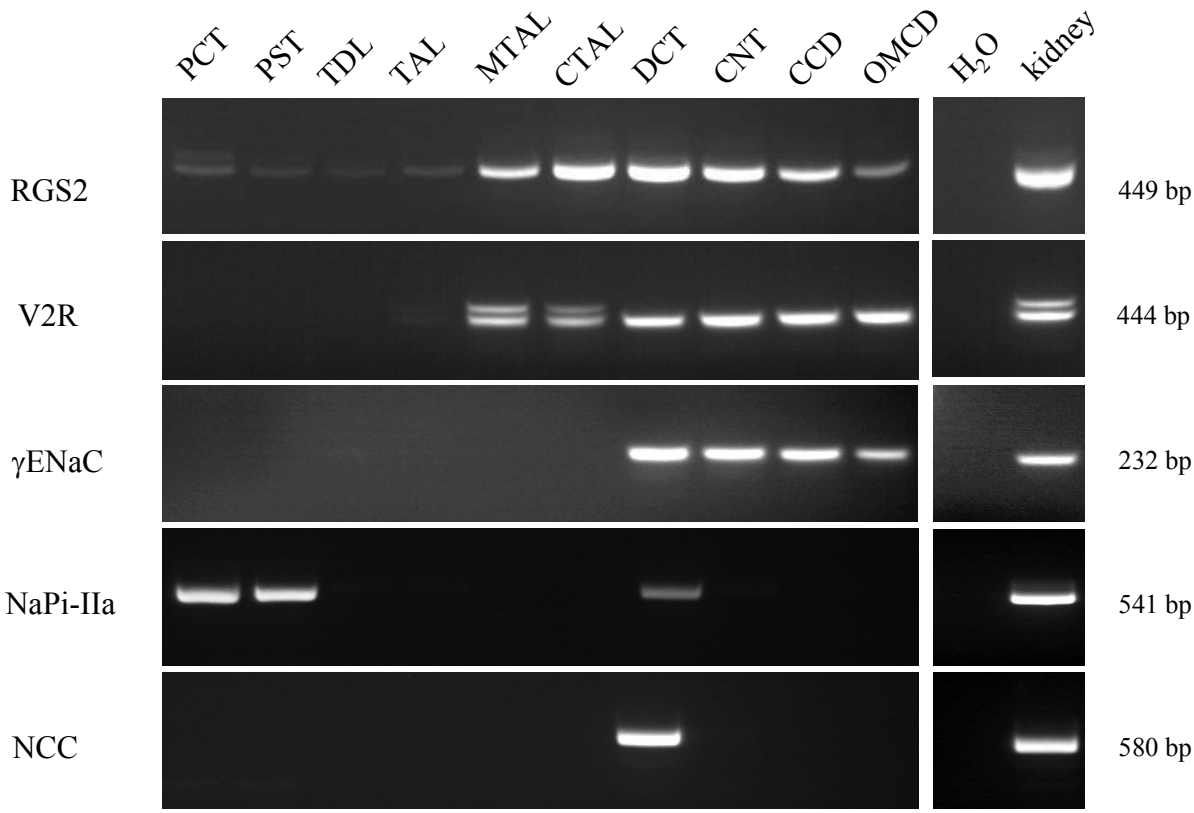
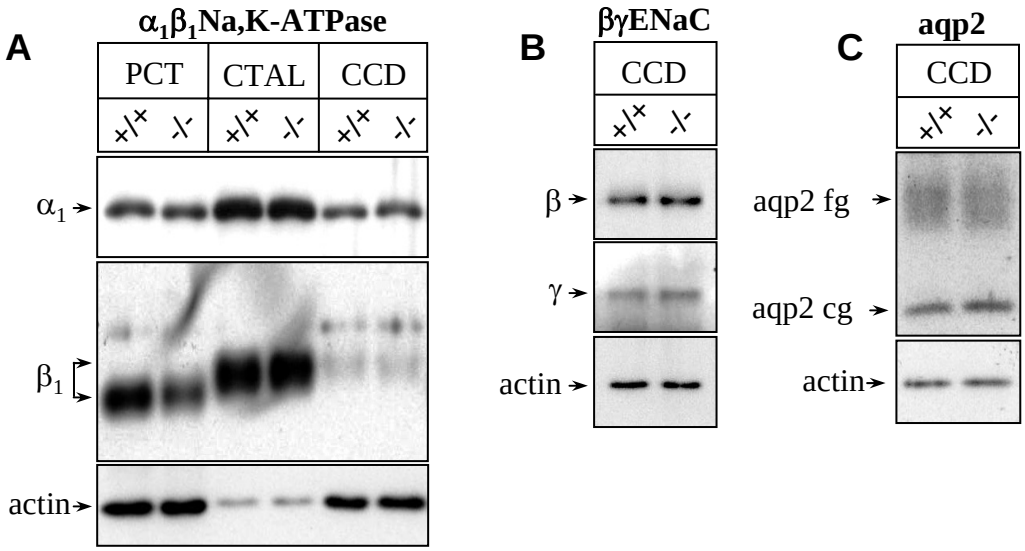


Supplementary Figure 1. mRNA expression of RGS2, type II sodium/phosphate co-transporter (NaPi-IIa), sodium/chloride co-transporter (NCC) and γ subunit of amiloride-sensitive epithelial sodium channel (ENaC) along the mouse nephron. Total RNAs were extracted from the microdissected parts of the mouse nephron according to (16). Specific primers were designed to amplify a 449 bp product of RGS2, a 232 bp product of γENaC, a 541 bp product of NaPi-IIa and a 580 bp product of NCC (RGS2: sense 5'-ggcaacggccccaaggtcgagg-3' antisense 5'-aagcagccacttgtagcctcttg-3'; NaPi-IIa: *sense* 5'ctcctgaaggttgcctctgat-3' *antisense* 5'-gctggatgatgagtcttgtg-3'; NCC: *sense* 5'-ctaccaatggcaaggtcaag-3' *antisense* 5'-taggagatggtggtccagaa-3'; γENaC: *sense* 5'-ccaaagccagcaaataaacaaa-3' *antisense* 5'-gcggcgggcaataatagaga-3'). RT-PCR was performed using Titan One Tube RT-PCR system (Roche). 35 PCR cycles were performed for RGS2, γENaC and NCC fragments. 32 PCR cycles were performed for NaPi-IIa fragment. A single band of expected size was obtained for all RT-PCR amplified fragments. RT-PCR amplification products were run on a 2.5% agarosegel and stained by ethidium bromide.

Supplementary Figure 1



Supplementary Figure 2. PCT, CTAL and CCD were microdissected from RGS2$^{-/-}$ mice or their wild-type littermates that were allowed ad libitum access to food and water. Protein extracts from 10 mm of microdissected nephron segments were loaded and electrophoresed on a 13% SDS-PAGE. **A**. Western blot was probed with an anti-α1Na,K-ATPase antibody, an anti-β1Na,K-ATPase antibody and an anti-actin antibody (Sigma). Interestingly, the apparent molecular weight of the β1 subunit of the Na,K-ATPase is lower in the PCT compared to CTAL and CCD. This observation was confirmed in four independent experiments. **B**. Western blot was probed with an anti-βENaC antibody, an anti-γENaC antibody and an anti-actin antibody (Sigma). **C.** Western blot was probed with an anti-aqp2 antibody and an anti-actin antibody (Sigma). fg - fully-glycosylated form of aqp2; cg - core-glycosylated form of aqp2.

Western blots were quantified on a Phosphoimager system (BioRad). Protein bands in a given lane were normalized to actin (for aqp2, the signals from both fg and cg bands were summarized). Then, the ratio of normalized signals obtained from the wild-type and RGS2$^{-/-}$ samples was calculated. None of probed proteins revealed a significant difference of expression between RGS2$^{-/-}$ mice and their wild-type littermates: α1Na,K-ATPase: PCT 1.16 ± 0.08 (n=5, NS), CTAL 0.75 ± 0.09 (n=4, NS), CCD 1.18 ± 0.08 (n=6,NS); β1Na,K-ATPase**:** PCT 1.15 ± 0.29 (n=4, NS), CTAL 0.90 ± 0.13 (n=4, NS), CCD 1.10 ± 0.09 (n=3, NS); βENaC: CCD 1.39 ± 0.33 (n=5, NS); γENaC: CCD 1.53 ± 0.50 (n=5, NS); aqp2: CCD 0.96 ± 0.10 (n=5, NS).