

Balance Beam
IACUC Standard Procedure
Effective Date: October 2021



Description of procedure:

The balance beam is a test of motor coordination and balance.

In order to assess motor coordination, an animal is trained to traverse a beam and is evaluated on ability to maintain balance.

Round beams are generally harder than square/rectangular-shaped beams and the narrower the beam the more challenging the test.

Supplies:

- Narrow beam (made of plastic so can be cleaned between tests)
- Padding (covered in plastic so can be cleaned after use)
- Enclosed black “goal” box and nesting materials
- Lighting fixture and lighting source

Procedure Steps:

1. Padding is positioned under the beam in the event that the animal falls from it.
2. An animal is placed on a beam. The ability to maintain balance and/or traverse the beam in order to reach an enclosed safety platform is evaluated. A bright light may be positioned at the beginning of the beam to illuminate the path and further encourage the mouse to walk across the beam toward the enclosed box on the other side. Latency to cross the beam, the number of times the hind feet slip off the beam and latency to fall are typically recorded. Each animal may be tested up to 1-2 minutes. It is recommended that the individual conducting this test be facing the dorsum of the animal, as it is typically the back paws that slip. This cannot be easily seen when viewed from the side of the animal.