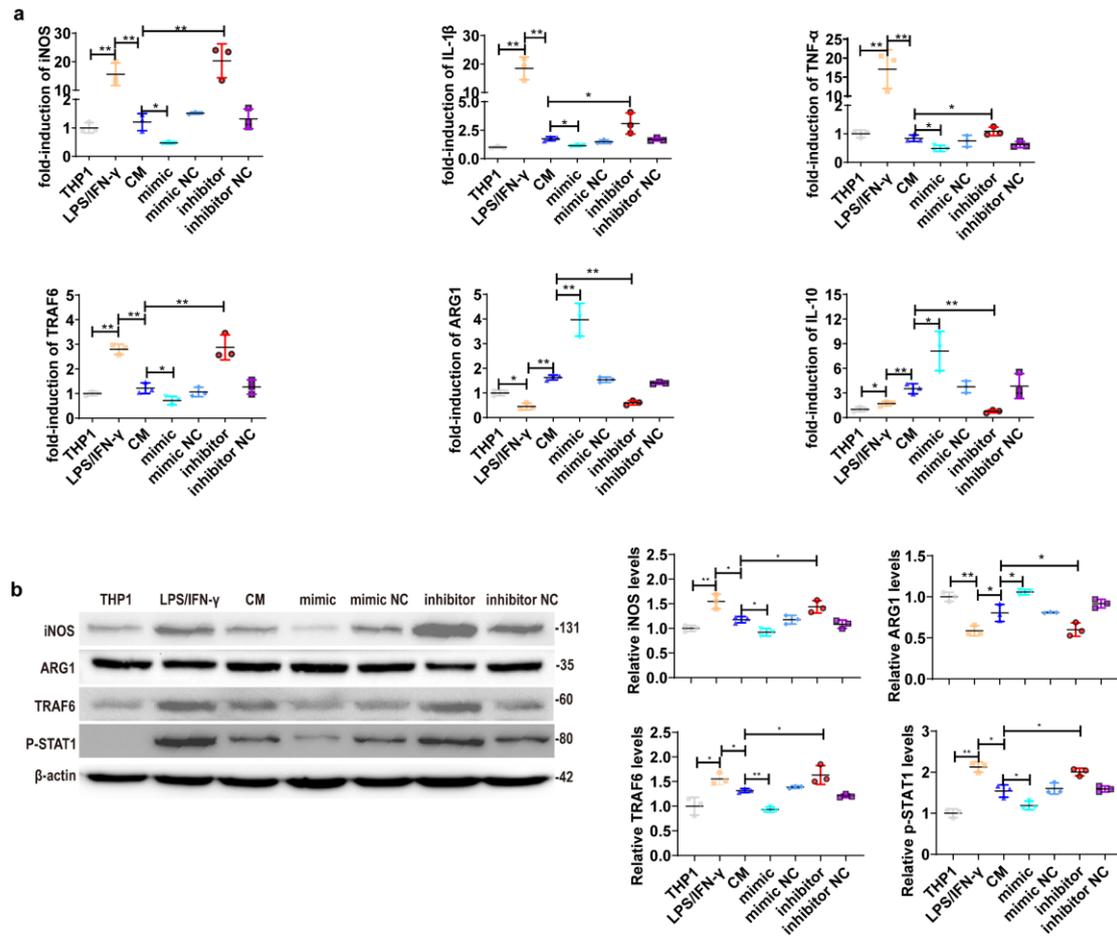


This article contains the following supplemental material

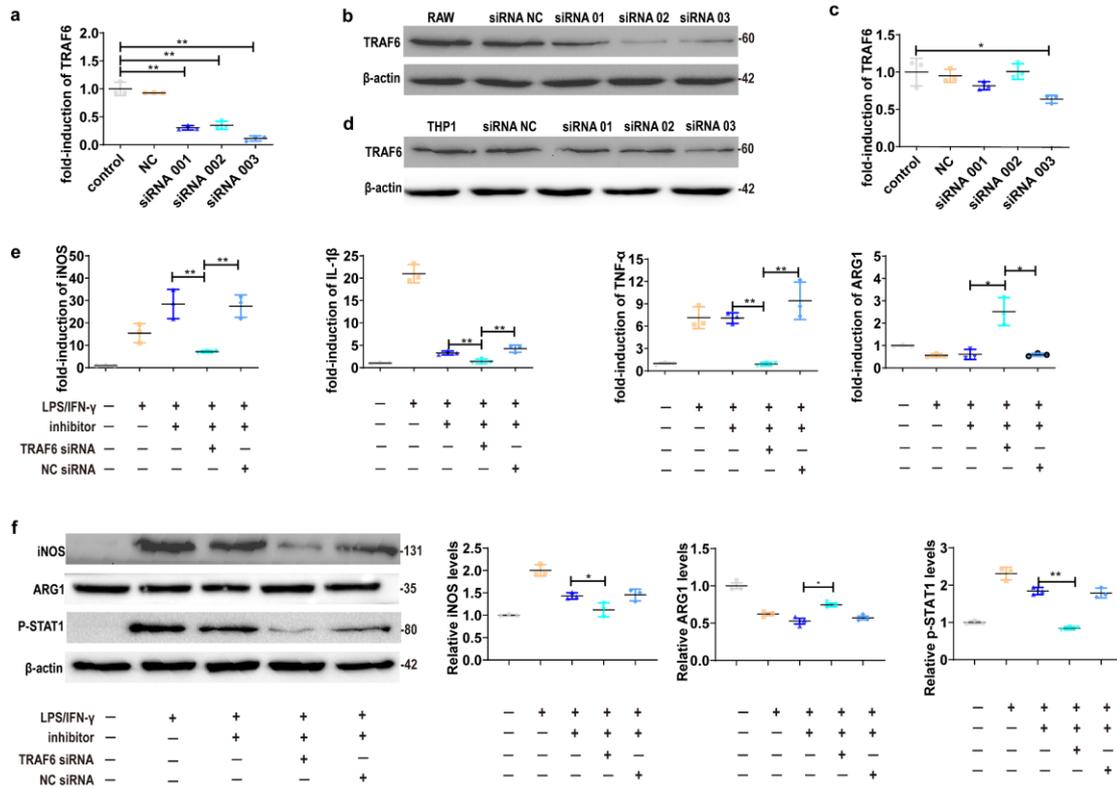
Fig. S1 UC-MSC-derived miR-146a-5p targets TRAF6 and facilitates M2 macrophage polarization in THP1.

Fig. S2 TRAF6 is required for UC-MSCs-derived miR-146a-5p-mediated M2 macrophage polarization in THP1.

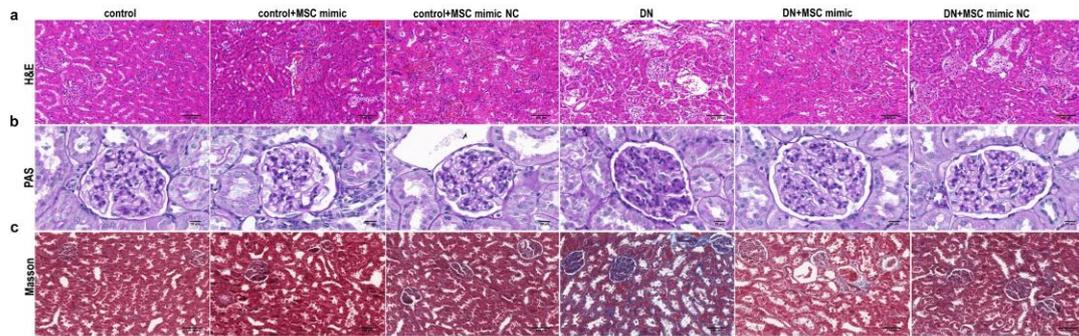
Fig. S3 miR-146a-5p modification in UC-MSCs enhanced the efficacy renal pathological improvement



**Supplementary Fig.1 UC-MSC-derived miR-146a-5p targets TRAF6 and facilitates M2 macrophage polarization in THP1.** The miR-146a-5p mimic, miR-146a-5p inhibitor were transfected into UC-MSCs, and the CM was collected to treat THP1. **a** Relative mRNA expression of inflammatory cytokines and M1/M2 macrophage markers including iNOS, MCP1, IL-1 $\beta$ , IL-6, TNF- $\alpha$ , TRAF6, ARG1, and IL-10 in the control THP1, LPS/IFN- $\gamma$ -stimulated THP1 and LPS/IFN- $\gamma$ -stimulated THP1 treated with the indicated CM. **b** Relative protein expression and semi-quantitative analysis of iNOS, ARG1, TRAF6, and p-STAT1 in THP1. Data presented as mean  $\pm$  SD in each group. Results in vitro are representative of three independent experiments. p values were calculated using Student's t-test. \* P < 0.05, \*\* P < 0.01.



**Supplementary Fig.2 TRAF6 is required for UC-MSCs-derived miR-146a-5p-mediated M2 macrophage polarization in THP1.** THP1 cells were transfected with TRAF6 siRNA or negative control (NC) siRNA, and then treated with CM derived from miR-146a-5p inhibitor transfected-UC-MSCs. The mRNA level **a** and protein level **b** of TRAF6 in RAW264.7 after transfection with TRAF6 siRNA. The mRNA level **c** and protein level **d** of TRAF6 in THP1 after transfection with TRAF6 siRNA. **e** Relative mRNA expression of inflammatory cytokines and M1/M2 macrophage markers including iNOS, IL-1 $\beta$ , TNF- $\alpha$ , and ARG1 in THP1. **f** Relative protein expression and semi-quantitative analysis of INOS, ARG1, and p-STAT1 in THP1. Data presented as mean  $\pm$  SD in each group. Results in vitro are representative of three independent experiments. p values were calculated using Student's t-test. \* P < 0.05, \*\* P < 0.01.



**Supplementary Fig.3 miR-146a-5p modification in UC-MSCs enhance the efficacy renal pathological improvement. a** H&E staining in the kidneys to observe the tubular dilatation and massive accumulation of inflammatory cells in the interstitial area. **b** PAS staining in the kidneys to observe the renal glomerular hypertrophy and collective apoptosis in tubular units. **c** Masson staining in the kidneys to observe the renal interstitial fibrosis, n=3 rats/group, Scale bar: 100 μm in H&E and Masson, Scale bar: 20 μm in PAS.