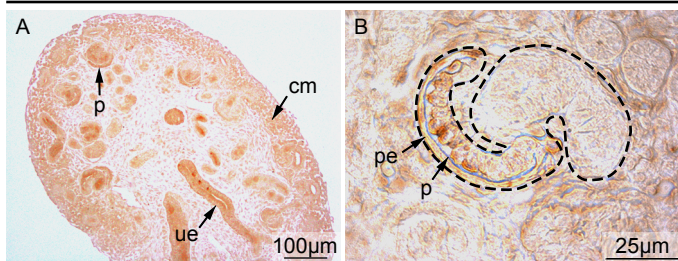
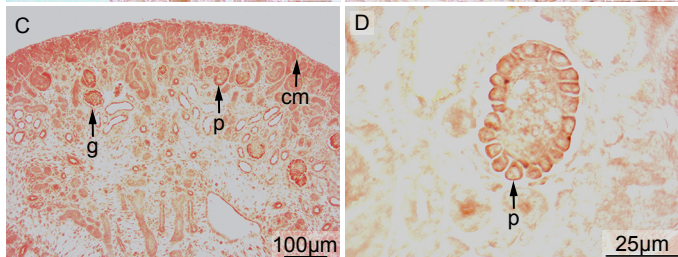


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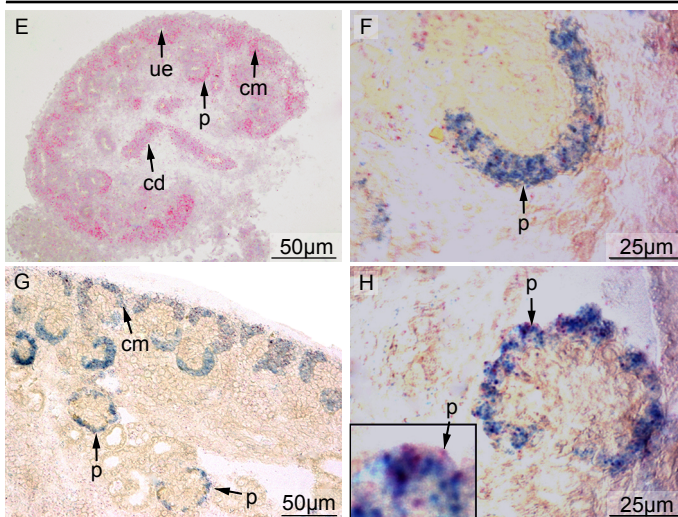
E13.5



E18.5

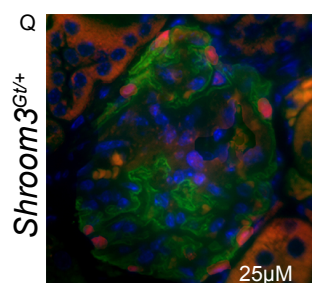
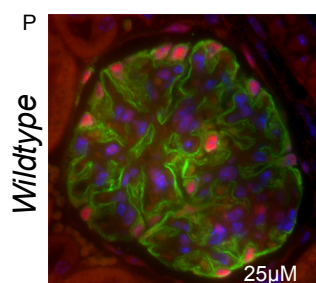
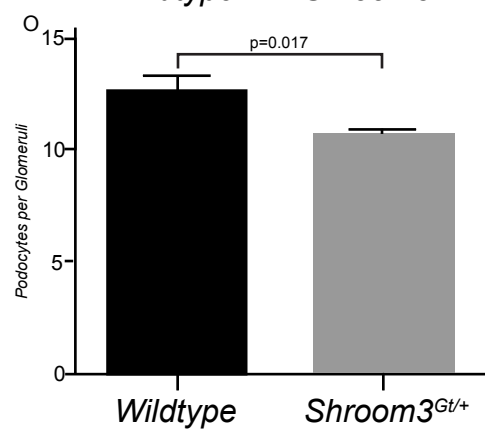
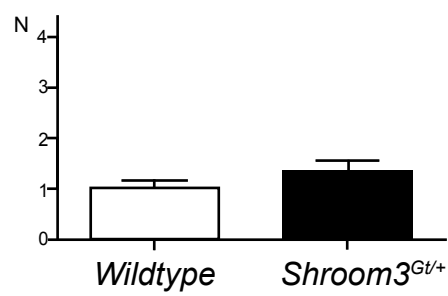
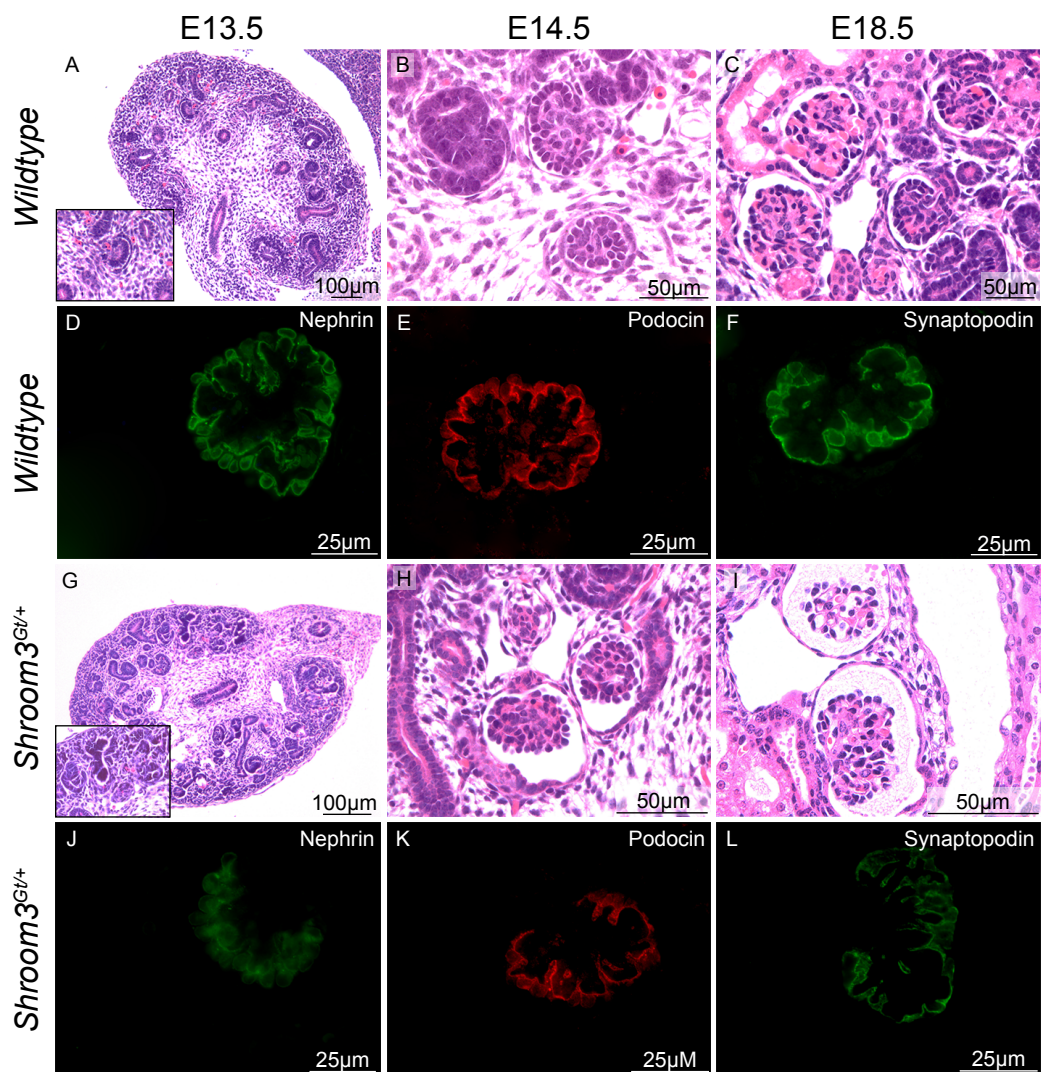


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Supplemental Figure 1. Analysis of Shroom3 protein and mRNA expression (A-D)

Immunohistochemistry demonstrating Shroom3 protein expression at E13.5 and E18.5. Expression is observed in the ureteric epithelium (ue), parietal epithelium (pe), and podocyte layer (p) of developing nephrons at E13.5 and E18.5. (E-H) In situ hybridization for *Shroom3* (red dots) and *Wilms tumor 1 (Wt1)* (blue dots) demonstrates expression of *Shroom3* in the developing and mature podocytes of the glomerulus (insets-arrow).



Supplemental Figure 2. Disrupted glomerulogenesis in $Shroom3^{Gt/+}$ heterozygote kidneys. (A-C) H&E staining of E13.5, E14.5 and E18.5 *Wildtype* Kidneys (D-F) Immunofluorescence of podocyte specific proteins in *Wildtype* mice. (G-I) H&E staining of E13.5, E14.5 and E18.5 *Shroom3^{Gt/+}* kidneys demonstrating collapsing and degenerating glomeruli at E13.5 (A-inset), and cystic glomeruli, with a dilated Bowman's capsules throughout development. (J-L) *Shroom3^{Gt/+}* glomeruli exhibit diffuse Nephrin expression while Podocin and Synaptopodin appear unchanged. (M-N) Quantitative RT-PCR for nephrin in *Shroom3^{Gt/Gt}* and *Shroom3^{Gt/+}* kidneys at E18.5 showing no change in the level of nephrin expression. (O-Q) Podocyte counting demonstrating modest reductions in the number of podocytes per glomeruli in *Shroom3^{Gt/+}* mutants at 1year. A representative example the number of Wt-1 positive podocytes per glomerulus in P and Q.