

**Sup. Figure 1. The kidney of heterozygous SIRT1 knockout mice develops normally.** Representative pictures of PAS staining showing the histology of the renal cortex and renal medulla from wild type mice (SIRT1+/+) and heterozygous SIRT1 knockout mice (SIRT1+/-) (200X).



**Sup. Figure 2. Hypertonic stress-induced COX2 expression is not affected by SIRT1 knockdown.** SIRT1 shRNA lentivirus or control virus infected mouse renal medullary interstitial cells (RMIC) were stimulated with hypertonic stress (550mOsm) produced by adding NaCl solution into culture medium for 0 or 6 hours. SIRT1 and COX2 expression were examined by immunoblot.





**Sup. Figure 3. SIRT1 expression in the ureteral obstructed kidney. (A)** Immunohistochemistry for SIRT1 expression in the obstructed kidney following 3 days UUO. **(B)** Immunofluorescent costaining for SIRT1 (red) and renal segmental markers (green) in the obstructed kidney: AQP1 (proximal tubule marker), THP (thick ascending limb marker), AQP2 (collecting duct marker). (G: glomerulus)