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Open Field Behavior in Mice

Forked from Open Field Behavior in Mice

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We use this protocol and it's working

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Abstract

The open field test is widely used to assess spontaneous locomotor activity, exploratory behavior, and anxiety-like responses in rodents. In this fork, the test duration has been modified and the software used described.

Attachments

DOCX

Ding_Lab_Open field ...

15KB

Materials

Open field arena: 50 × 50 × 50 cm chambers
Video recording: A camera mounted above the chambers, adjusted to ensure full coverage of the arena.
ANY-maze software (**https://www.any-maze.com/**)
70% ethanol spray and paper towel

Safety warnings

Wear appropriate PPE as required by your institution.

Ethics statement

Prior ethics approval (e.g. IACUC) should be obtained before performing these experiments. Approval was obtained by the Stanford University IACUC before any procedures were performed.

Before start

Customize the settings on the ANY-maze software, including the type of animals used, parameters to be tracked, and calibration of the camera feed.

Procedure

1 Habituate the mice for 45-60 min in the room where the testing will be performed.

2 Open the ANY-maze software and start a new experiment.

3 Place the mouse gently in the center of the open field arena.

4 Start recording.

5 The duration of each test session is 5 minutes, but may be changed depending on the experimental design.

6 After allotted time, stop the recording and return the mouse to its home cage.

7 **Optional observation:** Record the number of fecal boli and urine spots as additional indicators of anxiety.

8 Thoroughly clean the chambers with 70% ethanol between trials and after testing to eliminate odor cues from previous animals.