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🌐 Cylinder behavior test

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Protocol status: Working
We use this protocol and it's working

Created: May 31, 2023

Abstract

This protocol describes cylinder behavior test.

Attachments

728-1839.docx
15KB

Materials

Apparatus

1. A 600-ml glass beaker
2. A digital camcorder at 60 fps (Panasonic, HC-V180K)

Troubleshooting

Procedure

1   Move the test mice from their housing room to the testing room and allow to acclimate for around 🕐 02:00:00 .   2h

2   Keep the test environment under dim white-light illumination (around 150 lux).

3   Place two mirrors perpendicular to each other to form a ninety-degree angle.

4   Clean a 600-ml glass beaker with 70% ethanol and water before the test.

5   Place the 600-ml glass beaker in front of the two mirrors.

6   Place a digital camcorder in front of the 600-ml glass beaker towards the glass beaker and mirrors.

> **Note**
>
> Ensure the glass cylinder is not overlapping in the mirror.

7   Place a test mouse into the 600-ml glass beaker and start recording.

8   After 10 minutes, stop recording and return the test mouse immediately to its home cage.

9   Clean the 600-ml glass beaker with 70% ethanol and water.

Analysis

10   Analyze videos offline by a person blinded to the treatments.

11   Give a score of "left forepaw", "right forepaw", or "both" based on which paw was used during a rear.

     1. If the animal walked up the wall during a rear, that counted as "both". At the end, "both" was divided equally between "left paw" and "right paw".

     2. Only one point was given per rear. Another point was not given until the animal returned to all fours and reared again.

     3. The paw must be splayed out and pressed against the glass cylinder to count as a point – resting the paw gently does not count.

12   Sum up the total number of touches for each forepaw and determine the percentage used by dividing the number of touches for each forepaw by the total number of touches.