

Supplementary Data

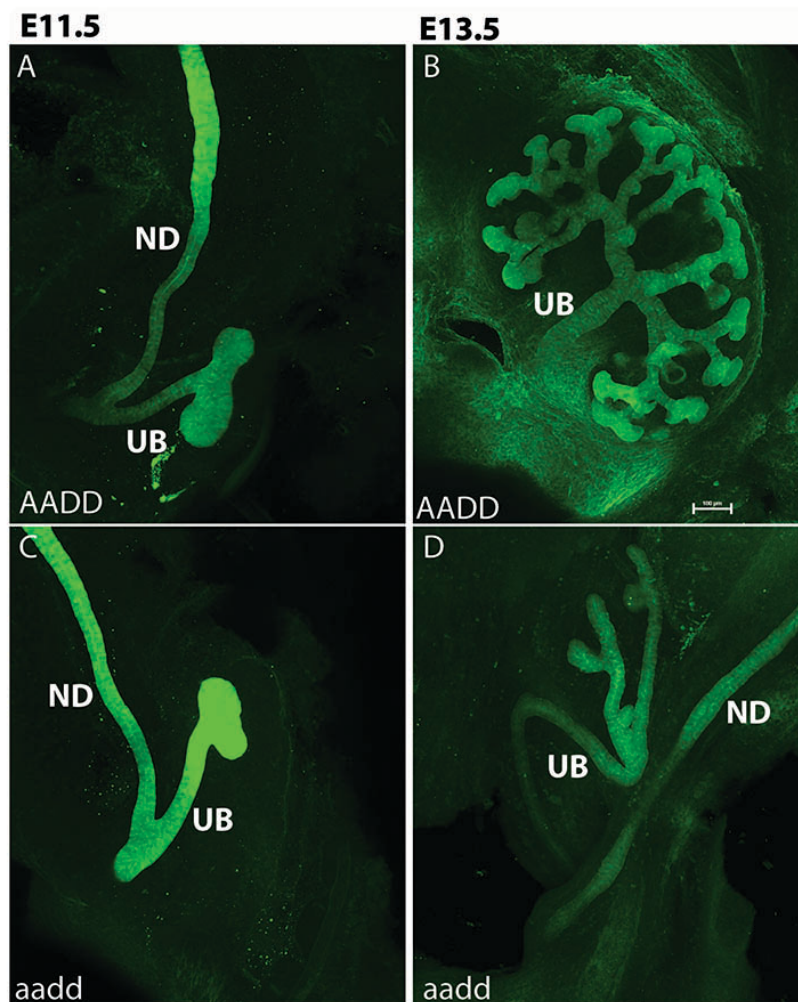


Fig. S1. Ureteric bud branching morphogenesis is reduced In Hox mutants. At E11.5 the ureteric bud in the *Hoxa9,10,11/Hoxd9,10,11* (aadd) mutant kidneys forms and branches normally. By E13.5, however, UB branching is severely retarded. UB, ureteric bud; ND, nephric duct. Visualized with Calb1 Aby.

E18.5 Slc12a3

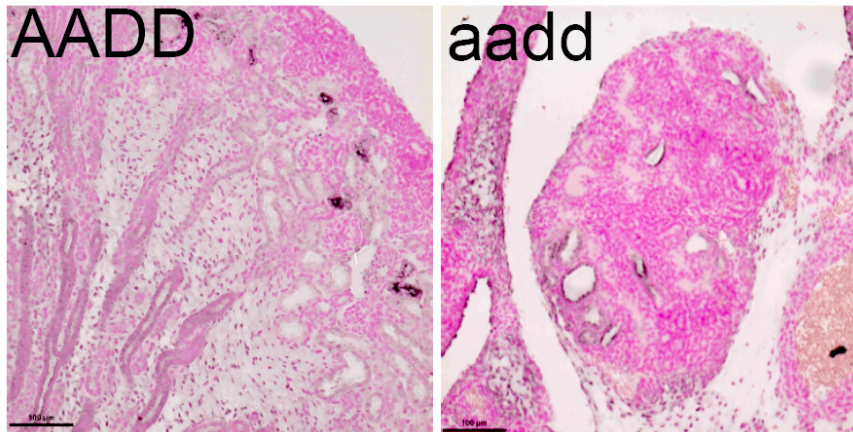


Fig. S2. The distal tubule forms in *aadd* Hox mutant kidneys. The E18.5 *Hoxa9,10,11/Hoxd9,10,11* (*aadd*) kidney shows the presence of distal tubules, positive for the marker *Slc12a3* (black). This further confirms that all tubule segments are made by the *aadd* mutant kidneys.

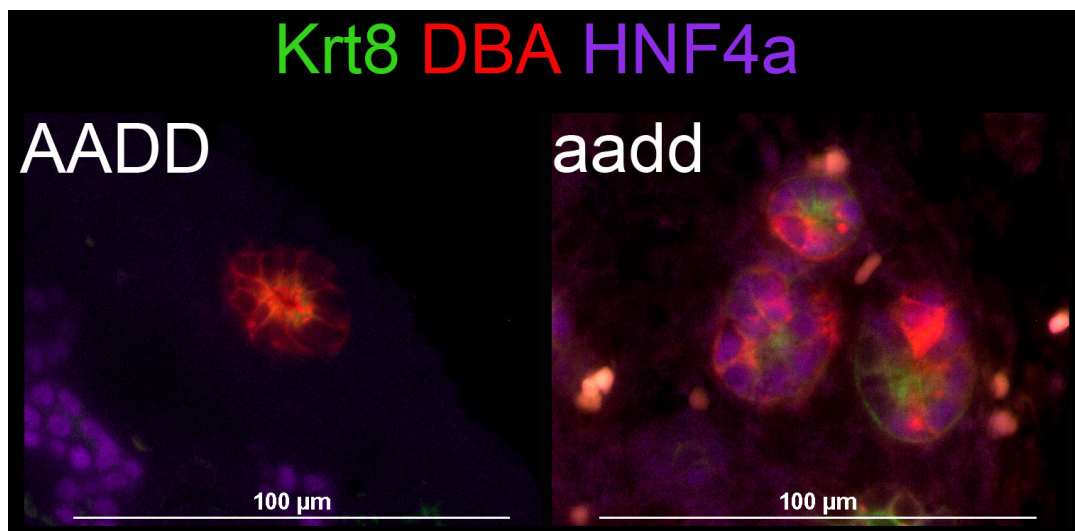


Fig. S3. Three adjacent tubules in E18.5 *Hoxa9,10,11/Hoxd9,10,11* (*aadd*) kidneys showing lineage infidelity, with each showing expression of two distal tubule markers (DBA and *Krt8*) as well as a proximal tubule marker (*Hnf4a*).