FEB 28, 2024

DOI:
dx.doi.org/10.17504/protocols.io.kqdg3xm37g25/v1

Protocol Citation: sdwalto, Jeffrey Kordower, Bryan_Killinger 2024. Odor Threshold. **protocols.io** https://dx.doi.org/10.17504/protocols.io.kqdg3xm37g25/v1

Protocol status: Working
We use this protocol and it's working

Created: Feb 28, 2024

Odor Threshold

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ABSTRACT

Odor threshold optimized for mice. This test was made to test short term olfactory memory. Mice with olfactory impairment or deficits should score lower.

GUIDELINES

ODORANT: Propionic acid at increasing concentrations of 1:10^6, 1:10^4, and 1:10^3 diluted in mineral oil.

Notes:
- Paper swabs soaked in the different odorant dilutions were used inside the cartridges.
- Investigation time defined as the duration of active sniffing with the nose placed less than 1 cm away from the cartridge.

Last Modified: Feb 28, 2024

PROTOCOL integer ID: 95892

Keywords: ASAPCRN, mice behavior, odor threshold

Funders Acknowledgement:
Jeffrey Kordower
Grant ID: NIH R21 NS109871

1 Prepare and empty rodent cage with no bedding.

2 Prepare the odorant by diluting in mineral oil. (See guidelines)

3 Acclimate mouse to setup (empty cage with odor cartridges). Place mouse in the cage and expose to empty odor cartridge for 5 mins.

4 Pre-habituate mouse to a paper swab soaked in mineral oil in the odor cartridge. (5 mins).

5 Habituation phase. Expose mouse to mineral oil for three 50 secs trials with a 5 min interval between trials.

6 Detection phase. Expose mouse to lowest concentration of propionic acid for 50 secs and record time spent investigating the odor cartridge.

7 Repeat step 6 with the other concentrations of propionic acid, starting from lowest to highest.