

Dec 14, 2023

ROTAROD PROTOCOL

 In 1 collection

DOI

<https://dx.doi.org/10.17504/protocols.io.eq2lyn2ywx9/v1>

Michael Lee¹

¹University of Minnesota

Team Lee



Jacquelyn Haytayan

Weill Cornell Medicine

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.eq2lyn2ywx9/v1>

Protocol Citation: Michael Lee 2023. ROTAROD PROTOCOL. protocols.io
<https://dx.doi.org/10.17504/protocols.io.eq2lyn2ywx9/v1>

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: June 03, 2022

Last Modified: May 05, 2025

Protocol Integer ID: 63847

Keywords: Rotarod, Ramp Duration, Acceleration, ASAPCRN, rotarod test, protocol detail, protocol

Funders Acknowledgements:

ASAP

Disclaimer

DISCLAIMER – FOR INFORMATIONAL PURPOSES ONLY; USE AT YOUR OWN RISK

The protocol content here is for informational purposes only and does not constitute legal, medical, clinical, or safety advice, or otherwise; content added to protocols.io is not peer reviewed and may not have undergone a formal approval of any kind. Information presented in this protocol should not substitute for independent professional judgment, advice, diagnosis, or treatment. Any action you take or refrain from taking using or relying upon the information presented here is strictly at your own risk. You agree that neither the Company nor any of the authors, contributors, administrators, or anyone else associated with protocols.io, can be held responsible for your use of the information contained in or linked to this protocol or any of our Sites/Apps and Services.

Abstract

This protocol details the rotarod test.

Attachments



[452-953.docx](#)

18KB



Guidelines

Overview

- Run groups of up to 5 animals, in a maximum of 4 groups in a single run of 4 trials (i.e. must have ~15-20 min between trials).
- Run 4 trials for every animal each day for 4 days.
- **Detailed records should be kept on every experiment, noting date, timing, subject test order, procedural details followed and any relevant observations pertaining to the assay (e.g. specific behavior or procedural errors).**

Materials

Materials

Rotarod



Set-up

5m

- 1 Plug in Rotarod, turn on power switch in back. 
- 2 Press mode (F1).
- 3 Press Acceleration (F2).
- 4 Set Ramp Duration to  00:05:00 . 
- 5 Press ESC.
- 6 Reverse → No.
- 7 Press Alt → Speed and set to a max. of 50 (default is 80).
- 8 Press Forward, and set to a min. speed of 5.
- 9 Press Reset for rotation (without acceleration).
- 10 Place animals of rotating rod by holding their tail (use a gentle sweeping motion to place animal).
- 11 Make sure paddles are up and the time is set at 0 for all animals.
- 12 Press Start.



Note

- Trial is complete when animal falls onto paddle (press paddle down to stop time if animal does not) or when the animal completes two consecutive rotations (can let animal continue if they recover after one rotation within 6-10 steps).
- Record the maximum time and number of rotations for each animal.
- To see data from most recent trial hit ESC (*do not remove paddles before checking data when using this feature*),

Clean-up

13

Note

Note: Before pressing reset, clean between each trial by spraying a paper towel with 70% ETOH and letting the rod rotate against it (*do not press down on the rod*).

Remove the paddles and clean any animal droppings and urine.

14 Place paddles back on Rotarod.

15 Press Reset.

16 Place next group of animals on rod.

17 Flip paddles upward.

18 Press Start.

Data

19 For each day, calculate the average time and average number of rotations over the 4 trials for each animal.