

In vivo Pharmacology: Croton Oil Induced Ear Edema in Rats

Species, strain, sex: rat, WH, male
 No. of animals per group: n=8
 Pharmacological control: Dexamethasone
 Routes of administration: topical, PO, IP, SC, IV, IM
 Treatment mode: prophylactic, therapeutic
 Duration of dosing: 1 day or upon request

Topically administered croton oil induces Th1 inflammatory reaction manifested as vascular leakage, polymorphonuclear infiltration and increased release of IL-1 β in ear tissue. Five hours after croton oil application, ear swelling is observed.

Main read-outs:

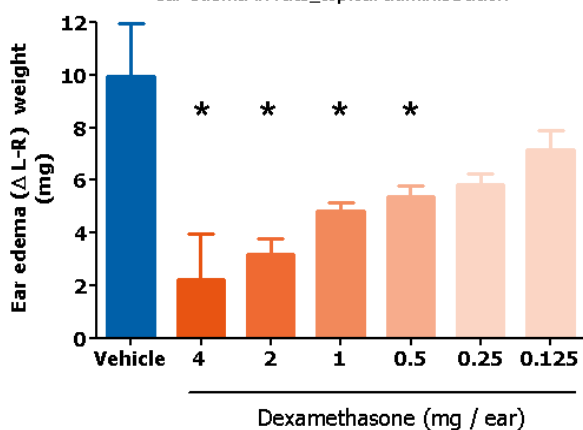
- ear weight

Facultative read outs:

- inflammatory mediators in ear homogenate
- histopathology
- immunohistochemistry

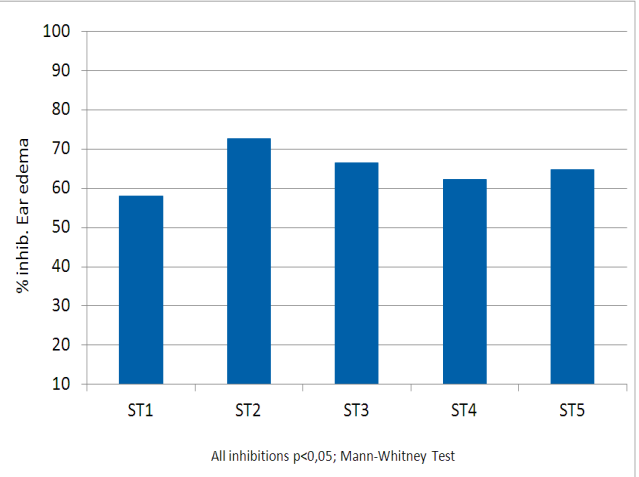
Anti-inflammatory activity of the test compounds is evaluated by ear weighing. Ear tissue and other selected tissues can be stored for subsequent analyses.

Efficacy of Dexamethasone in croton oil induced ear edema in rats_topical administration



*p<0,05 vs. Vehicle; Kruskal-Wallis with Dunn's multiple comparison test

Reproducibility of response to Dexamethasone



All inhibitions p<0,05; Mann-Whitney Test