

**ABSTRACT****EVALUATION OF ANTACID AND ANTIFLATULENT  
ACTIVITIES OF SYRUP OF 70% ETHANOL EXTRACT OF  
*Kaempferia galanga* L. RHIZOME IN VITRO**

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The purposes of the present study are to evaluate the antacid and antifatulent activities of ethanol 70% extract of *Kaempferia galanga* rhizome in vitro by using a modified artificial stomach model. In the evaluation of antacid activity, a modified model of Vatier's artificial stomach was used to determine the duration of neutralization of the artificial gastric acid. The neutralization was determined by using the classical titration method. While the antifatulent activity test was performed by observing the ability of samples to minimize foam in the artificial stomach model for 20 minutes. The positive control used in antacid activity test was antacid suspension containing aluminum hydroxide and magnesium hydroxide, while in antifatulent activity test was dimethylpolysiloxane. The negative control was syrup without extract. The concentration of samples used were 1%, 1,5%, and 2%

The results showed that the observed neutralization time were  $0,51 \pm 0,06$  min for negative control,  $36,20 \pm 0,97$  min for formula 1,  $77,53 \pm 2,14$  min for formula 2 and  $98,32 \pm 0,95$  min for formula 3. The data then analyzed by One way annova method continued with Post hoc test. The results of antacid activity showed that there were significant difference between control negative and the formula groups. The results of the antifatulent activity test for negative control was  $1,8 \pm 0,2$  cm, while the formula 1, 2 and 3 were  $1,0 \pm 0,1$  cm,  $0,7 \pm 0,1$  cm, and  $0,7 \pm 0,0$  cm respectively. Data analysis was done by one way annova method followed by Post hoc test of LSD test method ( $\alpha= 0,05$ ). The results indicated that there were significant difference between control negative and the formula groups.

Keywords : *Kaempferia galanga* Linn, rhizome, syrup, antacid, antifatulent, modified artificial stomach model, in vitro