

INTISARI

ANDHINI, N.F., 2017, UJI AKTIVITAS ANTIBAKTERI FRAKSI *n*-HEKSANA, ETIL ASETAT DAN AIR DARI EKSTRAK ETANOL DAUN BINAHONG (*Anredera cordifolia* (Ten.) Steenis) TERHADAP *Escherichia coli* ATCC 25922. SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Daun Binahong (*Anredera cordifolia* (Ten.) Steenis) merupakan jenis tanaman yang berkhasiat untuk menyembuhkan beberapa macam penyakit. Daun binahong mengandung flavonoid, alkaloid, saponin dan terpenoid yang memiliki aktivitas antibakteri. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri fraksi *n*-heksana, etil asetat dan air dari ekstrak etanol daun binahong terhadap *Escherichia coli* ATCC 25922.

Serbuk daun binahong diekstraksi menggunakan metode maserasi dengan pelarut etanol 70%, kemudian difraksinasi menggunakan pelarut fraksi *n*-heksana, etil asetat dan air yang berbeda polaritasnya. Uji aktivitas antibakteri dilakukan menggunakan metode difusi dan dilusi. Konsentrasi yang digunakan dalam metode difusi 50%, 25% dan 12,5% bertujuan untuk mengetahui fraksi teraktif. Fraksi teraktif kemudian dilakukan uji dilusi untuk mengetahui KBM (Konsentrasi Bunuh Minimum) menggunakan konsentrasi 50%, 25%, 12,5%, 6,25%, 3,12%, 1,56%, 0,78%, 0,39%, 0,19%, 0,09%. Analisis statistik menggunakan ANOVA *oneway* guna mengetahui ada tidaknya perbedaan yang signifikan antar sediaan uji.

Hasil penelitian menunjukkan bahwa semua fraksi dan ekstrak *Anredera cordifolia* (Ten.) Steen mempunyai aktivitas antibakteri. Fraksi air merupakan fraksi teraktif dengan diameter hambat pada konsentrasi 50% (19,1 mm), konsentrasi 25% (15,83 mm) dan konsentrasi 12,5% (13,26 mm). Hasil uji dilusi fraksi air menunjukkan aktivitas antibakteri dengan KBM 6,25%. Hasil identifikasi fitokimia menunjukkan fraksi air mengandung flavonoid, alkaloid dan saponin.

Kata kunci : Daun binahong, fraksi *n*-heksana, fraksi etil asetat, fraksi air, *Escherichia coli*.

ABSTRACT

ANDHINI, N.F., 2017, ANTIBACTERIAL ACTIVITY TEST OF FRACTION *n*-HEXANE, ETHYL ACETATE AND WATER OF ETHANOL EXTRACT FROM BINAHONG (*Anredera cordifolia* (Ten.) Steenis) LEAVES TO *Escherichia coli* ATCC 25922. THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Binahong leaf (*Anredera cordifolia* (Ten.) Steenis) are species of crops which good to heal some kinds of diseases. Binahong leaves contains flavonoid, alkaloid, saponin and terpenoid that have antibacterial activity. This study aims to determine the antibacterial activity of the fraction of *n*-hexane, ethyl acetate and water from binahong leaves ethanol extract against *Escherichia coli* ATCC 25922.

Binahong leaves powder was extracted by maceration method by ethanol 70%, and then it was fractionated by solvent *n*-hexane, ethyl acetate and water which have different polarity. Antibacterial activity test was performed using diffusion and dilution methods. The concentration used in the diffusion method was 50%, 25% and 12,5% aimed to determine the most active fraction. The most active fraction is continued dilution test to determine the MBC (Minimum Bactericidal Concentration) with concentration 50%, 25%, 12.5%, 6.25%, 3.12%, 1.56%, 0.78%, 0.39%, 0.19%, 0.09%. Statistical analysis using oneway ANOVA to determine whether there is a significant difference between the test preparation.

The results shows that all the fractions and extracts of *Anredera cordifolia* (Ten.) Steen had antibacterial activity. Water fraction is most active fraction with concentration of 50% (19.1 mm), concentration of 25% (15.83 mm) and concentration of 12.5% (13.26 mm). Dilution test results water fraction showed antibacterial activity with MBC 6.25%. The results of phytochemical identification showed fractions of water containing flavonoid, alkaloid and saponin.

Keywords : Binahong leaves, fraction of *n*-hexane, ethyl acetate fraction, fraction of water, *Escherichia coli*.