Model Name
Gastric Ulcers, Ethanol-Induced

Item Number
536000

Introduction
Gastric hyperacidity and ulcer are very common disease. Oxygen derived free radicals implication, in the pathogenesis of a wide variety of clinical disorders, caused by physical and chemical factors that lead to gastric ulceration in experimental animals.

Procedure Summary
Test substance is administered by oral gavage to a group of 6 Wistar derived male or female overnight-fasted rats weighing 200 ± 20 g 15 minutes before oral gavage with absolute ethanol (1 ml/rat). One hour later, animals are sacrificed and gastric ulceration is scored for degree of hemorrhage and severity of ulcerative lesions as follows: 0 = no hyperemia or lesions (dark red blood clot), 1 = hyperemia, 2 = one or two slight lesions, 3 = more than two slight lesions, 4 = more than two lesions or severe lesions. 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
Robert A et al. Gastroenterology. 77:433, 1979

Related Assay(s) (Item # - Assay Name - Species)
535900 - Gastric Ulcers, Aspirin-Induced - Rat
535020 - Gastric Irritation - 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 Compounds
Atropine, *Carbenoxolone, Cimetidine, Omeprazole (pH 7.4), Prostaglandin E2 (PGE2), Prostaglandin F2α (PGF2α), Pirenzepine, Piriprost, Sucralfate

Graph

![Graph](image)

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

Last modified October 1, 2018