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## Potential of Extract of *Tamarindus indica* L Leaves an Anti-Inflammatory on Carrageenan-Induced Wistar Rats

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### ABSTRACT

Tamarind plants are tropical plants in Indonesia. Tamarind leaves contain chemical compounds such as flavonoids, tannins, glycosides, and saponins. Tamarind leaves are used in traditional medicine for inflammation, stomach pain, rheumatism, and sore throats. This study aimed to determine the potential of extract tamarind leaf as an anti-inflammatory in Wistar rats. This study used experimental rats divided into 5 groups, namely group I was given Na. CMC (negative control), Group II was given diclofenac sodium suspension at a dose of 5.136 mg/kgBW, groups III, IV, and V were given ethanol extract of tamarind leaves at doses of 250 mg/kgBW; 500 mg/kgBW; and 1000 mg/kgBW. The test animals were treated with the test preparation orally and then one hour later they were induced with 0.1 mL of 1% lambda carrageenan by subplantar. Measurements of edema volume and thickness of the rats' feet were carried out before and after induction for 7 hours at 1-hour intervals using a plethysmometer and calipers. The research data was calculated statistically using the one-way anova test and Post Hoc LSD. The results of the study showed that the extract group at a dose of 1000 mg/kgBW had an anti-inflammatory effect not significantly different compared to the diclofenac sodium group at a dose of 5.136 mg/kgBW. Therefore, the obtained results showed that the extract of tamarind leaf has an anti-inflammatory effect with an effective dose of 1000 mg/kgBW.

**Keywords:** Anti-inflammation, *Tamarindus indica* L, carrageenan