Model Name
Gastric Irritation

Item Number
535020

Introduction
Aspirin is the drug of choice when a mild analgesic antipyretic is required. However, Aspirin causes gastric
damage and ulcer formation by topical irritant effects and indirect damage via systemic inhibition of
cyclooxygenase synthesis and microcirculation injury. Aspirin is commonly used to study the mechanisms of
gastric irritation and evaluate the therapeutic efficacy.

Procedure Summary
Test substance is administered orally to a group of 6 Sprague Dawley derived male or female overnight fasted
rats weighing 160 ± 10 g. Animals are sacrificed 4 hours later and gastric irritation/ulceration is scored as
follows: 0 = no hyperemia or bleeding, 1 = hyperemia, 2 = slight spot bleeding, 3 = hyperemia plus slight spot
bleeding, 4 = hyperemia plus spot bleeding within entire stomach. A test substance-induced score of 50
percent or more (≥50) relative to the aspirin-treated (150 mg/kg, PO) group is considered positive. 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

Turnaround Time(s)
• For Acute Assays: 4 weeks from sample receipt
• For Subacute Assays: 6 weeks to 3 months

Literature

Related Assay(s)  (Item # - Assay Name - Species)
535900 - Gastric Ulcers, Aspirin - Rat
536000 - Gastric Ulcers, Ethanol - 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 is 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)
* Aspirin, Diflunisal, Ibuprofen, Indomethacin, Ketoprofen, Naproxen

For current details about our Company address and contact information, please reference our website
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