

Figure S1. Colocalization of Gprc5c expression in mice kidneys with proximal tubule marker LTL. Perfusion fixed kidneys obtained from either a Gprc5c WT (A-C) or a KO mice (D-F) were cryosectioned at  $\sim 10\mu\text{m}$  and stained with anti-Gprc5c (A,D) and LTL (B,E). Colocalization of Gprc5c expression (red) with LTL (green) is shown for Gprc5c WT (C); Nuclei are stained by Hoechst (Blue). Gprc5c stain is absent in the KO (F). Images captured at 10X.

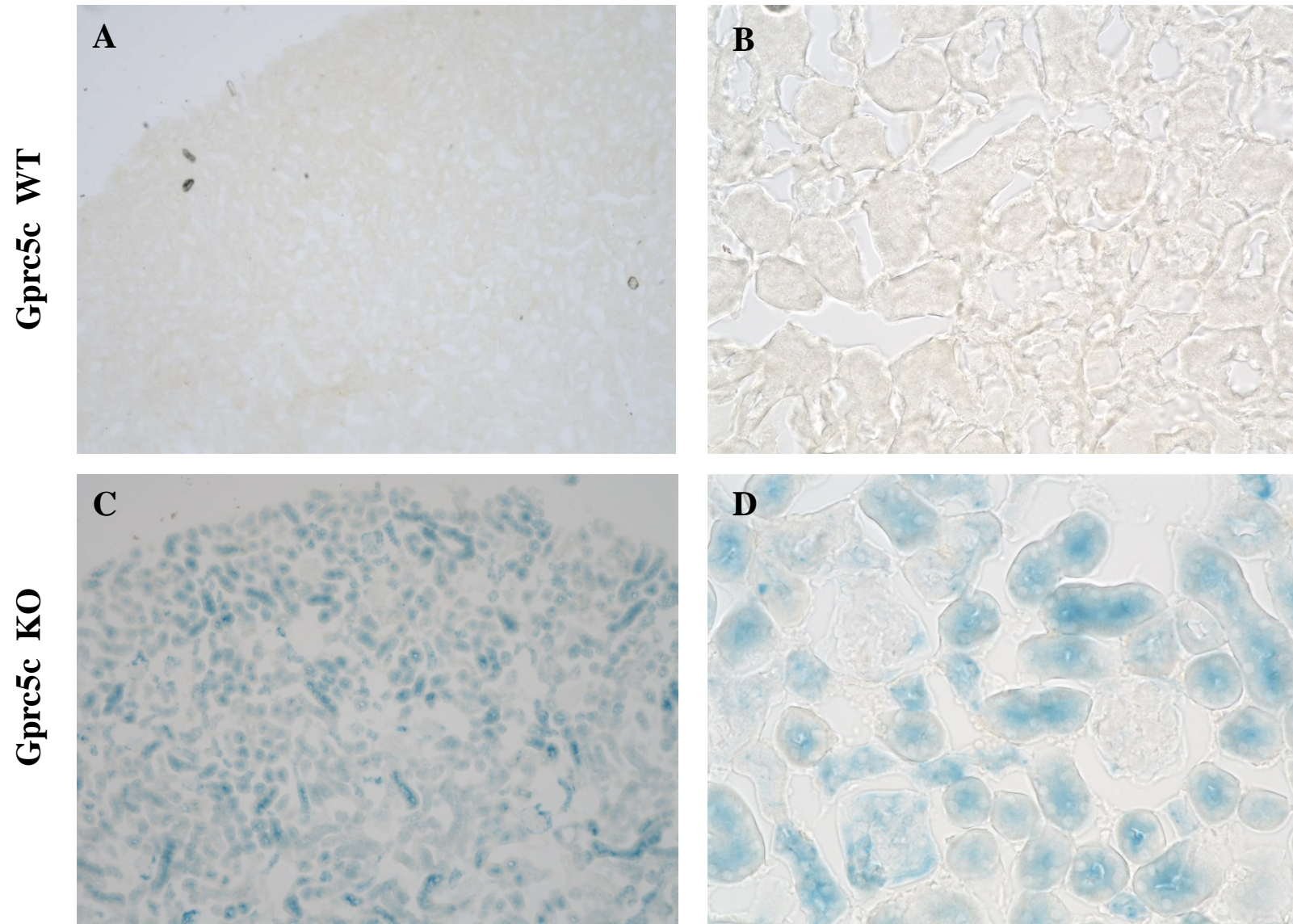


Figure S2.  $\beta$ -galactosidase staining as an index of Gprc5c localization in WT and KO kidneys.  $\beta$ -galactosidase signal is not detected in Gprc5c WT kidney (A -10X; and B- 40X) whereas it is detected strongly, primarily in the proximal tubule, in Gprc5c KO kidney (C- 10X and D- 40X). However, we also noticed weaker  $\beta$ -Galactosidase staining all along the nephron when the staining procedure was performed for an extended time period. No  $\beta$ -Galactosidase staining was observed in the Gprc5c WT mice. The variation in staining pattern of Gprc5c in the kidney between the antibody and  $\beta$ -Galactosidase could potentially be due to the difference in mRNA and protein expression levels of Gprc5c in the nephrons.