

ABSTRACT

AZALIA AZIZAH WARDHANI HAKIM, *Antibacterial Activity of Ethanol Extract of Matoa Leaves (*Pometia Pinnata* J.R & G.Fors.) against Bacteria Causing Gastrointestinal Infections* (Supervised by **Herwin** and **Fitriana**)

Matoa leaves (*Pometia pinnata* J.R & G.Fors.) empirically can treat various diseases such as hypertension, diarrhea, dysentery and contain flavonoids, tannins and saponins which function as antibacterials. This study aimed to examine the antibacterial assay of the ethanol extract of *Pometia pinnata* J.R & G.Fors leaves on bacteria causing gastrointestinal infections using agar diffusion. Then, it continued on antibacterial screening using concentrations of 0.1% and 0.5%, Minimum Inhibitory Concentration testing (MIC), and Minimum Bactericidal Concentration (MBC) testing using different concentrations of 0.0125%, 0.025%, 0.05%, 0.1%, 0.2%, 0.4%, 0.8%, 1.6% on *E. coli*, *V. cholerae* and *S. dysenteriae* bacteria. The results from the screening test at 0.1% concentration showed activity against *E. coli* and *S. dysenteriae* while *V. cholerae* and *S. typhi* did not indicate any reaction. Further, a concentration of 0.5% reported activity against *E. coli*, *S. dysenteriae* and *V. cholerae* bacteria, but *S. typhi* bacteria did not prove reaction. The MIC test results obtained values at 0.0125% in *E. coli*, *V. cholerae*, and *S. Dysenteriae* and MBC value at the concentration found 0.2% in *E. coli*, *V. cholerae* and *S. dysenteriae*. Meanwhile, the results of the antibacterial assay of the ethanol extract of Matoa leaves confirmed the largest diameter of the inhibition zone at a concentration of 1.6% and 11.36 mm in *V. cholerae* bacteria. Based on these results, it can be concluded that the ethanol extract of matoa leaves contains antibacterial activity against bacteria causing gastrointestinal infections such as *E. coli*, *V. cholerae*, and *S. dysenteriae*.

Keywords : *Antibacterial, Matoa Leaves (*Pometia pinnata* J.R & G.Fors.), and Gastrointestinal infection*

