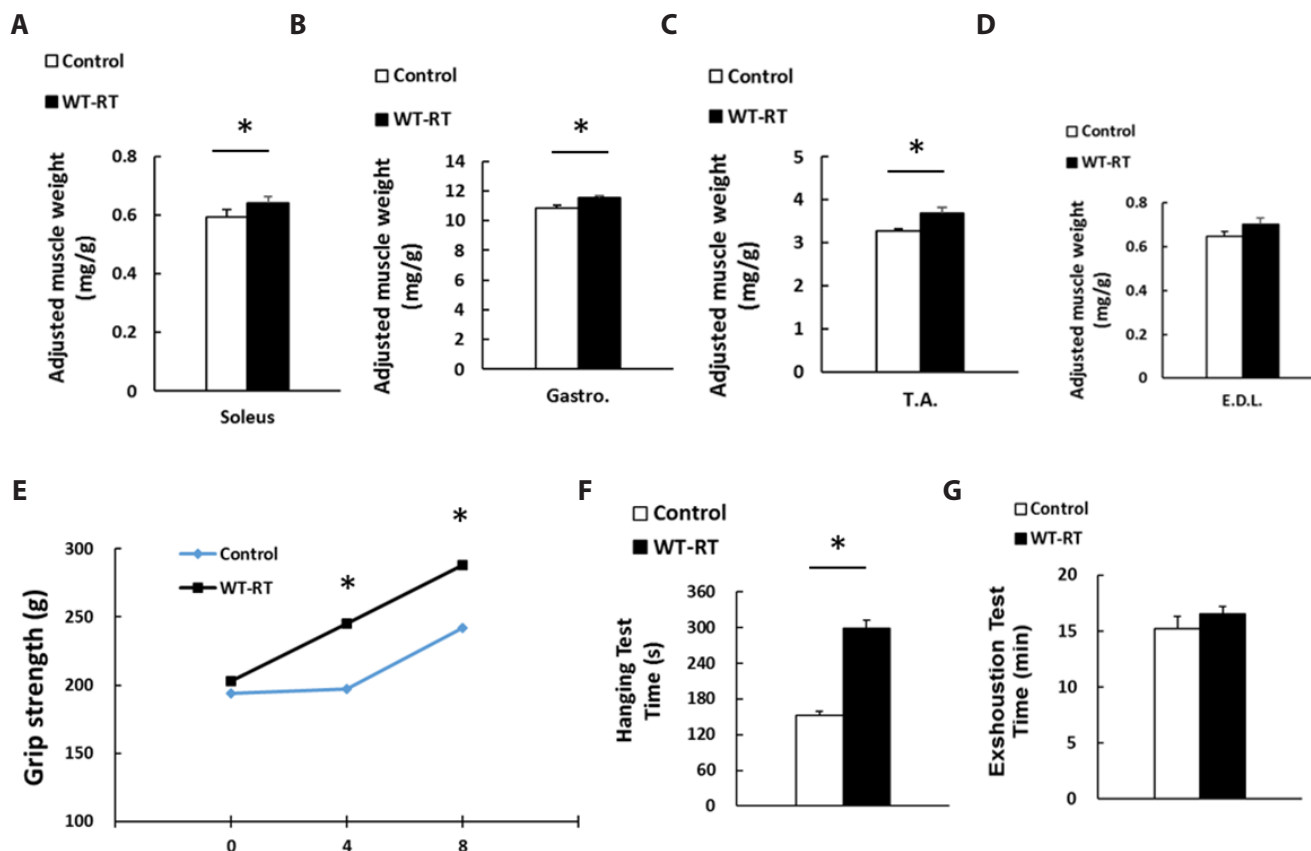


## SUPPLEMENTARY DATA

### Supplemental method

Maximal load lifted was recorded during each session of exercise. Mice were encouraged to climb ladder up until failure and the weight hanged at tail was recorded. When mice fail to achieve full length of ladder climbing, they were rested for 3 min. and performed with 1.5 g lower weight from previous failure weight. If they were successive with climbing, successive weight was recorded as a maximum otherwise the previous weight of success was recorded.



**Supplementary Fig. 1. Effect of resistance exercise.** (A–D) Muscle wet weight adjusted with body weight after 8 weeks of resistance training (n = 5–6) or control (n = 6). (A) Soleus, (B) Gastrocnemius, (C) Tibialis anterior, and (D) External digitorum longus muscle. (E) Grip strength changes during 8 weeks of resistance training (n = 5–6 each group). (F, G) Physical performance test after 8 weeks of resistance training (n = 5–6) or control (n = 6). \*p < 0.05.