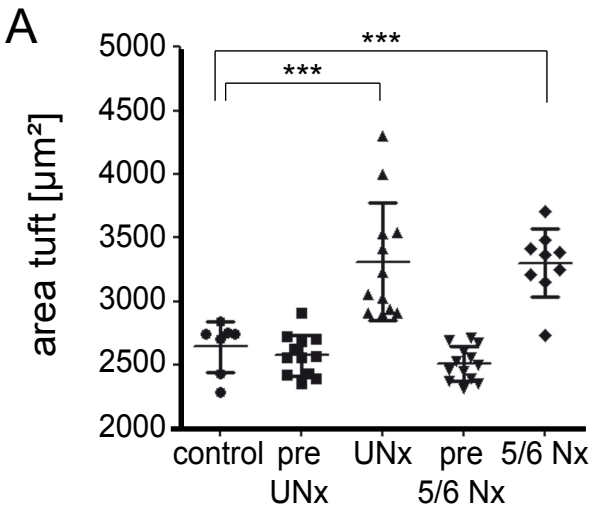
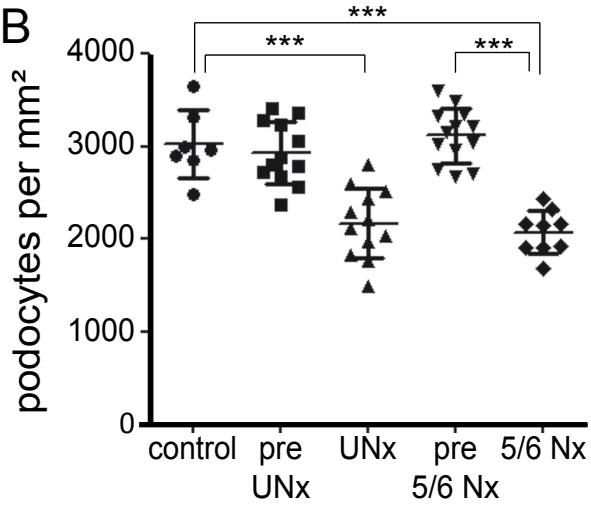
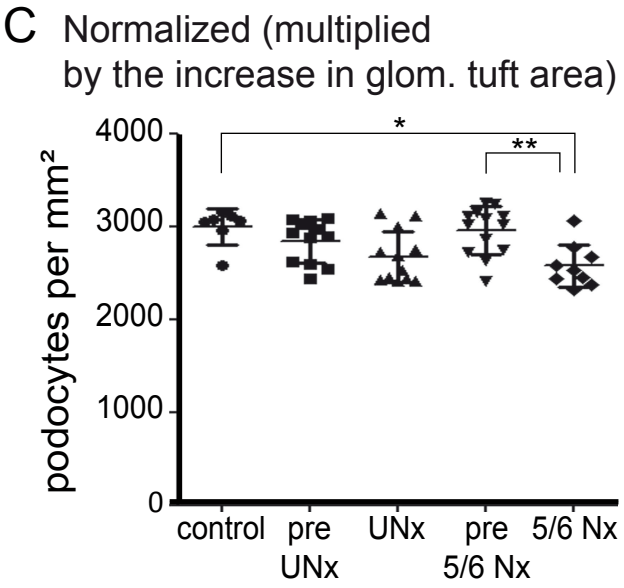
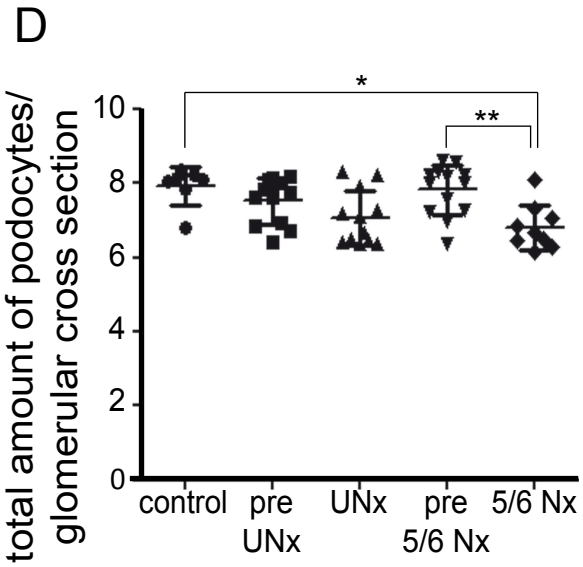
Supplemental Figure 1

Glomerular area and podocyte count (i.e. WT-1 pos. cells) UNx and 5/6 Nx - PEC-rtTA/LC1/R26R



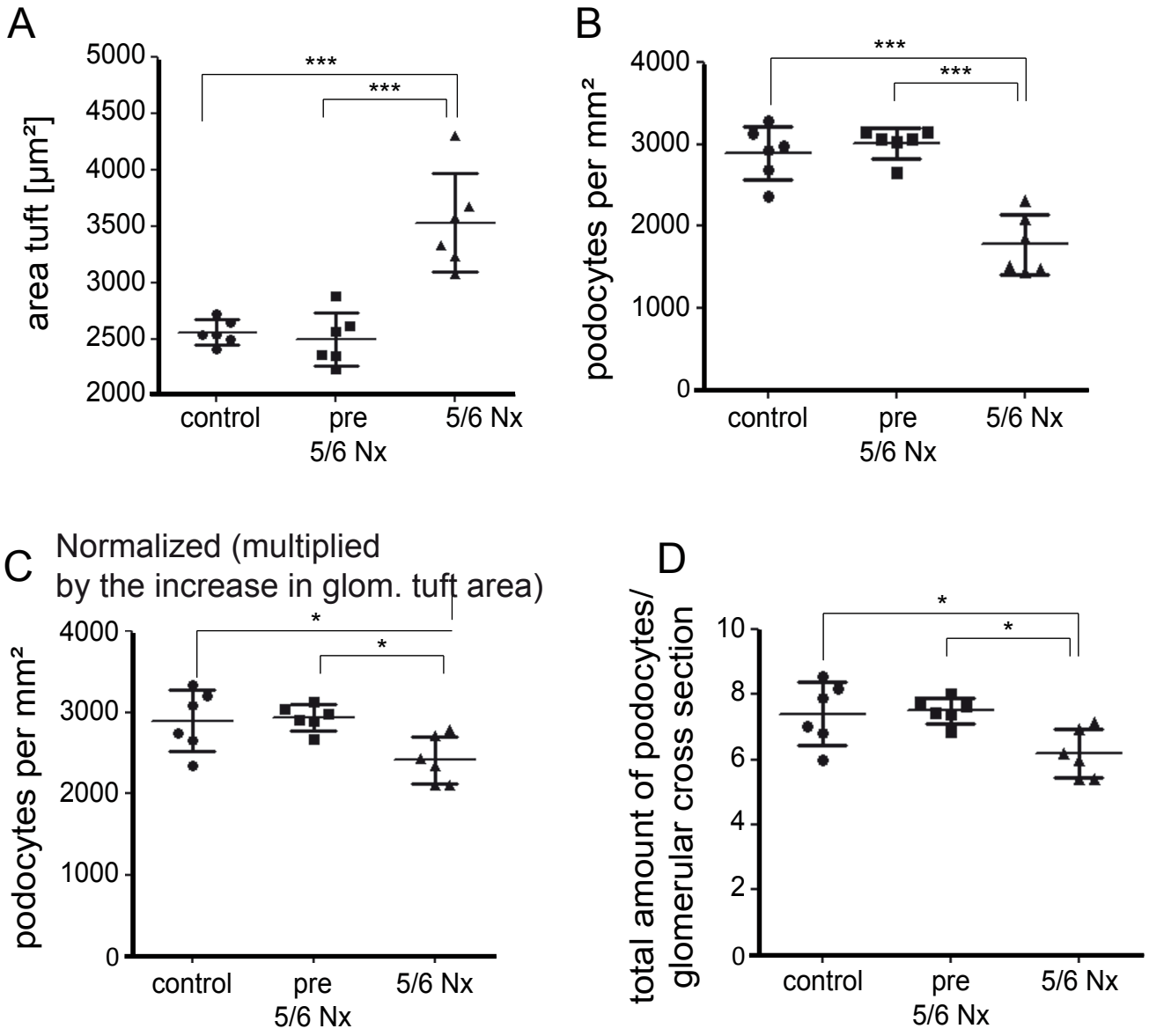






Supplemental Figure 2

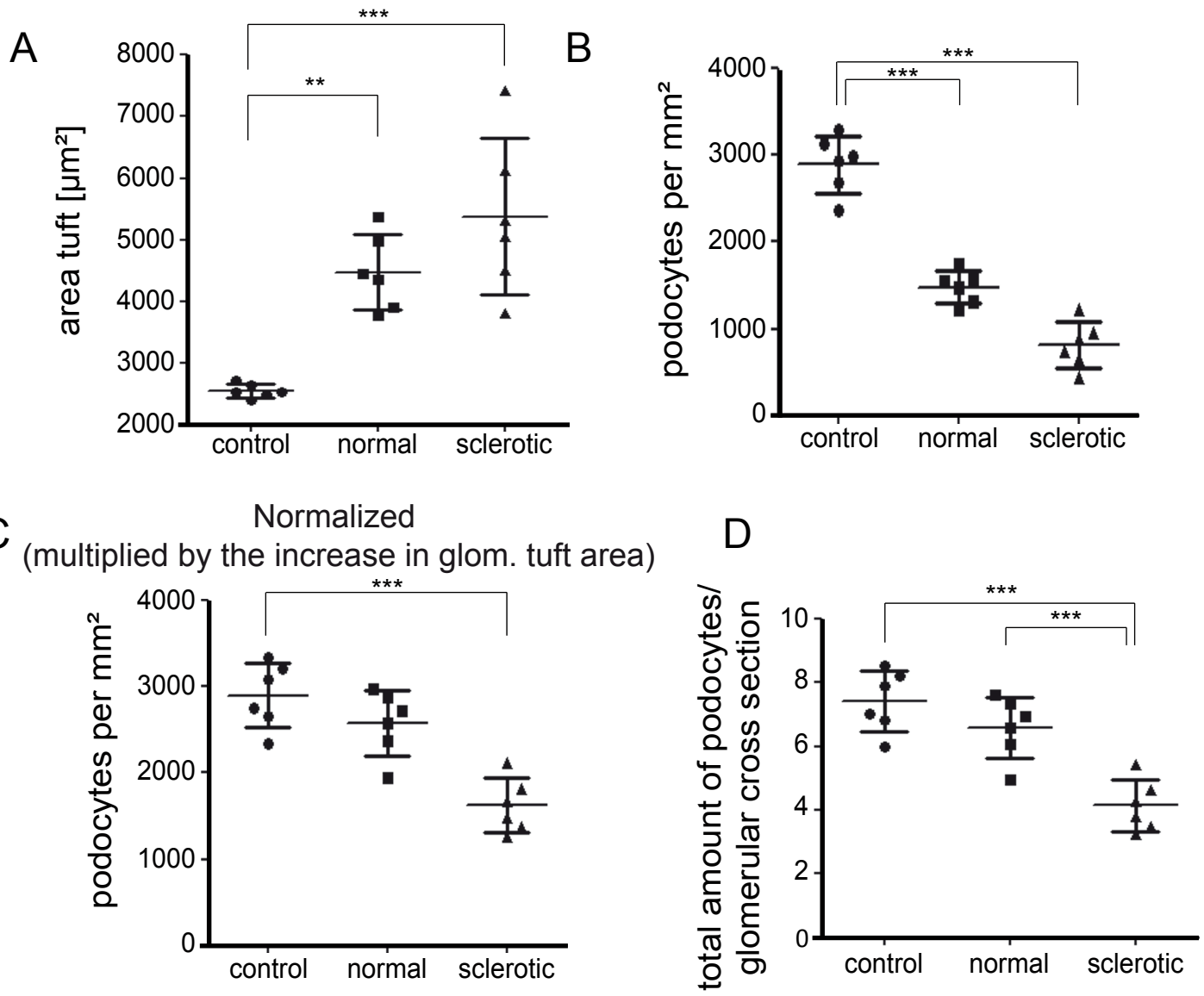
Glomerular area and podocyte count (i.e. WT-1 pos. cells) 5/6 Nx - PEC-rtTA/H2B-eGFP



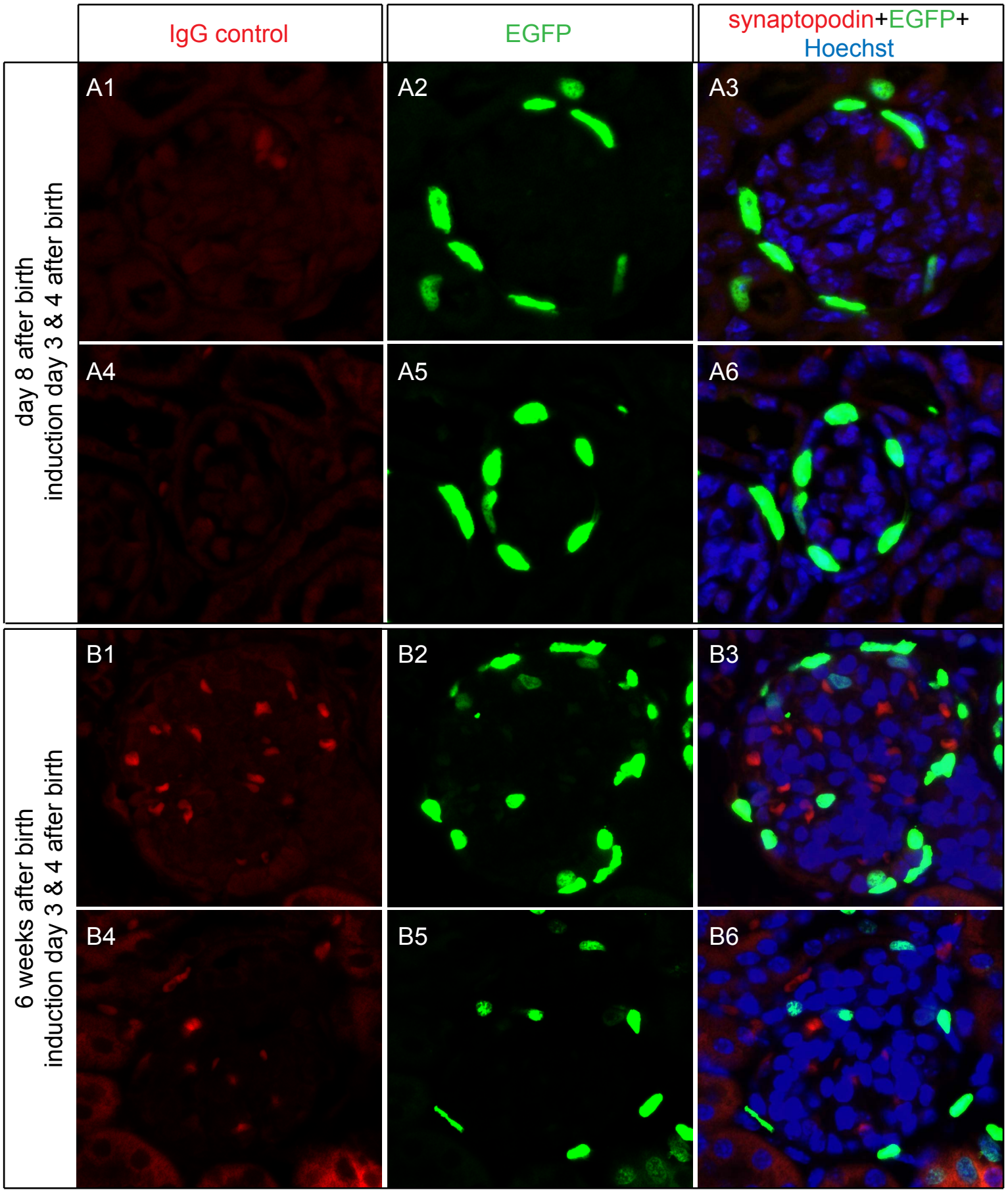
Supplemental Figure 3

Glomerular area and podocyte count (i.e. WT-1 pos. cells)

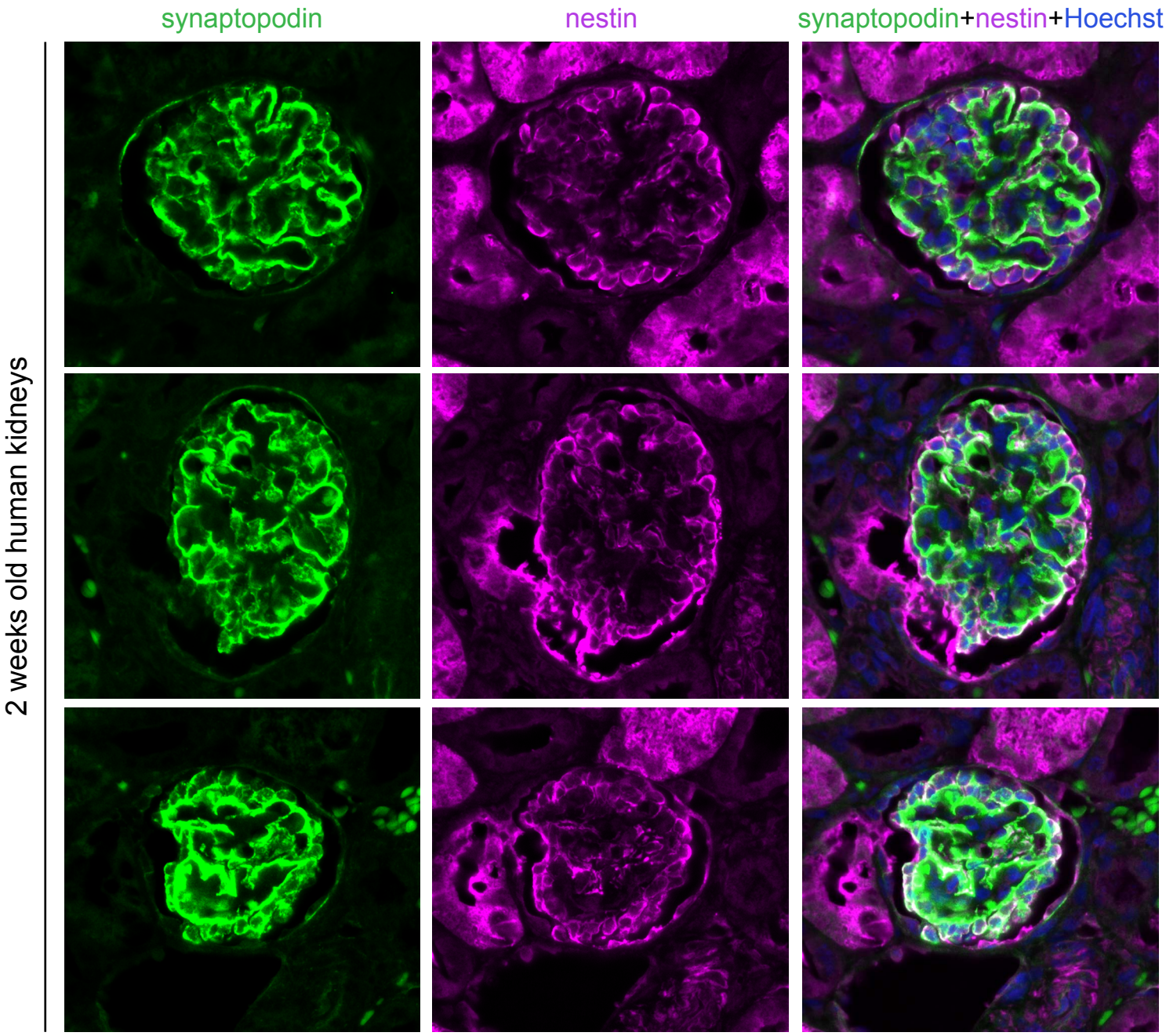
5/6 Nx + DOCA/NaCl - PEC-rtTA/LC1/R26R



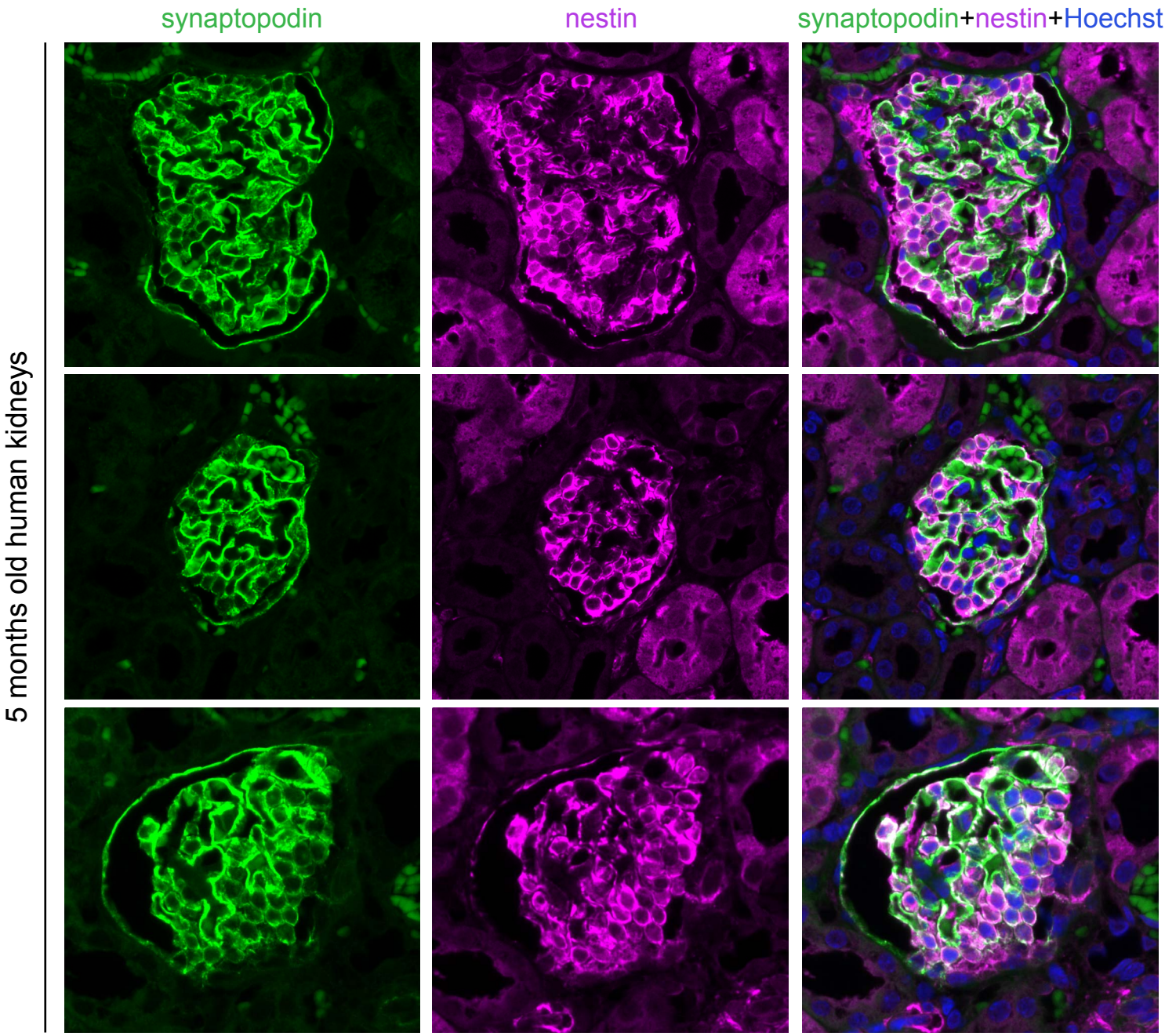
Supplemental Figure 4



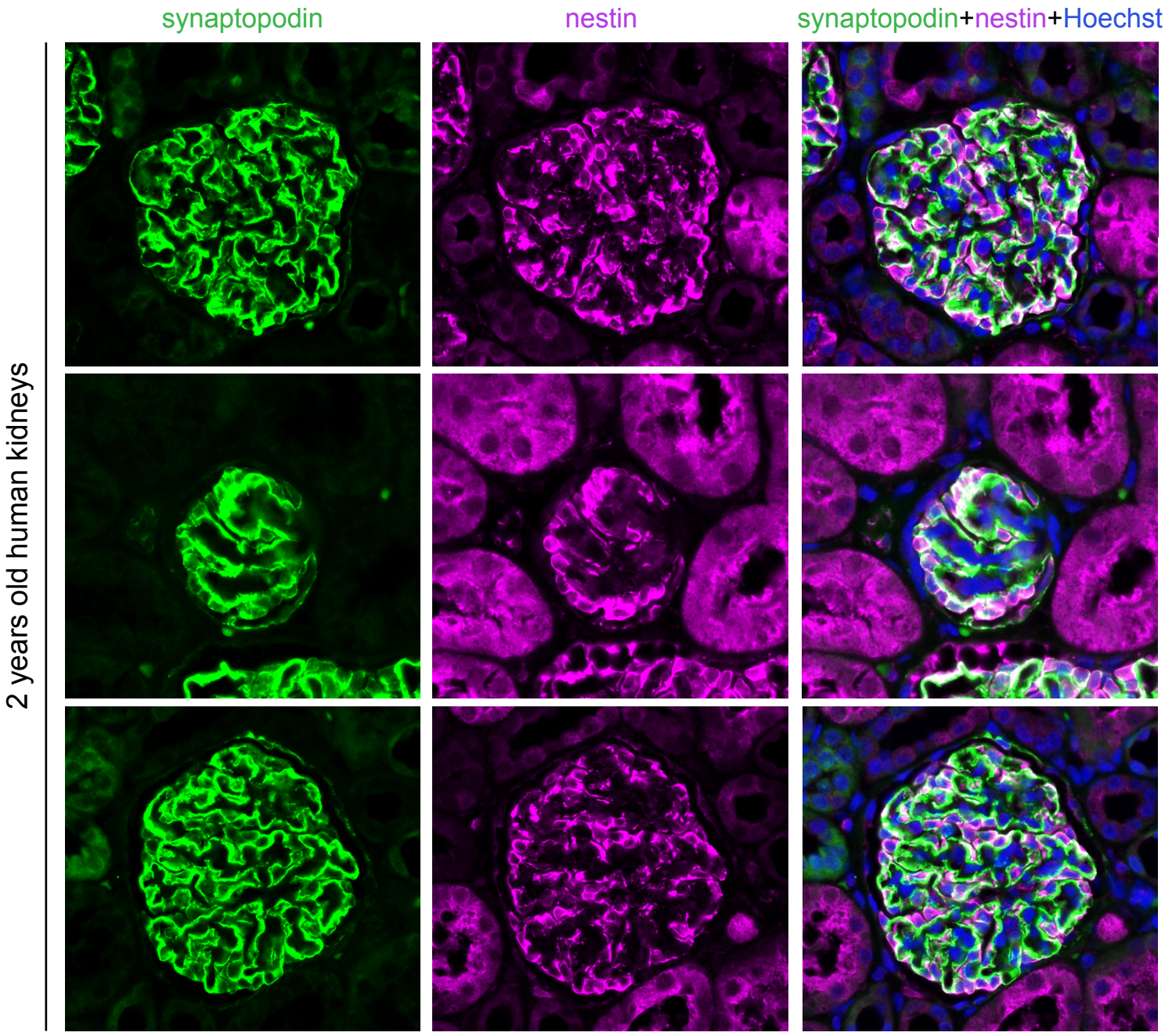
Supplemental Figure 5



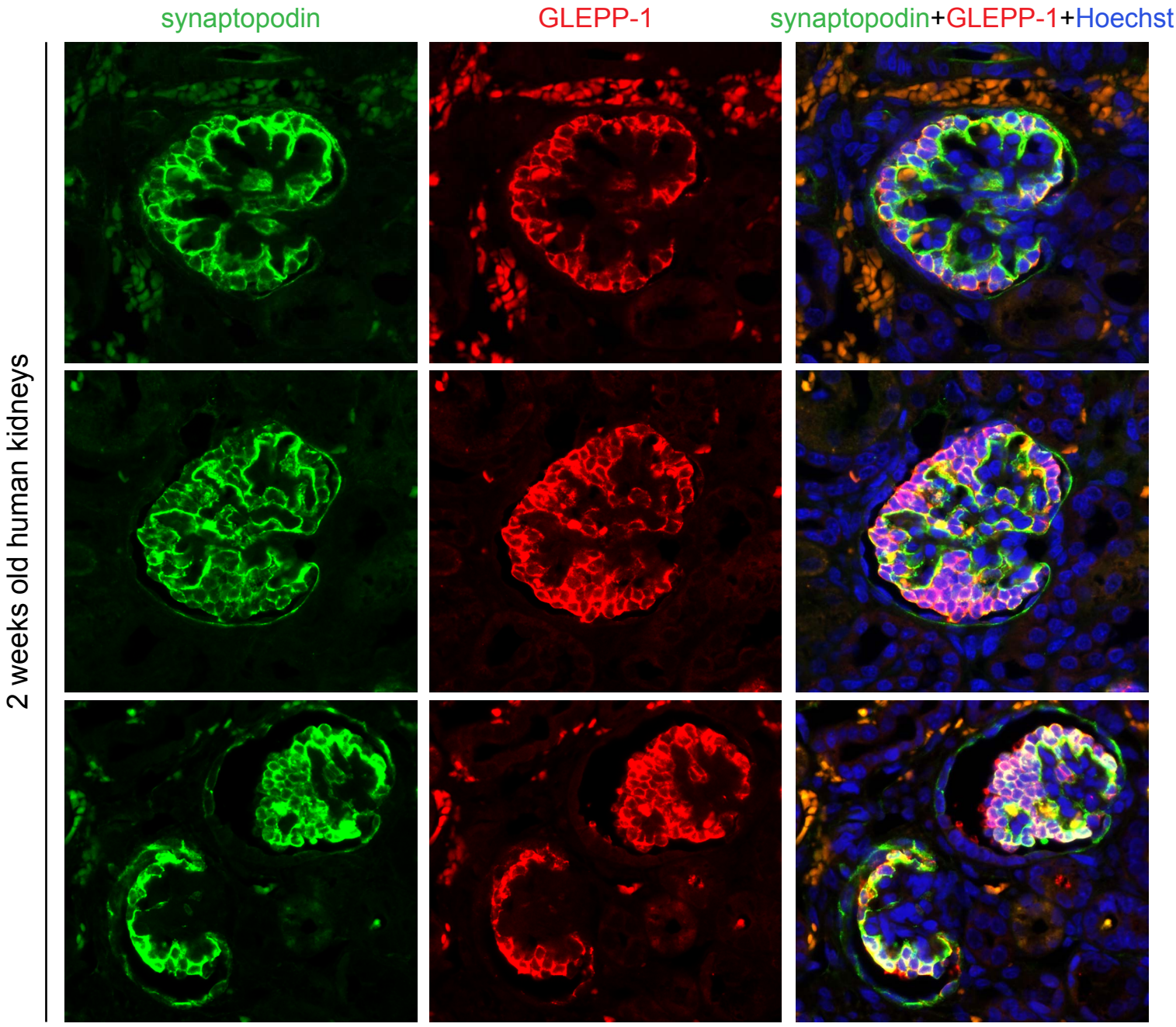
Supplemental Figure 6



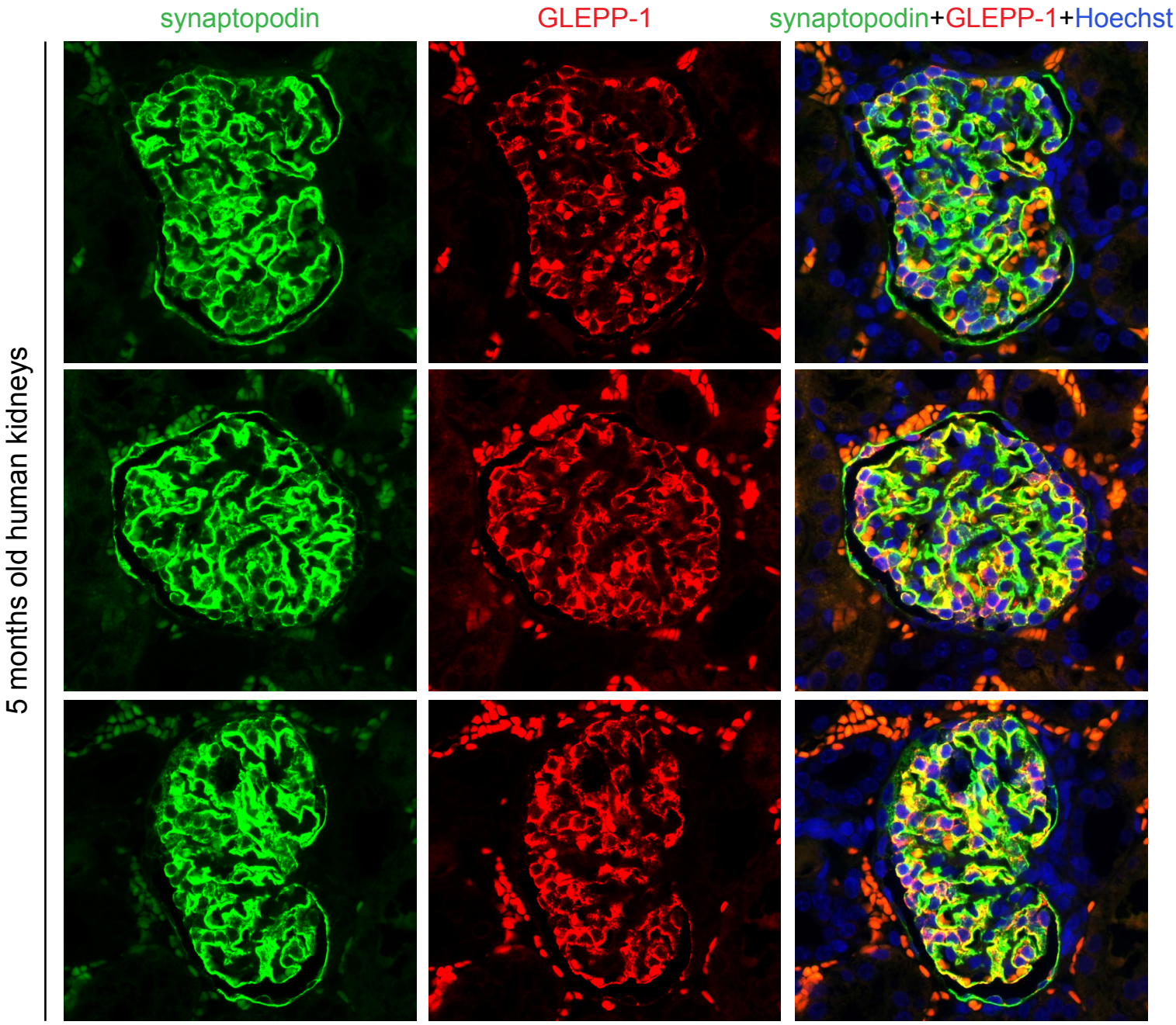
Supplemental Figure 7



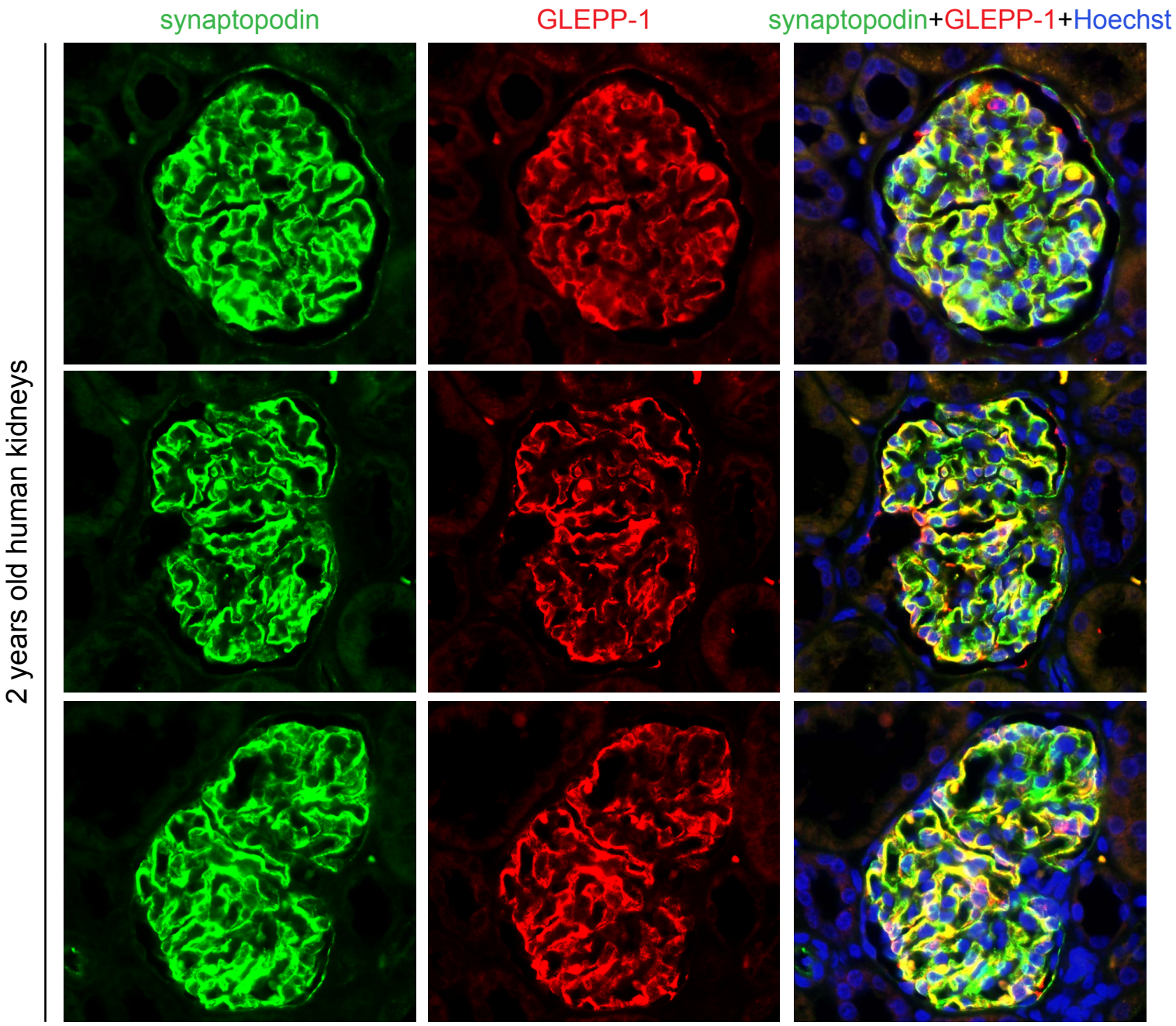
Supplemental Figure 8



Supplemental Figure 9



Supplemental Figure 10



Legends to supplemental figures

Suppl. Figure 1. Estimation of glomerular hypertrophy and podocyte numbers in PEC-rtTA/LacZ mice.

A. Glomerular tuft area of 80 glomerular cross sections in one PAS stained paraffin section for each mouse. ***, $p<0.001$ (one-way ANOVA followed by a Bonferroni test). **B.** In immunohistochemical WT-1 stained paraffin sections, WT-1 positive cells on the glomerular tuft (80 glomeruli per mouse) were counted and the average number of WT-1 positive cells per tuft area [podocytes per mm^2] was calculated. ***, $p<0.001$ (one-way ANOVA followed by a Bonferroni test). **C.** Podocyte number per tuft area was normalized to the increase of tuft area; *, $p<0.05$, **, $p<0.01$ (one-way ANOVA followed by a Bonferroni test). **D.** WT-1 positive cells per glomerular cross-section for each mouse. *, $p<0.05$, **, $p<0.01$ (one-way ANOVA followed by a Bonferroni test).

Suppl. Figure 2. Same as suppl. fig. 1 using PEC-rtTA/H2B-eGFP mice.

Suppl. Figure 3. Same as suppl. fig. 1 using PEC-rtTA/LC1/R26R mice subjected to 5/6UNx + DOCA salt to induce glomerulosclerosis. Sclerotic and histologically normal glomeruli were anayzed individually.

Suppl. Figure 4

IgG control staining. A1-6. Immunofluorescent co-stainings for EGFP (A2 + A5) and goat IgG (A1 + A4) of paraffin sections of 8 days old PEC-rtTA/H2B-eGFP mice that were injected with doxycycline on day 3 and 4 after birth to induce PEC labelling. Nuclei counterstaining with Hoechst (A3 + A6). 400x magnification. **B1-6.** Immunofluorescent co-stainings for EGFP (B2 +

B5) and goat IgG (B1 + B4) of paraffin sections of 6 weeks old PEC-rtTA/H2B-eGFP mice that were injected with doxycycline on day 3 and 4 after birth to activate PEC labelling. The weak red staining arises from erythrocytes within the capillary lumina. Nuclear counterstaining with Hoechst (B3 & B6). 400x magnification.

Suppl. Figure 5

Immunofluorescent co-staining of 2 weeks old human kidneys against synaptopodin (green) and nestin (purple) shows partial co-expression on Bowman's capsule. Nuclear counterstaining with Hoechst (blue). 400x magnification.

Suppl. Figure 6

Immunofluorescent co-staining of 5 months old human kidneys against synaptopodin (green) and nestin (purple) shows partial co-expression on Bowman's capsule. Nuclear counterstaining with Hoechst (blue). 400x magnification.

Suppl. Figure 7

Immunofluorescent co-staining of 2 years old human kidneys against synaptopodin (green) and nestin (purple) shows partial co-expression on Bowman's capsule. Nuclear counterstaining with Hoechst (blue). 400x magnification.

Suppl. Figure 8

Immunofluorescent co-staining of 2 weeks old human kidneys against synaptopodin (green) and GLEPP-1 (red) shows only little co-expression of the two markers. Nuclear counterstaining with Hoechst (blue). 400x magnification.

Suppl. Figure 9

Immunofluorescent co-staining of 5 months old human kidneys against synaptopodin (green) and GLEPP-1 (red) shows only little co-expression of the two markers. Nuclear counterstaining with Hoechst (blue). 400x magnification.

Suppl. Figure 10

Immunofluorescent co-staining of 2 years old human kidneys against synaptopodin (green) and GLEPP-1 (red) shows only occasional co-expression of the two markers on Bowman's capsule. Nuclear counterstaining with Hoechst (blue). 400x magnification.