

Metabolic Cage for Rats-大鼠代謝籠

1. Purpose

- 1.1 The metabolic cages allow the measurement of food and water consumption. The animals are placed in a metabolic cage for 24h with free access to food and distilled water.

2. Scope

- 2.1 Individuals who have been trained to use the metabolic cages must follow this procedure.

3. Safety Requirements

- 3.1 General laboratory procedures should be followed which include no eating and no drinking in the work area. Laboratory coats and gloves must be worn at all times in the work area.

4. Equipment

- 4.1 Metabolic cages (Shinano, Japan).
- 4.2 Weight scale.

5. Supplies

- 5.1 Disinfectant (70% alcohol solution and HOCL).
- 5.2 Gloves.
- 5.3 RO sterile water.
- 5.4 Chow food and high-fat diet.
- 5.5 Bedding.
- 5.6 Hand towels.
- 5.7 Water bottles.
- 5.8 Pens and Marker pens.
- 5.9 Tweezers.
- 5.10 Steel ladle

6. Procedure

- 6.1 Weight and record the food and water in the feeder chamber and the water bottle at the starting point.
- 6.2 Food and water consumption :
 - 6.2.1 Place the rat in a metabolic cage (1 per cage) for a period of 24h ensuring that the rat identification is clearly labeled on the cage.
 - 6.2.2 After 24h collection, measure food and water consumption by weighing the feeder chamber and the bottle of water.
 - 6.2.3 Collect all urine and stool and measure the urine volume and stool weight.
 - 6.2.4 Store the urine and stool samples at -20°C for further analyses.
 - 6.2.5 At the end of the experiment, place rats in their original cages.

