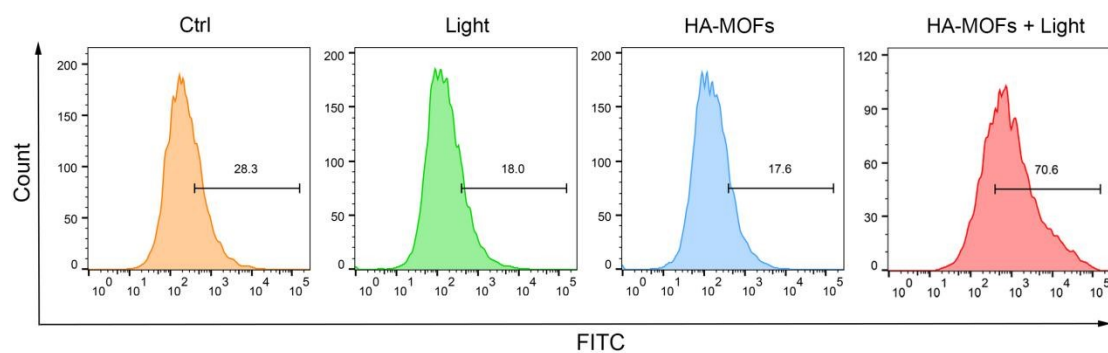


Figure S17. Flow cytometry analysis of light-induced ROS generation in H1975 cells incubated with HA-MOFs upon 650 nm laser irradiation.

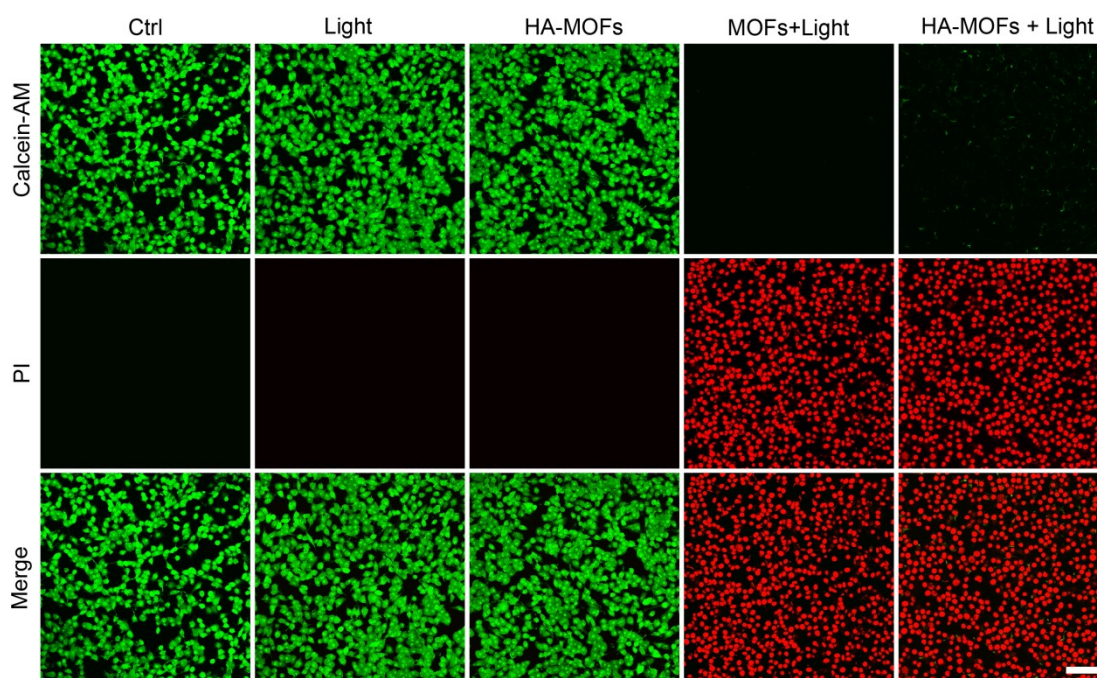


Figure S18. Calcein-AM/PI (live/dead) co-stained B16F10 cells incubated with various formulation. Scale bar is 100 μ m.

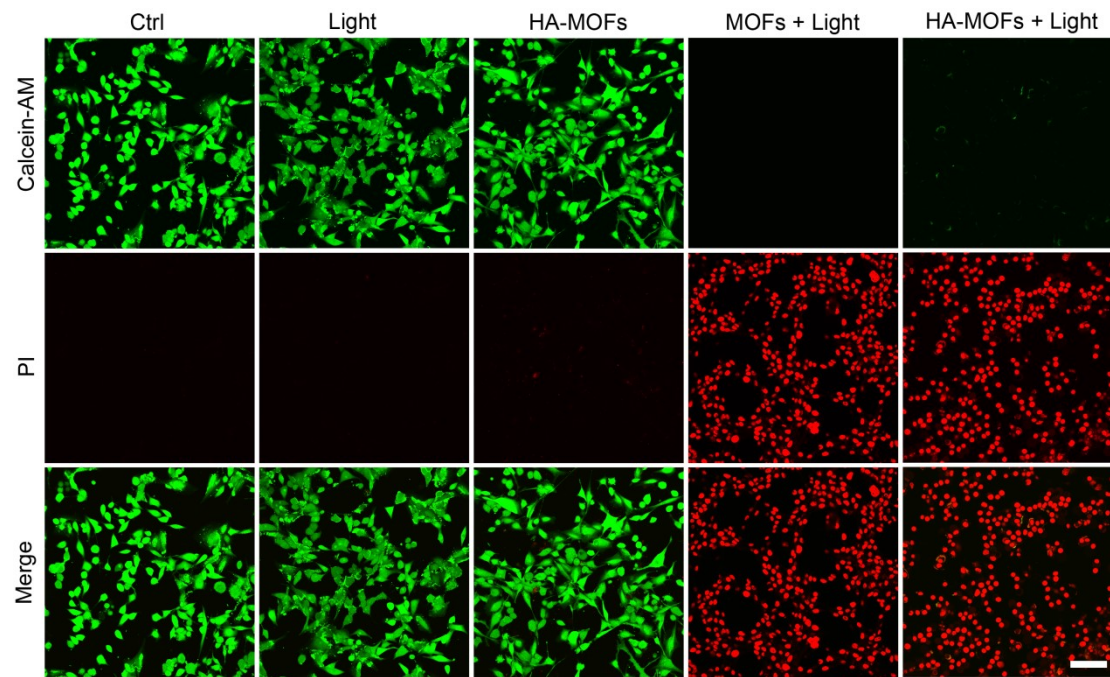
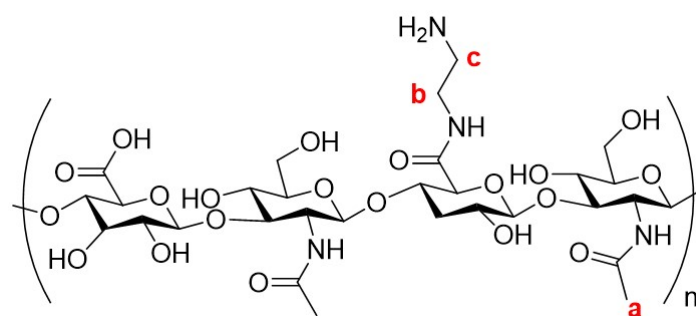
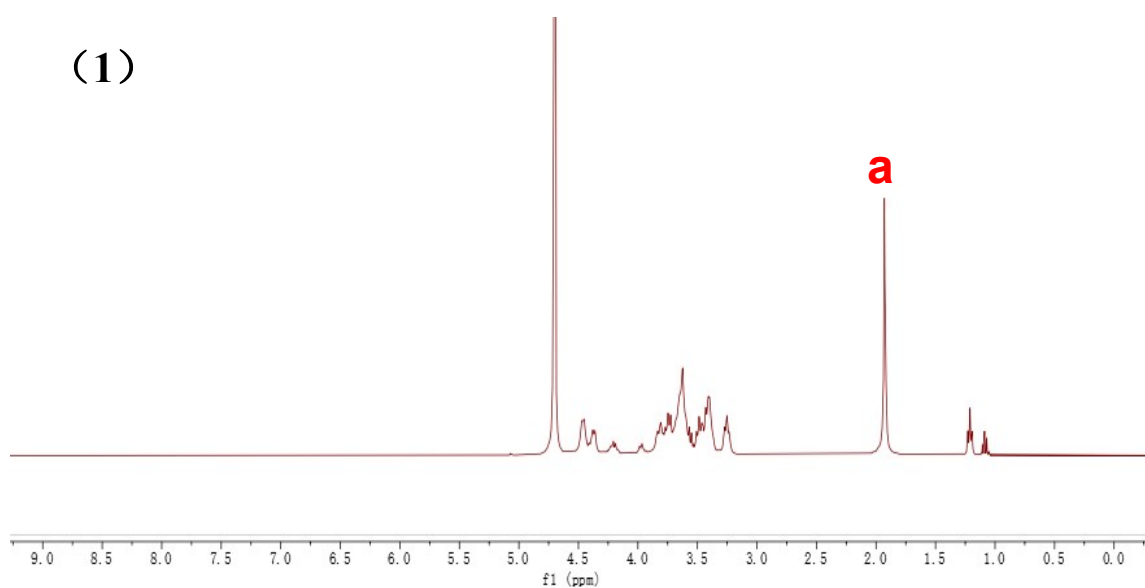


Figure S19. Calcein-AM/PI (live/dead) co-stained H1975 cells incubated with various formulation. Scale bar is 100 μm .



(1)



(2)

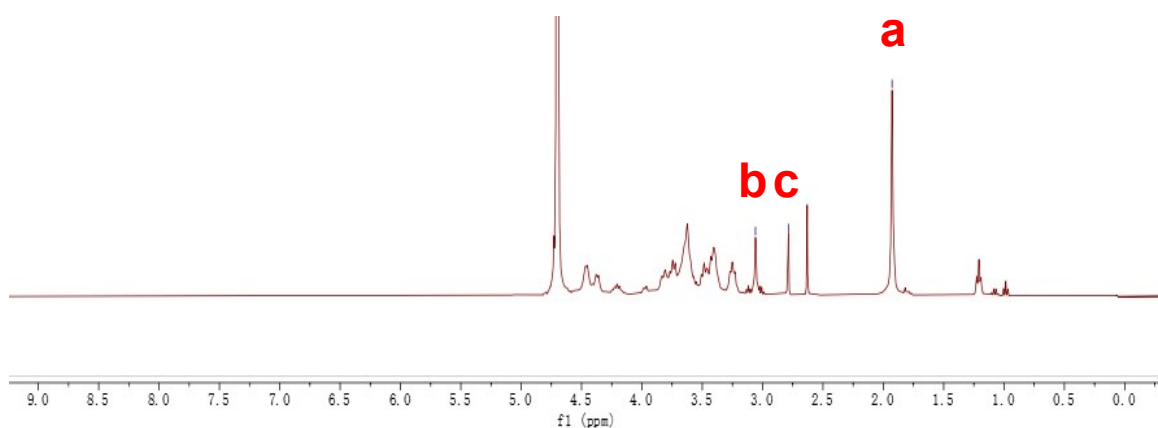


Figure S20. ^1H -NMR spectra of (1) HA and (2) amino-modified HA.

(a: represent Methyl on acetyl group. b and c: represent methylene on ethylenediamine groups)

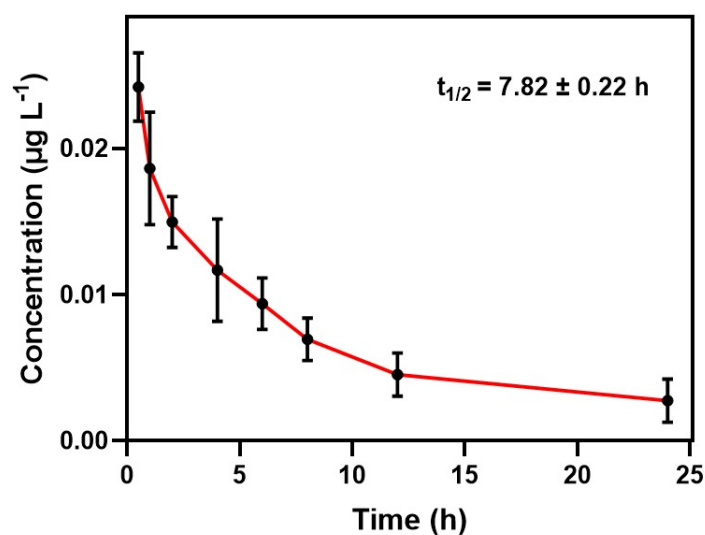


Figure S21. Pharmacokinetic profile of HA-MOFs in blood after subcutaneous injection.

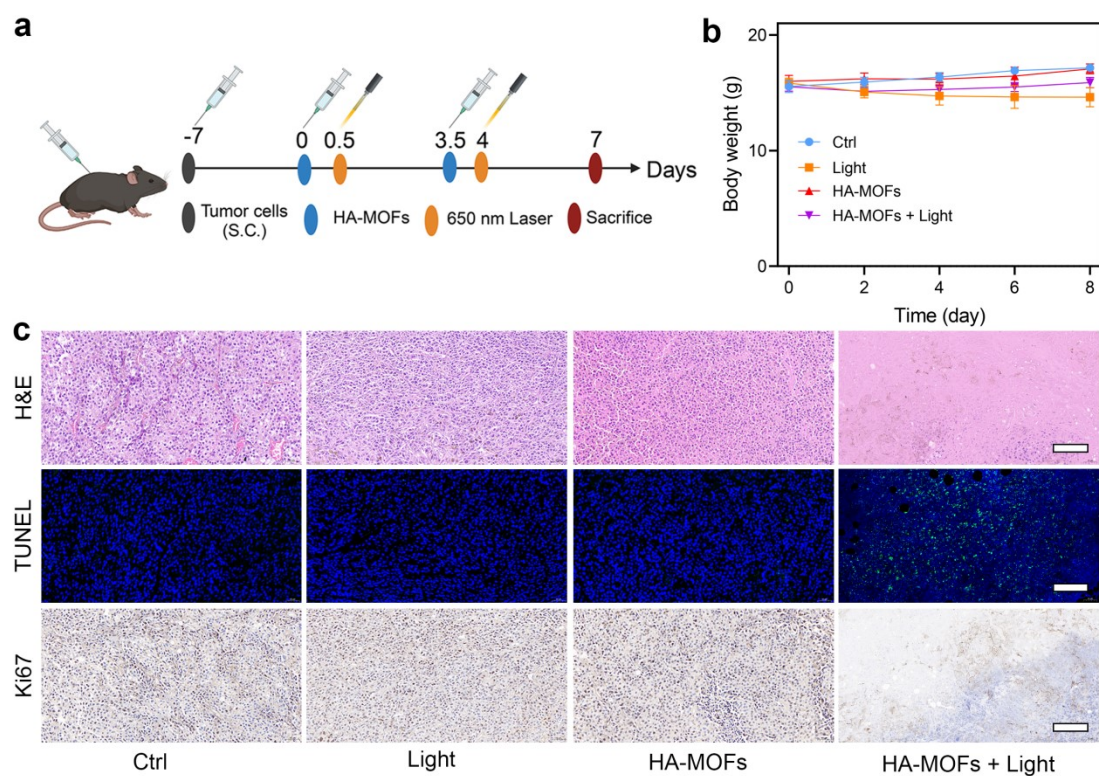


Figure S22. (a) Schematic illustration of PDT therapy in B16F10 tumor-bearing mice. (b) Body weight curves of mice during therapeutic period. (c) H&E, TUNEL and Ki67 staining of tumor slices from different experimental groups. Scale bars are 100 µm.

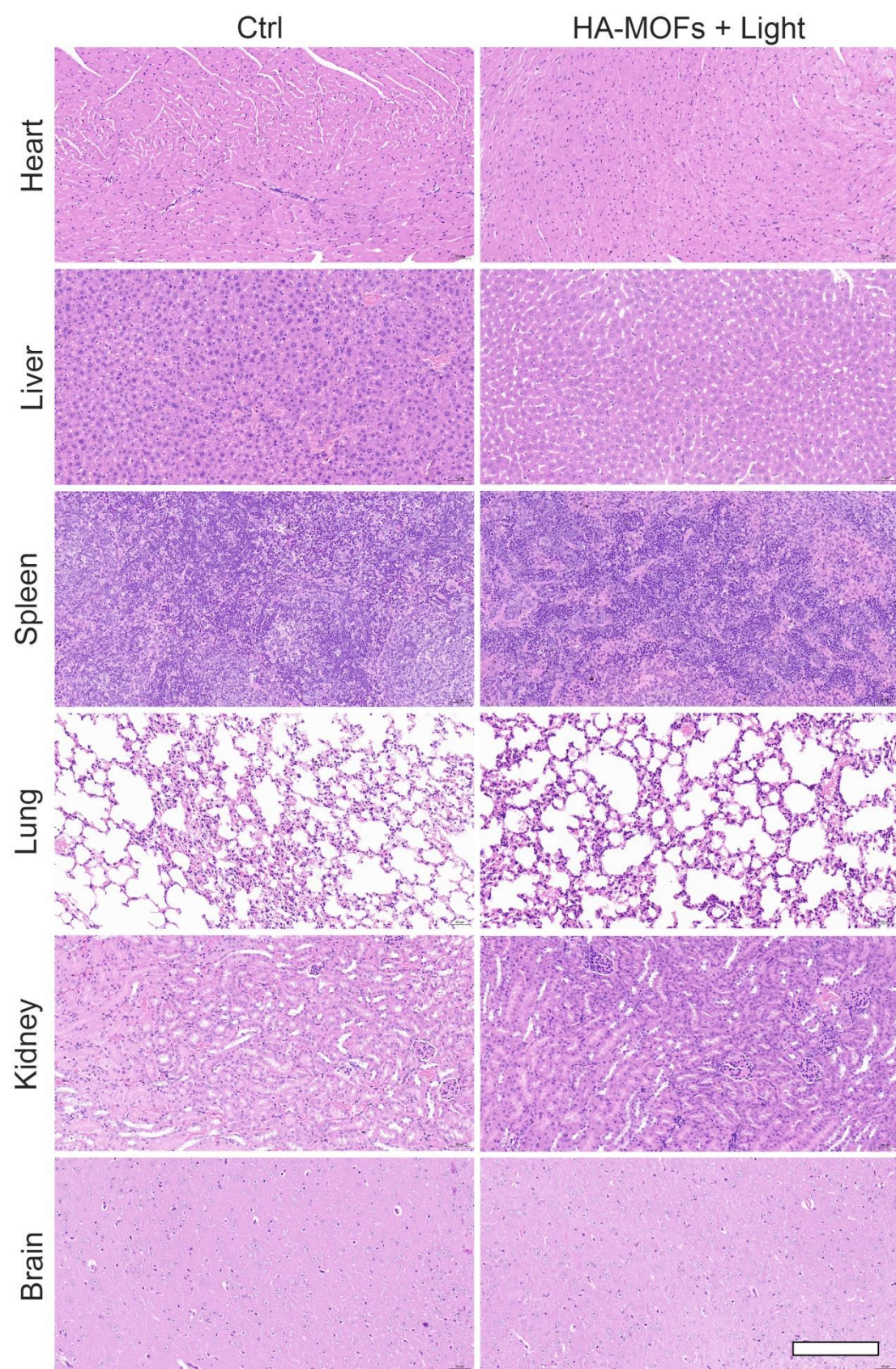


Figure S23. H&E staining images of major organs in B16F10 tumor-bearing mice after different treatments. Scale bars are 200 μm .

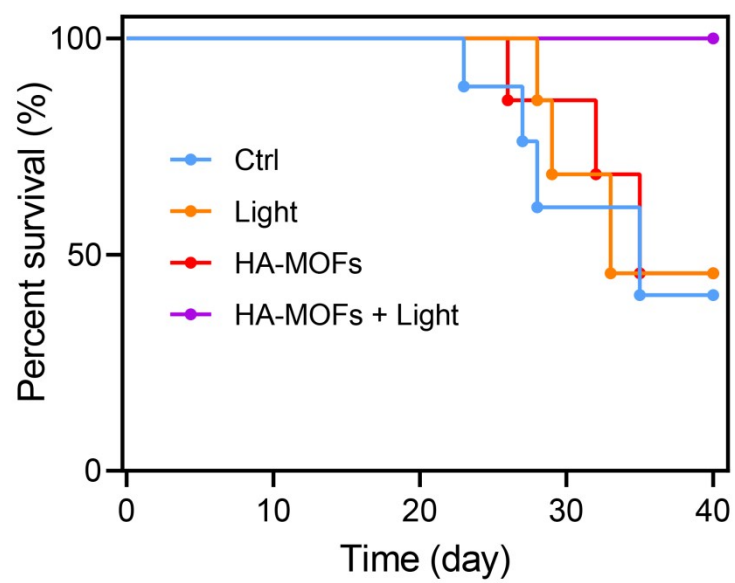


Figure S24. Survival curves of B16F10 tumor-bearing mice after different treatments.

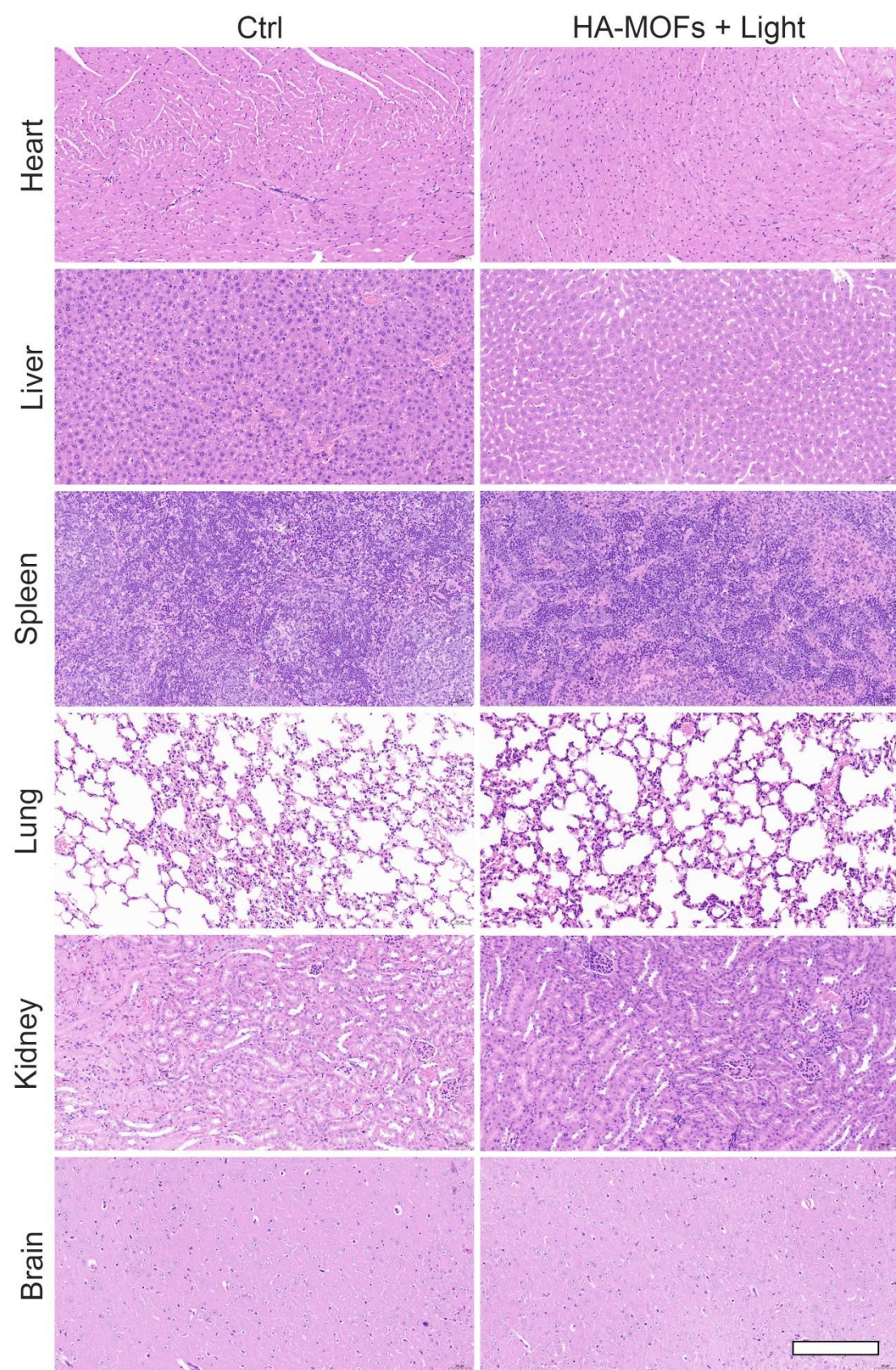


Figure S25. H&E staining images of major organs in H1975 tumor-bearing mice after different treatments. Scale bars are 200 μ m.