The NIH HEAL Initiative Preclinical Screening Platform for Pain (PSPP) Validation of the Monoiodoacetate (MIA) Model of Osteoarthritis Pain in the Rat



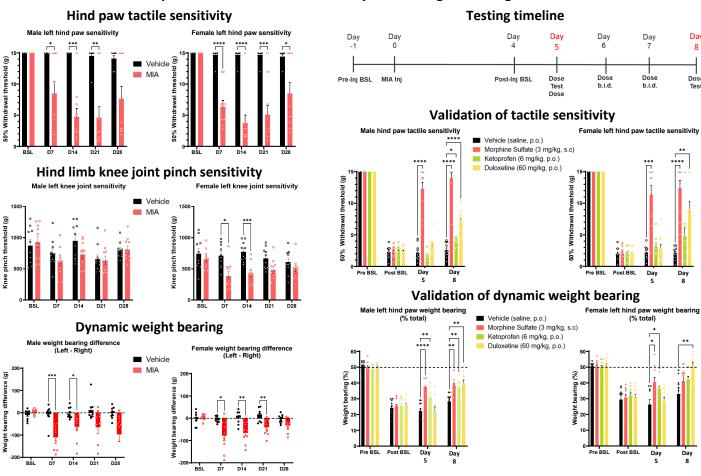
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Validation example: Assessment of PWT and dynamic weight bearing in the rat MIA model



Summary

- Intraarticular injection of monoiodoacetate into the knee joint produced reliable, reproducible hind paw tactile
 hypersensitivity and hind paw weight bearing deficits in male and female Sprague Dawley rats over a period of
 weeks
- Additional pain behaviors such as knee joint pinch hypersensitivity were less robust and reproducible in male and female Sprague Dawley rats
- Repeated administration of the reference analgesic compounds ketoprofen and duloxetine produced greater efficacy in reversing hind paw tactile hypersensitivity and weight bearing deficits compared to a single dose
- The rat monoiodoacetate (MIA) model of osteoarthritis pain may be used to evaluate novel mechanisms and therapeutics for pain associated with osteoarthritis by examining effects following single and repeated administration.

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