

**Mechanical Sensitivity (Von Frey)
Test
IACUC Standard Procedure
Effective Date: June 2024**

Description of Procedure:

The mechanical sensitivity (Von Frey) test consists of thin calibrated plastic filaments that are applied to the plantar surface of the hind paw. Von Frey filaments of different gauges or stiffness are used to determine the threshold that elicits a hind paw withdrawal response. The mechanical withdrawal threshold is defined as the minimum gauge Von Frey filament that elicits a withdrawal reflex. The purpose of this test is to measure mechanical nociception in to evaluate the ability of an animal to detect a noxious stimulus.

Procedure Steps:

1. The mouse or rat is placed on a wide gauge, wire mesh surface.
2. The Von Frey filaments are applied from the underside of the mesh to the plantar surface of the rodent's hind paw. At threshold, the rodent responds by flicking its paw away from the stimulus.
3. The process is repeated with increasing gauges of Von Frey filaments that have different stiffness until stimulation elicits a hind paw withdrawal.

Note: This is a simplified description of this procedure. For additional reference, see [procedure description from The Jackson Laboratory Mouse Neurobehavioral Phenotyping Facility](#)

