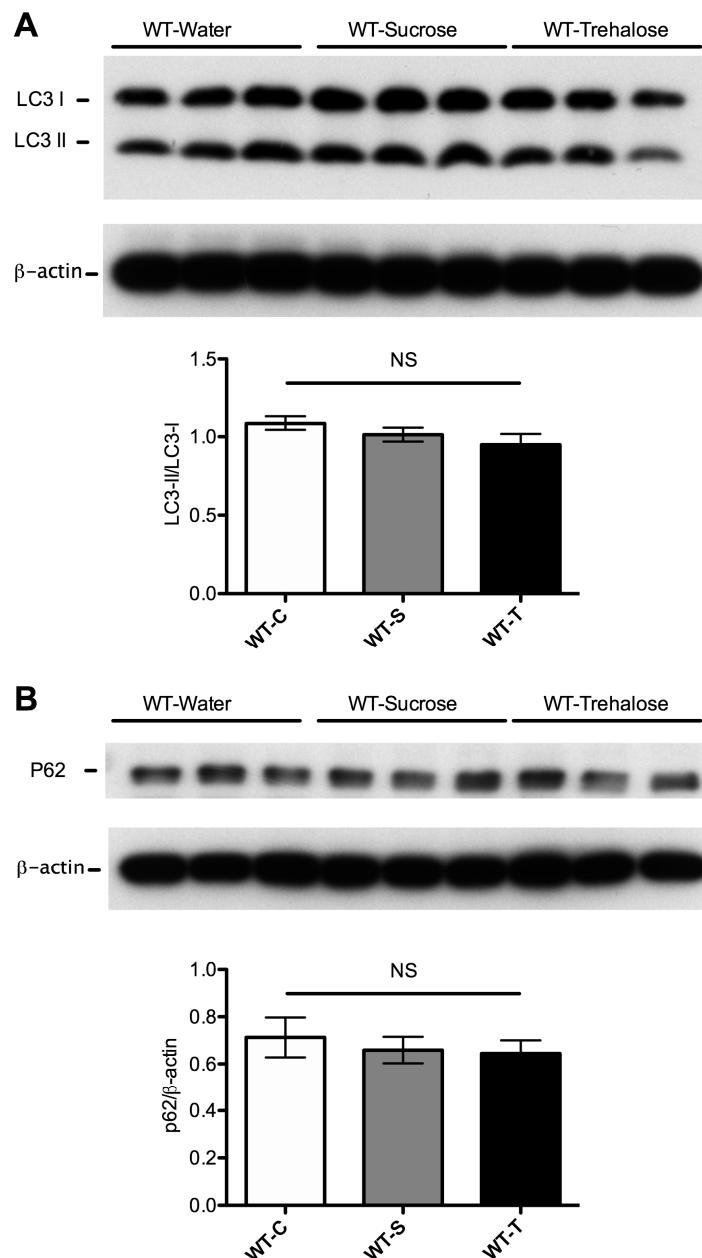


**Supplementary Table 1. Taqman probe ID and primer sequences**

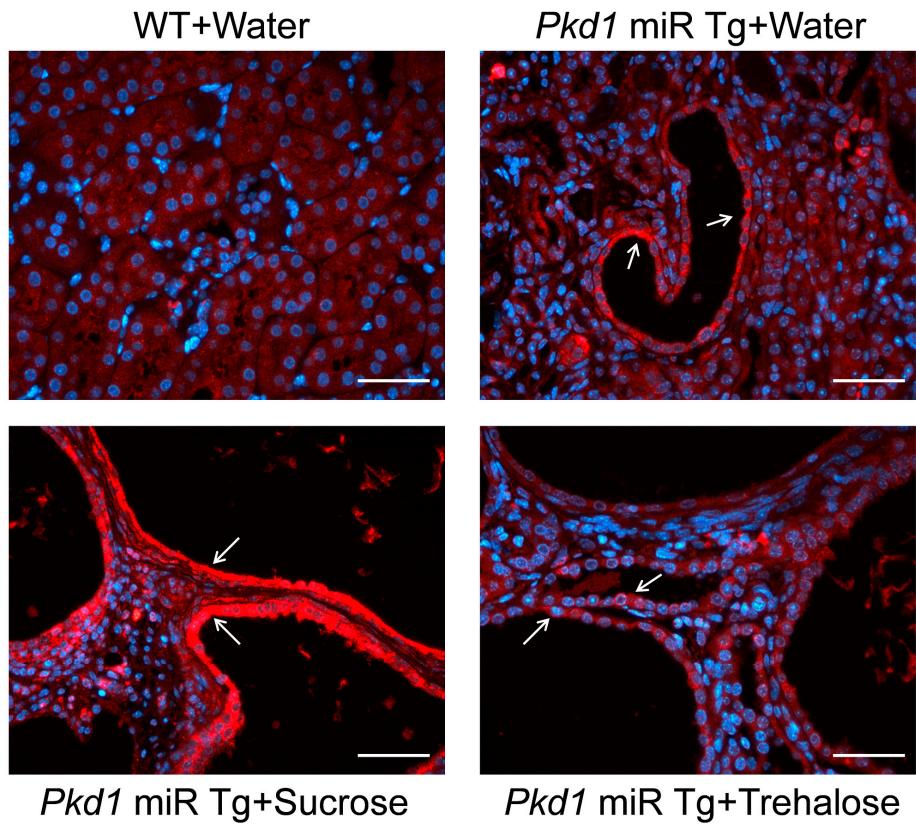
<i>Gene</i>	<i>Taqman probe or primer sequences (5' to 3')</i>
<i>Ccl2 (Mcp1)</i>	F: GCTTCTTGACACCTGCTGC R: TTAACGCCCACTCACCTGCTG
<i>Colla2</i>	F: AAGGGGTCTCCTGGTGAAT R: GGGGTACCACGTTCTCCTC
<i>Fn1</i>	F: TGTGACCAGCAACACGGTG R: ACAACAGGAGAGTAGGGCGC
<i>Hmox1(HO1)</i>	F: ACATCGACAGCCCCACCAAGTTCAA R: CTGACGAAGTGACGCCATCTGTGAG
<i>Mmp2</i>	F: TCTGGGCAGTCTTGAACATT R: AGAGTCAGGTGATGGATGTCG
<i>Tgfb1</i>	F: TGCCTCTGCTGAGGCTCAA R: TTGCTGAGGTATGCCAGGA
<i>Tnf</i>	F: GCCAGCCGATGGGTTGTA R: GGCAGCCTTGTCCCTTGA
<i>Atg5</i>	Mm01187303_m1
<i>Atg12</i>	Mm00503201_m1
<i>Becn1</i>	Mm01265461_m1
<i>Emr1 (F4/80)</i>	Mm00802529_m1
<i>Hk1</i>	Mm00439344_m1
<i>Hk2</i>	Mm00443385_m1
<i>Il1b</i>	Mm00434228_m1
<i>Il6</i>	Mm01210733_m1
<i>Nos2(iNOS)</i>	Mm00435175_ml
<i>P2rx7</i>	Mm00440578_ml
<i>Rn18S</i>	Mm03928990_g1
<i>Slc2a1</i>	Mm00441480_m1
<i>Slc16a3</i>	Mm00446102_m1
<i>Sqstm1/p62</i>	Mm00448091_m1
<i>Ulk1</i>	Mm00437238_m1

**Supplementary Figure 1.**



**No effect of trehalose on the renal expression of autophagy markers in wild-type mice.** The kidney lysates of 3-month-old wild-type mice were immunoblotted for (A) LC3, (B) p62, and  $\beta$ -actin. Graphs represent mean  $\pm$  standard error of the mean ( $n = 3$  per group). WT, wild-type; C, control; S, sucrose; T, trehalose.

**Supplementary Figure 2.**



**Immunofluorescence staining for p62 protein in cystic epithelial cells.** Note p62 staining (shown in red, arrows) of the cystic epithelial cells in *Pkd1* miR Tg mice, indicating reduced autophagic degradation. The nuclei are counterstained with DAPI (blue). No significant differences in the fluorescent p62 signal were found among the different treatment groups. Representative merged images are shown (n=3 per group). Scale bar, 50  $\mu$ m. WT, wild-type; PKD, polycystic kidney disease. Original magnification, 400 $\times$ .