Figure S1

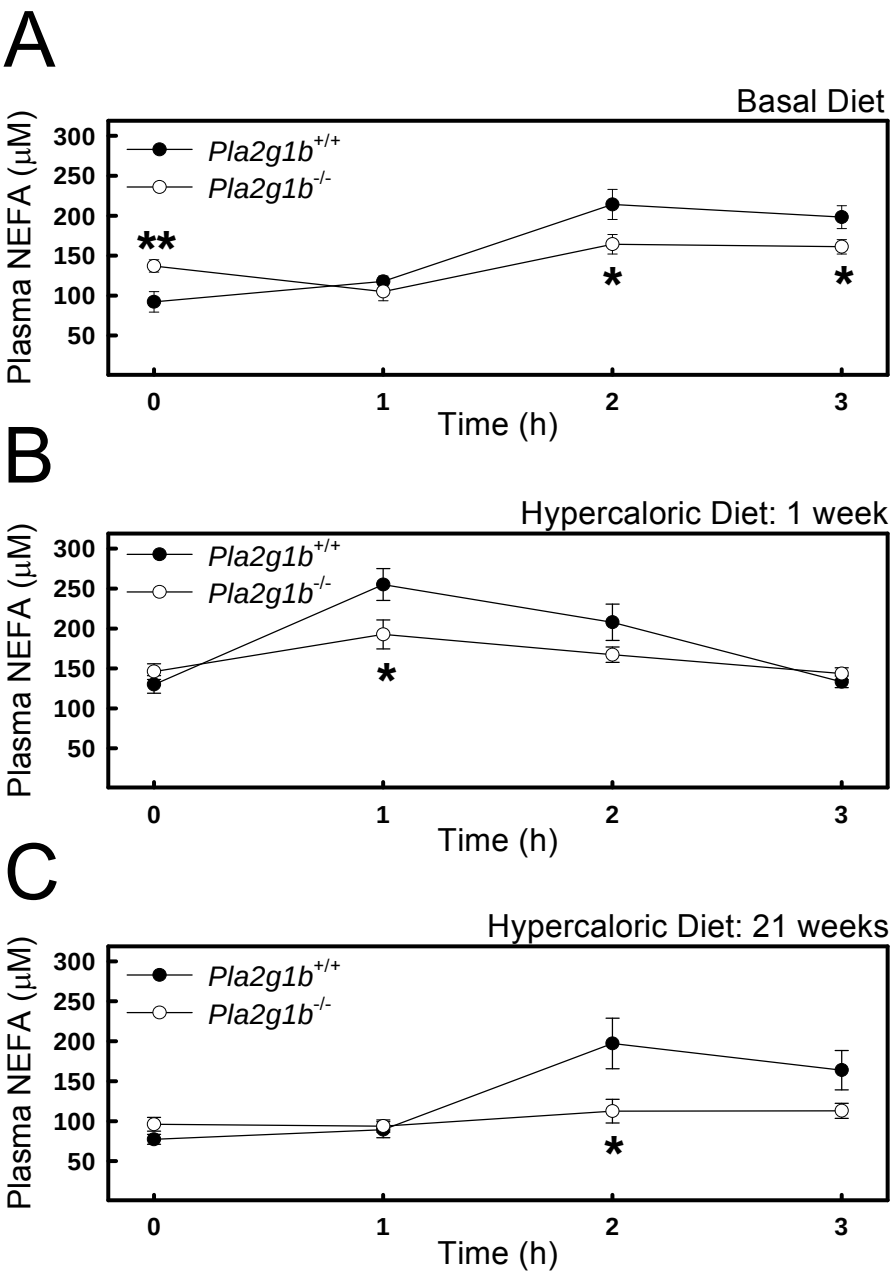

Fig. S1. **Postprandial plasma non-esterified fatty acid content in *Pla2g1b*$^{+/+}$ and *Pla2g1b*$^{-/-}$ mice.** Three separate cohorts of male *Pla2g1b*$^{-/-}$ and *Pla2g1b*$^{+/+}$ mice at 10-12 weeks of age were measured for plasma non-esterified fatty acids (NEFA) under fasting and postprandial conditions fed basal diet (**A**), after 1 week of hypercaloric diet (**B**), or after 21 weeks of hypercaloric diet (**C**). Plasma from the tail vein was taken at the times indicated after an olive oil gavage was administered. Displayed are mean ± SE (n = 9); *, $P \leq 0.05$; **, $P \leq 0.01$.

Figure S2

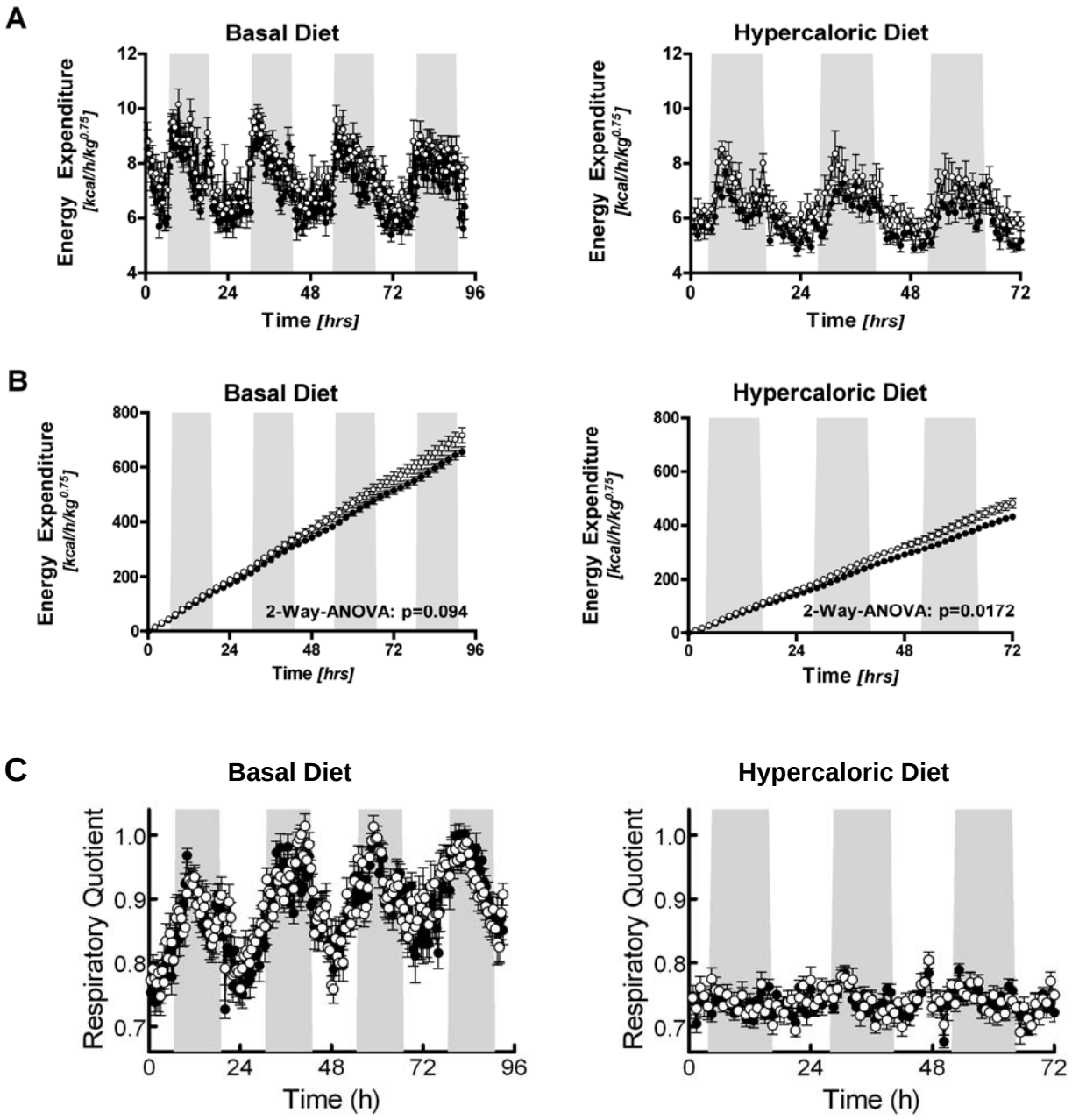

Fig. S2. **Indirect calorimetry measurements of *Pla2g1b*$^{+/+}$ and *Pla2g1b*$^{-/-}$ mice.** Indirect calorimetry analysis for 3 days after an adjustment period were performed on a cohort of *Pla2g1b*$^{-/-}$ (white circles) and *Pla2g1b*$^{+/+}$ (black circles) mice when fed basal diet (*left panels*) and again after 12 weeks of being fed hypercaloric diet (*right panels*). Panel **A** shows the hourly measurement data (mean ± SE) and panel **B** shows the cumulative data over a 96-hr period. Panel C shows the respiratory quotient calculated as the ratio of CO_2 produced to O_2 cosumed. The shaded areas representing the dark cycles (*n* = 12).

Figure S3

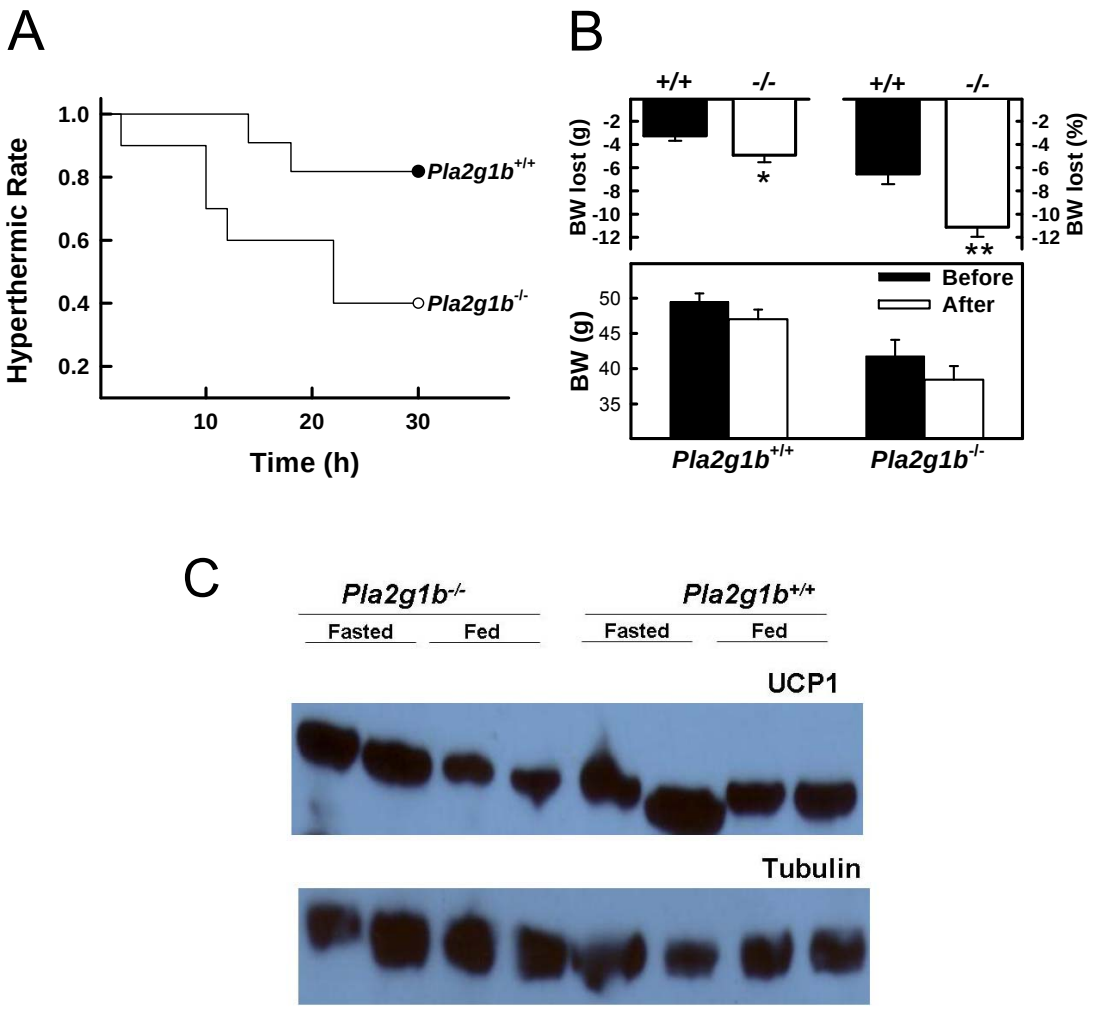

Fig. S3. **Response to cold exposure by *Pla2g1b*$^{+/+}$ and *Pla2g1b*$^{-/-}$ mice.** Mice fed hypercaloric diet for 18 weeks were placed in a cold temperature environment exposed to cold (4ºC) for a period of 30 h with core body temperature monitoring. Animals deemed hypothermic were recorded and removed from the test for recovery. Hypothermic rates between the two groups were statistically compared utilizing Gehan-Breslow analysis of the resulting curves (**A**). Animal body weights were determined before and after cold exposure (**B**). The bottom panel is the body weights (bw) before and after the cold test and the top panel is the difference expressed in mass (g) and percentage of the original bw. Displayed are mean ± SE (n = 10-11) and statistical significance in *Pla2g1b*$^{-/-}$ mice are denoted by *, $P \leq 0.05$; and **, $P \leq 0.01$. **Panel C** shows the Western blot of UCP1 expression in brown adipose tissues of *Pla2g1b*$^{+/+}$ and *Pla2g1b*$^{-/-}$ mice under fasting and fed conditions (2 mice per group).

Figure S4

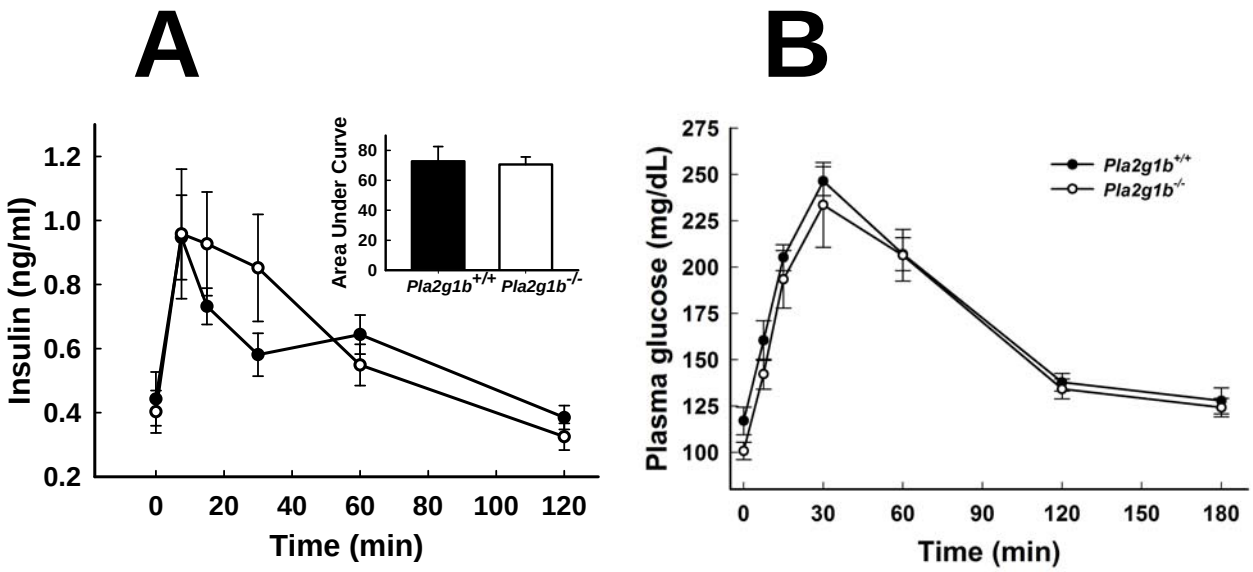

Figure S4. **Postprandial plasma insulin levels (A) and hepatic gluconeogenesis (B) in *Pla2g1b*$^{+/+}$ and *Pla2g1b*$^{-/-}$ mice.** Mice maintained on the hypercaloric diet were fasted overnight and then fed a bolus lipid/gucose mixed meal containing 50% glucose, 2.6 mM phosphatidylcholine, and 13.33 mM triolein. Plasma insulin levels were measured by ELISA. Hepatic gluconeogenesis was determined by injecting sodium pyruvate (2 g/kg) into each animal 2 h after meal feeding and then monitoring plasma glucose levels over a 3 h period.