

JUN 13, 2023



## DOI:

dx.doi.org/10.17504/protocol s.io.eq2ly7b1mlx9/v1

**Protocol Citation:** michela. deleidi, Bianca Marchetti, Federico Bertoli, Carmela Giachino, carmela.giachino 2023. Rotarod test.

## protocols.io

https://dx.doi.org/10.17504/protocols.io.eq2ly7b1mlx9/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: Mar 31, 2023

Last Modified: Jun 13, 2023

**PROTOCOL** integer ID:

79823

Keywords: ROTAROD

## Rotarod test

**Federico** 

 $michela.deleidi^{1,2}$ ,  $Bianca Marchetti^{3,4}$ ,  $Bertoli^{1,2}$ ,

Carmela

Giachino<sup>3</sup>, carmela.giachino<sup>5</sup>

<sup>1</sup>Mitochondria and Inflammation in Neurodegenerative Diseases, DZNE, Tübingen-Germany;

<sup>2</sup>Hertie Institute for Clinical Brain Research, University of Tübingen;

<sup>3</sup>Neuropharmacology Laboratory, Oasi Research Institute-IRCCS, Troina, Italv:

<sup>4</sup>Biomedical and Biotechnological Sciences, Pharmacology Section, University of Catania-Italy;

<sup>5</sup>Institut Imagine, INSERM UMR1163 Paris Cite' University, 24 boulevard du Montparnasse, 75015, Paris, France.



carmela.giachino

**ABSTRACT** 

Rotarod test was used to evaluate the effect of LPS treatment on motor performance during aging process between genotypes.

**ATTACHMENTS** 

k4dvb48if.docx

## **ROTAROD**

- To test motor performance, we used the accelerated Rotarod (five-lane accelerating rotarod; Ugo Basile, Comerio, Italy), a motor behavioral test widely used to assess motor deficit in neurodegenerative disease models in rodents. Mice have to keep their balance on a horizontal rotating rod (diameter, 3 cm) and rotation speed is progressively increased every 30 sec by 4 rpm.
- 2 Before the test, WT and G2019S within the different treatment groups were housed five per cage and acclimated to a 12h shift in light/dark cycle so that the exercise occurred during the animal normal wake period.
- To start the trials, the mice (five mice are tested at the same time) are placed on a rotating rod; when the mice fall down or when 5 min are completed, a switch is activated that automatically stops a timer. On the day of testing, the mice perform 5 trials, separated by an interval of 30 min between each trial.
- **4** The Rotarod performance was assessed at day -7, 0 days, and during NaCL/LPS injection paradigm, at monthly intervals, for the determination of motor deficit (*Supplementary Figure 1*).