

**Table S1. Proliferation and apoptosis in embryonic proximal ureters**

Proliferation	E15 (+/+)	E15 (-/-)	E16 (+/+)	E16 (-/-)
Urothelia	13.2±4.3	9.92±6.0	11.7±4.8	6.3±0.62
Aggregated mesenchyme	7.9±3.8	4.3±1.9	2.1±1.5	2.3±0.64
Loose mesenchyme	9.5±1.3	11.3±2.9	6.4±3.3	4.9±1.3
Apoptosis	E15 (+/+)	E15 (-/-)	E16 (+/+)	E16 (-/-)
Urothelia	0.47±0.33	0.09±0.09	0.42±0.42	0.09±0.09
Aggregated mesenchyme	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
Loose mesenchyme	0.12±0.07	0.16±0.16	0.00±0.00	0.05±0.05

Point prevalence of proliferation (% PCNA-positive cells) and apoptosis (% TUNEL-positive cells) showed that the percentage point prevalence of positive nuclei in urothelia, condensed mesenchyme (containing presumptive SMCs) near the urothelium and looser mesenchyme outside this zone, was not significantly different in wild-type versus null mutant proximal ureters at both E15.5 (before the onset of hydronephrosis) and also at E16.5 (when hydronephrosis was present). Data are expressed as mean±s.e.m. with  $n=3$  or 4 for each experimental group.