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L-DOPA Drug Treatment Alcacer et al 2024

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Protocol status: Working

We use this protocol and it's working

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Abstract

L-DOPA drug treatment administered to mice for imaging and behavioral studies, see protocol- "Open-field experiments from Alcacer et al 2024" DOI:

dx.doi.org/10.17504/protocols.io.6gpvr9e9bvmk/v1 is the protocol this treatment protocol is used in.

Materials

L-DOPA methyl ester (L-DOPA also called LD; from Sigma Aldrich, Portugal)

Peripheral DOPA decarboxylase inhibitor benserazide-HCl (Sigma Aldrich, Portugal)

Physiological saline (9 g/L NaCl), vehicle

Injection syringe

Before start

Dissolve L-DOPA methyl ester into physiological saline (9g/L NaCl) at a concentration of 6mg/kg final dosage and peripheral DOPA decarboxylase inhibitor benserazide-HCl at a concentration of 12mg/kg.

Physiological saline (9g/L NaCl) is used as the control/vehicle injections.



L-DOPA or Vehicle administration

- 1 Inject vehicle intraperitoneally (i.p) for 2 consecutive days while performing either behavioral or imaging experiments.
- 2 On the 3rd day, inject the L-DOPA solution at 10mL/kg body weight or vehicle (pending treatment group) i.p. and proceed with behavioral or imaging recordings.
- 3 L-DOPA or Vehicle was then administered for a maximum of 4 days i.p. while recording for either behavioral or imaging experiments at 6 mg/kg dosage.