ABSTRAK

UJI AKTIVITAS ANTIBAKTERI EKSTRAK METANOL DAUN RAMANIA (*Bouea macrophylla* Griffith)TERHADAP BAKTERI Escherichia coli (Hairunnisa; Pembimbing Fitriyanti dan Putri Kartika Sari: 2022; 98 Halaman)

Ramania (*B. macrophylla* Griffith) dapat dimanfaatkan sebagai antibakteri pada saluran pencernaan. Salah satu bakteri pada saluran pencernaan yaitu *Escherichia coli*. Tujuan penelitian ini adalah untuk mengetahui golongan senyawa yang terkandung didalam ekstrak metanol daun ramania (*B. macrophylla* Griffith) dan aktivitas ekstrak metanol daun ramania (*B. macrophylla* Griffith) dalam menghambat pertumbuhan bakteri *E. coli*. Menggunakan metode maserasi dengan pelarut metanol dan rendemen ekstrak sebesar 8,6019%. Ekstrak metanol daun ramania (*B. macrophylla* Griffith) mengandung senyawa metabolit sekunder yaitu alkaloid, flavonoid, saponin, tanin dan steroid. Uji aktivitas antibakteri dilakukan dengan metode sumuran dengan konsentrasi ekstrak metanol daun ramania (*B. macrophylla* Griffith) yaitu 1,024 mg/ml; 2,048 mg/ml; 4,096 mg/ml; 8,192 mg/ml; 16,384 mg/ml; 32,760 mg/ml; kontrol positif ciprofloxacin *5*µg/disk, dan kontrol negatif Na-CMC 0,5%. Hasil uji aktivitas antibakteri ekstrak metanol daun ramania (*B. macrophylla* Griffith) menunjukkan bahwa konsentrasi 2,048 mg/ml termasuk zona hambat kategori lemah yaitu 3,33 mm;, sedangkan konsentrasi 32,760 mg/ml termasuk zona hambat sedang yaitu mm; 8,48 mm dan kontrol positif ciprofloxacin *5*µg/disk termasuk dalam kategori zona hambat sangat kuat yaitu 22,8 mm. Berdasarkan hasil spss menggunakan uji *Mann-Whitney* kontrol positif dan kontrol tidak memiliki perbedaan karena nilai sig (<0,05). Dapat disimpulkan bahwa ekstrak metanol daun ramania (*B. macrophylla* Griffith) memiliki aktivitas antibakteri terhadap bakteri *E. coli* dan memiliki senyawa metabolit sekunder yang terdapat pada daun ramania (*B. macrophylla* Griffith) ialah Alkaloid, Flavonoid, Tanin, Saponin dan Steroid.

Kata kunci : Antibakteri, Daun ramania (*B. macrophylla* Griffith), *Escherichia coli*, Metanol, Difusi Sumuran

ABSTRACT

ANTIBACTERIAL ACTIVITY TEST OF RAMANIA LEAF METHANOL EXTRACT (*Bouea macrophylla* Griffith) AGAINST BACTERIA *Escherichia coli* (Hairunnisa; Supervisor Fitriyanti and Putri Kartika Sari: 2022; 98 Pages)

Ramania (*B. macrophylla* Griffith) can be used as an antibacterial in the gastrointestinal tract.One of the bacteria in the digestive tract is *Escherichia coli*. The purpose of this study was to determine the group of compounds contained in ramania leaf methanol extract (*B. macrophylla* Griffith) and the activity of ramania leaf methanol extract (*B. macrophylla* Griffith) in inhibiting the growth of *E. coli* bacteria. Using the maceration method with methanol solvent and extract amendment of 8.6019%. Ramania leaf methanol extract (*B. macrophylla* Griffith) contains secondary metabolite compounds namely alkaloids, flavonoids, saponins, tannins and steroids. Antibacterial activity test was carried out by the welling method with a concentration of methanol extract of ramania leaves (*B. macrophylla* Griffith) which is 1,024 mg / ml; 2,048 mg/ml; 4,096 mg/ml; 8.192 mg/ml; 16,384 mg/ml; 32,760 mg/ml; positive control of ciprofloxacin 5µg/disk, and negative control of Na-CMC 0.5%. The results of the antibacterial activity test of ramania leaf methanol extract (*B. macrophylla* Griffith) showed that the concentration of 2.048 mg / ml included the inhibition zone of the weak category, namely 3.33 mm;, while the concentration of 32,760 mg / ml included the moderate inhibition zone, namely mm; 8.48 mm and the positive control of ciprofloxacin 5µg / disk was included in the category of very strong inhibition zone, namely 22.8 mm. Based on the spss results using *the Man-Whitney* test the positive control and control had no difference due to the sig value (<0.05). It can be concluded that ramania leaf methanol extract (*B. macrophylla* Griffith) has antibacterial activkmity against *E. coli* bacteria and has secondary metabolite compounds found in ramania leaves (*B. macrophylla* Griffith) are Alkaloids, Flavonoids, Tannins, Saponins and Steroids.

Keywords : Antibacterial, Ramania leaf (*B. macrophylla* Griffith), *Escherichia coli*, Methanol, Well Diffusion