

**UJI AKTIVITAS ANTIBAKTERI AIR PERASAN JERUK NIPIS
(*Citrus aurantifolia* Swingle.) TERHADAP PERTUMBUHAN BAKTERI
*Staphylococcus epidermidis***

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ABSTRAK

Minyak berlebih akan mengakibatkan terjadinya penyumbatan pada kulit yang semakin lama akan membentuk rongga yang sangat mudah terinfeksi oleh bakteri penyebab jerawat, salah satunya adalah *Staphylococcus epidermidis*. Jeruk nipis (*Citrus aurantifolia* Swingle.) telah banyak dimanfaatkan oleh masyarakat sebagai tanaman obat tradisional yang memiliki banyak khasiat. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri air perasan jeruk nipis terhadap pertumbuhan bakteri *Staphylococcus epidermidis*, mengetahui Konsentrasi Hambat Minimum (KHM), dan Konsentrasi Bunuh Minimum (KBM).

Uji aktivitas antibakteri dilakukan dengan metode difusi Kirby-Bauer. Aktivitas antibakteri ditandai dengan terbentuknya zona bening di sekitar cakram kertas yang disebut zona hambat. Penelitian ini menggunakan 4 perlakuan konsentrasi, yaitu 25%, 50%, 75%, dan 100%; clindamycin 150 mg sebagai kontrol positif dan akuades steril sebagai kontrol negatif. Hasil uji aktivitas antibakteri air perasan jeruk nipis kemudian dianalisis dengan uji *One Way Anova* dan Uji *Duncan*.

Hasil penelitian menunjukkan bahwa air perasan jeruk nipis memiliki potensi sebagai antibakteri. Zona hambat yang terbentuk pada konsentrasi 25% sebesar 3,53 mm; konsentrasi 50% sebesar 10,52 mm; konsentrasi 75% sebesar 12,57 mm; dan konsentrasi 100% sebesar 17,35 mm. Air perasan jeruk nipis pada konsentrasi 100% memiliki diameter zona hambat paling besar. Hasil Konsentrasi Hambat Minimum (KHM) pada konsentrasi 20% mampu menghambat pertumbuhan bakteri. Air perasan jeruk nipis pada konsentrasi 20% belum mampu membunuh bakteri sehingga nilai Konsentrasi Bunuh Minimum (KBM) tidak dapat ditentukan.

Kata kunci : antibakteri, *Staphylococcus epidermidis*, jeruk nipis (*Citrus aurantifolia* Swingle.)

***THE ANTIBACTERIAL ACTIVITY TEST OF LIME JUICE
(Citrus aurantifolia Swingle.) TOWARD THE GROWTH OF
Staphylococcus epidermidis***

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ABSTRACT

Excess oil on skin could lead to the occurrence of blockages that will formed a cavity and could be very easily infected by acne-causing bacteria, which one is Staphylococcus epidermidis. Lime (Citrus aurantifolia Swingle.) has been used by many people as a traditional medicine that has many benefits. This research aims to determined the antibacterial activity of lime juice toward the growth of Staphylococcus epidermidis, to know the Minimum Inhibitory Concentration (MIC), and Minimum Bactericidal Concentration (MBC).

The antibacterial activity test was performed by Kirby-Bauer diffusion method. Antibacterial activity was characterized by the formation of clear zone around paper discs which called an inhibitory zone. This research used 4 concentration treatments, there were 25%, 50%, 75%, and 100%; clindamycin 150 mg as positive control, sterile distilled water as negative control. The result of the antibacterial activity test of lime juice then analyzed using One Way Anova Test and Duncan Test.

The result of these research showed that lime juice had potential as an antibacteria. Inhibitory zone formed in concentration of 25% were 3,53 mm; in concentration of 50% were 10,52 mm; in concentration of 75% were 12,57 mm; and in concentration of 100% were 17, 35 mm. Lime juice in concentration of 100% has the largest inhibitory zone diameter . The result of Minimum Inhibitory Concentration (MIC) in concentration of 20% can inhibited the growth of bacteria. The lime juice in concentration of 20% could not kill the bacteria so Minimum Bactericidal Concentration (MBC) could not be determined.

Keywords: antibacterial, Staphylococcus epidermidis, lime (Citrus aurantifolia Swingle.)