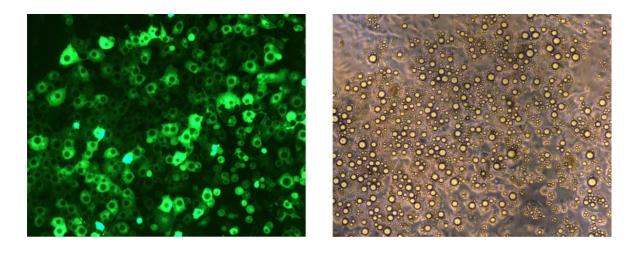
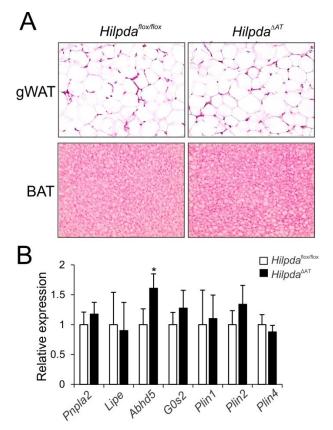
## **Supplemental Information**

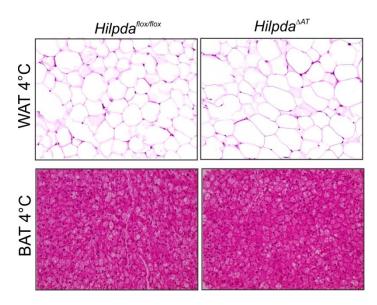
## **Supplemental Figures**



**Supplemental Figure 1**. Fluorescence microscopy (left) and light (phase-contrast) microscopy of differentiated 3T3-L1 adipocytes (day 9) transduced with AV-*Gfp*.



**Supplemental Figure 2**. (A) Representative H&E stainings of epididymal WAT and BAT of male  $Hilpda^{flox/flox}$  (n=6) and  $Hilpda^{\Delta AT}$  (n=8) fasted for 24h. (B) mRNA levels of genes involved in lipolysis or lipid droplet morphology (*Pnpla2*, *Lipe*, *Abhd5*, *G0S2*, *Plin1*, *Plin2*, *Plin4*) BAT of  $Hilpda^{flox/flox}$  (n=6) and  $Hilpda^{\Delta AT}$  (n=8) mice fasted for 24h. Gene expression levels for  $Hilpda^{flox/flox}$  mice were set at 1 for each gene. Data are mean  $\pm$  SEM. Asterisks indicate significantly different according to Student's t-test.



**Supplemental Figure 3**. Representative H&E stainings of epididymal WAT and BAT of  $Hilpda^{flox/flox}$  and  $Hilpda^{\Delta AT}$  mice exposed to 4°C or 28°C for 10 days.