

Supplemental Figure 1. Representative images of immunostaining of FIBRONECTIN, COL1A1 and α -SMA in HPFs. The nuclei were stained blue by DAPI, and the images were taken under original magnification $\times 400$. The data are represented as the mean \pm SEM of three independent experiments. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.

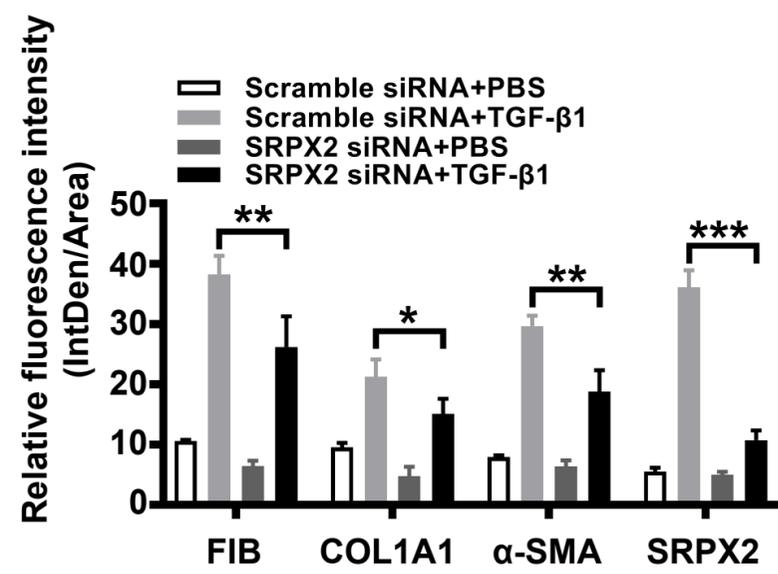
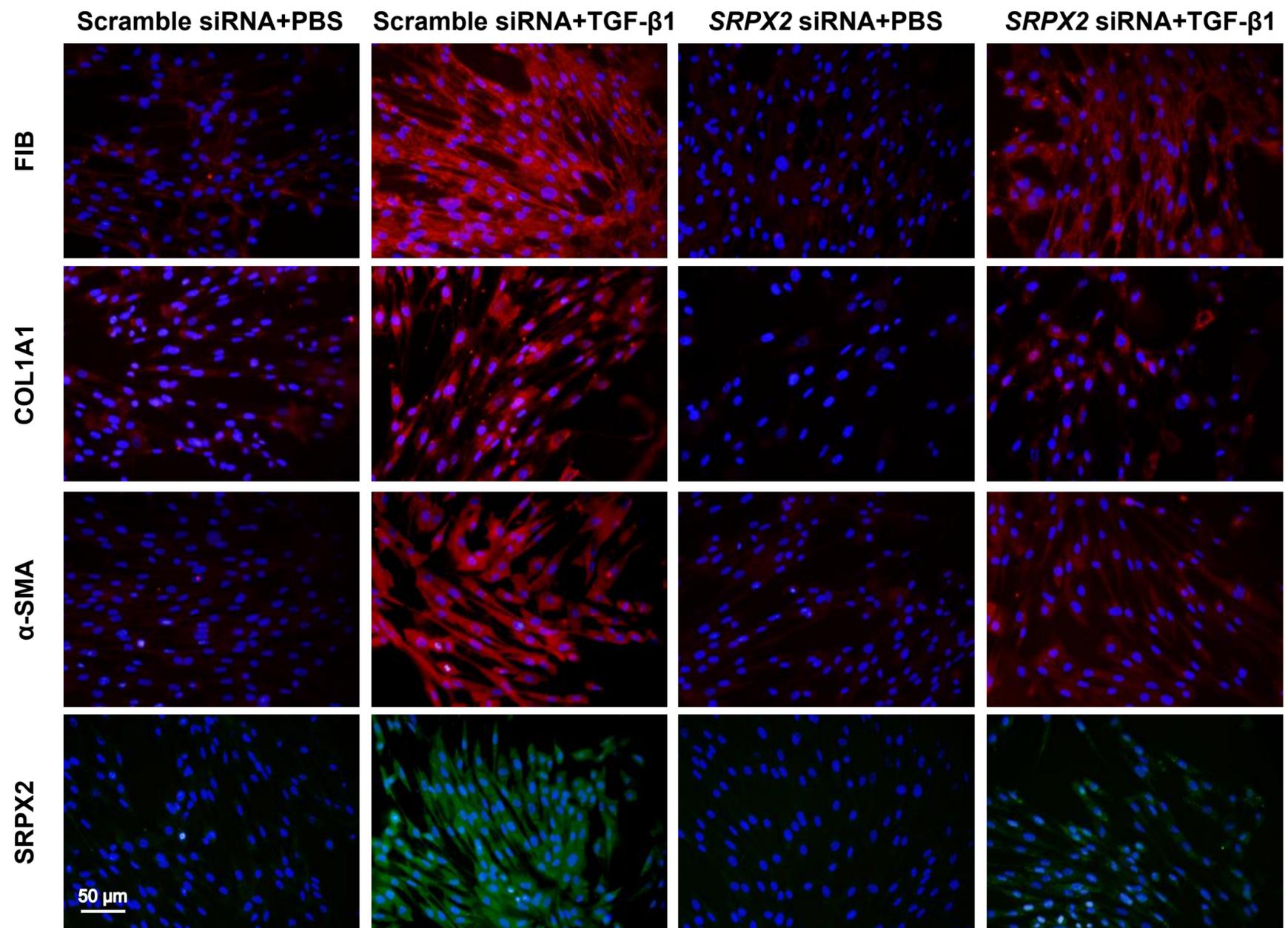
Supplemental Figure 2. A: Representative results for Transwell assay in *SRPX2* siRNA or Scrambled siRNA treated HPFs. **B:** Representative results for EdU staining in *SRPX2* siRNA or Scrambled siRNA treated HPFs. The data are represented as the mean \pm SEM of three independent experiments. *, $p < 0.05$; ***, $p < 0.001$.

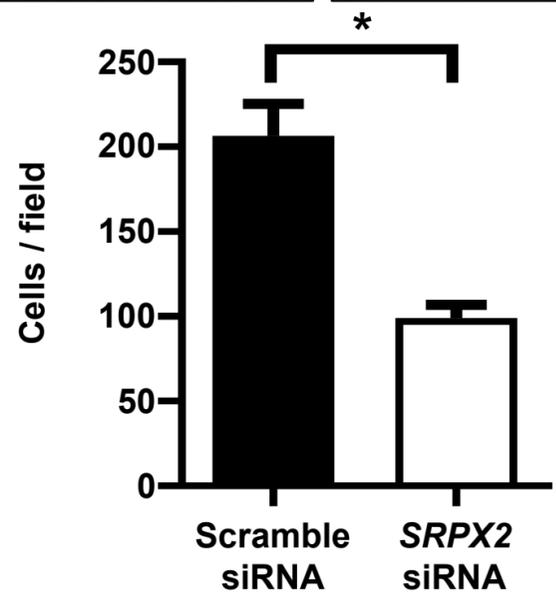
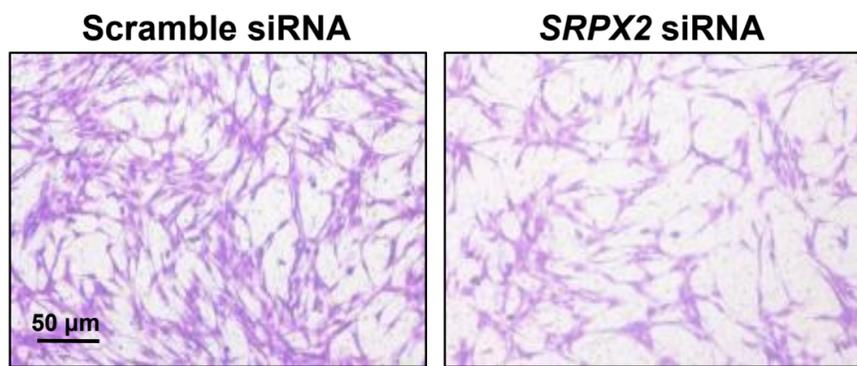
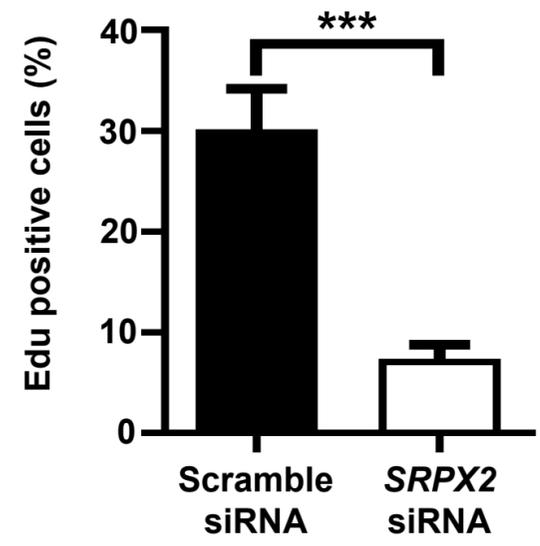
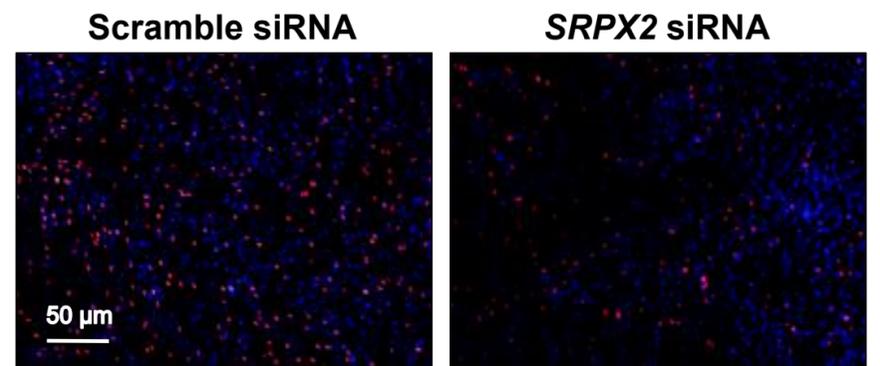
Supplemental Figure 3. Characteristics of the liposomes. A: The hydrodynamic diameter, PDI and zeta potential of the liposomes (blank or siRNA-loaded) were measured by DLS. SiRNA entrapment efficiency was measured by RiboGreen assay. **B:** Representative TEM image of siRNA-loaded liposomes. **C:** Hydrodynamic diameter distribution of siRNA-loaded liposomes. **D:** Colloid stability of siRNA-loaded liposomes in PBS.

Supplemental Figure 4. A: CCK-8 assay to check the effect of liposomes on the viability of fibroblasts. **B:** Representative results of TUNEL assay in the mice lung sections. **C:** Histological analysis of lung, heart, liver, spleen, kidney, and intestine in mice after induction with liposomes. Representative images for H&E. Images were captured at $\times 400$ magnification. **D:** liver, renal, and cardiac function of mice after induction with liposomes. Seven mice were included in each group. The data are represented as the mean \pm SEM. ALT: Alanine aminotransferase; AST: Aspartate aminotransferase; BUN: Blood Urea Nitrogen; CR: Creatinine; CK: Creatine Kinase.

Supplemental Figure 5. RT-PCR analysis of *Fibronectin*, *Col1a1*, α -SMA and *Srpx2* expression in mice after BLM induction with Scrambled or *Srpx2* siRNA-loaded liposomes. Six mice were included in each study group. The data are represented as the mean \pm SEM. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.

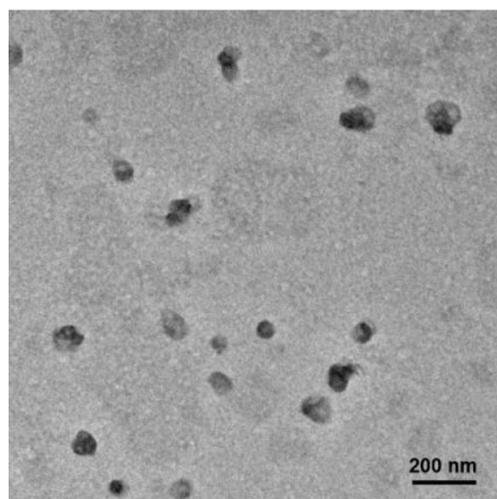
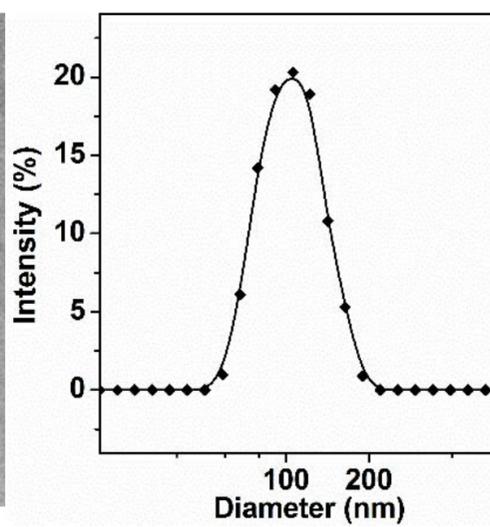
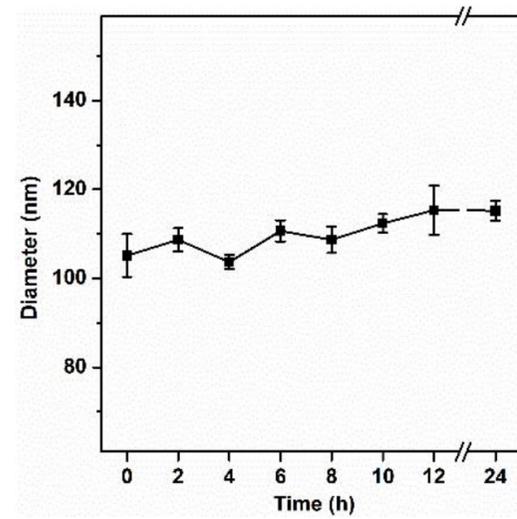
Supplemental Figure 6. A: Western blot analysis of Arginase 1 (alternative activated macrophages marker) expression in mice after BLM induction with Scrambled or *Srpx2* siRNA-loaded liposomes. **B:** Western blot analysis of *Srpx2* expression in macrophages following IL-4 induction. Six mice were included in each study group. The data are represented as the mean \pm SEM.

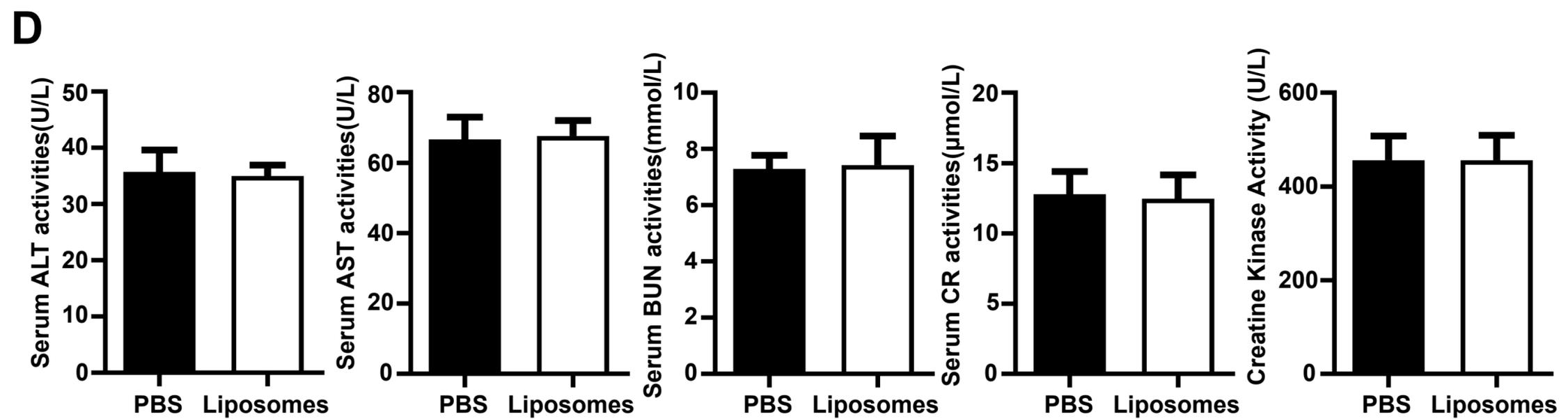
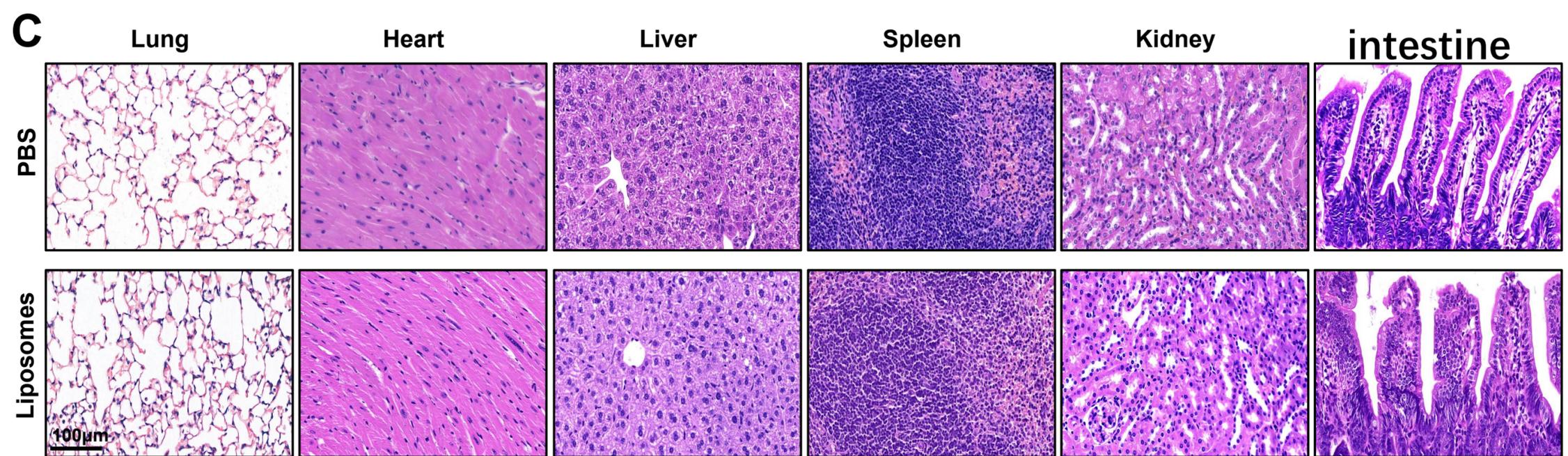
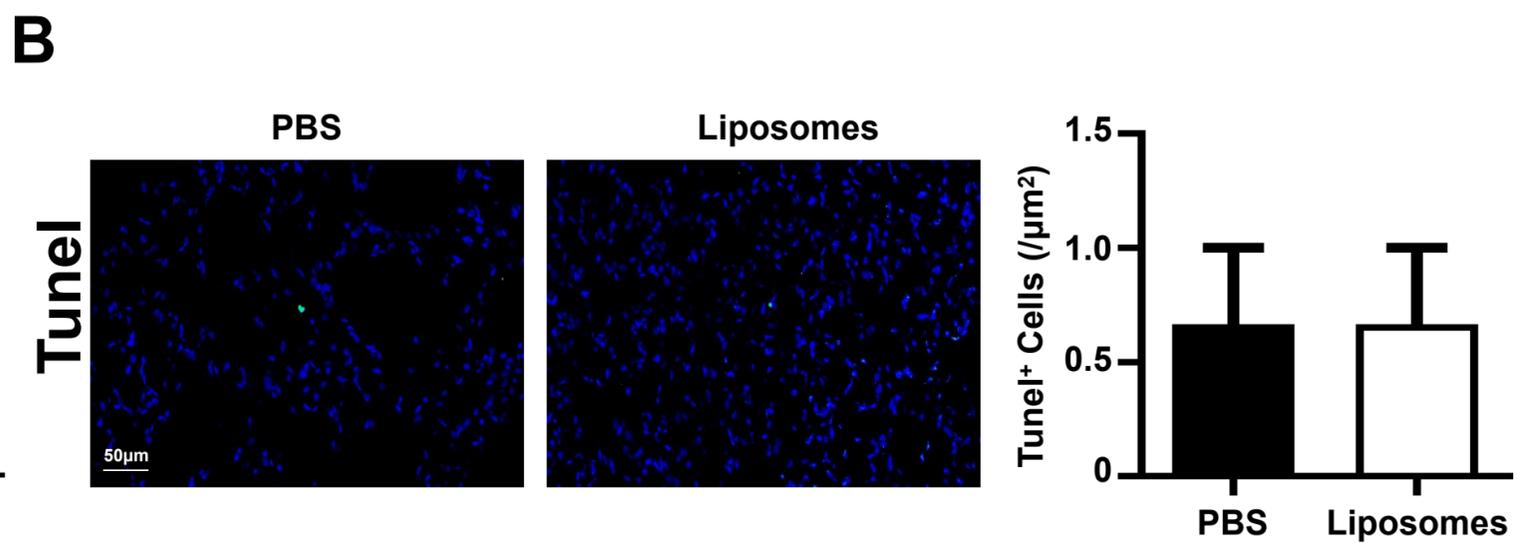
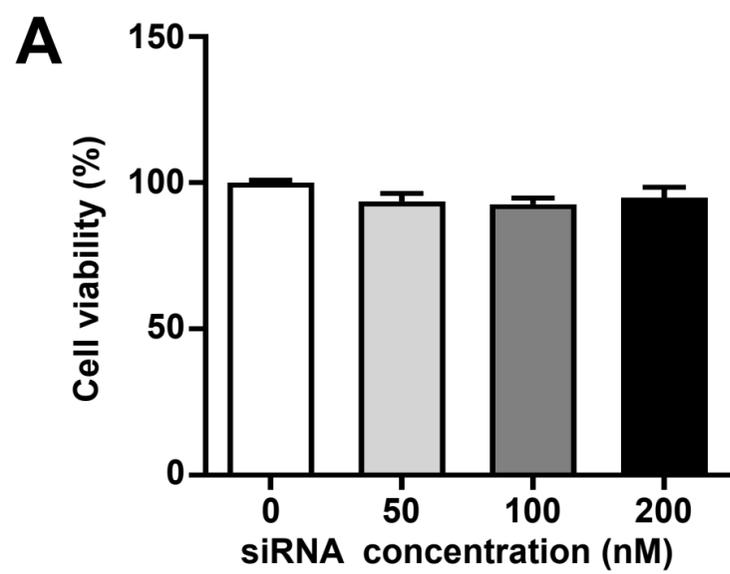


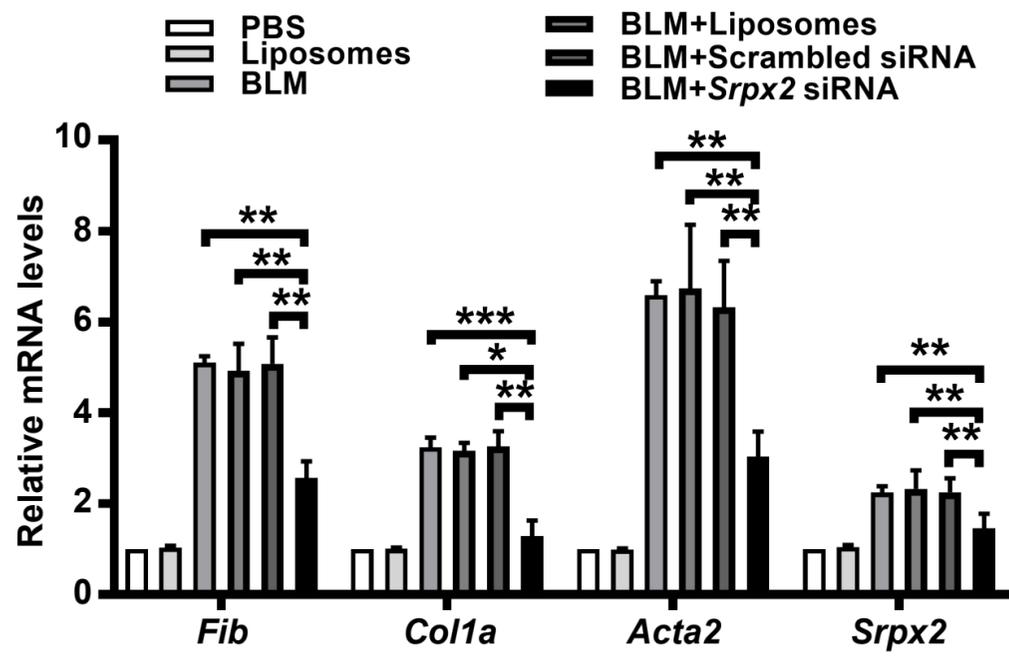
A**B**

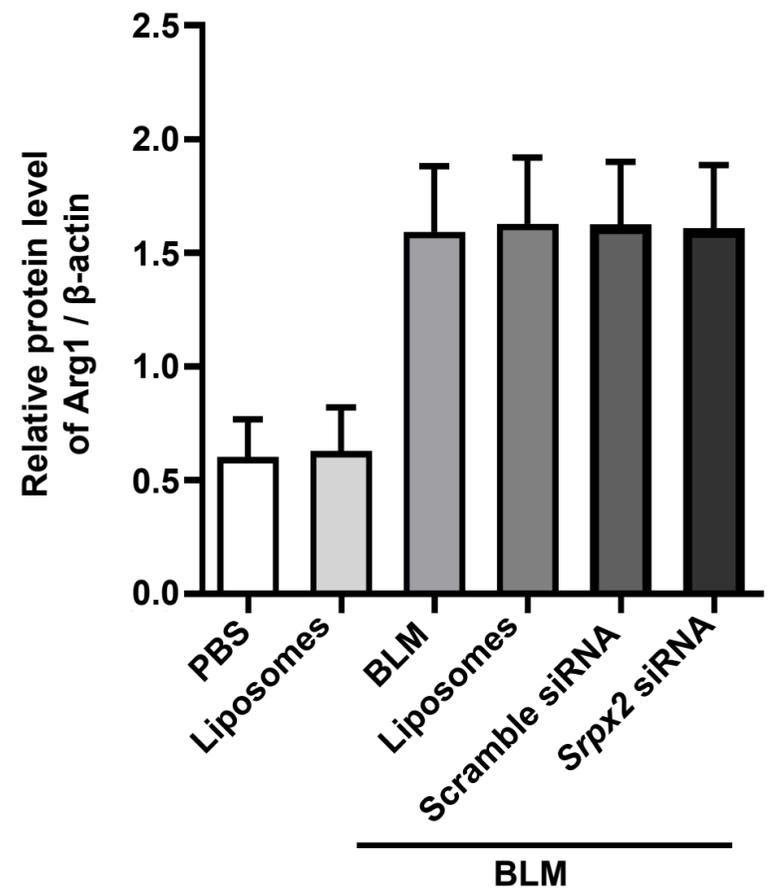
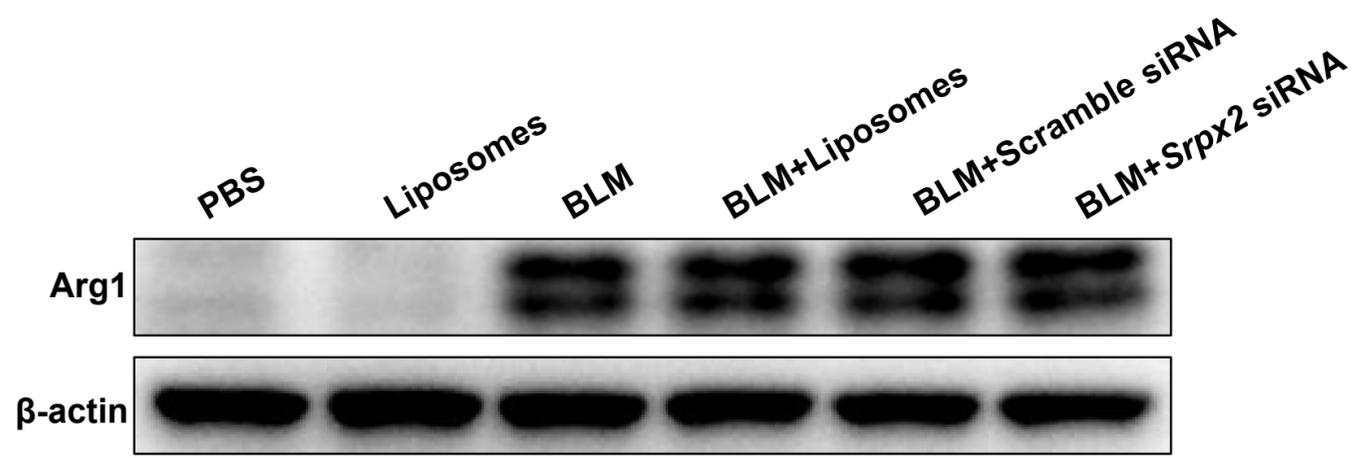
A

	Blank liposome	siRNA loaded liposome
Hydrodynamic diameter (nm)	115	102
PDI	0.18	0.07
Zeta-potential (mv)	22.1	2.8
Entrapment efficiency (%)	/	>95

B**C****D**





A**B**