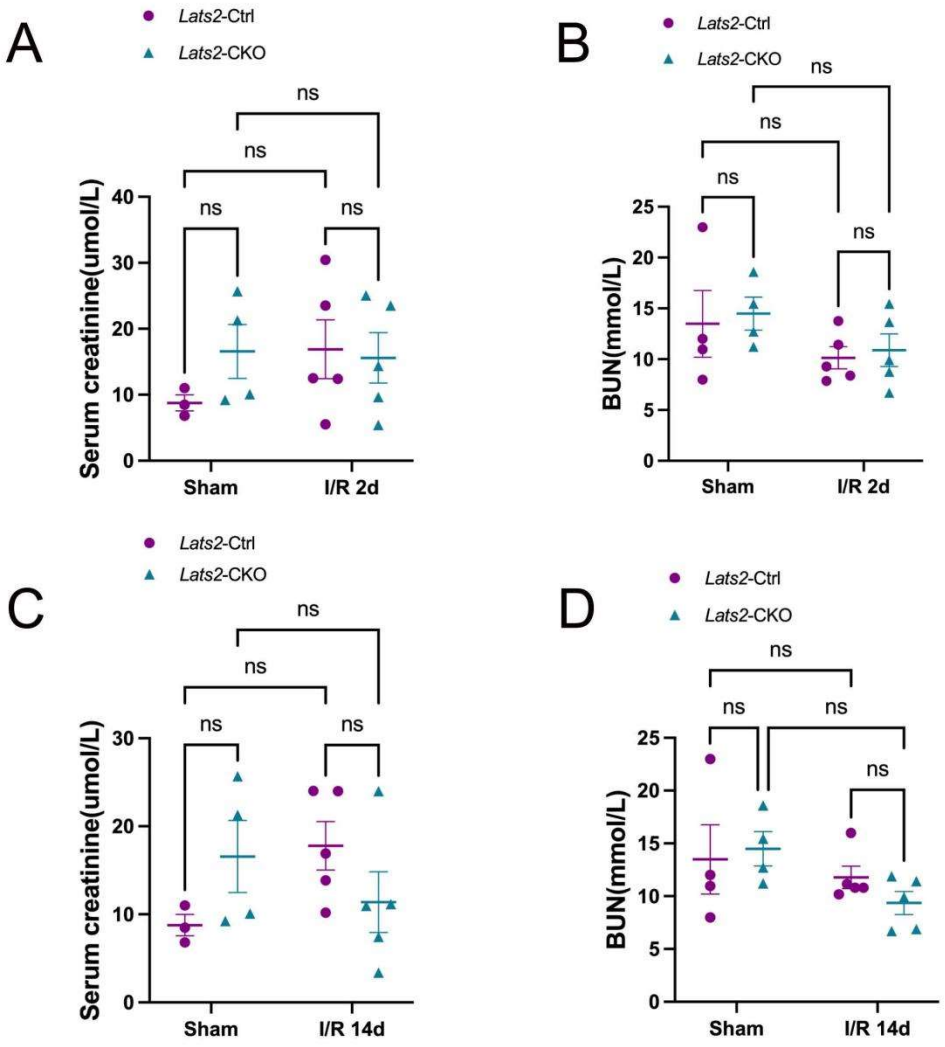


Figure S1. Impact of U-IRI on renal function. (A) Serum creatinine and (B) blood urea nitrogen levels of *Lats2*-Ctrl and *Lats2*-CKO mice at day 2 after IRI (sham n=4, I/R 14d n=5). (C) Serum creatinine and (D) blood urea nitrogen levels of *Lats2*-Ctrl and *Lats2*-CKO mice at day 14 after IRI (sham n=4, I/R 14d n=5). Data expressed as means±SEM. Two-way ANOVA followed by Tukey's multiple comparisons post hoc test. ns, not statistically significant.

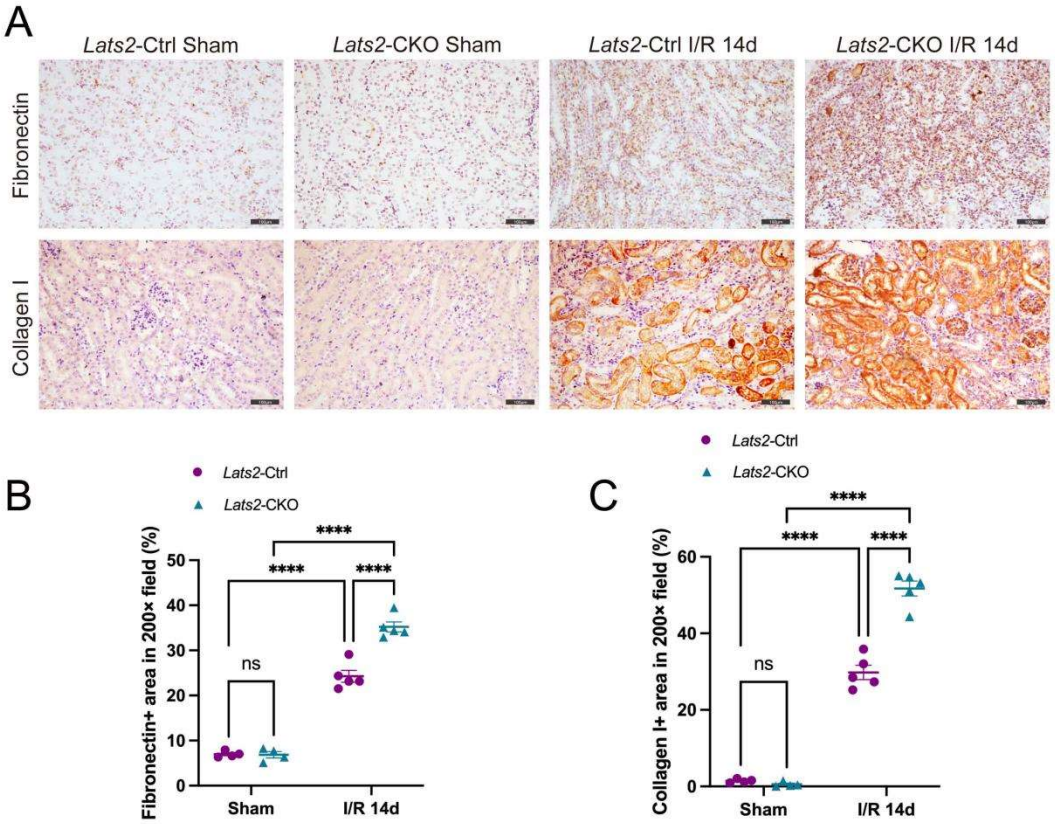


Figure S2. The impact of renal proximal tubule-specific *Lats2* ablation on Fibronectin and Collagen I expression after IRI. (A) Immunochemistry staining of Fibronectin and Collagen I in sham and I/R 14d mice. Scale bars, 100 μm. (B) Semi-quantification of Fibronectin+ staining (sham n=4, I/R 14d n=5). (C) Semi-quantification of Collagen I+ staining (sham n=4, I/R 14d n=5). Data expressed as means±SEM. Two-way ANOVA followed by Tukey's multiple comparisons post hoc test. ****P<0.0001 defined as significant. ns, not statistically significant.

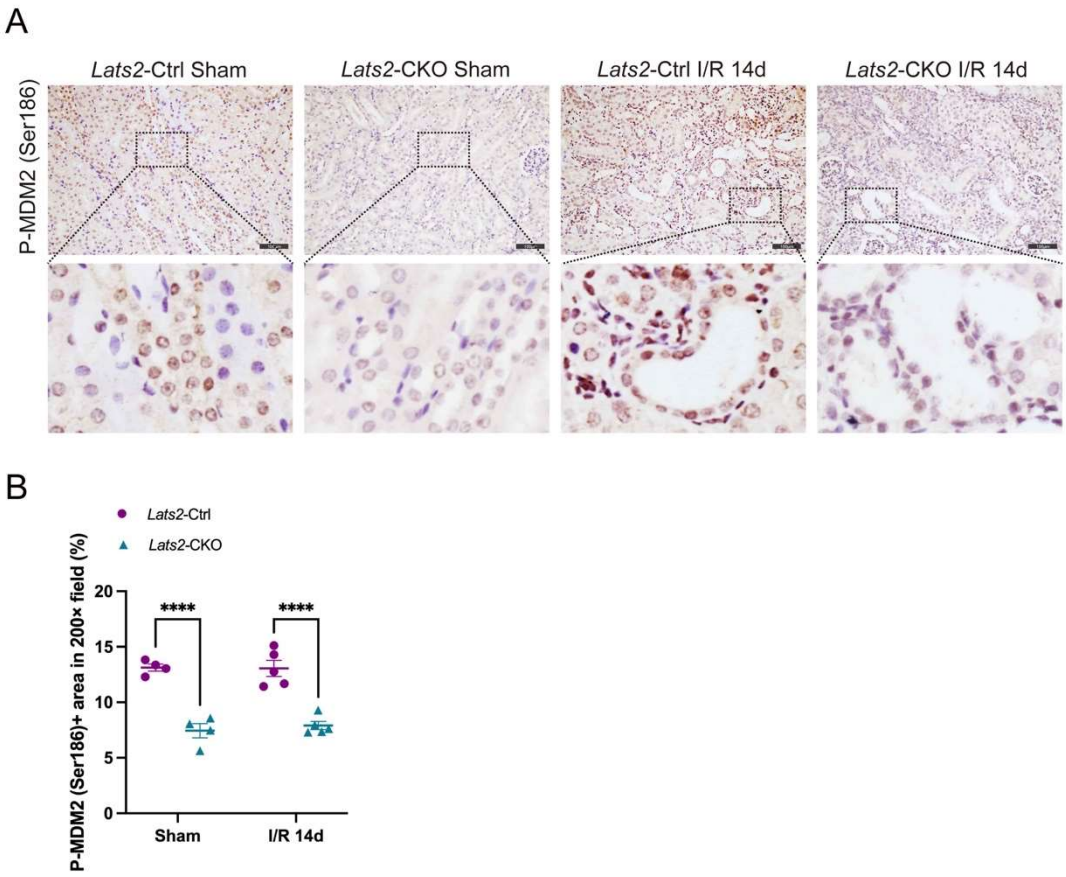


Figure S3. The impact of renal proximal tubule-specific *Lats2* ablation on P-MDM2 (Ser186) expression after IRI. (A) Immunochemistry staining of P-MDM2 (Ser186) staining in sham and I/R 14d mice. Scale bars, 100 μm. (B) Semi-quantification of P-MDM2 (Ser186) staining (sham n=4, I/R 14d n=5). Data expressed as means±SEM. Two-way ANOVA followed by Tukey's multiple comparisons post hoc test. ****P<0.0001 defined as significant.

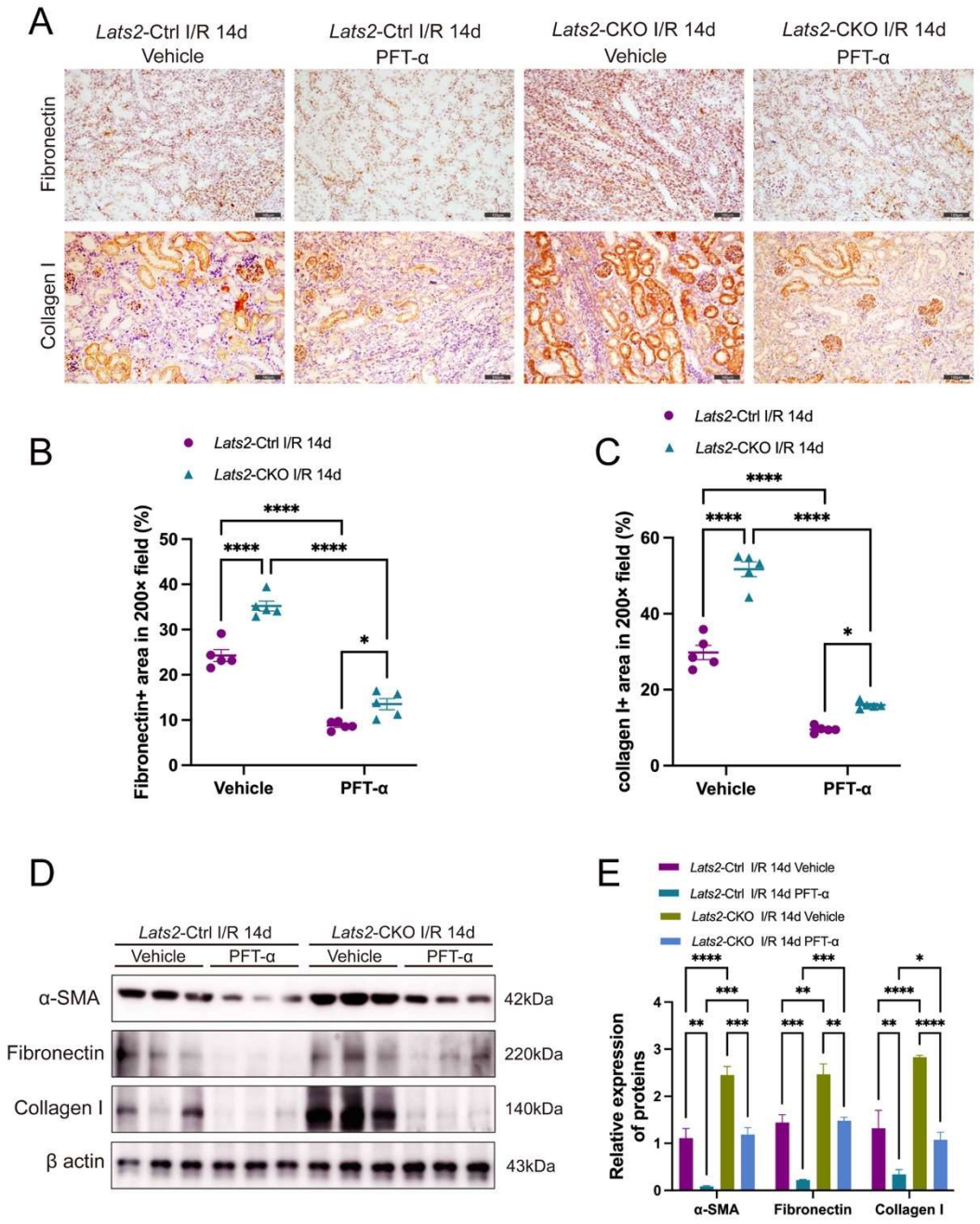


Figure S4. The impact of pifithrin-α on renal α-SMA, Fibronectin and Collagen I expression after IRI. (A) Immunochemistry staining of Fibronectin and Collagen I in U-IRI model of *Lats2*-Ctrl and *Lats2*-CKO mice with vehicle or PFT-α treatment. Scale bars, 100 μm. (B) Semi-quantification of Fibronectin+ staining (n=5 per group). (C) Semi-quantification of Collagen I+ staining (n=5 per group). (D) Western blotting analysis of α-SMA in U-IRI model of *Lats2*-Ctrl and *Lats2*-CKO mice with vehicle or PFT-α treatment and (E) quantified and normalized to β-actin expression. Data expressed as means±SEM. Two-way

ANOVA followed by Tukey's multiple comparisons post hoc test. *P<0.05, **P<0.01, ***P<0.001, ****P<0.0001 defined as significant.