

Sep 28, 2019

Version 2

Morphometry: Mouse V.2

DOI

<https://dx.doi.org/10.17504/protocols.io.7rhhm36>



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

Protocol Citation: Ed Leiter 2019. Morphometry: Mouse. protocols.io <https://dx.doi.org/10.17504/protocols.io.7rhhm36>



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Protocol status: Working

We use this protocol and it's working

Created: September 28, 2019

Last Modified: September 28, 2019

Protocol Integer ID: 28169

Keywords: Mouse Morphometry, cardiovascular, retinopathy, neuropathy, nephropathy, pediatric endocrinology, uropathy, wound-healing, mouse anatomy, mouse summary, diabetic complication, morphometry, diacomp, mouse, diacomp membership

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

- 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.