



Sociability Apparatus (3-chambered social test)

for MOUSE or RAT

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 transparent or grey opaque walls, a special non-reflective grey-colored floor and 2 grid enclosures.

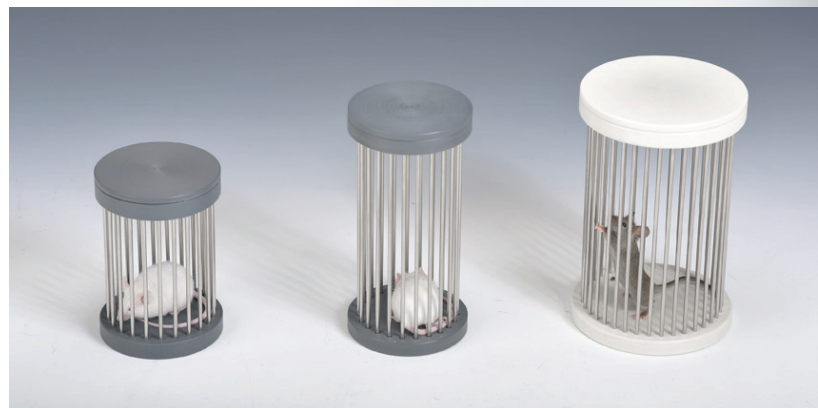
Many authors (e.g. Moy et al. 2004; Nadler et al. 2004) have shown that a 3-chambered box can be used to test:

- Social Novelty Preference
- Sociability
- Dominance
- Autism



FOR STUDIES ON:

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



Main Features

- Works even with the most basic video-tracking software
- Grid Enclosures maximize animals interaction
- 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.
- Available with transparent or opaque walls
- Sociability Cages for Rat are also available in two sizes: standard 120x40x40(h)cm and XL 120x80x40(h)cm

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.

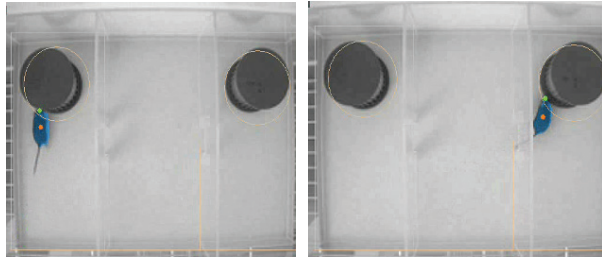
The standard enclosures are 15cm tall with an I.D. of 7cm. The top and the bottom are made of grey (**46503-003**) or white (**46503-013**) PVC.

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 3-Chamber Sociability Test, opaque walls & internal partitions (no lids).** With 2 grid cages (grey, I.D. 7cm, height 15cm)
- 46503 Mouse Cage for 3-Chamber Sociability Test, transparent walls, internal partitions and lids.** With 2 grid cages (grey, I.D. 7cm, h 15cm)
- 46552 Rat Cage for 3-Chamber Sociability Test, opaque walls & internal partitions (no lids).** With 2 grid cages (grey, I.D. 15cm, h 25cm)
- 46562 Rat Cage XL, opaque**
- 46502 Rat Cage for 3-Chamber Sociability Test, transparent walls, internal partitions and lids.** With 2 grid cages (grey, I.D. 15cm, h 25cm), 15cm(h)
- 46512 Rat Cage XL, transparent**

Physical	Mouse	Rat
Dimensions	60x40x22(h)cm	120x40x40(h)cm 120x80x40(h)cm XL
Weight	9Kg	18Kg
Shipping Weight	12Kg	25Kg
Packing	67x42x53cm	Pallet

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.