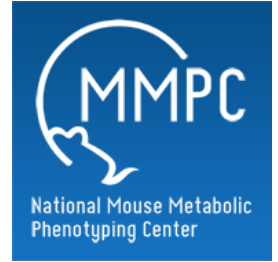


May 16, 2019

Vandy - Tail-Cuff Blood Pressure

DOI

dx.doi.org/10.17504/protocols.io.yymfxu6



Chee Lim¹

¹Vanderbilt University

Mouse Metabolic Phenotyping Centers
Tech. support email: info@mmpc.org



Lili Liang

OPEN  ACCESS



DOI: dx.doi.org/10.17504/protocols.io.yymfxu6

External link: <https://mmpc.org/shared/document.aspx?id=224&docType=Protocol>

Protocol Citation: Chee Lim 2019. Vandy - Tail-Cuff Blood Pressure. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.yymfxu6>

License: This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: March 08, 2019

Last Modified: May 16, 2019

Protocol Integer ID: 21229

Keywords: tail-cuff blood pressure measurement

Abstract

Summary:

The tail-cuff blood pressure measurement is a non-invasive test and the principle is the same as that of the inflatable blood pressure cuff used in the standard clinic visit. The Visitech system uses an LED light source to detect the pulse signal wave. Since the measurement is sensitive to motion artifact, the procedure requires training sessions to acclimate the mouse to the process.

Materials

MATERIALS

 BP-2000 System **Visitech Systems Catalog #BP-2000**

- 1 Turn on the BP-2000 computer and control unit and set the heating platform at approximately 34°C.
- 2 Place a mouse in the magnetic restraining device on the platform leaving its tail free.
- 3 Insert and slide the mouse tail all the way through the corresponding tail-cuff and tape the tail down.
- 4 Place the LED light sensor cover over the middle of the tail.
- 5 Open the Blood Pressure Analysis software on the computer and set Preliminary Cycles at 5 and Measurement Cycles at 10.
- 6 During the analysis cycle the blood pressure control unit will pressurize and attempt to read a pulse and begin cycles of pressurizing and depressurizing.
- 7 Results will be presented at the end of the measurement cycle.
- 8 Training is repeated in conjunction with data acquisition, with repetition until experimental variability is minimal (typically 3 training sessions)