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Motor behavioral evaluation of mice

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Protocol status: Working

We use this protocol and it's working

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Abstract

This is a general protocol to test motor coordination of mice used models of neurological disorder



Rotarod test

- 1 On first day, mice are acclimated to standing on a non-rotating rod (Rotamex 5, Columbus Instrument) for three  00:01:00 trials with  00:10:00 interval. 11m
- 2 Three hours later, mice are acclimated to walking on the rod over three  00:01:30 trials at a speed of 4 rpm 1m 30s
- 3 On next day, latency of mice staying in the rotarod is recorded with accelerating speed of 4-40 rpm increasing by 1 rpm every 8.3 seconds for a maximum of  00:05:00 per trial. 5m
- 4 Repeat experiment for three trials daily for two days

Beam walk test

5m

- 5 Mice are trained to cross beams of 1~1.5m length of round beam. 24mm and 18mm diameter of beams are used.
- 6 Beam-crossing training is done for three times for two days
- 7 During the experimental day, its motor coordination will be measured by determining the number of slips, the latency required to cross the beam as the mouse traverses the beam.
- 8 For actual experiment, mice crosses both beams twice per trial for three trials with  00:05:00 resting periods in between trials 5m