Electronic supplementary material

Methods

Glucagon response test Glucagon (50 µg/kg) was administered i.p. in saline and tail blood collected for immediate glucose measurement (Lifescan One Touch Ultra glucometer, Johnson & Johnson, Milpitas, CA, USA).

Insulin signalling studies Fasted mice were injected with insulin (0.75 U/kg) or vehicle, and killed 10 min later for immediate collection of liver and skeletal muscle which was snap frozen and stored at –80°C until analysis.

Locomotor activity Running wheel activity was monitored electronically, mice had unlimited access to a running wheel in their cage for 14 days. Home cage activity was measured continuously and simultaneously over 3 days (Labmaster system, TSE-Systems, Bad Homburg, Germany) after 48 h of adaptation in singly housed mice.

Hormone measurements Plasma corticosterone, glucagon and growth hormone were measured using commercially available kits. Corticosterone RIA (ICN Biomedicals, Costa Mesa, CA, USA), Glucagon RIA Kit (Linco Research), Rat/Mouse Growth Hormone ELISA (Millipore).

AMPK activity AMPK and acetyl coA carboxylase phosphorylation were quantified by western blotting as previously described [1].

Statistical analysis Statistical analyses employed the Student's two-tailed t test or one-way or two-way ANOVA with post hoc analysis using Bonferroni or Dunnett's test as appropriate, excepting serum growth hormone levels which were anlaysed using the non-parametric Mann–Whitney U test. Data are presented as mean±SEM. Differences were considered statistically significant at $p < 0.05$.

Reference

[1] Hawley SA, Boudeau J, Reid JL, et al. (2003) Complexes between the LKB1 tumor suppressor, STRAD alpha/beta and MO25 alpha/beta are upstream kinases in the AMP-activated protein kinase cascade. J Biol 2: 28