**Figure legends for supplemental figures**

**Figure S1.** q-PCR analysis and immunoblotting showing knockdown of ATG16L1, ATG7, ATG14 and EPG5 in BECs. (**A-D**) mRNA level of *ATG16L1* (**A**), *ATG7* (**B**), *ATG14* (**C**) and *EPG5* (**D**) in BECs cells treated with *ATG16L1* siRNA, *ATG7* siRNA, *ATG14* siRNA and *EPG5* siRNA. (**E-F**) Western blot of knockdown of ATG16L1 and ATG7 in BECs treated with *ATG16L1* siRNA and *ATG7* siRNA.

**Figure S2.** Knockdown of *ATG* genes does not affect cell growth. Cell growth assay by crystal violet for BECs transfected with indicated siRNA.

**Figure S3.** Loss of *Atg16l1* or *Atg7* but not *Atg14* or *Epg5* leads to urothelial architecture alteration. More representative TEM images of superficial cell ultrastructure in *Atg16l1fl/flUpk3a* *Cre-* and *Atg16l1fl/flUpk3a* *Cre+* (**A**), *Atg7fl/flUpk3a* *Cre-* and *Atg7fl/flUpk3a* *Cre+* (**B**), *Atg14fl/flUpk3a* *Cre-* and *Atg14fl/flUpk3a* *Cre+* (**C**) and WT and *epg5*-/- mice (D). Red arrowhead, multivesicular bodies; blue arrow, lysosomes. n=3 mice. Bar: 2 µm.