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Sociability Apparatus

(3-chambered social test)

Cat. No. 46553

General

Research has shown that, although human social behavior is generally more complex, humans and animals share some aspects of social behavior.

The 3-chambered test is a valuable tool to assess general sociability and interest in social novelty in rodent models of CNS disorders.

Rodents normally prefer to spend time with another rodent (**sociability**) and will investigate a novel intruder more than a familiar one (social novelty).

Based on these inclinations, the Three Chamber Test can help identify rodents with deficits in sociability and/or social novelty.

The **Ugo Basile Sociability Apparatus** consists of a 3-chambered cage, with grey opaque walls, a special non-reflective grey-colored floor and 2 grid enclosures.

Many authors (e.g. Moy et al. 2004; Nadler et al. 2004) have shown that a 3-chambered box can be used to test:

- Social Novelty Preference
- Sociability
- Dominance
- Autism

FOR STUDIES

- Autism
- Social Memory & Novelty
- Pair-bonding
- Dominance hierarchies

Main Features

- **Works even with the most basic video-tracking software**
- **Grid Enclosures maximize animals interaction**
- **A model with transparent wall is available (46503).**
- The grey floor gives high contrast with both light and dark animals
- The special painting gives a slightly rough surface, pleasant for the animals to walk on.

Ugo Basile: more than 10,000 citations

SOCIABILITY APPARATUS
(3-CHAMBERED SOCIAL TEST)

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Rationale and Outline of the Procedure

The Ugo Basile 3-Chambered Apparatus can be used with many different procedures.

In their 2004 paper, Moy and co-authors (see bibliography), describe a typical protocol: after a period of habituation a mouse sociability is determined by measuring the time spent by the freely-moving subject in the proximity of the grid enclosures containing the first 'stranger' mouse.

A second 'stranger' mouse is then introduced in the box and the preference for the new 'stranger' mouse can be easily assessed.

3-Chamber Box & Grid Enclosures

The 46553 perimetral walls and internal partitions of grey opaque PVC form a **3 compartment box**, each **20x40x22(h)cm**; two **sliding doors** (5x8(h)cm), opening on the central compartment, can be closed to confine the animal.

Partitions can be easily removed for cleaning (or replaced with transparent ones, if preferred). Transparent lids 46503-320 can be ordered as optional.

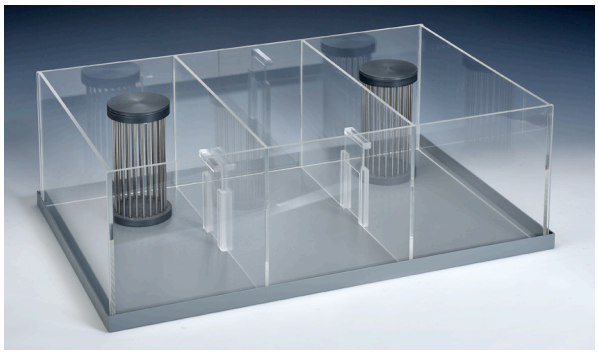
The grey metal floor gives high contrast with both light & dark animals, allowing for automated video-tracking of the animals.

Its special painting also gives a slightly rough surface, pleasant for the animals to walk on.

The grid enclosures allow mice to interact closely; the grid bars have a diameter of 3mm and are spaced 7mm.

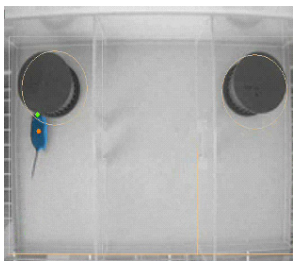
The standard **enclosures** are 15cm tall with an I.D. of 7cm. The top and the bottom are made of grey (**46503-003**) or white (**46503-013**) PVC.

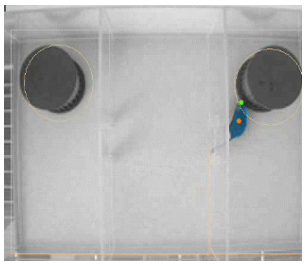
Model 46503 with transparent walls is also available: the clear Perspex is ideal for visual observation of the experiment or for side positioning of the video-camera.



Optimized for Video-Tracking

The grey floor gives best contrast to both light and dark animals, which is the most critical factor for **all video-tracking softwares** to work properly.





Images and videos, courtesy of Dr. Patrizia D'Adamo (San Raffaele Institute, Milan, Italy)

Ordering Information

46553	**Mouse Cage for Sociability,** with **opaque walls & internal partitions**. Including 2 grid cages (grey, I.D. 7cm, height 15cm)
46503	**Mouse Cage for Sociability**, with **transparent walls & internal partitions.** Including 2 grid cages (**grey**, I.D. 7cm, height 15cm)
46513	**Mouse Cage for Sociability**, with **transparent walls & internal partitions.** Including 2 grid cages (**white**, I.D. 7cm, height 15cm)
46503-003	Grid Enclosure, **grey**, I.D. 7cm, 15cm(h)
46503-005	Grid Enclosure, **grey**, I.D. 10.5cm, 18.5cm(h)
46503-013	Grid Enclosure, **white**, I.D. 7cm, 15cm(h)
46503-013	Grid Enclosure, **white**, I.D.10.5cm,18.5cm(h)

Physical

Dimensions	60x40x22(h)cm
Weight	9Kg
Shipping Weight	12Kg
Packing	67x42x53cm

Bibliography

- A.J. Mierzwa et alia: "**FGF2 and FGFR1 Signaling Regulate Functional Recovery Following Cuprizone Demyelination**" Neuroscience Letters 548: 280-285, **2013**
- M. J. Kane et alia: "**Mice Genetically Depleted of Brain Serotonin Display Social Impairments, Communication Deficits and Repetitive Behaviors: Possible Relevance to Autism**" PLoS ONE 7(11): e48975, **2012**
- M. Yang et alia: "**UNIT 8.26 Automated Three-Chambered Social Approach Task for Mice**" Current Protocols in Neuroscience Published Online: 1 July **2011**

Method Papers

- S.S. Moy et alia: "**Sociability and Preference for Social Novelty in Five Inbred Strains: an Approach to Assess Autistic-Like Behavior in Mice**" Genes, Brain and Behavior 3(5):287-302, 2004
- J.J. Nadler et alia: "**Automated Apparatus for Quantitation of Social Approach Behaviors in Mice**". Genes, Brain and Behavior 3(5): 303–314, 2004.