

ABSTRAK

Melina, S, 2022, FORMULASI SEDIAAN GEL EKSTRAK UMBI BAWANG DAYAK (*Eleutherine palmifolia* (L) Merr.) SEBAGAI ANTIBAKTERI TERHADAP BAKTERI *Staphylococcus aureus* ATCC 25923, PROPOSAL SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh Dr. apt. Opstaria Saptarini, M.Si dan apt. Muhammad Dzakwan, M.Si

Umbi bawang dayak (*Eleutherine palmifolia* (L) Merr.) adalah salah satu tumbuhan yang memiliki aktivitas sebagai antibakteri terhadap bakteri *Staphylococcus aureus*, karena umbi bawang dayak mengandung senyawa kimia flavonoid, tanin, steroid, fenolik, alkaloid, dan saponin. Tujuan penelitian ini adalah membuat sediaan gel dari ekstrak umbi bawang dayak yang mempunyai mutu fisik dan stabilitas yang baik serta mempunyai aktivitas terhadap bakteri *Staphylococcus aureus*.

Umbi bawang dayak diekstraksi menggunakan metode meserasi dengan pelarut etanol 96%. Ekstrak umbi bawang dayak di formulasikan sehingga menjadi sediaan gel dengan 3 variasi konsentrasi ekstrak 1%, 5%, dan 10%. Selanjutnya sediaan gel dari setiap formula di uji organoleptis, homogenitas, pH, viskositas, daya sebar, daya lekat, stabilitas dan pengujian aktivitas terhadap bakteri *Staphylococcus aureus*. Data uji mutu fisik dan aktivitas terhadap bakteri *Staphylococcus aureus* dianalisa secara statistik dengan uji *Shapiro-Wilk* dilanjutkan dengan uji one way ANOVA.

Hasil penelitian yang diperoleh adalah sediaan gel ekstrak umbi bawang dayak dapat dibuat gel yang memiliki mutu fisik dan stabilitas baik. Pada konsentrasi 1% gel ekstrak bawang dayak memiliki mutu fisik dan stabilitas yang baik serta memiliki aktivitas antibakteri paling efektif dengan nilai daya hambat 17,83 mm.

Kata Kunci : *Eleutherine palmifolia*., antibakteri, gel, *Staphylococcus aureus*

ABSTRACT

Melina, S, 2022, FORMULATION OF THE PREPARATION OF GEL EXTRACT OF DAYAK ONION (*Eleutherine palmifolia* (L) Merr.) AS ANTIBACTERIA AGAINST *Staphylococcus aureus* ATCC 25923, PROPOSAL OF THESIS, BACHELOR OF PHARMACY, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dr. apt. Opstaria Saptarini, M.Si dan apt. Muhammad Dzakwan, M.Si

Dayak onion bulbs (*Eleutherine palmifolia* (L) Merr.) is a plant that has antibacterial activity against *Staphylococcus aureus* bacteria, because it contains chemical compounds of flavonoids, tannins, steroids, phenolics, alkaloids, and saponins. The purpose of this study was to make a gel preparation from Dayak onion bulb extract which has good physical quality and stability and has activity against *Staphylococcus aureus* bacteria.

In this study, Dayak onion bulbs were extracted using the meseration method with 96% ethanol as solvent. Dayak onion bulb extract was formulated to become a gel preparation with 3 variations of extract concentration 1%, 5%, and 10%. Furthermore, the gel preparations of each formula were tested for organoleptic, homogeneity, pH, viscosity, dispersibility, adhesion, stability and activity testing against *Staphylococcus aureus* bacteria. The data on the physical quality test and activity against *Staphylococcus aureus* were statistically analyzed using the Shapirow-Wilk test followed by the one way ANOVA test.

The result of this research is that the gel preparation of Dayak onion bulb extract can be made into a gel that has good physical quality and stability. At a concentration of 1%, the Dayak onion extract gel has good physical quality and stability and has the most effective antibacterial activity with an inhibitory value of 17.83 mm.

Keywords: *Eleutherine palmifolia.*, antibacterial, gel, *Staphylococcus aureus*