

Bar Holding Test
IACUC Standard Procedure
Effective Date: June 2024

Description of procedure:

This test is used for assessing motor functioning, particularly muscle strength, endurance, and grip strength.

Supplies:

- 1-2mm bar or wire (plastic or metal)
- Padding made from material that is easy to maintain/disinfect (i.e., covered with plastic)

Procedure Steps:

1. The bar or wire is positioned horizontally, 30-50 cm above a surface that is padded to prevent injury when animal releases its grip and falls.
2. The mouse is carefully placed to hang by its forelimbs from the wire or small bar. The time that the animal maintains a grip on the wire or small bar is recorded, not to exceed 120 seconds. Animals showing signs of pain or distress after a fall should be returned to the home cage and evaluated.
3. The bar should be cleaned between animals.

Protocol requirements:

Section G.

- Describe the criteria that will exclude an animal from participating in this test.
- If repeat testing will be done in the same animal, define minimum rest period between repeat test sessions and maximum total number of tests over life of study.

Section J. Adverse Events

- Describe management of adverse effects such as injury or abnormal behavior following test.

RIO Documents Section:

- Email a completed "[LARC Behavioral Equipment Sanitation SOP](#)" form to LARC (ORRodentNurses@ucsf.edu) for review and to request ATP testing. Once sanitation procedure is approved, upload the completed form to Documents section of RIO protocol and post the form in the procedure room.

Reference:

Deacon RM. Measuring motor coordination in mice. J Vis Exp. 2013 May 29;(75):e2609.doi: 10.3791/2609. PMID: 23748408; PMCID: PMC3724562