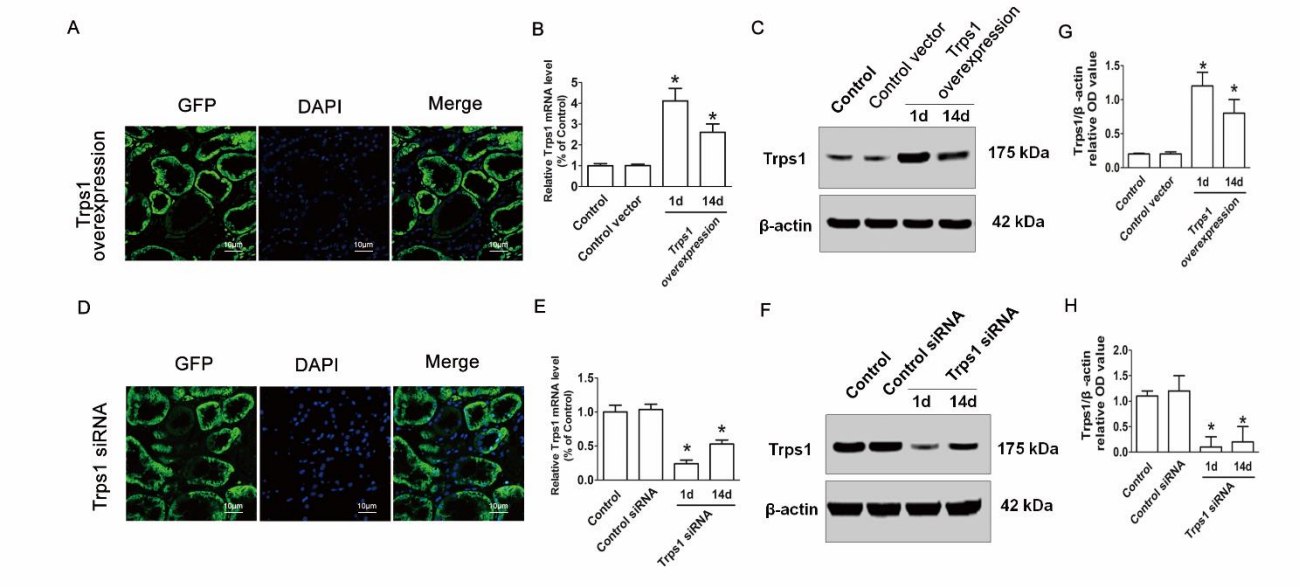
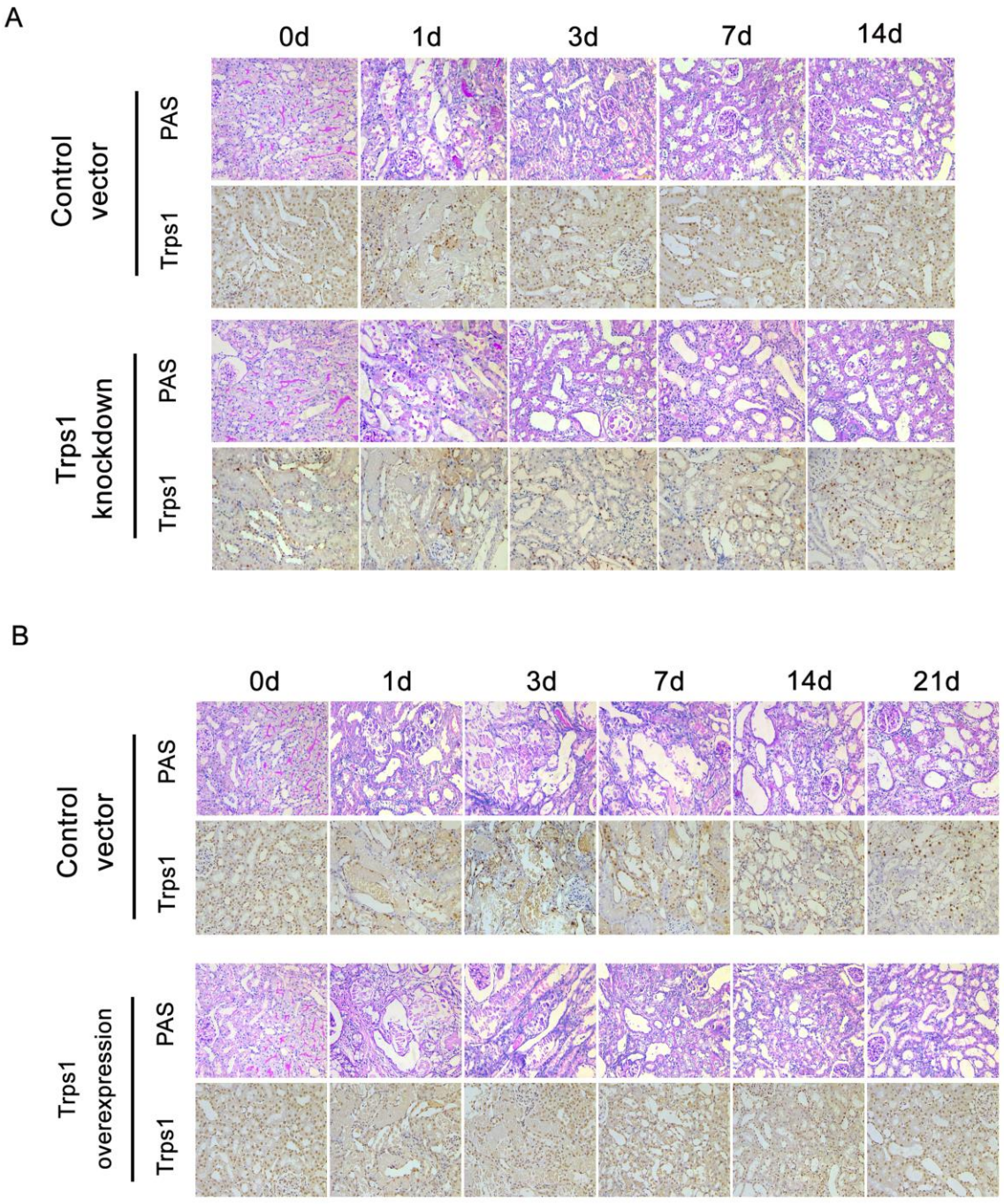
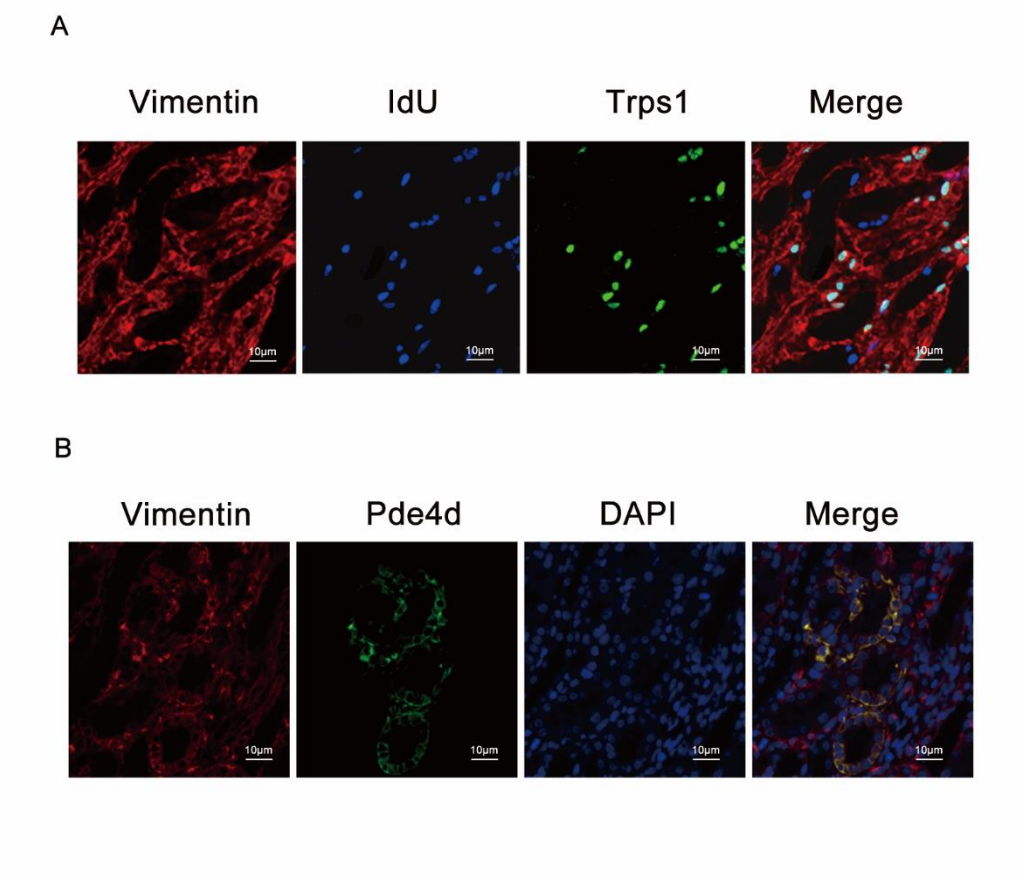
## Supplementary figures




Supplementary Fig.1. Trps1 expression in kidney tissues after ultrasound-microbubble-mediated gene transfer of GFP-Trps1 or Trps1 siRNA vector. (A) The GPF expression in kidney tissues on day 1 after transfection with Trps1 pLenti-C-mGFP Trps1-overexpression vector. (B) Trps1 mRNA expression was detected by quantitative real-time PCR in the kidneys from normal rats after Trps1 overexpression plasmid transfer. (C–D) Trps1 protein expression was measured by western blotting after Trps1 plasmid transfer, and its relative levels to β-actin were quantified using Bio-Rad Quantity One software. (E) The GFP expression in kidney tissues on day 1 after transfection with pGFP-C-shLenti Trps1-siRNA vector. (F)Trps1 mRNA expression was detected by quantitative real-time PCR in the kidneys from normal rats after Trps1 siRNA transfer. (G–H) Trps1 protein expression was measured by western blotting after Trps1 siRNA transfer, and its relative levels to β-actin were quantified. *P < 0.01 vs. control.




Supplementary Fig.2 Trps1 accelerated renal repair following I/R injury. In the moderate I/R model, PAS staining (top row) and immunohistochemistical analysis for Trps1 expression (bottom row) (A) are shown. (B) In the severe I/R model, PAS staining (top row) and immunohistochemistical analysis for Trps1 expression (bottom row) in renal tissues was performed in the control vector and Trps1-overexpression groups at different time points after I/R injury were measured.




Supplementary Fig.3 The immunofluorescence staining of renal tissues on day 3 after IR injury in the moderate injury group. (A) Trps1, ldU and vimentin; (B) pde4d and vimentin.