ABSTRAK

Resistensi antibiotik, khususnya pada Staphylococcus aureus, menjadi tantangan serius dalam penanganan infeksi bakteri dan mendorong pencarian sumber antibakteri alternatif berbasis bahan alam. Kulit batang sikkam (Bischofia javanica Blume) diketahui memiliki potensi bioaktif, namun kajian mengenai aktivitas antibakteri ekstrak bertingkatnya masih terbatas. Penelitian ini bertujuan untuk mengevaluasi aktivitas antibakteri ekstrak bertingkat kulit batang sikkam terhadap Staphylococcus aureus serta menentukan ekstrak yang paling efektif. Penelitian ini merupakan penelitian eksperimental laboratorium. Kulit batang sikkam dikarakterisasi sebagai simplisia, kemudian diekstraksi secara maserasi bertingkat menggunakan pelarut n-heksan, etil asetat, dan etanol 96 persen. Skrining fitokimia dilakukan untuk mengidentifikasi golongan metabolit sekunder. Uji aktivitas antibakteri dilakukan menggunakan metode difusi cakram terhadap Staphylococcus aureus, dengan amoksisilin sebagai kontrol positif dan dimethyl sulfoxide sebagai kontrol negatif. Diameter zona hambat diukur setelah inkubasi 24 jam dan dianalisis secara statistik. Hasil penelitian menunjukkan bahwa simplisia memiliki kualitas yang baik berdasarkan parameter karakterisasi. Ekstrak etil asetat menghasilkan rendemen tertinggi dan menunjukkan aktivitas antibakteri paling kuat dibandingkan ekstrak lainnya. Ekstrak etanol menunjukkan aktivitas antibakteri yang relatif stabil pada seluruh konsentrasi, sedangkan ekstrak n-heksan memiliki aktivitas paling rendah. Skrining fitokimia menunjukkan keberadaan senyawa fenolik, flavonoid, alkaloid, tanin, saponin, steroid atau terpenoid, dan kuinon yang berpotensi berkontribusi terhadap aktivitas antibakteri. Kesimpulan penelitian ini menunjukkan bahwa ekstrak etil asetat kulit batang sikkam berpotensi dikembangkan sebagai kandidat antibakteri alami terhadap Staphylococcus aureus. Penelitian lanjutan diperlukan untuk mengidentifikasi senyawa aktif spesifik dan mengevaluasi aktivitas antibakteri secara kuantitatif.

Kata Kunci : Antibakteri, *Bischofia* javanica, Ekstrak Bertingkat, *Staphylococcus aureus*

ABSTRACT

Antibiotic resistance, particularly in *Staphylococcus aureus*, represents a major challenge in the management of bacterial infections and has intensified the search for alternative antibacterial agents derived from natural sources. The bark of sikkam (*Bischofia javanica* Blume) is traditionally known to possess bioactive properties; however, scientific evidence regarding the antibacterial activity of its graded extracts remains limited. This study aimed to evaluate the antibacterial activity of graded extracts of sikkam bark against *Staphylococcus aureus* and to identify the most effective extract. This research was conducted as an experimental laboratory study. Sikkam bark was processed into a simplicia and characterized to determine its quality. Graded extraction was performed using n-hexane, ethyl acetate, and 96 percent ethanol through maceration. Phytochemical screening was carried out to identify the presence of secondary metabolites. Antibacterial activity was assessed using the disc diffusion method against *Staphylococcus aureus*, with amoxicillin as a positive control and dimethyl sulfoxide as a negative control. The inhibition zone diameters were measured after 24 hours of incubation and analyzed statistically. The results demonstrated that the simplicia met quality requirements based on characterization parameters. Among the extracts, ethyl acetate produced the highest yield and exhibited the strongest antibacterial activity. The ethanol extract showed relatively stable antibacterial activity across all tested concentrations, whereas the n-hexane extract displayed the lowest activity. Phytochemical screening revealed the presence of phenolics, flavonoids, alkaloids, tannins, saponins, steroids or terpenoids, and quinones, which are known to contribute to antibacterial effects. In conclusion, the ethyl acetate extract of sikkam bark shows promising potential as a natural antibacterial candidate against *Staphylococcus aureus*. Further studies are recommended to identify specific active compounds and to evaluate antibacterial activity using quantitative assays.

Keywords : Antibacterial; *Bischofia javania* Blume; Graded Extract; *Staphylococcus aureus*