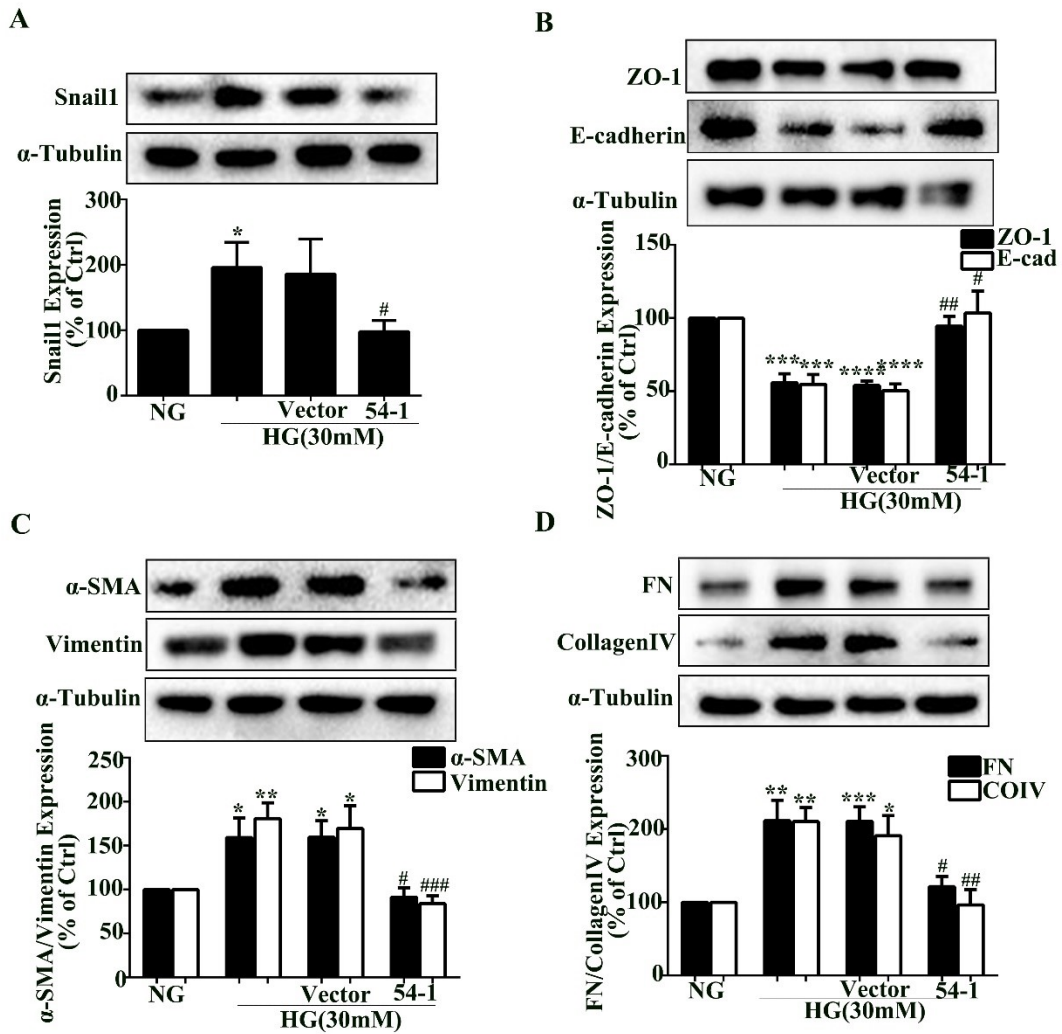


S1

Supplement Fig.1. Quercetin reversed the process of EMT and TIF in NRK-52E cells

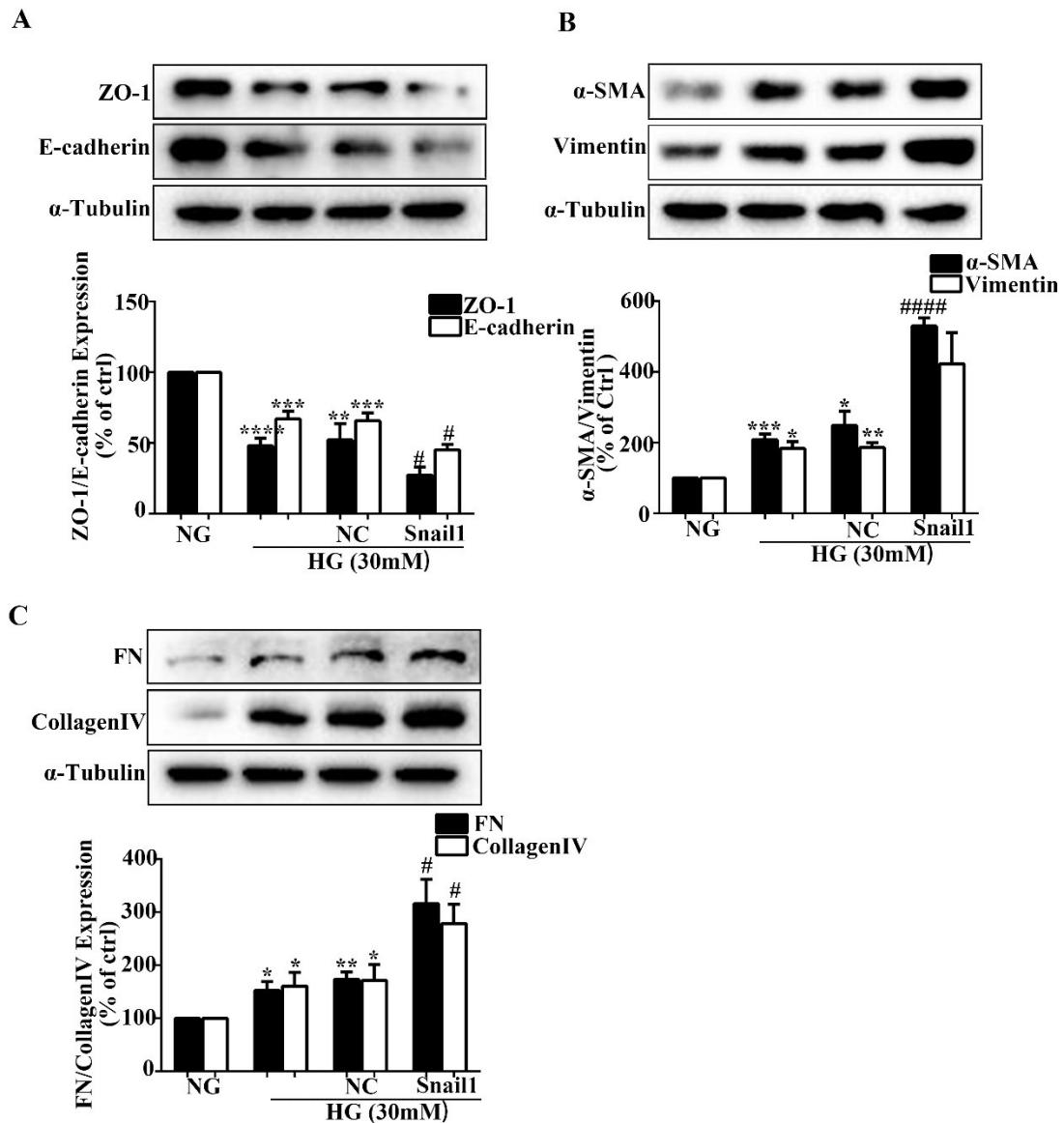
The IF assay was performed to evaluate the protein levels of epithelial markers (ZO-1 and E-cadherin), mesenchymal markers (α -SMA and Vimentin), and ECM components (FN and Collagen IV) ($200\times$ magnification). Independent experiments were performed at least thrice with similar results.



S2

Supplement Fig.2. Quercetin reversed the process of EMT and ECM-related proteins in NRK-52E cells induced by Snail1 overexpression

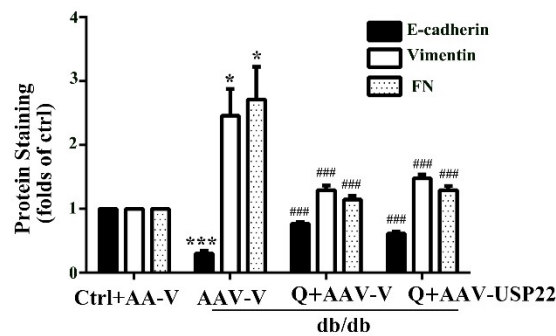
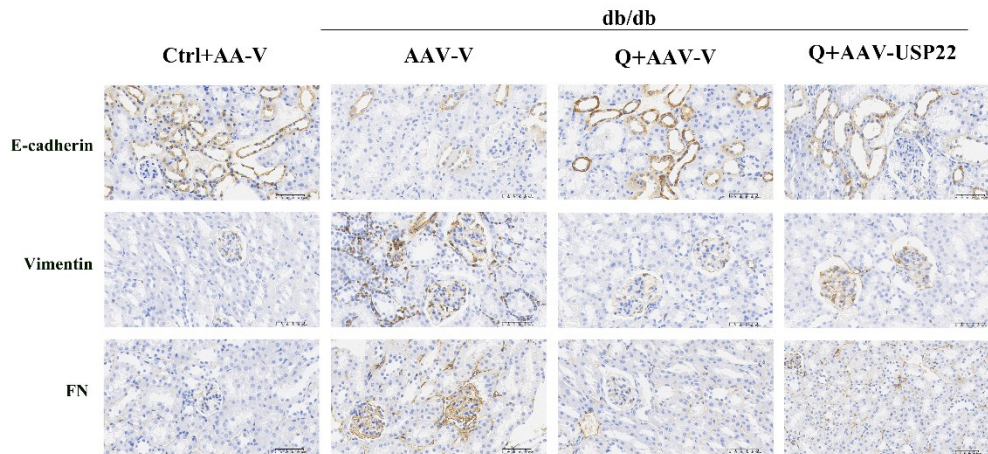
(A) Snail1 interference plasmid was transfected into NRK-52E cells. After 12 h, the cells were stimulated with or without HG for 36 h. The protein expression of Snail1 was determined by Western blot assay. (B) – (D) The protein expressions of ZO-1, E-cadherin, α -SMA, Vimentin, FN, and Collagen IV were determined after corresponding treatments. *, $P < 0.05$ vs. NG, **, $P < 0.01$ vs. NG, ***, $P < 0.001$ vs. NG; #, $P < 0.05$ vs. HG, ##, $P < 0.01$ vs. HG, ###, $P < 0.001$ vs. HG. Independent experiments were performed at least thrice with similar results.



S3

Supplement Fig.3. Quercetin reversed the process of EMT and ECM-related proteins in NRK-52E cells induced by Snail1 overexpression

(A) – (C) The Snail1 overexpression plasmid was transfected into NRK-52E cells. After 12 h, the cells were stimulated with or without HG for 36 h. The protein expressions of ZO-1, E-cadherin, α -SMA, Vimentin, FN, and Collagen IV were determined after the corresponding treatment. *, $P < 0.05$ vs. NG, ***, $P < 0.001$ vs. NG, ****, $P < 0.0001$ vs. NG; #, $P < 0.05$ vs. HG, ####, $P < 0.0001$ vs. HG. Independent experiments were performed at least thrice with similar results.



S4

Supplement Fig.4. Quercetin reversed the process of EMT and TIF induced by overexpression of USP22 in the kidney tissue of db/db mice

Expressions of epithelial markers (ZO-1 and E-cadherin), mesenchymal markers (α -SMA and Vimentin), and ECM components (FN and Collagen IV) in the kidney tissues were determined through IHC assay (400 \times magnification). *, $P < 0.05$ vs. Ctrl + AAV, **, $P < 0.01$ vs. Ctrl + AAV, ***, $P < 0.001$ vs. Ctrl + AAV, ****, $P < 0.0001$ vs. Ctrl + AAV; #, $P < 0.05$ vs. db/db + AAV, ##, $P < 0.01$ vs. db/db + AAV, ###, $P < 0.001$ vs. db/db + AAV. Independent experiments were performed at least thrice with similar results.