

Figure S1. Immunofluorescence co-staining of α -SMA and *SLC7A5* in the lung tissues of control and BLM-induced mice. Scale bar, 100 μ m (n=3 mice per group). α -SMA, α -smooth muscle actin; *SLC7A5*, solute carrier family 7 member 5; BLM, bleomycin.

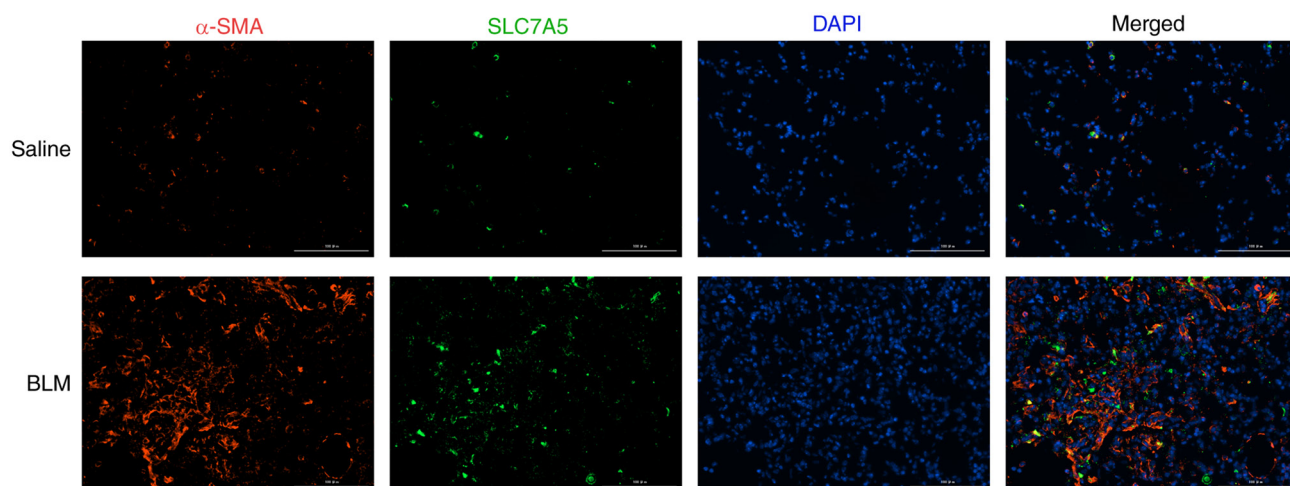


Figure S2. Expression of pulmonary fibrosis markers in TGF- β 1-induced MRC-5 cells after *SLC7A5* knockdown. (A) The knock-down efficiency of the siRNA sequences in MRC-5 cells was verified by RT-qPCR (n=3; data are shown as mean $\pm$ SD; **P<0.01 vs. si-NC group; unpaired t-test). (B) The knockdown efficiency of the siRNA sequences in MRC-5 cells was verified by western blotting (n=3; data are shown as mean $\pm$ SD; **P<0.01 vs. si-NC group; unpaired t-test). (C) Western blotting and semi-quantification of *FN1*, *COL1A1*, α -SMA and *SLC7A5* expression in TGF- β 1-induced MRC-5 cells after *SLC7A5* knockdown (n=3; data are shown as mean $\pm$ SD; *P<0.05, **P<0.01 and ***P<0.001; one-way ANOVA). (D) Detection of *FN1*, *COL1A1*, α -SMA and *SLC7A5* expression in TGF- β 1-induced MRC-5 cells after *SLC7A5* knockdown using RT-qPCR (n=3; data are shown as mean $\pm$ SD; ***P<0.001; one-way ANOVA). FN1, fibronectin 1; COL1A1, collagen type 1 α 1; α -SMA, α -smooth muscle actin; *SLC7A5*, solute carrier family 7 member 5; TGF- β 1, transforming growth factor- β 1.

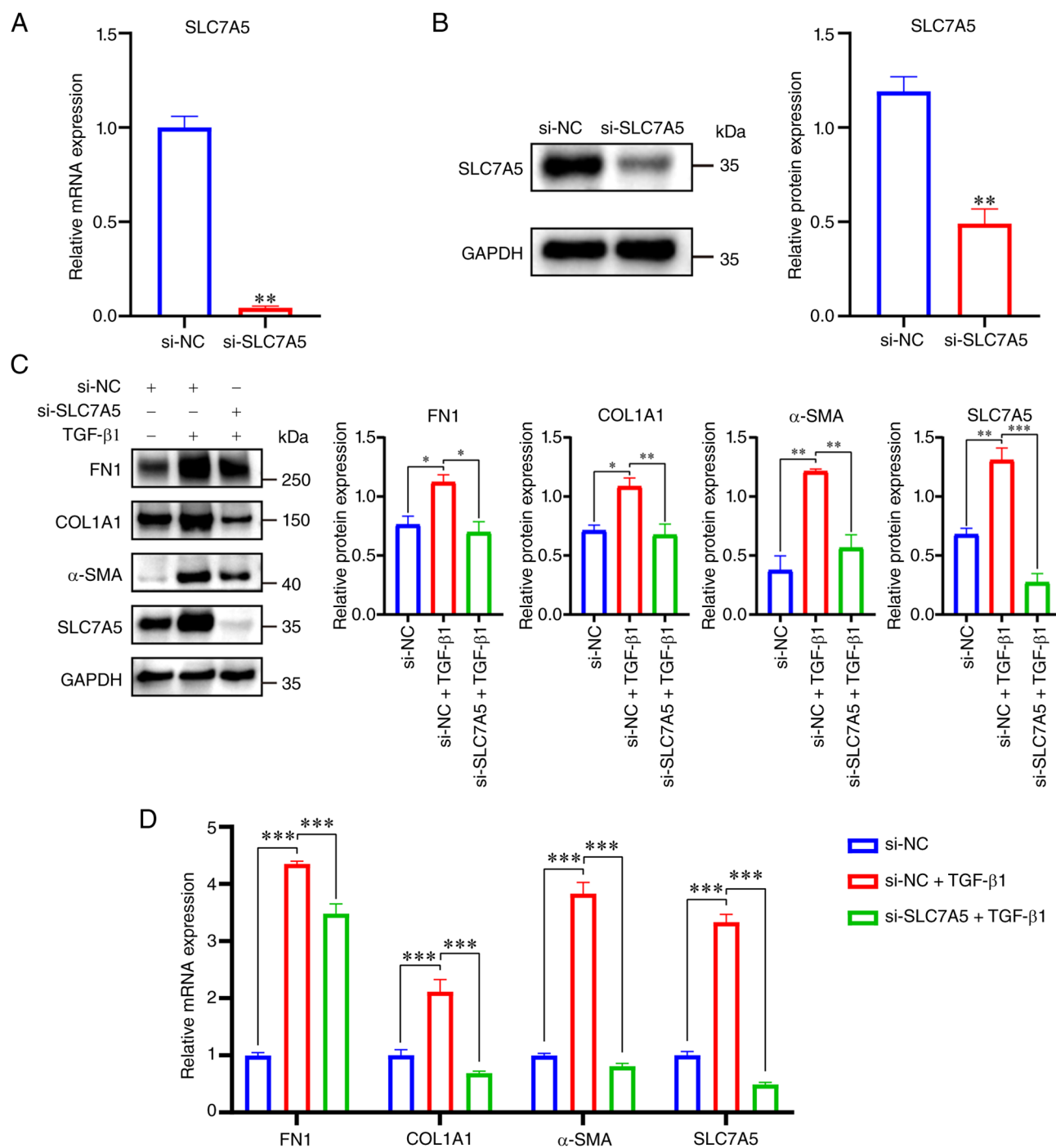


Figure S3. Overexpression of *SLC7A5* reverses the inhibitory effect of JPH203 on pulmonary myofibroblasts. (A) Western blotting and subsequent (B) semi-quantification of protein expression levels verifying the overexpression of *SLC7A5* in HFL1 cells (n=3; data are shown as mean $\pm$ SD; **P<0.01 vs. oe-NC group; unpaired t-test). (C) Reverse transcription-quantitative PCR verified the overexpression of *SLC7A5* mRNA in HFL1 cells (n=3; data are shown as mean $\pm$ SD; ***P<0.001 vs. oe-NC; unpaired t-test). (D) Detection of the effect of *SLC7A5* overexpression on the viability of lung myofibroblasts treated with JPH203 (20 μ M) was detected via Cell Counting Kit-8 assay (n=3; data are shown as mean $\pm$ SD; ***P<0.001; two-way ANOVA). *SLC7A5*, solute carrier family 7 member 5.

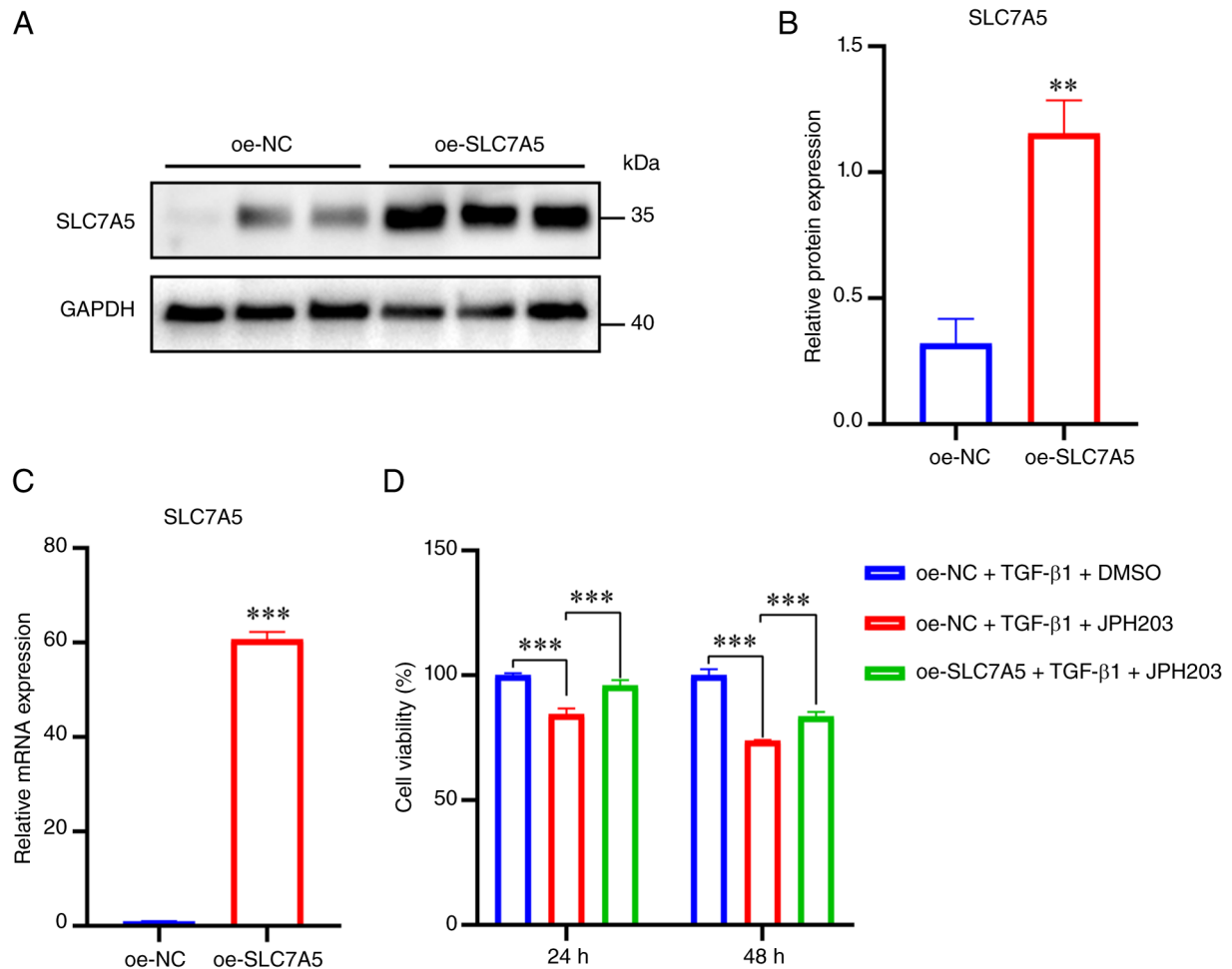


Figure S4. Transcriptome sequencing analysis of TGF- β 1-induced si-*SLC7A5* lung fibroblasts. (A) Volcano plot of differentially expressed genes between the si-*SLC7A5* + TGF- β 1 group and the si-NC + TGF- β 1 group. (B) Heatmap of differentially expressed genes between the two groups. *SLC7A5*, solute carrier family 7 member 5; TGF- β 1, transforming growth factor- β 1.

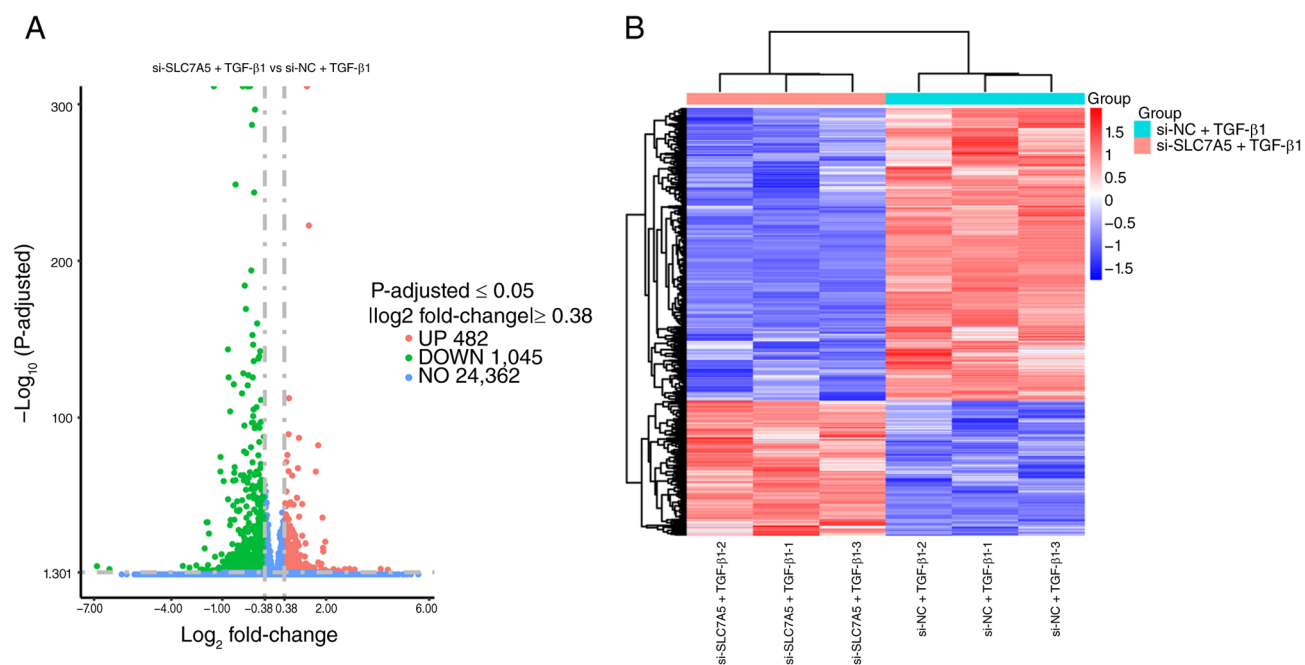


Figure S5. The expression levels of fibrosis markers in the lungs of JPH203-treated mice with pulmonary fibrosis were detected by reverse transcription-quantitative PCR (n=4; data are shown as mean $\pm$ SD; ***P<0.01 and **P<0.001; one-way ANOVA).

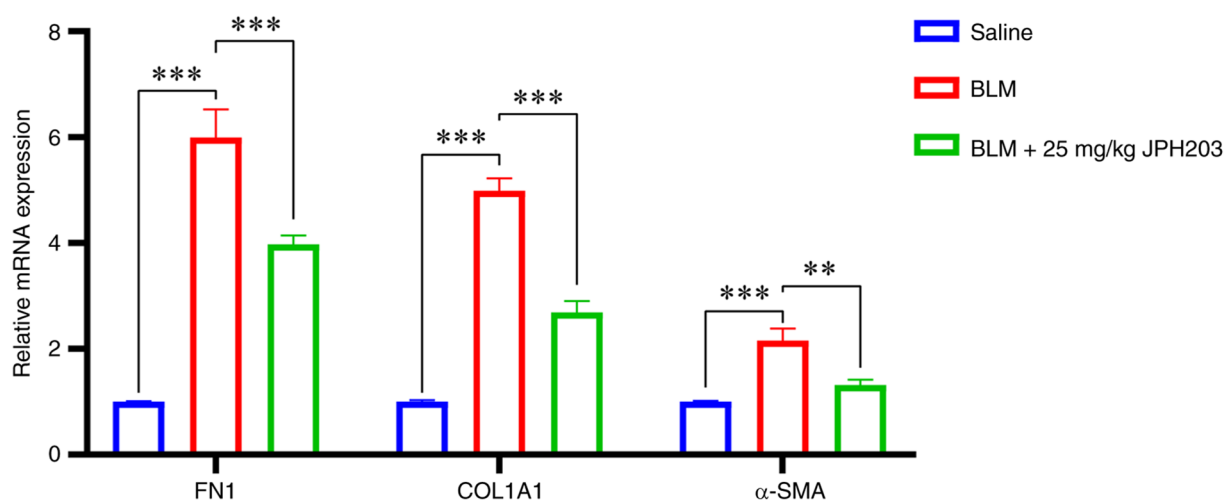


Figure S6. Representative images of hematoxylin and eosin staining of various tissues in each group of mice (n=4; scale bar, 50 μ m).

