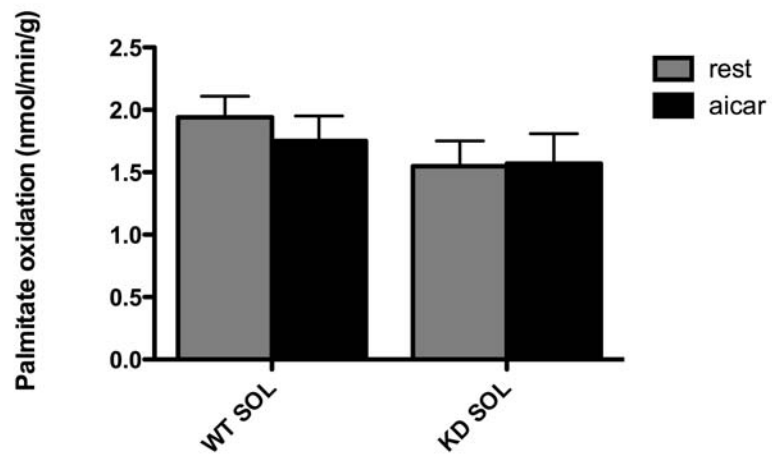
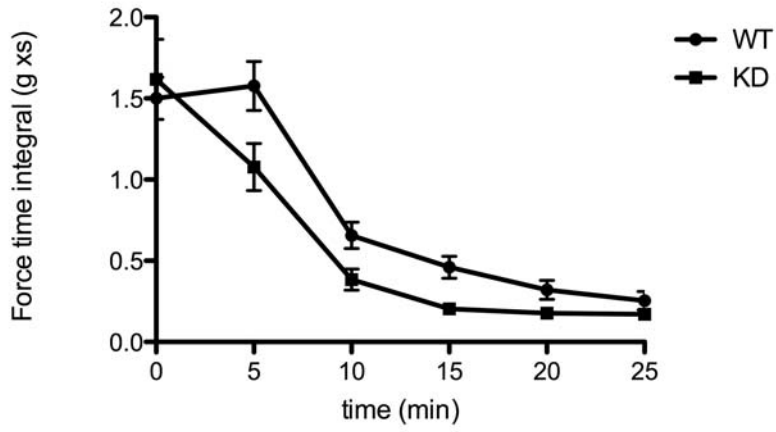


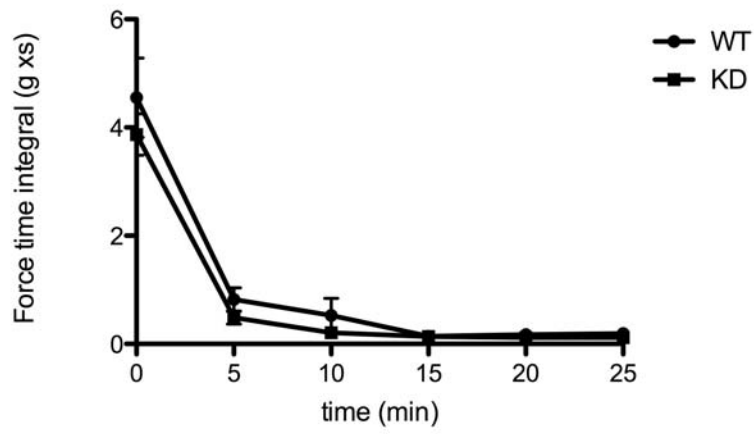
Supp figure 1



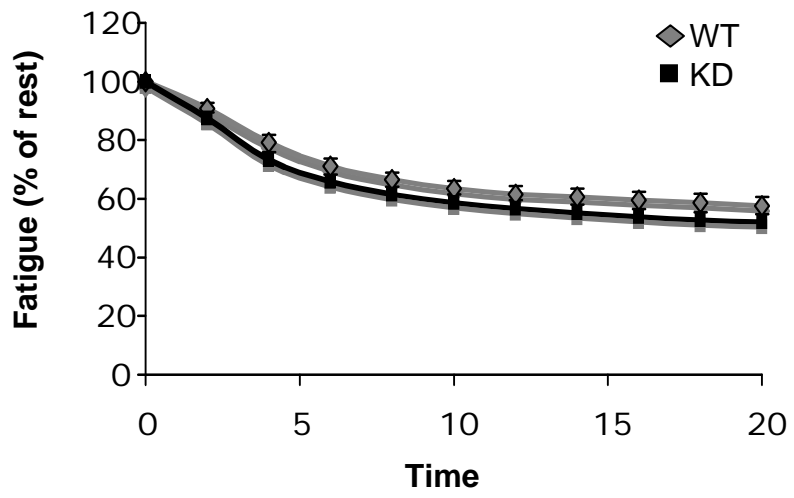
Supp figure 2A



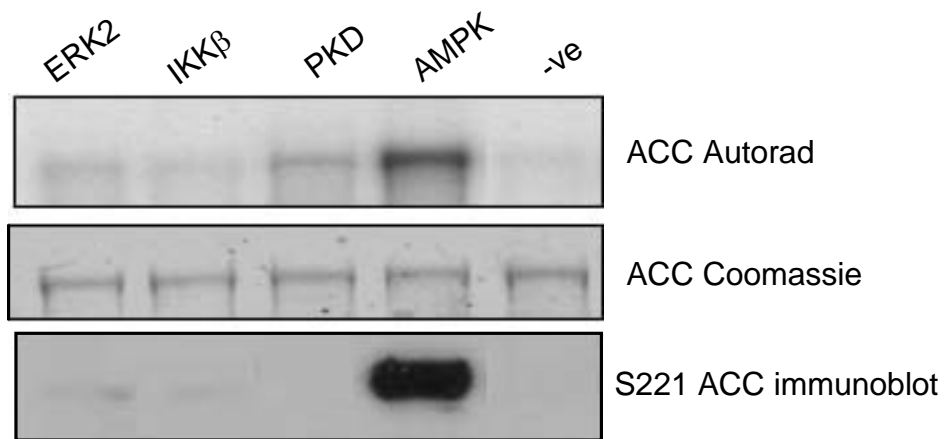
Supp figure 2B



Supp figure 3



Supp figure 4



Supplementary Figures Legends.

Supp Figure 1. Rates of palmitate oxidation in the presence of 0.25 mM palmitate Rates of fatty acid oxidation were measured in isolated SOL muscle from WT and KD mice in the presence of 0.25 mM palmitate. Data are mean \pm SEM, n = 8-9.

Supp Figure 2. Force generation during contraction The force time integral was calculated at time points shown for contracting isolated EDL (A) and SOL (B) from WT and KD mice. All data are mean \pm SEM, n = 7-8.

Supp Figure 3. Muscle fatigue during *in situ* contraction. Fatigue was measured in contracting TA muscle from WT and KD animals over the 20 min protocol and expressed as a percentage of rest. Data are mean \pm SEM, n = 12.

Supp Figure 4. *In vitro* phosphorylation of ACC. Autoradiograph and immunoblotting of *in vitro* phosphorylation of ACC2 by AMPK, ERK 2, IKK β or PKD in the presence of [γ - 32 P] ATP.