

## ABSTRACT

### **Antiparesthesia Activity of Oil Fraction from *Kaempferia galanga* in Parathrin Induced Paresthesia Mice**

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Paresthesia is a spontaneous or evoked abnormal sensation of tingling, burning, pricking, or numbness of a person's skin with no apparent long-term physical effect. Paresthesia is a variety of neuropathic pain arises as a spontaneous and abnormal sensation. Type II synthetic pyrethroids, such as parathrin may affect the sodium channels of cutaneous nerve endings causing paresthesia at levels of exposure that do not provoke visible erythema.

Ethyl *p*-methoxycinnamate (EPMC) is a major component of oil fraction from *Kaempferia galanga* L., which was reported to inhibit the enzymatic activity of COX-1 and COX-2, and has a higher anti-nociceptive activity than aspirin.

This study was designed to investigate the effect of oil fraction from *Kaempferia galanga* L. on anti-paresthesia activity in mice. 100 µl parathrin solution was injected subcutaneously into mice after 20 minutes of administration of oil fraction suspension. After 30 minutes, Parathrin-induced head shaking behavior in mice was recorded and counted using video camera for 10 minutes. Data was obtained and processed with one-way ANOVA statistical test, followed with LSD as a post hoc test. Results showed that mice which given samples test has less number of head shaking. The most effective dose of oil fraction is 16,09 mg/20 g body weight of mice.

Keywords: *Kaempferia galanga*, ethyl *p*-methoxycinnamate, paresthesia, parathrin