Supplemental Figure 1: *HIF-1 expression in WT mice*

Immunohistochemistry for HIF-1α in WT kidney (magnification from corticomedullary junction). Original magnification, ×400.

Supplemental Figure 2: *Fibrosis markers in WT and Vhl knockout mice*.

(**A**) Semiquantitative analysis of Sirius Red staining in kidneys of 3 (n=14 each) and 18 (n=8 each) months old WT (Cre−) and *Vhl* deficient mice (Cre+).

(**B**) Real-time PCR analyses of profibrotic genes *Col1a2*, *Tgfß1*, and *Fsp1* in kidneys of WT (Cre−; n=5 each) and *Vhl* knockout mice (Cre+; n=6 each) at the age of 3 and 18 months.

Supplemental Figure 3: *Angiogenesis in WT and Vhl knockout mice.*

(**A**) Semiquantitative analysis of CD34 immunostained peritubular endothelial area in different kidney regions of 13 week-old WT (Cre−; n=5) and *Vhl* knockout mice (Cre+; n=5) using image analyzing software.

(**B**) Relative *Vegfa* expression in microdissected proximal convoluted tubules (PCT) and TALs of WT (Cre−; n=4) and *Vhl* deficient mice (Cre+; n=7) analyzed by real-time PCR. *, $P<0.05$, Cre− versus Cre+.

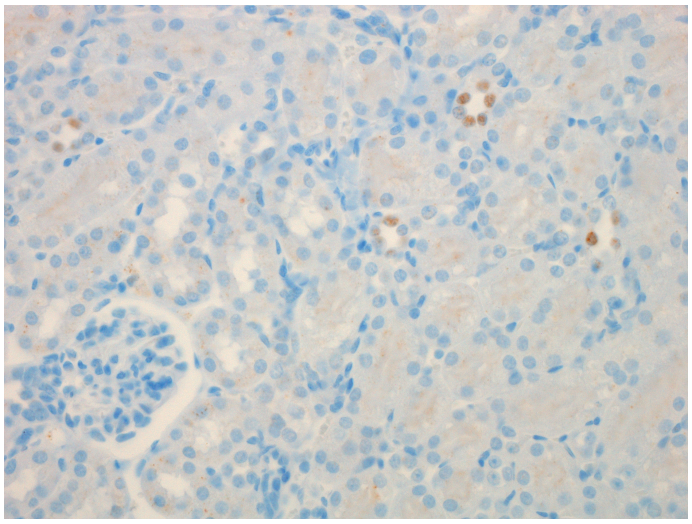
Supplemental Figure 4: *Nephron specific mRNA markers in microdissected tubules.*

Detection of *Sglt2*, *Npt2a* expression in microdissected proximal convoluted tubules (PCT; n=4) and *Nkcc2*, *Thp* in microdissected thick ascending limbs (TAL; n=4) by real-time PCR. *, $P<0.05$, PCT versus TAL.

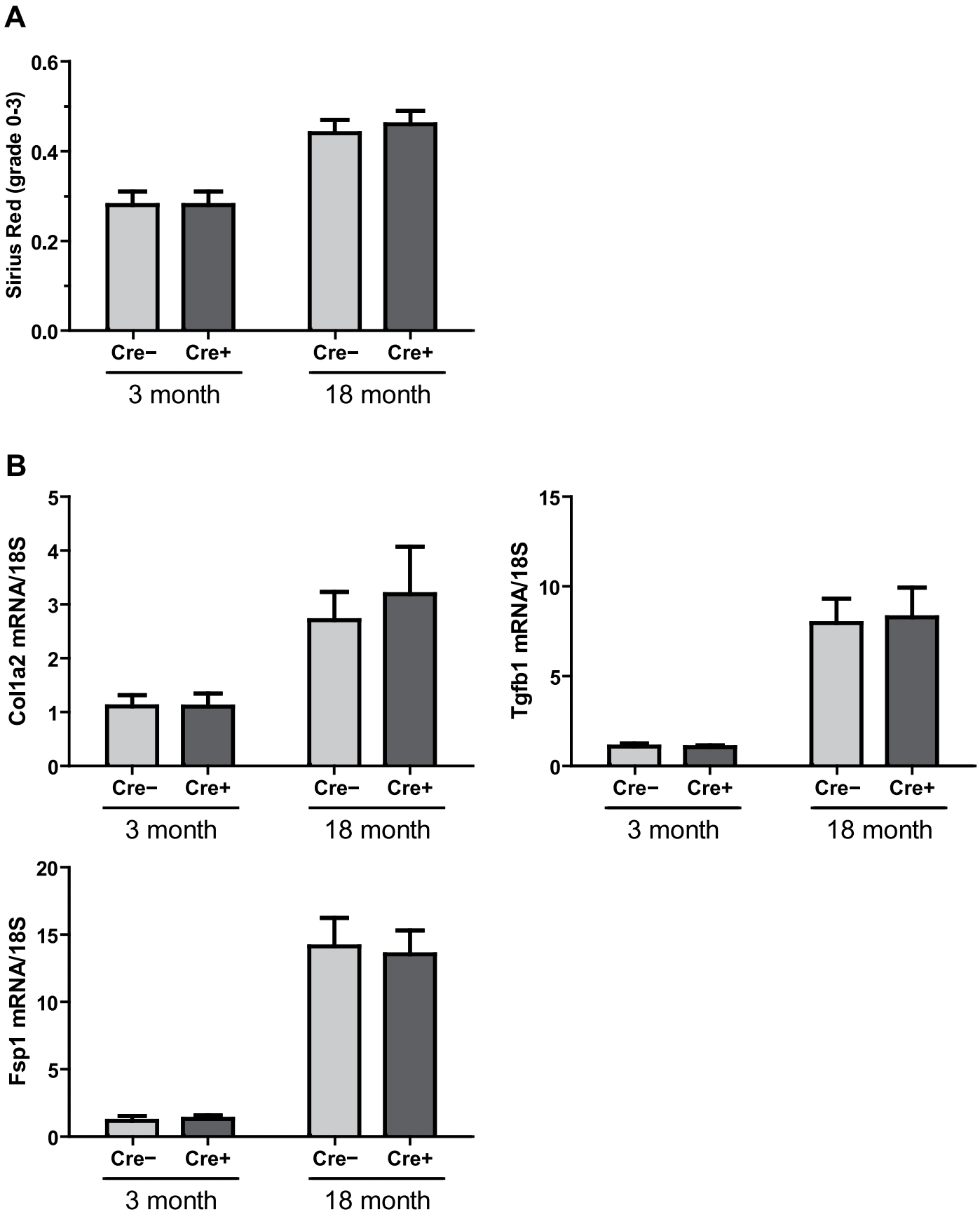
Supplemental Table 1: *PCR primer sequences*

Gene	Forward primer (5'-3')	Reverse primer (5'-3')	Gene bank code
Col1a2	GTAAACACCCCAGCGAAGAACT	TCAAACTGGCTGCCACCAT	NM_007743.2
Cre	GTGCAAGCTGAACAACAGGA	CCAGCATCCACATTCTCCTT	AY056050.1
Epo	CATCTGCGACAGTCGAGTTCTG	CACAACCCATCGTGACATTTTC	NM_007942.2
Fsp1	AGGGCTGCCCAGATAAGGA	CTGGCAAACTACACCCCAACA	NM_011311.2
Glut1	GCTGTGCTTATGGGCTTCTC	GACGACACTGAGCAGCAGAG	NM_011400.3
Il1b	CCCCAGGGCATGTTAAGGA	TGTGACCCTGAGCGACCTG	NM_008361.3
Il6	CTTCCTACCCCAATTTCCAATG	ATTGGATGGTCTTGGTCCTTAGC	NM_031168.1
Kim1	TGGTTGCCTTCCGTGTCTCT	TCTTCAGCTCGGGAATGCA	NM_134248.2
Ldha	GTTACACATCCTGGGCCATTG	GCACCCGCCTAAGGTTCTTC	NM_010699.2
Mcp1	CTGCCCTAAGGTCTTCAGCA	GCATCACAGTCCGAGTCACA	NM_011333.3
Ngal	GGCCTCAAGGACGACAACA	TCACCACCCATTCAGTTGTCA	NM_008491.1
Nkcc2	TCGTGGAGGTGGAGCCTACT	AGCCTATTGACCCACCGAACT	NM_183354.2
Npt2a	GCCTTTGTGGTGCTTGTTAATG	CGAGGTAGGAAGTCCCATGTCT	NM_011392.2
Pdk1	ATCTCATCGAAAGCACATTGGA	CCGCCTAGCGTTCTCATAGC	NM_172665.4
Pgk1	CTGTGGTACTGAGAGCAGCAAGA	CAGGACCATTCCAAACAATCTG	NM_008828.2
Rn18s	TTGATTAAGTCCCTGCCCTTTGT	CGATCCGAGGGCCTCACTA	NR_003278.1
Sglt2	TGTTGGACCCTCACAAAGAGTAAG	GCTGTATTCTTGCCCTGTTCCT	NM_133254.3
Tgfb1	GAAACGGAAGCGCATCGA	GGGACTGGCGAGCCTTAGTT	NM_011577.1
Thp	CTTGCCCAGGTGGCTTCTATAT	GATCGGTGCAGTAAGCCAGATT	NM_009470.4
Thp-Cre	TGGCTCCTTGGGCTTAGGTCTAC	CTAGAGCCTGTTTTGCACGTTC	
Tnfa	CTAGTGGTGCCAGCCGATG	TAGTCGGGGCAGCCTTGTC	NM_013693.2

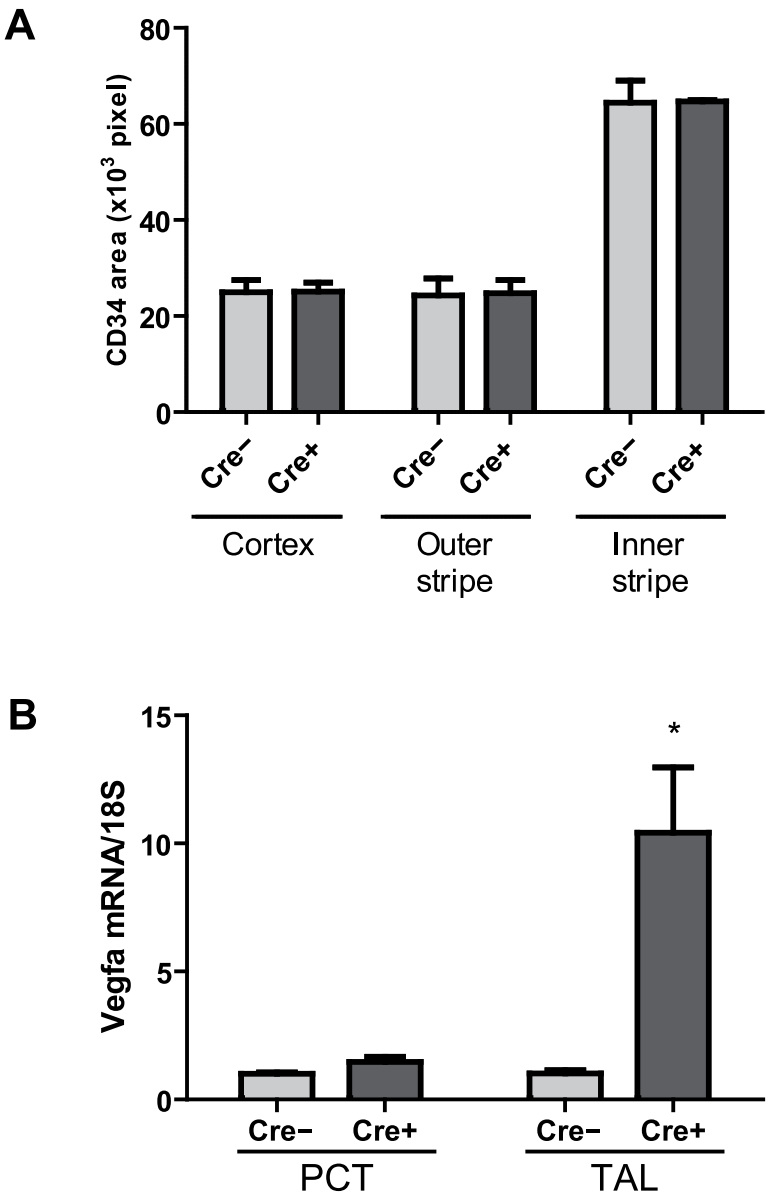
Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4