Grip Strength 拉力測試

1. **Purpose**
   1.1 To examine the forelimb grip strength of a mouse by using MK-380CM/R grip strength meter.

2. **Safety Requirements**
   2.1 General laboratory procedures should be followed, which include: no eating, no chewing gum, no drinking, and no applying of cosmetics in the work area. The researcher must wear the laboratory coat, gloves and a mask during the experiment.

3. **Associated Documents**
   3.1 http://www.muromachi.com/english/PDF_proE/MK-380CMRE.pdf

4. **Notes**
   4.1 The mice must be maintained in a controlled environment with stable temperature, humidity, and air pressure. Keep minimal disturbing and stress on the tested mice whenever is possible.
   4.2 The grip strength of a mouse is age/sex/strain dependent. It is important to have the age-matched mice with the same sex and strain background in a single experiment.
   4.3 Because the grip strength measurement involves the handling of mice forelimbs and tail, the integrity of mice forelimbs and tail need is important. Thus, mice toes should not be injured and tail cut (for genotyping) should be minimal.

5. **Quality Control**
   5.1 Calibrate the grip strength meter before measurement.
   5.2 Before the test, the mouse will habituate in the platform for 30s.
   5.3 The first measurement grip strength is only for training purpose and will not be recorded.
   5.4 The tested mouse should be calm before each measurement.

6. **Equipment**
   6.1 A mouse stable platform.
   6.2 A grip strength meter.
   6.3 An Iron net.

7. **Supplies**
   7.1 Cap
   7.2 Gloves
   7.3 Mask
   7.4 Ethanol 70%
   7.5 paper towel
   7.6 kimwipes
   7.7 HOCl

8. **Procedures**
   8.1 The mouse will habituate in the stable platform for 30s.

8.2 Catch the tail tip of the mouse.
8.3 Pull the tail backward and the mouse forelimbs will instinctively hold the iron net.
8.4 Continue pull the tail, until the mouse releases both forelimbs while the pulling strength is greater than the grip strength.
8.5 Read and write down the quantitative value from the grip strength meter.
8.6 Keep the mouse in the stable platform for a rest.
8.7 Repeat steps 1-6 for five times.