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Levodopa treatment for low-dose 6-OHDA-treated mice



Forked from [Levodopa-induced dyskinesia mouse model](#)

DOI

<https://dx.doi.org/10.17504/protocols.io.4r3l29dpjv1y/v1>

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Protocol status: Working

We use this protocol and it's working



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Abstract

This protocol describes a one-week levodopa treatment for mice partially depleted of dopamine.



Levodopa treatment

- 1 Generate unilaterally low-dose 6-OHDA-lesioned mice (protocol linked below):

Protocol

NAME

6-OHDA mouse model of Parkinson's disease

CREATED BY

Beatriz E Nielsen

Preview

- 2 3 weeks after low-dose 6-OHDA injections, verify unilateral partial dopamine depletion by assessing forelimb use asymmetry in the cylinder test (protocol linked below).

Protocol

NAME

Motor behavioral assessment

CREATED BY

Beatriz E Nielsen

Preview

- 3 Start daily intraperitoneal (i.p.) injections of 2 mg/kg of L-DOPA (3,4-dihydroxy-L-phenylalanine) plus 12 mg/kg of benserazide hydrochloride dissolved in sterile saline for 7-8 days.
- 4 Acute brain slices for electrophysiology recordings (protocol linked below) must be prepared 30min – 1 h after the last L-DOPA administration.



Protocol

NAME

Acute Brain Slices

CREATED BY

Kelsey Barcomb

Preview