Model Name
Inflammation, Carrageenan-Induced, Rat

Item Number
553520

Introduction
Carrageenan-induced paw edema is a widely used method for assessing the acute inflammatory responses and novel anti-inflammatory drugs.

Procedure Summary
Male Wistar rats weighing 160 ± 10 g are fasted overnight prior to use. The test substances and vehicle are administered orally (PO) 1 hour before the right hind paw received an intraplantar (ipl) injection of γ-carrageenan (0.1 mL of 1 % suspension). The reference compound, aspirin at 150 mg/kg, is administered orally 1 hour before carrageenan injection. Hind paw edema, a measurement of inflammation, is recorded hourly for 3 hours after carrageenan administration using a plethysmometer. ANOVA followed by Dunnett's test is applied for comparison between vehicle and treatment groups. P<0.05 is considered significant.

Suggested Testing
• n=6/group (study design dependent)
• Doses may be administered PO, IV, IP, and SC
• Assessments available: Body weight, Paw Volume, Biomarkers and Histology

Turnaround Time(s)
• Acute Assay: In-Life completion in 2-4 weeks from sample receipt
• For Subacute Assays: 6 weeks to 3 months

Literature

Related Assay(s) (Item # - Assay Name - Species)
553510 – Inflammation, Carrageenan-Induced, Mouse
553010 – Arthritis, Adjuvant-Induced (AIA) - Rat
553600 – Arthritis, Collagen mAB-Induced (CAIA) - Mouse
553700 – Arthritis, Collagen-Induced (CIA) - Rat

Modified Protocols
We will readily accommodate client-specified alterations.

Laboratory
These assays are performed at our AAALAC accredited laboratory in Taipei.

Animal Welfare
All aspects of this work are performed in general accordance with the Guide for the Care and Use of laboratory animals (National Academy Press, Washington, DC, 2011). The study protocol was approved by the Pharmacology Discovery Services IACUC and is performed with the oversight of veterinarians to assure the humane treatment of laboratory animals.
Reference Compound(s)

Graph

*P<0.05, treated vs. vehicle control; one-way ANOVA followed by Dunnett’s test.

Last modified October 1, 2018