

Supplementary Figures Legends

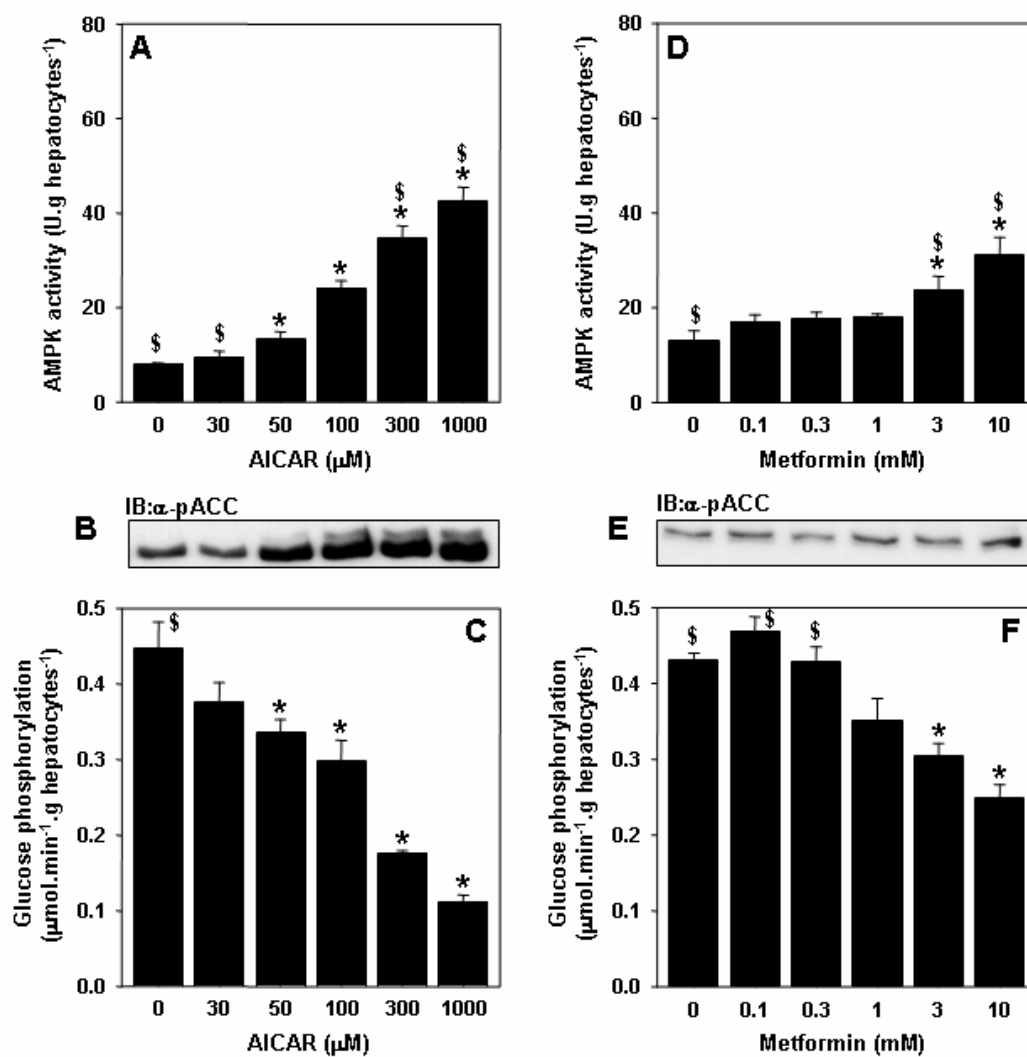
Supplementary Figure 1: Effects of AICAR and metformin on AMPK activity (A-D) glucose phosphorylation rate (C-F) and phosphorylation of ACC (B-E) in isolated hepatocytes from fed rat. Hepatocytes from fed rats were incubated for 40 min with 10 mM glucose. The values are the means \pm SEM (n=4). *, $p < 0.05$ compared with control-vehicle. \$, $p < 0.05$ compared with starved rats (Fig. 1).

Supplementary Figure 2: Effects of L-NAME on AMPK activation (A) and glucose phosphorylation inhibition (B) by AICAR, metformin and oligomycin in isolated rat hepatocytes. Rat hepatocytes were pre-incubated for 15 min in Krebs-Henseleit buffer containing 10 mM glucose with 1 mM L-NAME (open bars) or the vehicle (black bars). 1 mM AICAR, 5 mM metformin (Met), 1 μ M oligomycin (Oligo) or the vehicle were then added for 4h. The values are the means \pm SEM for four cell preparations. *, $p < 0.05$ compared with control-vehicle.

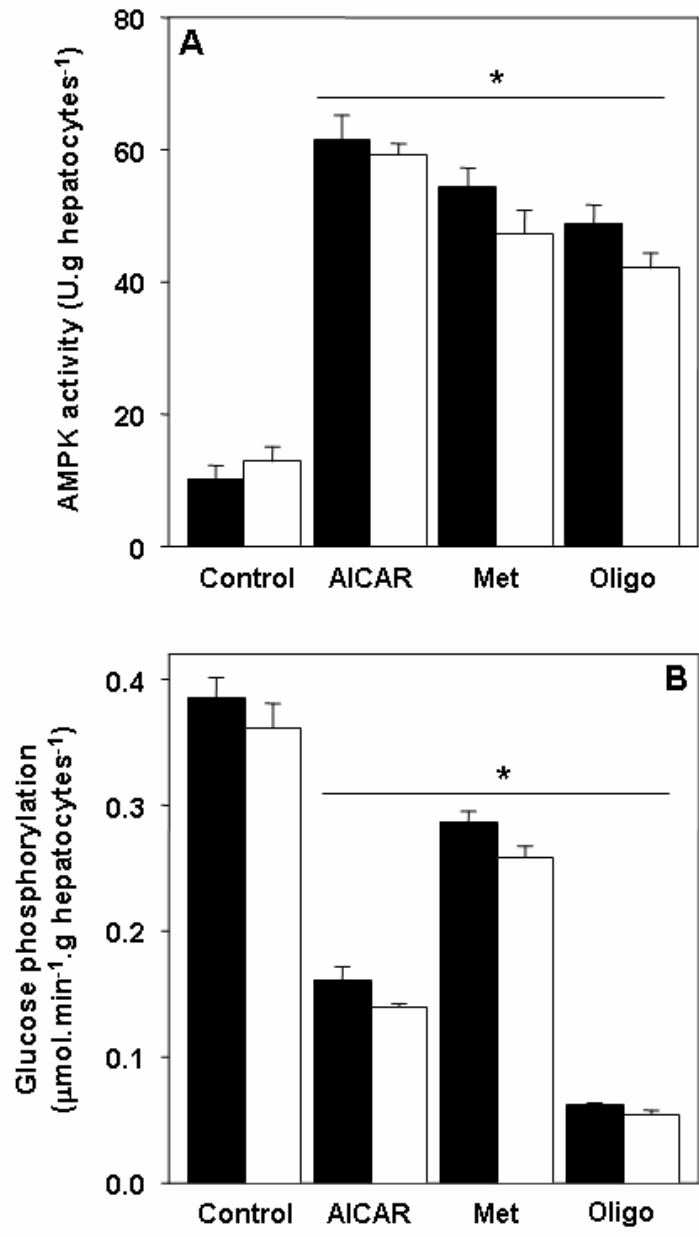
Supplementary Figure 3: Effects of different inhibitors on AMPK activation (A) and glucose phosphorylation inhibition (B) by AICAR and metformin in cultured rat hepatocytes. Primary culture of rat hepatocytes were pre-incubated for 45 min with 10 μ M SB202190 (open bars), 10 μ M SP600125 (striped bars), 50 μ M PD98059 (dotted bars), 1 μ M wortmannin (vertical bars) or vehicle (black bars) in basal HCM medium supplemented with 10 mM glucose. 1 mM AICAR, 5 mM metformin or vehicle were then added and hepatocytes were further incubated for 4 hours. The values are the means \pm SEM for three cell preparations. *, $p < 0.05$ compared with control-vehicle.

Supplementary Figure 4: Basal activities of α_1 and α_2 isoforms of AMPK in cultured hepatocytes from wild-type and AMPK $\alpha_1\alpha_2$ LS^{-/-} mice. Primary cultured rat hepatocytes isolated from wild type (black bars) or AMPK $\alpha_1\alpha_2$ LS^{-/-} mice (open bars) were cultured overnight as indicated in the Materials and Methods section. α_1 and α_2 specific AMPK activities were measured after immunoprecipitation of 75 μ g proteins with anti- α_1 and anti- α_2 antibodies. The values are the means \pm SEM for three cell preparations. *, $p < 0.05$ compared with α_1 . \$, $p < 0.05$ compared with wild-type.

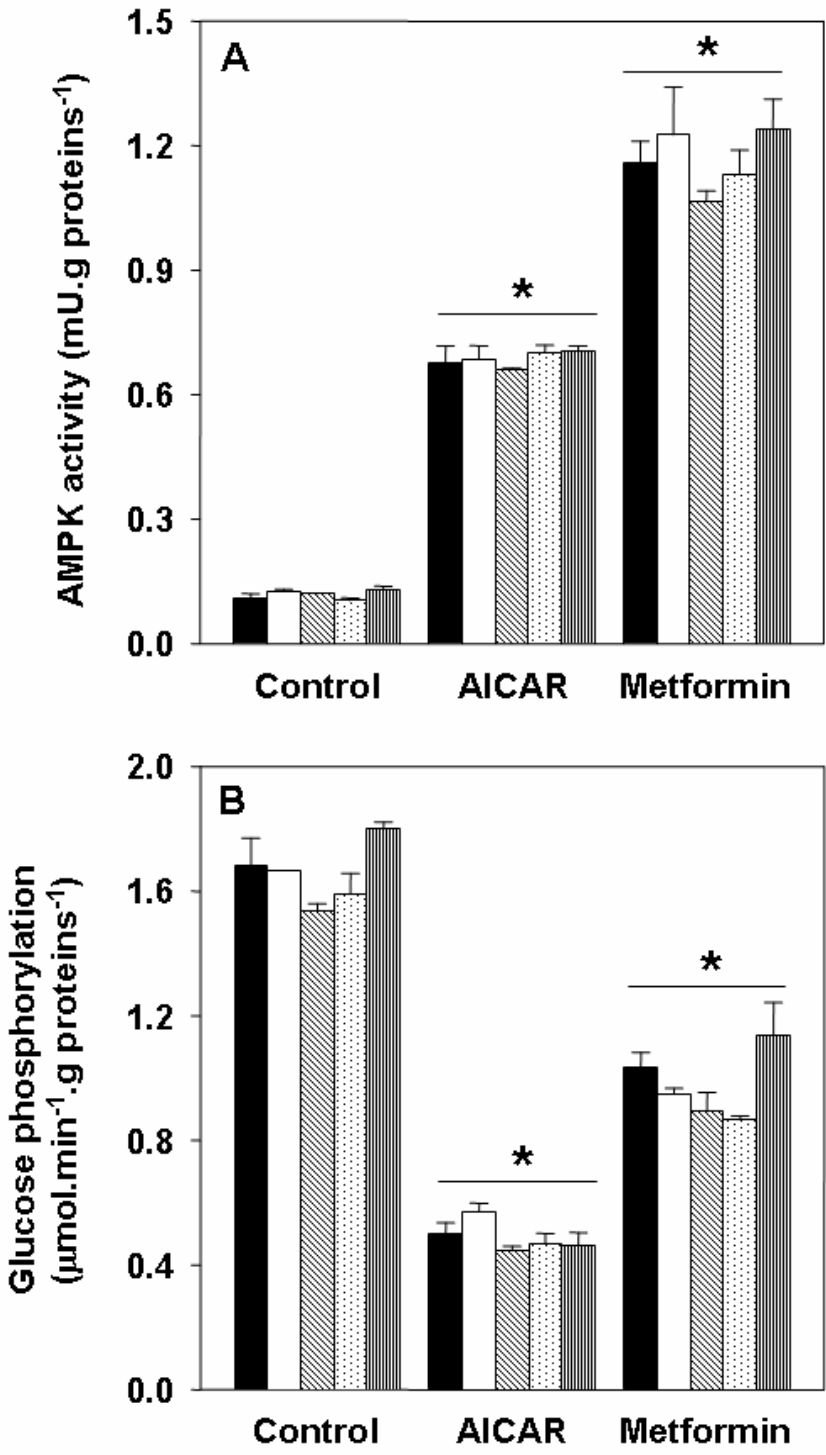
Supplementary Figure 1



Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure 4

