

Supporting Information

Sialic Acid-Functionalized PEG-PLGA Microspheres Loading Mitochondrial Targeting Modified Curcumin for Acute Lung Injury Therapy

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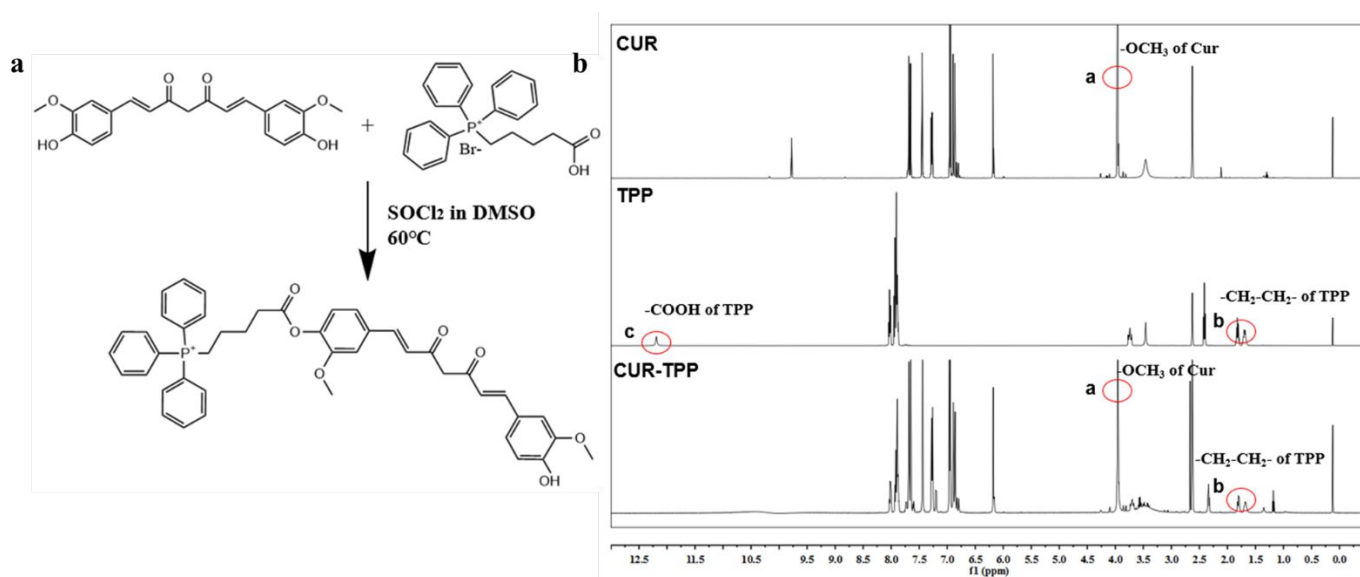


Figure S1. Synthesis and characterization of Cur-TPP. (a) Synthetic route of Cur-TPP prodrug. (b) ¹H NMR spectrum of Cur, TPP, Cur-TPP.

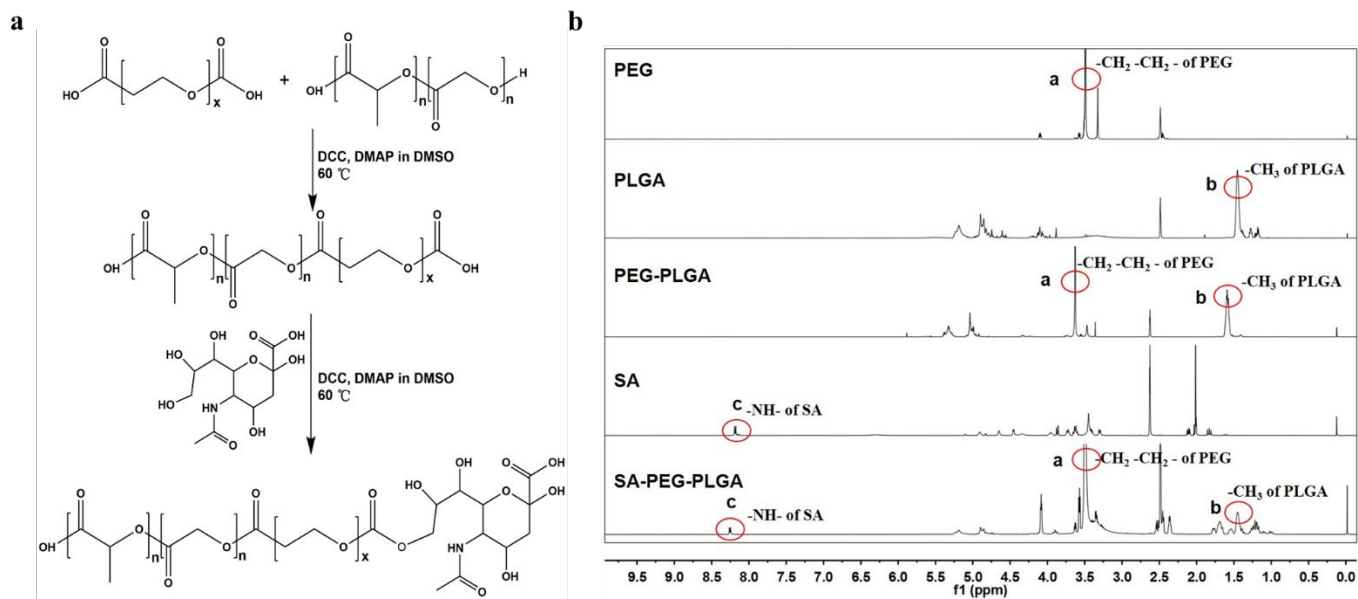


Figure S2. Synthesis and characterization of SA-PEG-PLGA. (a) Synthetic route of SA-PEG-PLGA conjugates. (b) ^1H NMR spectrum of SA, PEG, PLGA, PEG-PLGA, SA-PEG-PLGA conjugates.

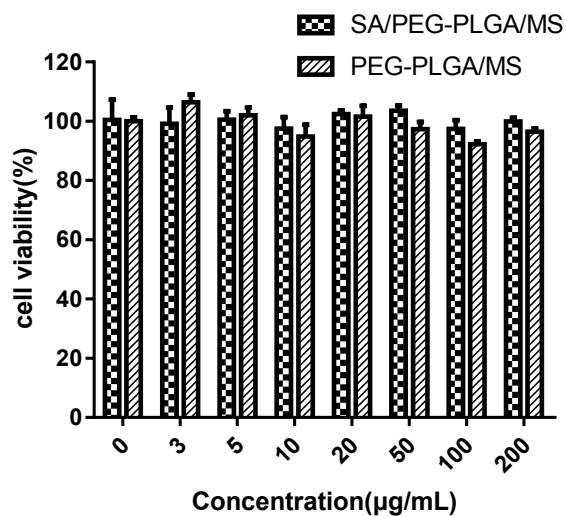


Figure S3. The cell viability assessment on blank SA/PEG-PLGA/MS and PEG-PLGA/MS via MTT assay.

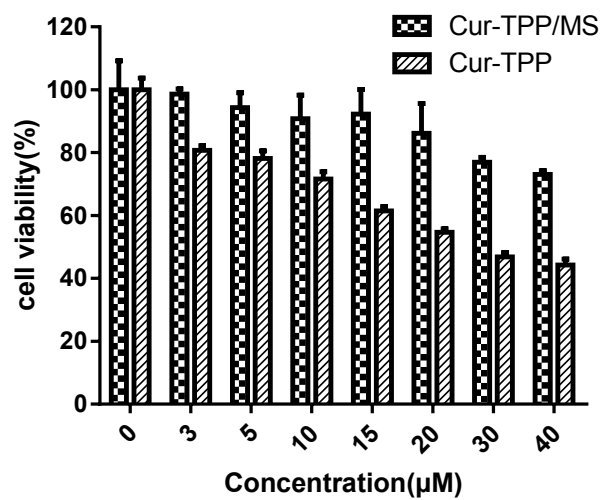


Figure S4. The cell viability assessment on and free Cur-TPP and Cur-TPP loaded microspheres via MTT assay.

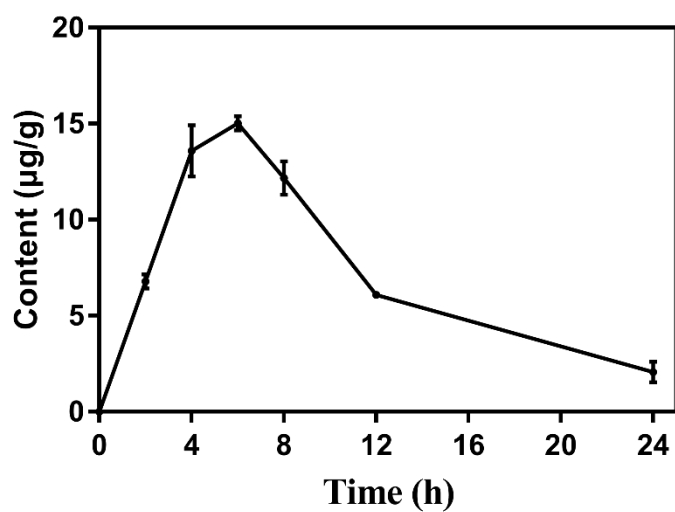


Figure S5. The concentration-time curve of SA/PEG-PLGA/MS in lungs

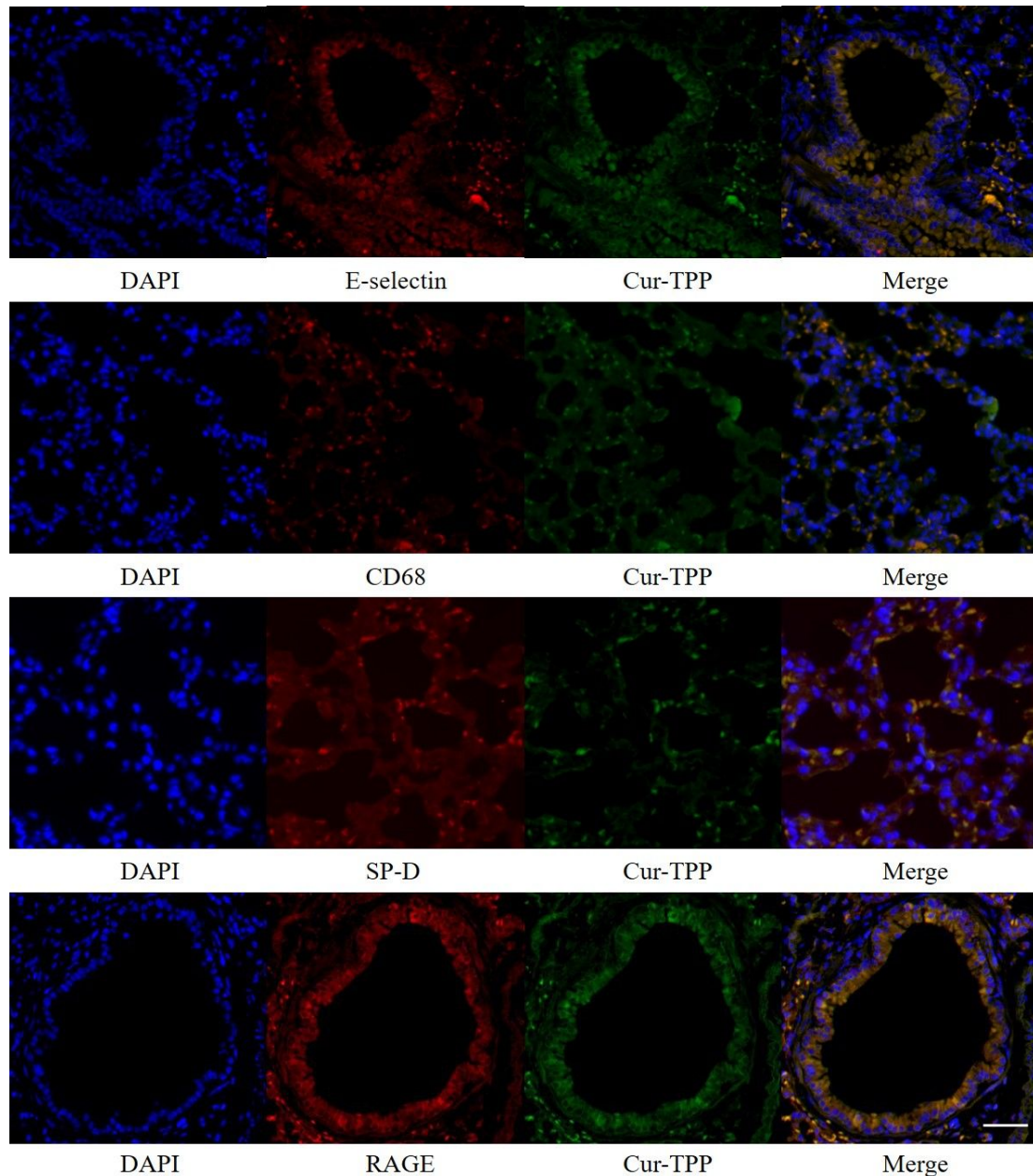


Figure S6. The distribution of SA/Cur-TPP/MS in endothelial, macrophages, type 2 epithelial and type 1 epithelial cells in lungs respectively. Imaging of immunohistochemistry staining of ALI lungs with SA/Cur-TPP/MS injected for 6h. Endothelial cells were stained with TRITC conjugated E-selectin antibody. Macrophages were stained with TRITC conjugated anti-CD68 antibody. Type 2 epithelial cells were stained with TRITC conjugated anti-SP-D antibody. Type 1 epithelial cells were

stained with TRITC conjugated anti-RAGE antibody. (scale bar = 50 μ m)

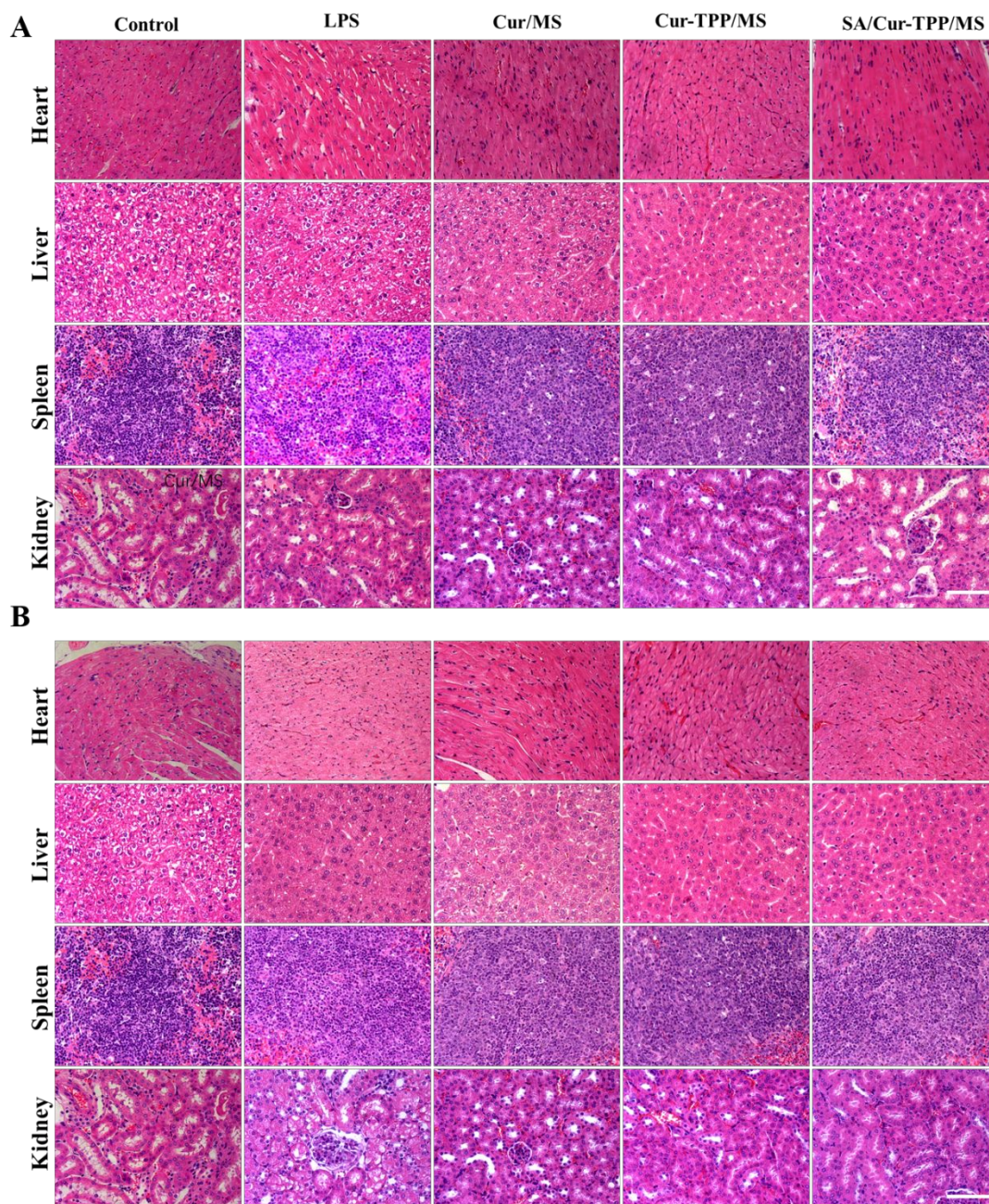


Figure S7. Adverse effects of mice treated with various microspheres. Histopathology in hearts, livers, spleens and kidneys were identified using hematoxylin-eosin staining after 24h (A) and 48h (B) treatment

respectively. (scale bar = 100 μ m)