



Supplementary Figure 1. Andrukhova et al.

Supplementary Figure S1. Regulation of sodium and potassium homeostasis in 9-month-old *Fgf23*^{-/-}/*VDR*^{Δ/Δ} and *Klotho*^{-/-}/*VDR*^{Δ/Δ} compound mutants. (A) Western blotting quantification of renal membrane expression of the full length β and γ subunits of ENaC in 9-month-old male wild-type (WT), *VDR*^{Δ/Δ}, *Fgf23*^{-/-}/*VDR*^{Δ/Δ} and *Klotho*^{-/-}/*VDR*^{Δ/Δ} double mutant mice on the rescue diet (n=8-10, 1-way ANOVA followed by SNK test, * $p < 0.05$ vs. WT). (B) Serum Na⁺ concentration, serum potassium (K⁺) concentration, urinary potassium excretion corrected by urinary creatinine (Crea), urinary pH and urinary volume over a 12-

hour sampling period in 9-month-old male wild-type (WT), $VDR^{\Delta/\Delta}$, $Fgf23^{-/-}/VDR^{\Delta/\Delta}$, or $Kl^{-/-}/VDR^{\Delta/\Delta}$ compound mutant mice (n=8-12, 1-way ANOVA followed by SNK test, * $p < 0.05$ vs. WT). (C) Mean food consumption of 9-month-old male wild-type, $VDR^{\Delta/\Delta}$, $Fgf23^{-/-}/VDR^{\Delta/\Delta}$, and $Kl^{-/-}/VDR^{\Delta/\Delta}$ compound mutant mice measured over a period of 7 days (n=6-8). (D) Western blotting quantification of NCC phosphorylation at Ser71, Ser91 and Thr55 (pNCC S71, S91 and T55) in renal cortical total membrane fractions (n=6-8) and (E) plasma renin activity assay in 9-month-old male wild-type, $VDR^{\Delta/\Delta}$, $Fgf23^{-/-}/VDR^{\Delta/\Delta}$, and $Kl^{-/-}/VDR^{\Delta/\Delta}$ compound mutant mice (n=7-8, 1-way ANOVA followed by SNK test, * $p < 0.005$ vs. WT). Data represent mean \pm s.e.m