

ABSTRACT**ANTACIDS AND ANTIFLATULENCE *IN VITRO* ACTIVITIES
OF 70% ETHANOLIC EXTRACT SYRUP OF RED GINGER
(*Zingiber officinale* Rosc. var *rubrum*)****Shahnas shihhah**

Gastritis is a digestive disorder that occurs when the aggressive and defensive factors in the stomach is not balanced. One of the clinical manifestations of gastritis is excessive ordinary gases in the digestive tract or commonly called *flatulent*. This research aims to assess the antacid and antifatulent activities of 70% ethanolic extract syrup of red ginger (*Zingiber officinale* Rosc. var *rubrum*). The extract was made into a syrup by using various concentrations of extract (1%, 2%, and 3%). Neutralizing effects and foam removal effect on artificial gastric acids was determined and compared with non-extract syrup as negative control.

Based on the result of this study, it was found that all the test groups had an antifatulent activity. The 1% test group could neutralize gastric acid with average duration of 34.38 ± 3.47 minutes and the residual foam level of 1.4 ± 0.1 cm. The 2% test group neutralized gastric acid with average duration of 106.23 ± 3.11 minutes and the residual foam level of 0.4 ± 0.1 cm. The 3% test group neutralized gastric acid with average duration of 11.39 ± 1.53 minutes and the residual foam level of 1.2 ± 0.2 cm. The ethanolic extract syrup preparation of red ginger (*Zingiber officinale* Rosc var *rubrum*) with 2% extract concentration had the highest activity both on antacid and anti-flatulent activities test when compared with the other two test groups.

The 70% ethanolic extract syrup of red ginger (*Zingiber officinale* Rosc. var *rubrum*) was consistently possess antifatulence activity in the artificial stomach model, while the antacid capacity test need to be performed to conclude whether this syrup have antacid activity or not.

Keyword : *Zingiber officinale* Rosc. var *rubrum* , anti-flatulent, antacid, in vitro