

Supplementary Figure 1

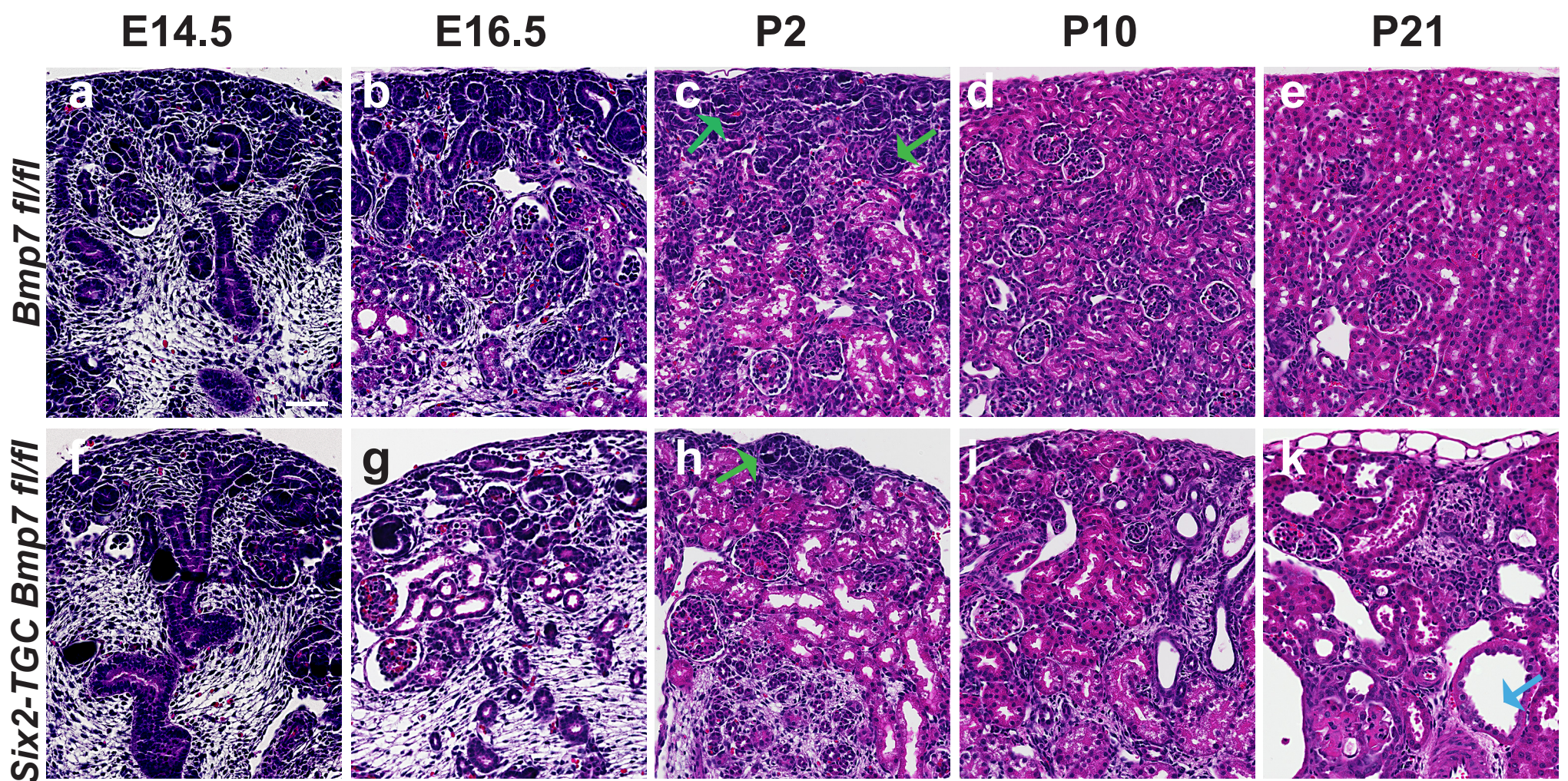


Fig. S1. Histology of *Bmp7* mutant kidneys Hematoxylin and Eosin stained sections, all panels at the same scale. (a-e): controls; (f-k) *Bmp7* mutants. Postnatal day time point at the top of each column. Green arrows: S-shaped tubule in (c), immature differentiating structure in (h). Cystic tubule; blue arrow in (k). Scale bar 50 μ m. All images are representative of three biological replicates.

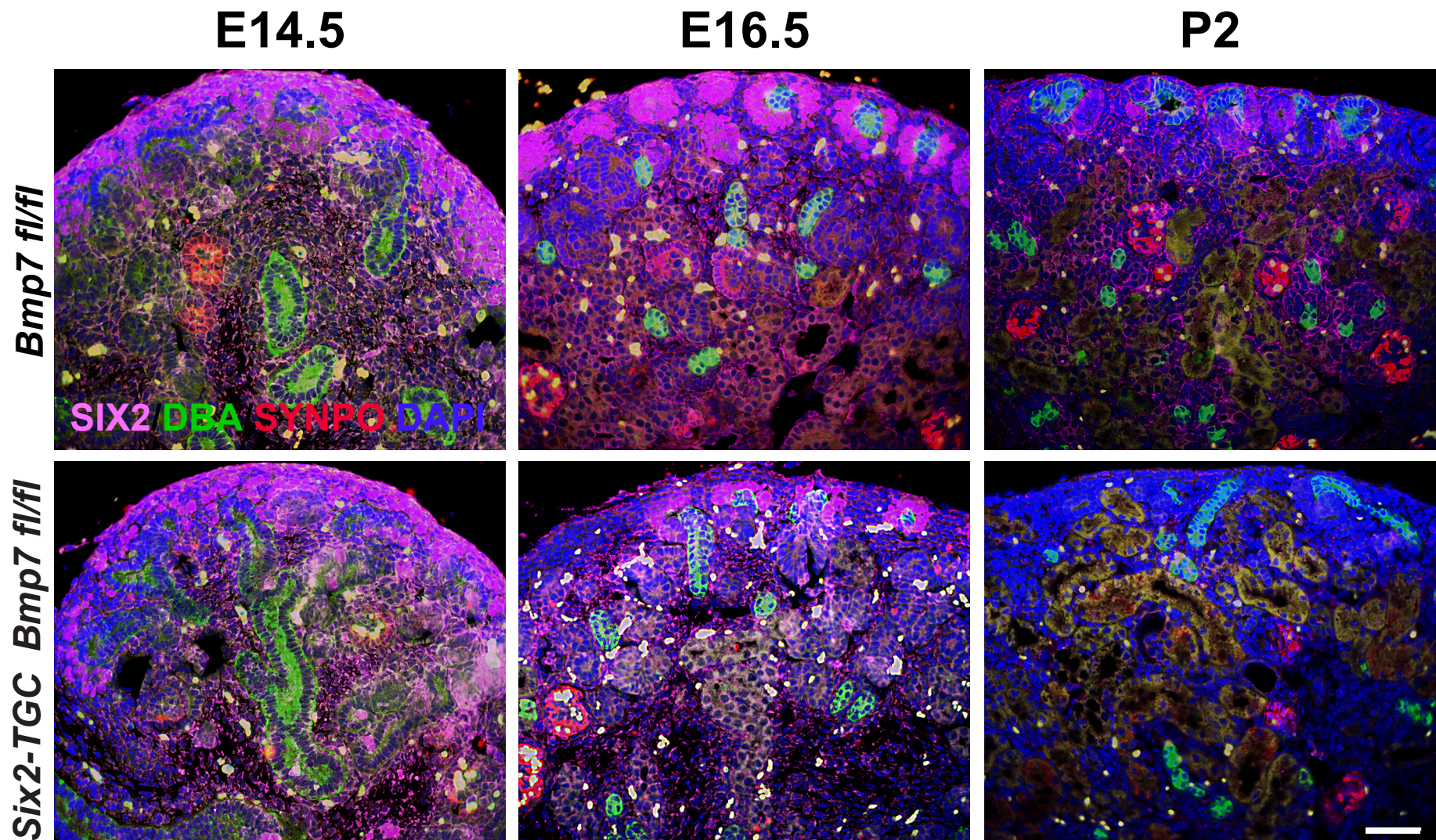


Fig. S2. Higher magnification images of time points shown in Figure 1 Scale bar = 50 μ m. All images are at the same scale. Time points at top of each column, genotypes at left of each row. Pink: Six2, Green: DBA lectin, Red: Synaptopodin. The olive-green color in the E16.5 and P2 panels is autofluorescence characteristic of kidney tubules in paraffin embedded tissues. All images are representative of three biological replicates.

Supplementary Figure 3

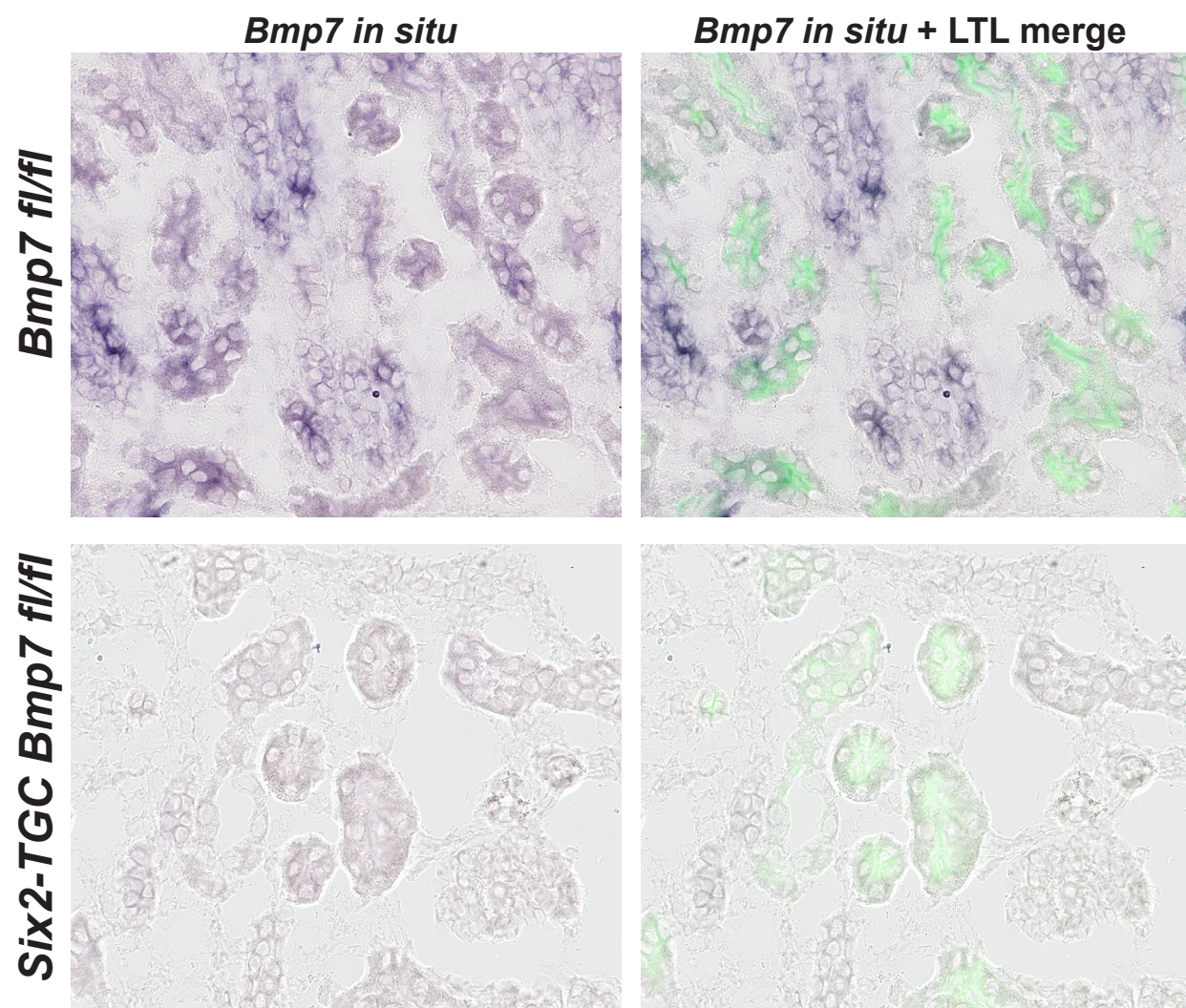


Fig. S3. Co-imaging of Bmp7 mRNA and LTL lectin. The Left column shows Bmp7 mRNA only. The right column shows a merge of the in situ hybridization and the LTL-lectin stain (green).

Supplementary figure 4

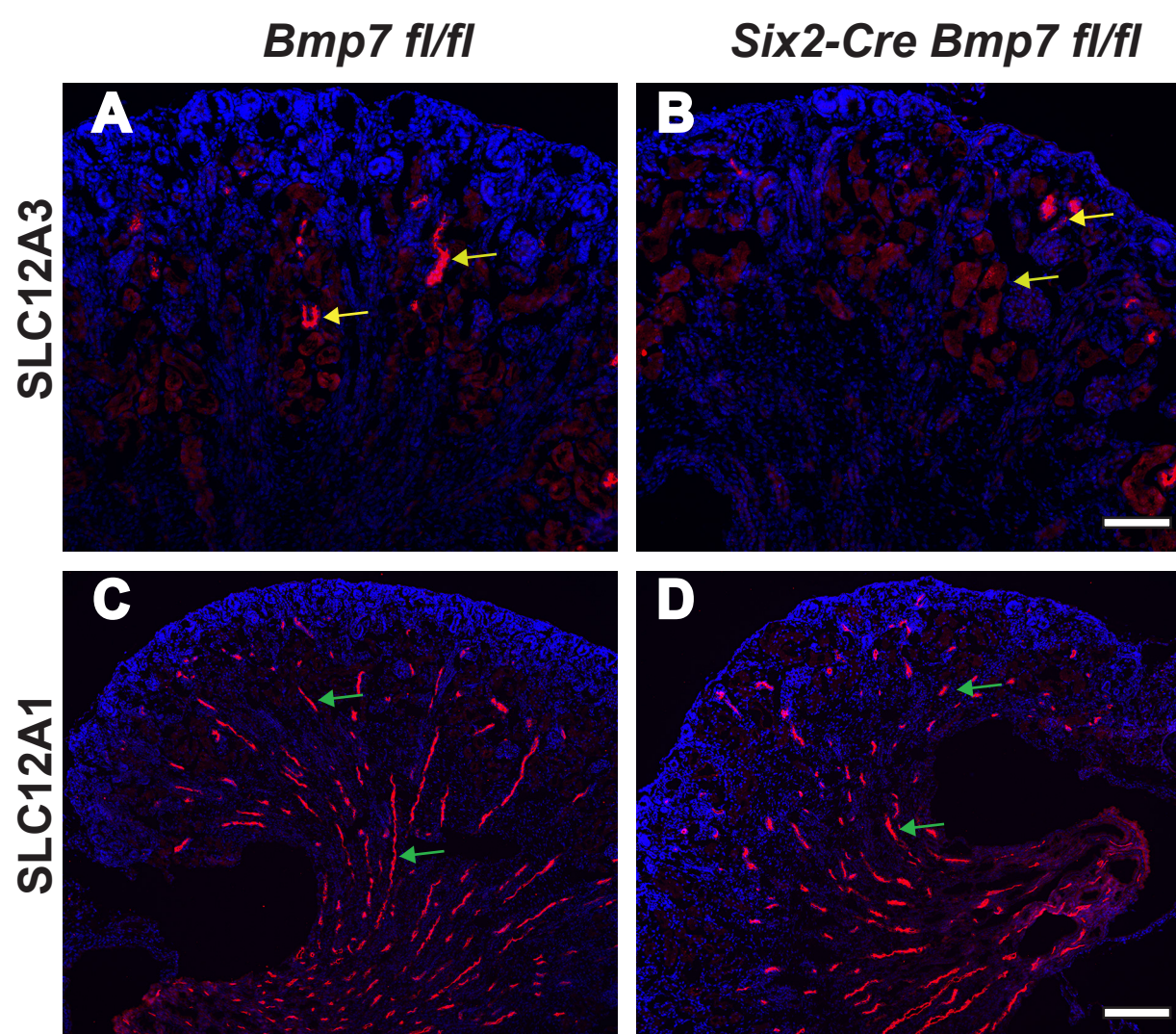


Fig. S4. SLC12A3 and SLC12A1 staining. (A,C) controls, (B,D) *Bmp7* mutants. (A,B) SLC12A3 staining for distal tubules (yellow arrows). (C,D) SLC12A1 staining for loops of Henle (green arrows). (A,B) scale bar 100 μ m; (C,D) scale bar 250 μ m. All images are representative of three biological replicates.

Supplementary figure 5

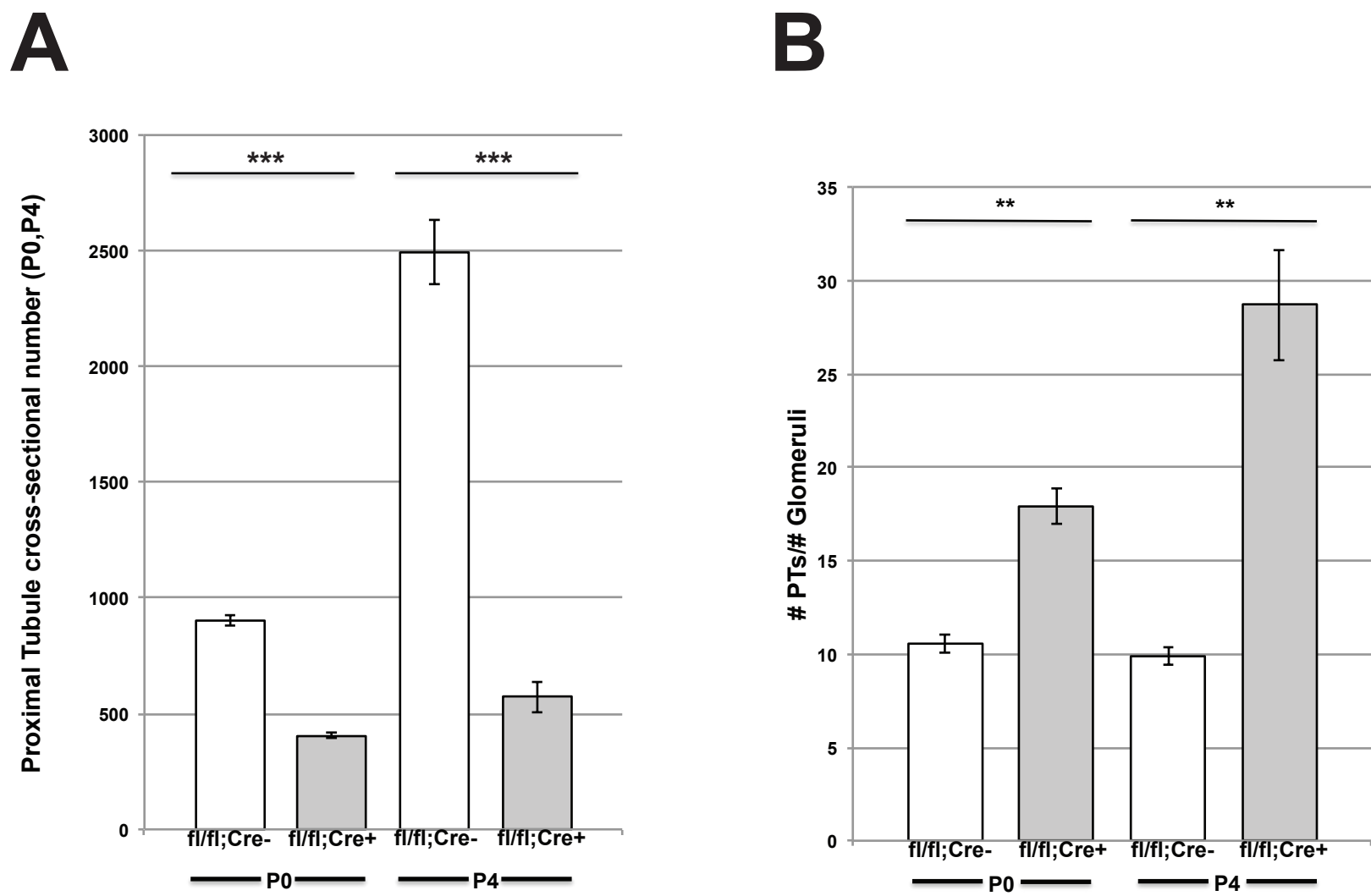


Fig. S5. Quantification of proximal tubule cross sections. (A) LTL stained cross sections in P0 and P4 kidneys. Genotypes at bottom of graph. (B) LTL-stained cross sections per glomerulus. All images are representative of three biological replicates.

Supplementary Figure 6

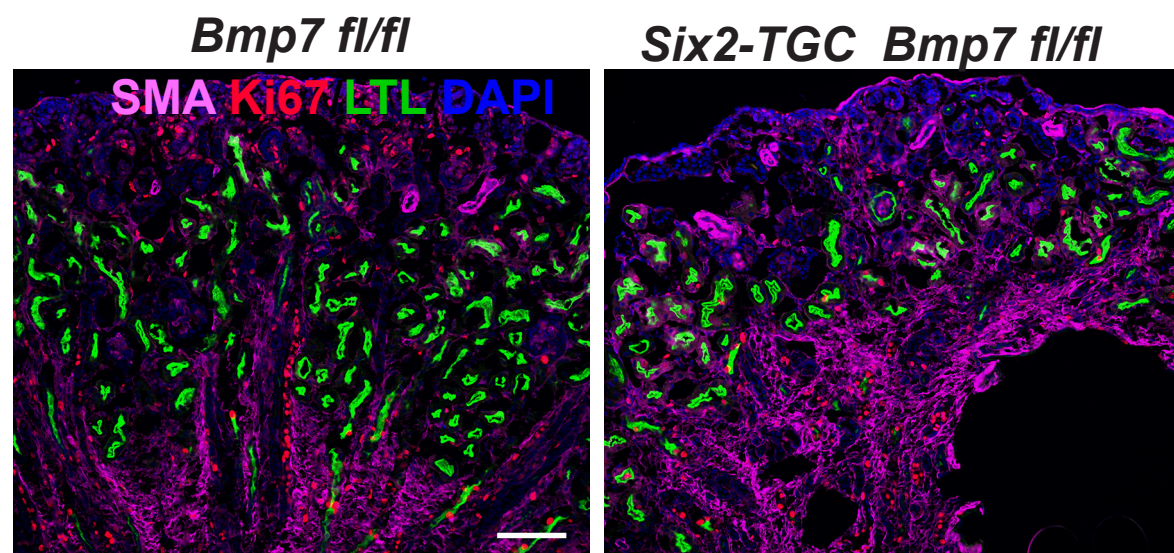


Fig. S6. SMA and Ki67 immunofluorescence. Genotypes at the top of each panel. Images are from P2 kidneys. Red: Ki67, Pink: SMA, Green: LTL lectin, Blue DAPI. Scale bar 100 μ m. All images are representative of three biological replicates.