



Sep 27, 2019

Morphometry: Mouse V.2 [↗](#)

Ed Leiter¹¹THE JACKSON LABORATORY[1](#) *Works for me* dx.doi.org/10.17504/protocols.io.7rhbm36**Diabetic Complications Consortium**Tech. support email: rmcindoe@augusta.edu

Lili Liang

ABSTRACT

Summary:

This protocol describes a number of the measurements that are made on the mouse anatomy.

Edited by: DiaComp Membership

Diabetic Complications:



Cardiovascular



Retinopathy



Neuropathy



Nephropathy



Pediatric Endocrinology



Uropathy



Wound-Healing

EXTERNAL LINK

<https://www.diacomp.org/shared/document.aspx?id=47&docType=Protocol>

- 1 The **left kidney weight** is obtained after dissection from the abdominal cavity and the weight is obtained on a balance with 0.1 mg discrimination. The weight is obtained wet (non-dissected) after the kidney is blotted on paper towels. This is the left kidney of the animal.
- 2 The **right kidney weight** is obtained after dissection from the abdominal cavity and the weight is obtained on a balance with 0.1 mg discrimination. The weight is obtained wet (non dissected) after the kidney is blotted on paper towels. This is the right kidney of the animal.

- 3 **Total kidney weight** is the combined weight of both kidneys in grams.
- 4 The **liver weight** is obtained after dissection from the abdominal cavity and the weight is obtained on a balance with 0.1 mg discrimination. The weight is obtained wet (non-dissected) after the liver is blotted on paper towels.
- 5 The **spleen weight** is obtained after dissection from the abdominal cavity and the weight is obtained on a balance with 0.1 mg discrimination. The weight is obtained wet (non dissected) after the spleen is blotted on paper towels.
- 6 **Wet heart weight** is obtained after dissection from the thoracic cavity and the weight is obtained on a balance with 0.1 mg discrimination. The weight is obtained wet (non dissected) after the spleen is blotted on paper towels.
- 7 **Total Mouse weight** The mice are weighed in tared containers upon a Mettler scale.
- 8 The **tibia length** is determined using the left tibia of the mouse. The tibia is dissected out using surgical tools and cleaned on all soft tissue. The length is determined using a digital micrometer.
- 9 The **spleen weight:tibia length ratio** is a computed value of the spleen weight in grams divided by the tibia length in grams..
- 10 The **spleen weight:tibia length ratio** is a computed value of the spleen weight in grams divided by the tibia length in millimeters.
- 11 The **heart:body weight ratio** is a computed value of the heart weight in grams divided by the body weight in grams.
- 12 The **heart:tibia length ratio** is a computed value of the heart weight in grams divided by the tibia length in millimeters.
- 13 The **total kidney:body weight ratio** is a computed value of both kidneys weight in grams divided by the body weight in grams.
- 14 The **total kidney:tibia length ratio** is a computed value of both kidneys weight in grams divided by the tibia length in millimeters.
- 15 The **liver:body weight ratio** is a computed value of the liver weight in grams divided by the body weight in grams.
- 16 The **liver:tibia length ratio** is a computed value of the liver weight in grams divided by the tibia length in millimeters.



This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited