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Working

U Cinn - Body Composition & Carcass Analysis

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Mouse Metabolic Phenotyping Centers

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ABSTRACT

Summary:

Total body composition in live, un-anaesthetized small animals and carcasses will reveal absolute amounts of body fat, lean tissue and body water via a quantitative magnetic resonance (QMR) instrument, EchoMRI, (Echo Medical Systems, LLC, Houston, TX). This instrument uses the differences in the nuclear magnetic resonance properties of hydrogen atoms in organic and non-organic environments to fractionate signals originating from fat, lean tissue and free water.

EXTERNAL LINK

https://mmpc.org/shared/document.aspx?id=193&docType=Protocol

MATERIALS

NAME	CATALOG #	VENDOR	CAS NUMBER	RRID
EchoMRI-100 Whole Body Composition Analyzer for Mice	EchoMRI-100	Echo Medical Systems		
Mouse Restrainer	H100-30	Echo Medical Systems		

MATERIALS TEXT

Note:

EchoMRI, **RRID:SCR_017104**

1 Insert the calibration tube into opening on right side of the EchoMRI-100 as far in as possible.

2 Select **"Calibrate"** at the bottom of the screen to calibrate the system.

3 After calibration has passed, weigh the animal and carefully place in the restrainer tube.

4 Insert the restrainer tube into the opening on the right side of the EchoMRI-100 and:
a. Select "**New Experiment**" at the bottom of the screen
b. Enter data for the **Group**,
c. Enter data for the **Subject**
d. **Notes** (Body weight should be included in the "**Notes**" field)

5 Select "**Start Experiment**" to start measuring the body composition.

Each run will take approximately 1 minute.

It is recommended that each animal is measured 2 or 3 times to determine the average of the repeated runs.

6 When the small box in the upper, left-hand corner reads “Experiment Complete,” remove the restrainer from the machine, and return the animal to its home cage.

7 Repeat steps 4-7 for all additional animals.