

ABSTRACT

Khunaifi, Mufid. **2010. Antibacterials Activity Test Binahong Leaf Extract (*Anredera cordifolia* (Ten) Steenis Against Bacteria *Staphylococcus aureus* and *Pseudomonas aeruginosa*. Advisors: Dr. Ulfah Utami., M.Si and Ach. Nashichuddin, MA**

Keywords: Antibacterials, Binahong Leaf Extract, *Staphylococcus aureus*, *Pseudomonas aeruginosa*.

Infectious diseases are the main cause of death in the world, especially in the tropics, such as Indonesia. One cause of disease is a bacterial infection. Treatment of diseases caused by bacterial infection using antibiotics cause a lot of resistance, so this requires a new product that has great potential as antibiotics. One of the many plants that are empirically used for treatment is Binahong (*Anredera cordifolia* (Ten) Steenis). The purpose of this study is to determine the antibacterial activity of leaf Binahong against *Staphylococcus aureus* and *Pseudomonas aeruginosa* which is multi-drug resistant. To know the Minimum Inhibitory Concentration (MIC) and the Minimum Kill Concentration (MBC), and to detect any chemical compounds contained in the leaves Binahong

This research is an experimental research laboratory using the *dilution test tube method*. The research design used was completely randomized design (CRD) with a seven treatments and three replicates. Binahong leaf extract obtained by maceration by extraction using ethyl acetate solvent. Binahong leaf extract concentration used were control (0%), 25%, 30%, 35%, 40%, 45% and 50% for *Staphylococcus aureus*, whereas, for *Pseudomonas aeruginosa* using the control concentration (0%), 50%, 60%, 70%, 80%, 90% and 100%. The data obtained were analyzed by *one way* ANOVA test, correlation and linear regression.

The results obtained MIC Binahong leaf extract against *Staphylococcus aureus* at concentrations of 25%, while the *Pseudomonas aeruginosa* bacteria concentration of 50%. In the MBC test Binahong leaf extract against *Staphylococcus aureus* at concentrations of 50%, while the *Pseudomonas aeruginosa* at a concentration of 100%. Results of *one way* ANOVA test showed significant difference among the treatments sig (0.000) <p (0.05). The higher concentration of leaf extract Binahong given, the greater the ability to inhibit and kill bacteria *Staphylococcus aureus* (r=0, 860) *Pseudomonas aeruginosa* (r=0, 860) The concentration of leaf extract Binahong effect on decreasing the number of colonies of *Staphylococcus aureus* per ml (10^6) ($R^2 = 0.740$) in *Pseudomonas aeruginosa* per ml (10^6) ($R^2 = 0.739$). Phytochemical test results Binahong leaf extract polyphenol compounds found, alkaloids and Flavanoid.