

**Supplementary figure 1.** Effects of 3-month exercise intervention program and an acute bout of exercise on *Pgc1 $\alpha$*  in skeletal muscle (**A,B**). Association between *Fndc5* and *Pgc1 $\alpha$*  measured in muscle not affected by acute bout of exercise (**C**). ○ before training ● after training. Data are shown as means  $\pm$  SEM. \* $p < 0.05$ , \*\*\* $p < 0.001$ .

**Supplementary figure 2.** Comparison of the plasma irisin measured with the *EIA kit, EK-067-29* and *RIA kit, EK-067-16* (both from Phoenix Pharmaceuticals, USA) to document the discrepancy in the plasma levels detected with the older and the more recent kit. This was performed in a subset of 7 trained individuals.

# Supplementary figure 1



# Supplementary figure 2

