



Supplemental Material to:

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and Tullia Lindsten**

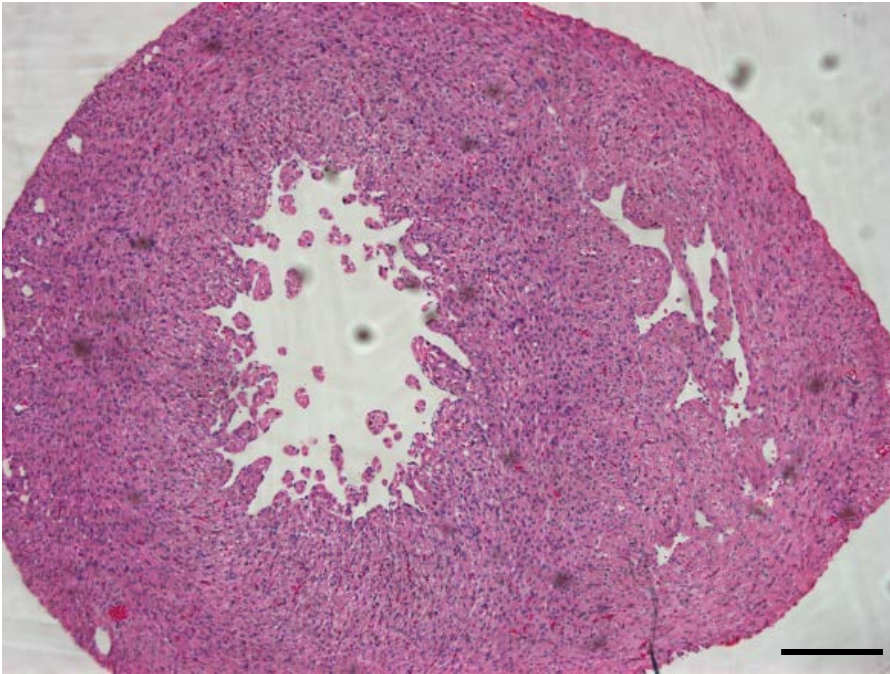
**Analysis of a lung defect in autophagy-deficient mouse
strains**

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www.landesbioscience.com/journals/autophagy/article/26505

Control



Ulk1/2 DKO

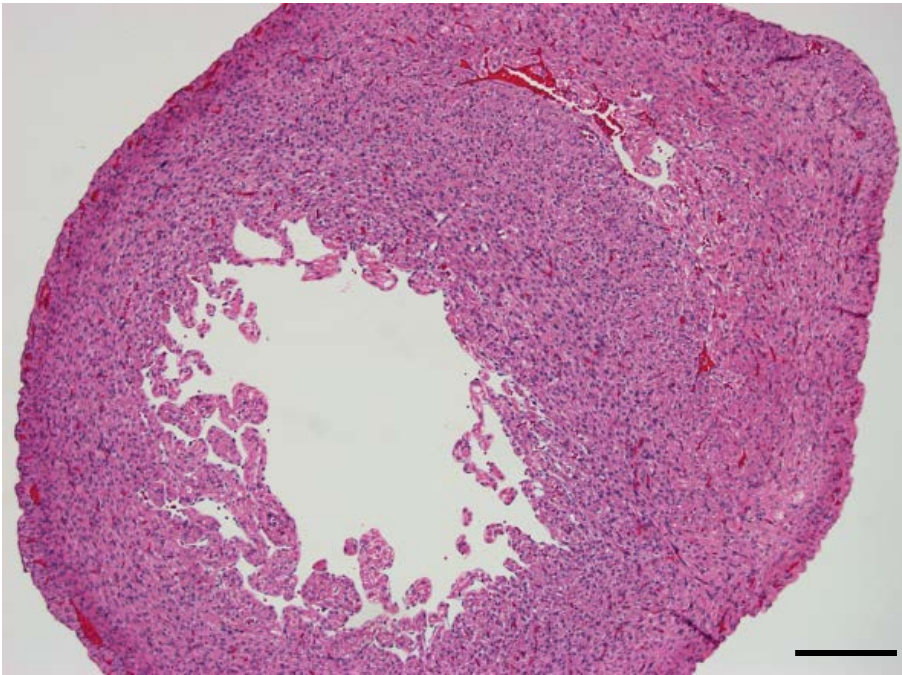
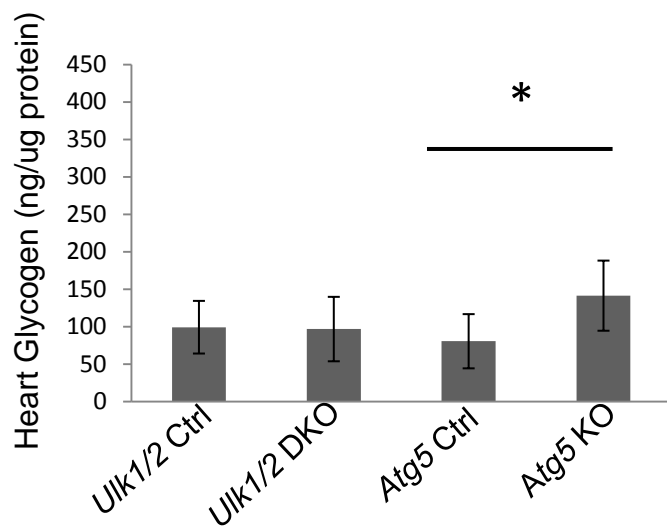
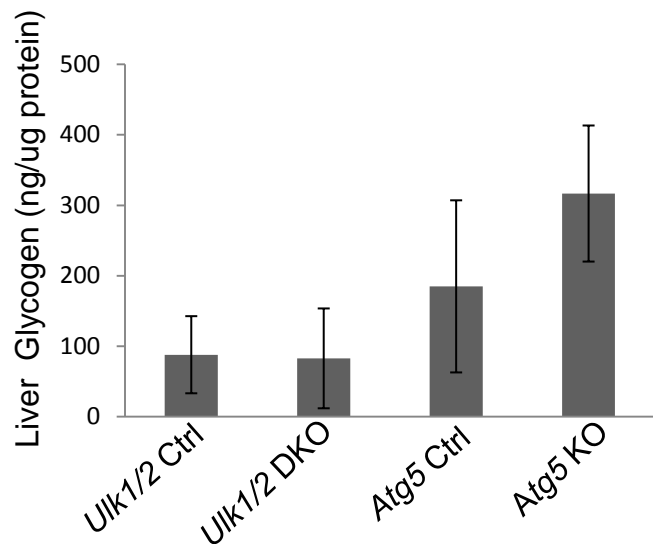


Figure S1. Histological section of hearts from *Ulk1/2* control and *Ulk1/2* DKO hearts stained with Hematoxylin-Eosin. Scale bar is 100 μ M.

A



B



C

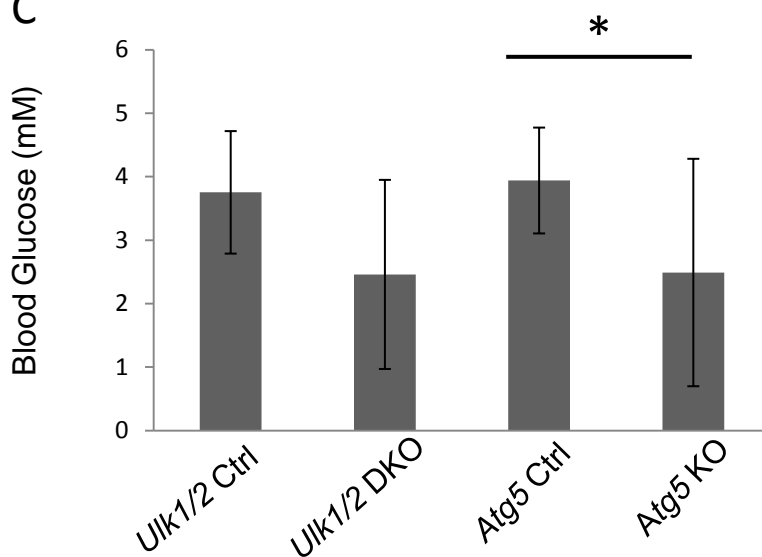
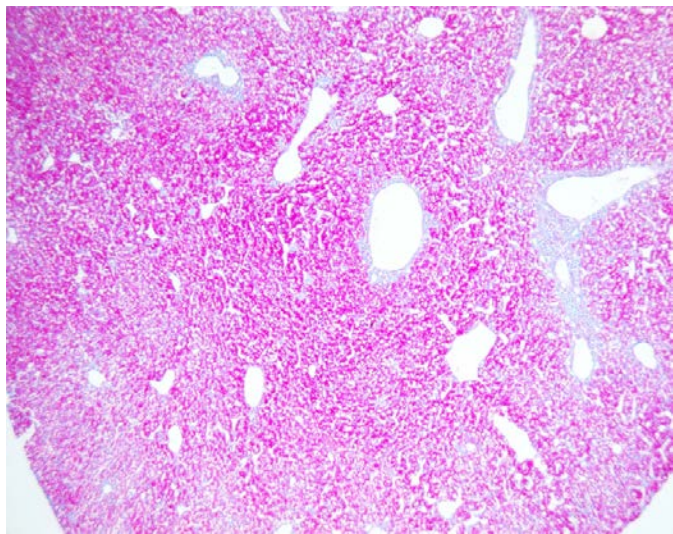
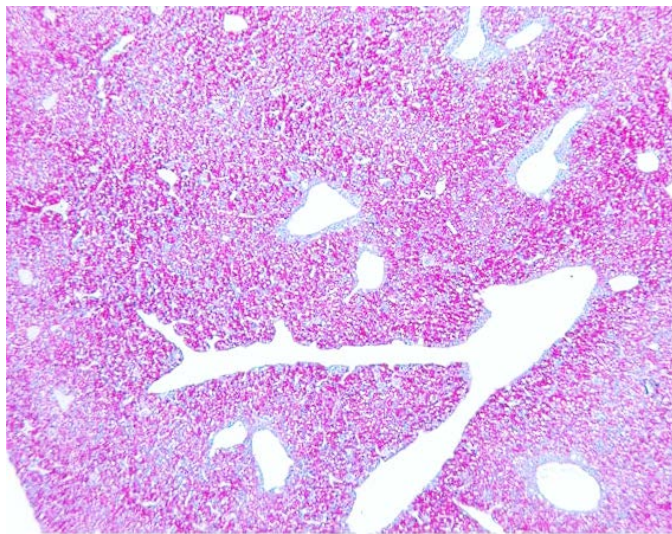


Figure S2. Glycogen levels in (A) heart and (B) liver of *Ulk1/2* Ctrl (n=6), *Ulk1/2* DKO (n=6), *Atg5* Ctrl (n=7) and *Atg5* KO (n=5) mice at P1. Organs were homogenized and glycogen content was determined as outlined in Materials and Methods. The graphs show average glycogen levels as ng glycogen/ μ g protein \pm SD. (C) Blood glucose, shown as averages \pm SD, measured in plasma isolated from *Ulk1/2* Ctrl (n=6), *Ulk1/2* DKO (n=5), *Atg5* Ctrl (n=14) and *Atg5* KO (n=6) mice at P1 using the YSI metabolite analyzer. * indicates p-value <0.05 determined by Student's 2-tailed t-test.

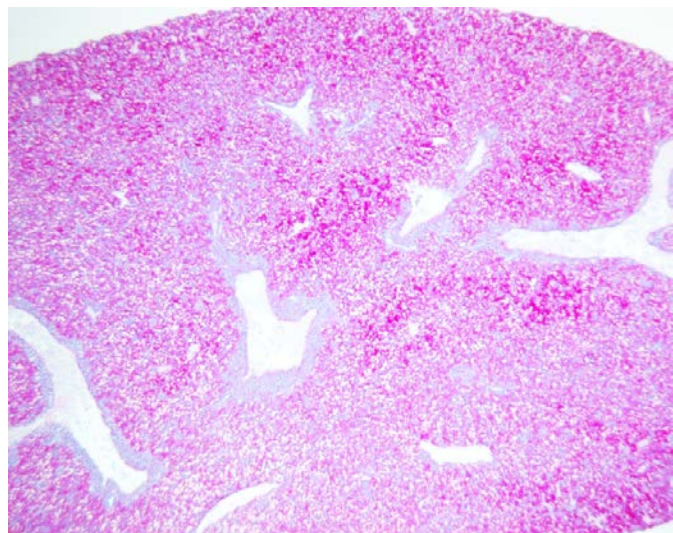
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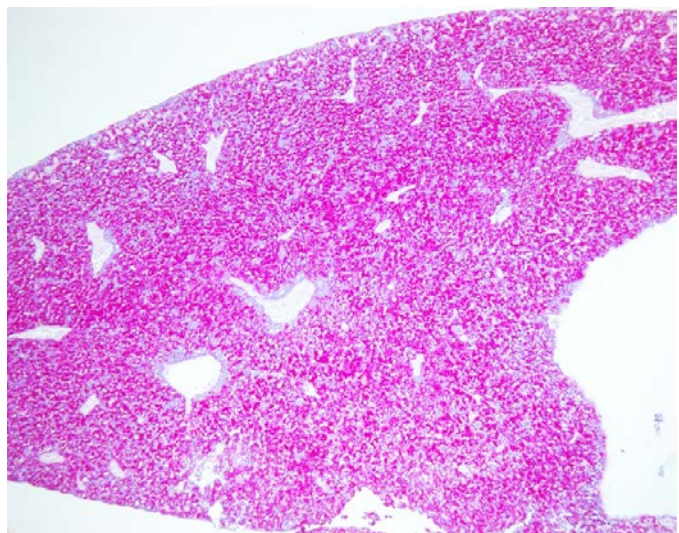
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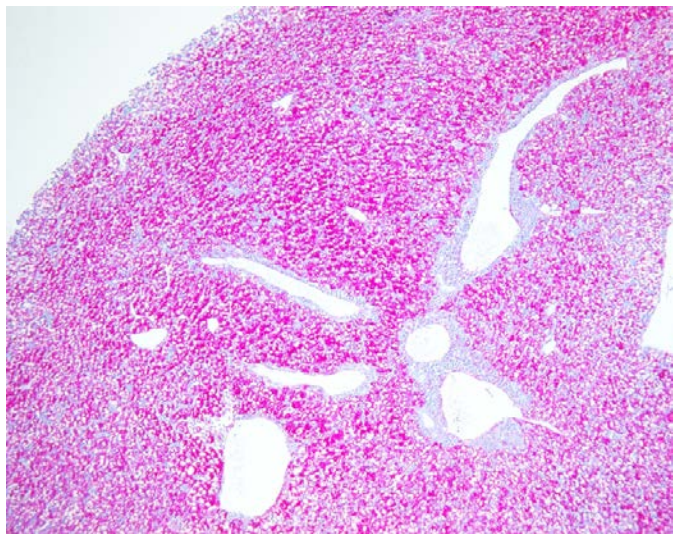
Ulk1/2 DKO



Ulk1/2 DKO



Atg5 KO



Atg5 KO

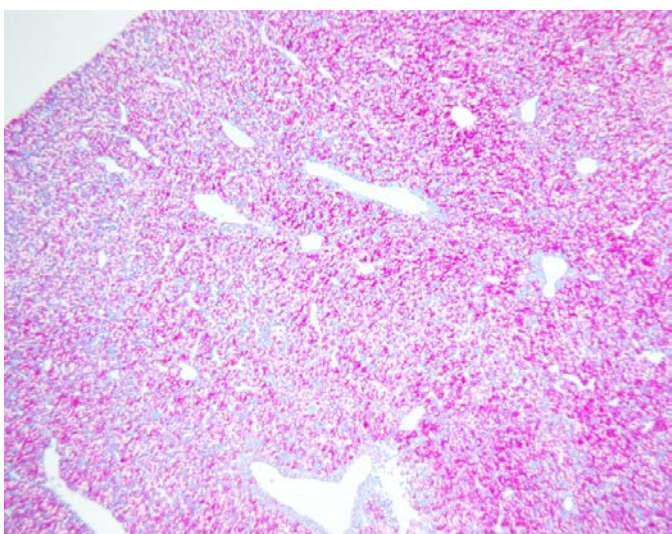


Figure S3. Histological sections of livers from Control, *Ulk1/2* DKO and *Atg5* KO mice at P1, stained with PAS to visualize glycogen.

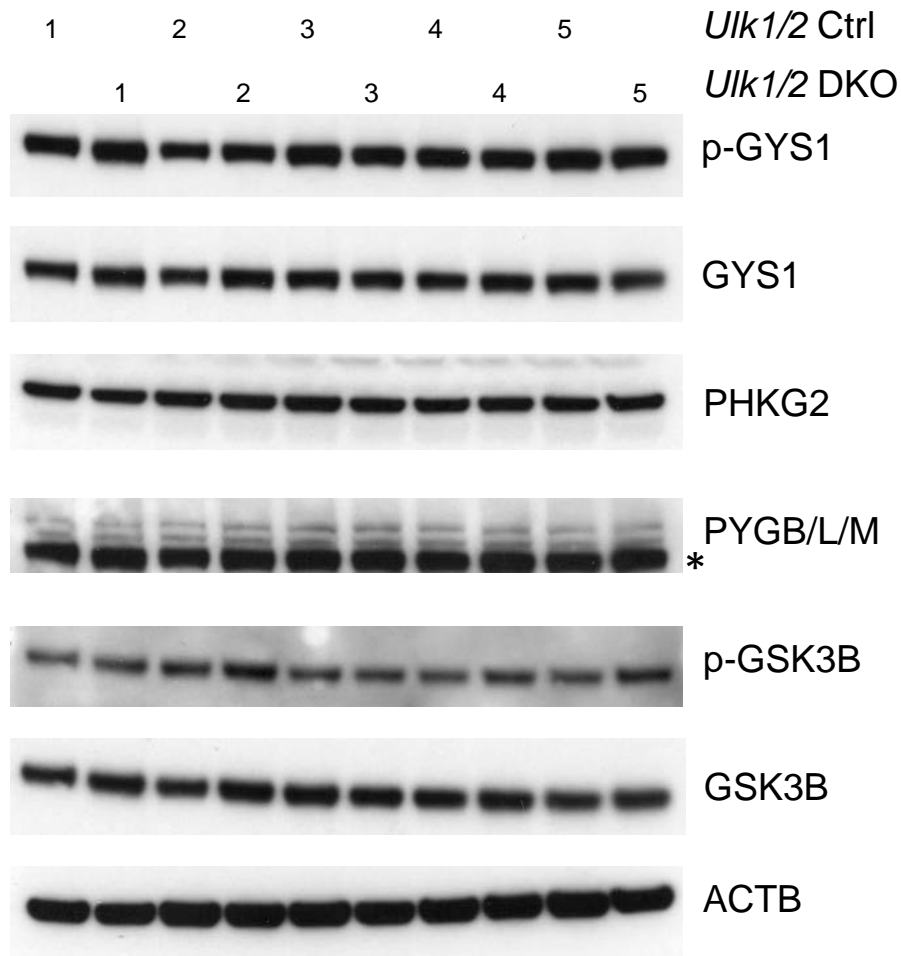


Figure S4. Enzymes involved in glycogen metabolism analyzed by western blot. Lysates of frozen lung tissue from *Ulk1/2 Ctrl* (n=5) and *Ulk1/2 DKO* (n=5) mice at P1 were prepared from litter mate controls indicated by number 1 to 5. Expression of p-GYS1 (phospho-glycogen synthase), GYS1 (glycogen synthase), PHKG2 [phosphorylase kinase, gamma 2 (testis)], PYGB/L/M (phosphorylase, glycogen; brain/liver/muscle), p-GSK3B (phospho-glycogen synthase kinase 3 beta), GSK3B (glycogen synthase kinase 3 beta) and ACTB (beta actin) was examined by western blot. * indicates nonspecific band.