

SUPPLEMENTARY DATA

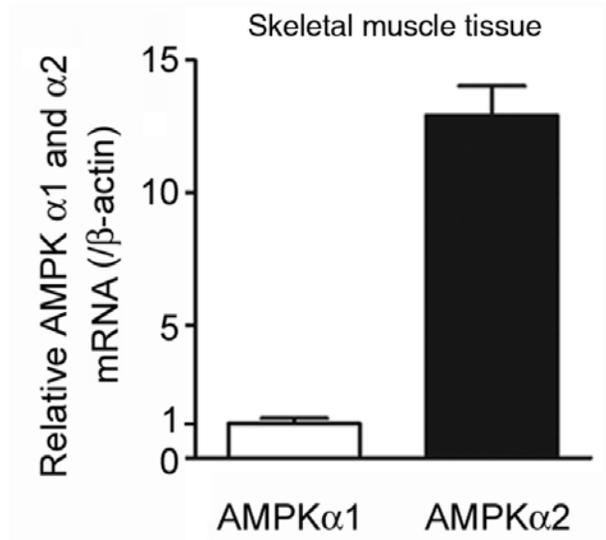
**Supplementary Table 1.** Primer Sequences and GenBank No.

Gene	Primer Sequence	GenBank No.
AMPK $\alpha$ 2	Sense: TGGCAGCACTTTGTCCTCG	NM_178143
	Anti-sense: CAGCGGGTTCGTTTCATCAG	
PP2C	Sense: TGTC AATGGCTCTCTGGCTGTATC	NM_178726
	Anti-sense: ACACTCATGTTGTCTCGACTTCCC	
PP2A	Sense: CCTCTTGTCATCAACAGCCGTG	NM_019411
	Anti-sense: GCAGGAAGAACCCACAAAGTG	
$\beta$ -actin	Sense: TGCTGTCCCTGTATGCCTCTG	NM_007393
	Anti-sense: GCTGTAGCCACGCTCGGTC	

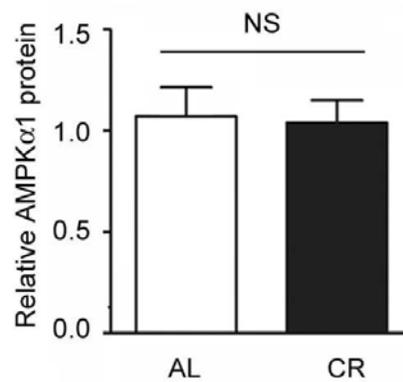
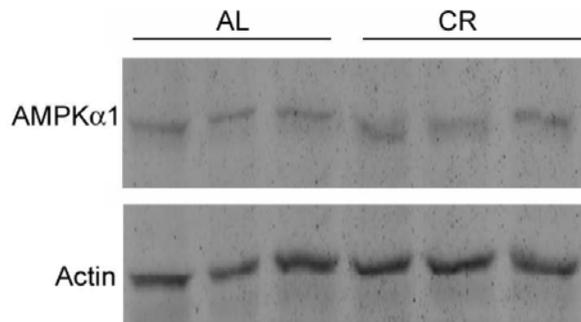
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**Supplementary Figure 1. A:** The relative mRNA levels of AMPK $\alpha$ 1 and AMPK $\alpha$ 2 subunits in skeletal muscle in mice were determined by real-time PCR. The AMPK $\alpha$ 2 is the dominant subunit in skeletal muscle. **B:** Two months of CR did not increase AMPK $\alpha$ 1 protein level. NS, no significance.

**A**

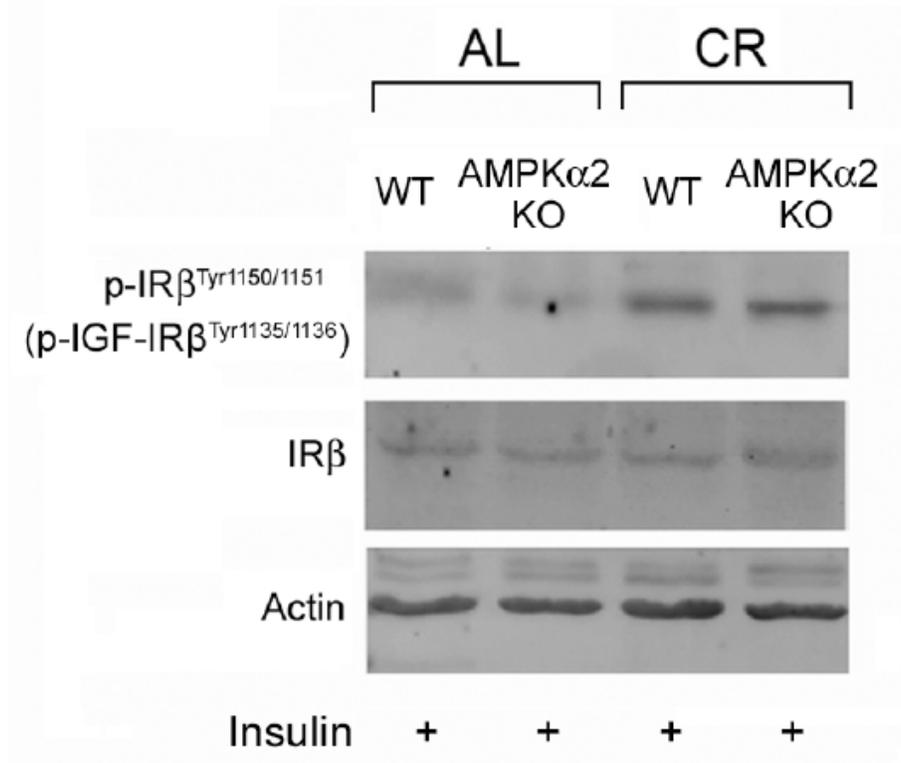


**B**

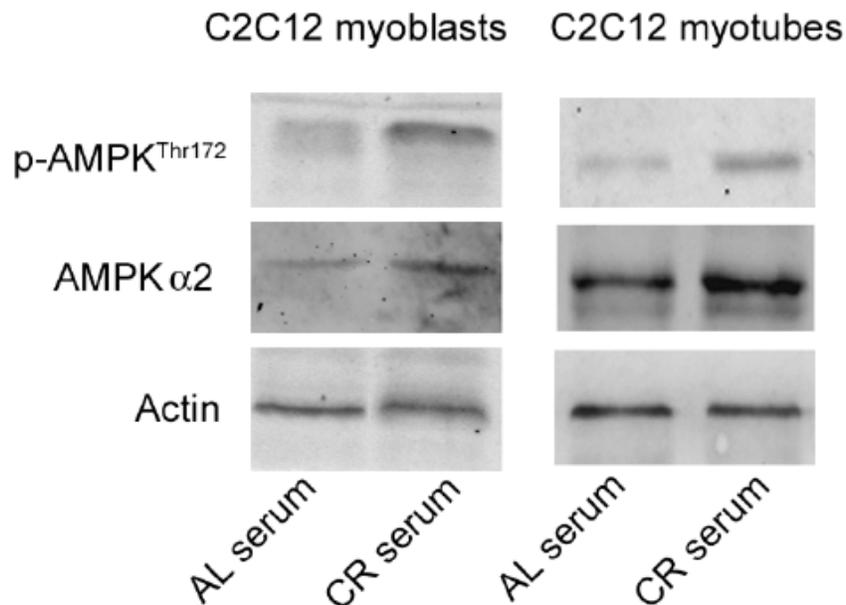


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**Supplementary Figure 2.** CR-induced increase of phosphorylation of insulin receptor (IR)  $\beta$  subunit<sup>Tyr1150/1151</sup> (insulin-like growth factor-1 receptor [IGF-1R]  $\beta$  subunit<sup>Tyr1135/1136</sup>) was not affected in AMPK $\alpha$ 2 mice.

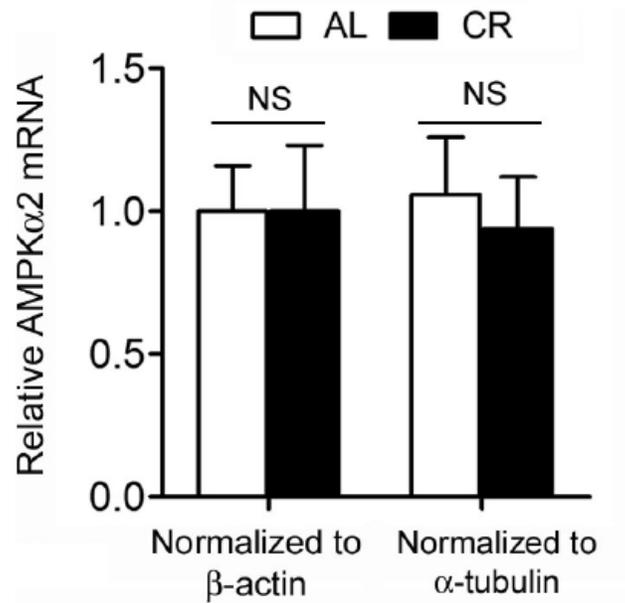


**Supplementary Figure 3.** CR serum increased the total AMPK $\alpha$ 2 and phospho-AMPK $\alpha$ 2 in cultured C2C12 cells.

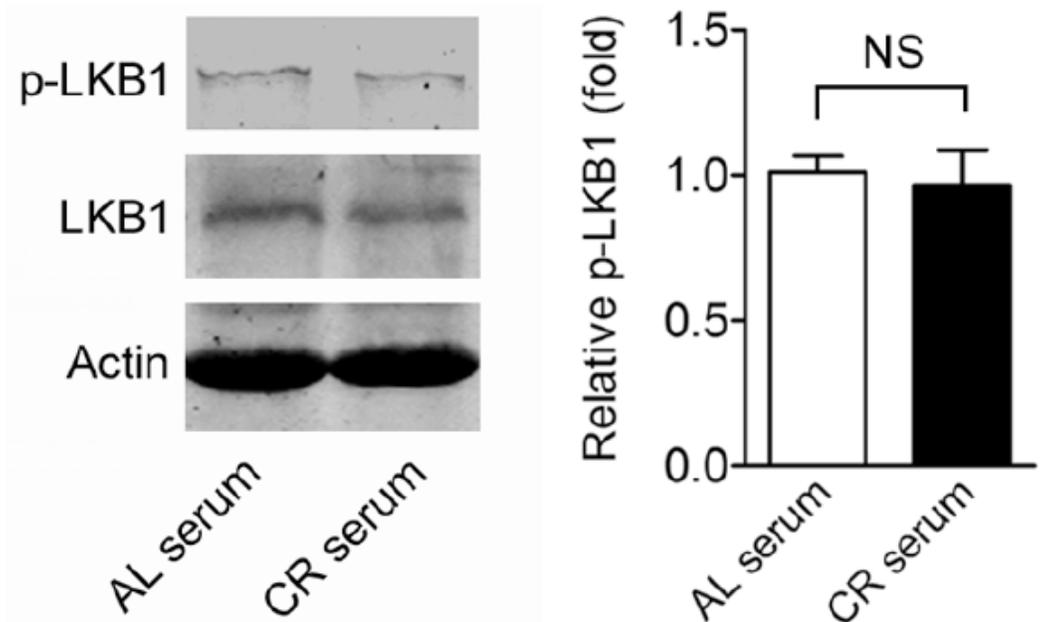


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**Supplementary Figure 4.** Two months of CR did not increase AMPK $\alpha$ 2 mRNA level. NS, no significance.



**Supplementary Figure 5.** Treatment of C2C12 cells with CR serum did not alter the phosphorylation of LKB1, a major upstream kinase of AMPK $\alpha$ 2.



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**Supplementary Figure 6.** Treatment of C2C12 cells with CR serum did not alter the mRNA expression (**A and B**) and activities (**C and D**) of PP2A and PP2C, two kinds of AMPK $\alpha$ 2 phosphatase.

