

## ABSTRAK

Bawang dayak memiliki kandungan metabolit sekunder salah satunya yaitu flavonoid. Penelitian ini bertujuan untuk memperoleh kandungan metabolit sekunder, kadar total flavonoid, uji aktivitas antioksidan dan antibakteri, serta mendapatkan isolat flavonoid dari umbi bawang dayak. Hasil menunjukkan ekstrak etanol bawang dayak mengandung tannin, saponin, flavonoid, triterpenoid, dan kuinon. Hasil maserasi bawang dayak didapatkan ekstrak etanol sebesar 96,03 g dengan rendemen 9,603% dan fraksi etil asetat hasil fraksinasi cair-cair dari ekstrak etanol sebesar 6 g dengan rendemen 30%. Penentuan total flavonoid didapatkan ekstrak etanol dan fraksi etil asetat sampel bawang dayak diukur secara berurutan sebesar  $14,63 \pm 0,42$  mg QE/g ekstrak dan  $18,90 \pm 0,73$  mg QE/g fraksi. Aktivitas antioksidan didapatkan ekstrak etanol dan fraksi etil asetat sampel bawang dayak diukur secara berurutan dengan  $IC_{50}$  sebesar 329,81 dan 114,80 dan terdapat aktivitas antibakteri terhadap *Staphylococcus aureus* dan *Escherichia coli* dengan zona hambat terbesar terjadi pada ekstrak etanol pada masa inkubasi 12 jam sebesar 7,05 mm dan 7,72 mm. Hasil kromatografi kolom gravitasi diperoleh 6 fraksi. Fraksi yang ditindaklanjuti adalah fraksi B. Hasil isolat B<sub>3</sub> didapatkan sebesar 9 mg dengan rendemen 14,7%. Identifikasi isolat B<sub>3</sub> dengan pereaksi geser menggunakan spektrofotometer UV-Vis diduga senyawa flavonoid yang didapatkan adalah 3, 4', dan 7- trihidroksil flavon.

**Kata kunci :** flavonoid, antioksidan, antibakteri, kromatografi kolom

## ABSTRACT

Dayak onion contains secondary metabolites, one of which is flavonoids. This study aims to obtain secondary metabolite content, total flavonoid content, antioxidant and antibacterial activity tests, and obtain flavonoid isolates from dayak onion bulbs. The results showed that ethanol extract of dayak onion contained tannins, saponins, flavonoids, triterpenoids, and quinones. The results of dayak onion maceration obtained ethanol extract of 96.03 g with a yield of 9.603% and ethyl acetate fraction of liquid-liquid fractionation of ethanol extract of 6 g with a yield of 30%. Determination of total flavonoids obtained from ethanol extract and ethyl acetate fraction of dayak onion sample measured respectively  $14.63 \pm 0.42$  mg QE/g extract and  $18.90 \pm 0.73$  mg QE/g fraction. Antioxidant activity obtained by ethanol extract and ethyl acetate fraction of dayak onion sample was measured sequentially with IC<sub>50</sub> of 329.81 and 114.80 and there was antibacterial activity against *Staphylococcus aureus* and *Escherichia coli* with the largest inhibition zone occurred in ethanol extract at 12 hours incubation period of 7.05 mm and 7.72 mm. The results of gravity column chromatography obtained 6 fractions. The fraction that was followed up was fraction B. The result of isolate B3 was obtained as much as 9 mg with a yield of 14.7%. Identification of isolate B3 with sliding reagent using UV-Vis spectrophotometer suspected flavonoid compounds obtained are 3, 4', and 7- trihydroxyl flavone.

**Keywords:** flavonoids, antioxidant, antibacterial, column chromatography