

Behaviour: Rotorod

1. Purpose

Mice are run on a rotorod (RR) in 2 x 8 trials, to assess locomotor function and learning.

The RR is used to establish the baseline level of motoric behaviours. Secondly, it can be used to assess motoric learning.

2. Procedure

Mice are run in individually contained rotorod apparatuses (EZ-ROD with the spindle bar set to 35 cm high [outer dimensions: 17" (L) x 5.5" (W) x 20.0" (H)]).

The protocol is set to run for 8 trials, starting at 10 rpm and accelerating through to a maximum speed of 48 rpm after 300 s. Once the animal can no longer keep up, it falls to the base of the apparatus, where it trips an IR beam, thus recording the latency and speed at fall for each trial. Inter-trial interval is a minimum of 30 s.

Mice are run through 2 sessions, one in the morning and one in the afternoon with 3 hours minimum between the two sessions.

To clean, the entire surface of the catch-try, the spindles and walls are all wiped with Trigene wipes and allowed to air-dry.

Use mice housed and treated according to environmental conditions in the Battery protocol.

HOME OFFICE LICENCED PROCEDURE?: YES (can be done under delegation).

3. Materials

- EZ-rod rotorod v.2.12 (Accusan Instruments, Columbus, OH) 10 chambers
- Trigene wipes (Medichem, Seven Oaks UK)
- AVID Chip Identification reader

4. Quality Control

A panel of inbred strains are used to establish the protocol. The WT mice are monitored for drift in the baseline phenotype.

5. Example Data

The list of variables collected from each animal is as follows—it is downloaded into the g2c in_vivo, the database for the behavioural data for subsequent analysis.

The latency to fall and the speed at falling, if trial was aborted, for each trial in each session.

6. Supporting Information

7. Document History

This document created on 21 January 2008

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