ABSTRAK

FORMULASI SEDIAAN BEDAK DINGIN EKSTRAK ETANOL DAUN KEMANGI (*Ocimum basilicum* L.) SEBAGAI ANTIBAKTERI

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Ekstrak etanol daun kemangi (*Ocimum basilicum* L.) diketahui memiliki senyawa fitokimia yang memiliki efek antibakteri. Penggunaan antibiotik untuk pengobatan infeksi dapat memberikan efek samping. Perlunya pengobatan lain, salah satunya berasal dari bahan alam seperti ekstrak etanol daun kemangi yang diformulasikan menjadi bedak dingin. Penelitian ini bertujuan untuk mengetahui karakteristik fisik bedak dingin meliputi warna,aroma tekstur, daya lekat dan memperoleh konsentrasi yang paling efektif terhadap pertumbuhan *Escherichia coli, Staphylococcus aureus, dan Staphylococcus epidermidis*. Metode difusi *disk (Kirby Bauer)* digunakan dalam uji aktivitas antibakteri dengan konsentrasi 5%, 10%, 15%, daan 20% sebanyak dua kali pengulangan dengan menggunakan kontrol positif (tetrasiklin) dan kontrol negatif (aquades). Data yang diperoleh dianalisis varian dua arah (ANOVA). Hasil penelitian menunjukkan bahwa sediaan bedak dingin ekstrak etanol daun kemangi 5%, 10%, 15% dan 20% tidak memiliki aktivitas antibakteri terhadap bakteri *Escherichia coli, Staphylococcus aureus, dan Staphylococcus epidermidis*. Hasil penelitian karakter fisik bedak dingin menunjukkan bahwa bedak dingin sesuai dengan persyaratan uji homogenitas yaitu partikel tercampur merata tanpa adanya butiran kasar. pH 4,5-6,5 sesuai dengan pH kulit normal sehingga aman dan tidak menyebabkan iritasi. Stabilitas baik menunjukkan sediaan tidak mengalami perubahan fisik selama penyimpanan. Daya lekat sesuai karena bedak mampu menempel dengan baik pada kulit..

Kata kunci; *Staphylococcus aureus, Escherichia coli, Staphylococcus epidermidis,* kemangi, bedak dingin, antibakteri

ABSTRACT

FORMULATION OF COLD POWDER PREPARATION FROM ETHANOL EXTRACT OF BASIL LEAVES (*Ocimum basilicum* L.) AS AN ANTIBACTERIAL

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Ethanol extract of basil leaves (*Ocimum basilicum* L.) is known to contain phytochemical compounds that have antibacterial effects. The use of antibiotics for the treatment of infections can cause side effects. The need for other treatments, one of which comes from natural ingredients such as ethanol extract of basil leaves formulated into a cold powder. This study aims to determine the physical characteristics of the cold powder including color, aroma, texture, adhesive power and obtain the most effective concentration against the growth of *Escherichia coli, Staphylococcus aureus,* and *Staphylococcus epidermidis.* The disk diffusion method (Kirby Bauer) was used in the antibacterial activity test with concentrations of 5%, 10%, 15%, and 20% with two repetitions using a positive control (tetracycline) and a negative control (aquadest). The data obtained were analyzed by two-way variance (ANOVA). The results of the study showed that the cold powder preparation of basil leaf ethanol extract of 5%, 10%, 15% and 20% did not have antibacterial activity against *Escherichia coli, Staphylococcus aureus,* and *Staphylococcus epidermidis* bacteria. The results of the study of the physical characteristics of the cold powder showed that the cold powder met the homogeneity test requirements, namely the particles were evenly mixed without any coarse grains. The pH of 4.5-6.5 corresponds to the pH of normal skin so it is safe and does not cause irritation. Good stability indicates that the preparation does not experience physical changes during storage. The adhesive power is appropriate because the powder is able to stick well to the skin.

Keywords: *Staphylococcus aureus, Escherichia coli, Staphylococcus epidermidis*, basil, cold powder, antibacterial