

# Anti-inflammatory effects of ethanolic extract and alkamides-derived from *Heliopsis longipes* roots

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Ethnopharmacological relevance: *Heliopsis longipes* (A. Gray) Blake (Asteraceae) is a broadly used species in the Mexican, Central and South American Traditional Medicine for its anaesthetic, analgesic, anti-inflammatory and anti-ulcerative properties. The ethanolic extract contains alkamides, mainly affinin (spilanthol). This family of compounds exerts an in vitro inhibitory action on the cyclooxygenase and lipoxygenase enzymes. Aim of the study: The present study approaches the anti-inflammatory effect of the extract and its main bioactive component affinin and derived isobutyl-decanamide. Materials and methods: The anti-inflammatory effect was evaluated through the mouse ear oedema test by means of two irritating agents, arachidonic acid (AA) and phorbol myristate acetate (PMA). Results: *Heliopsis longipes*, affinin and isobutyl-decanamide displayed a marked anti-inflammatory effect on the AA model with ED<sub>50</sub> = 0.8, 1.2 and 0.9 mg/ear, respectively. Nimesulide (1 mg/ear) was used as a