

UJI EFEKTIVITAS ANTIBAKTERI EKSTRAK DAUN SIRSAK (*Annona muricata*) TERHADAP ZONA HAMBAT *Staphylococcus aureus* ATCC 25923 DENGAN METODE SUMURAN

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Abstrak

Tanaman Sirsak (*Annona muricata*) memiliki banyak khasiat salah satunya adalah antimikroba. Penelitian bertujuan untuk menilai efek antimikroba ekstrak daun *Annona muricata* terhadap bakteri *Staphylococcus aureus* menggunakan metode sumuran serta melihat nilai prediksi korelasi besar diameter zona hambat untuk setiap penambahan konsentrasi ekstrak. Penelitian dilakukan dengan mempersiapkan ekstrak etanol daun seberat 700 gram dari hasil maserasi lalu dilakukan pengenceran untuk menjadi konsentrasi 20%, 40%, 60%, 80%, dan 100% dari volume total setiap kelompok 10 ml dengan pengujian sebanyak empat kali untuk setiap kelompok dengan total sampel sebanyak 24. Kontrol positif diberikan antibiotik siprofloksasin 500 mg dan kontrol negatif menggunakan akuades. Seluruh media kemudian diinkubasi dalam waktu 24 jam. Semua konsentrasi memiliki efek antibakteri ditandai oleh diameter zona hambat. Data yang diperoleh memiliki data yang signifikan ($p=0,000$) dan dianalisa dengan uji korelasi Pearson dengan *confidence interval* 95%. Hasil analisa menunjukkan pearson's r positif dengan nilai variansi 0,731, interpretasi perbesaran diameter zona hambat sebesar 0,731 mm untuk setiap kenaikan konsentrasi sebanyak 1%. Seluruh konsentrasi memiliki efek antibakteri dan memiliki korelasi bertambahnya efektivitas ekstrak seiring bertambahnya konsentrasi

Kata Kunci: *Annona muricata*, Difusi Sumuran, *Staphylococcus aureus*.

**AN IN-VITRO STUDY OF ANTIBACTERIAL EFFECTS OF SOURSOP
LEAVES EXTRACT (*Annona muricata*) ON *Staphylococcus aureus* ATCC
25923 USING WELLS DIFFUSION METHOD**

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Abstract

Soursop (*Annona muricata*) is claimed to have an antimicrobial effect. This study was conducted to determine the antimicrobial effect of Soursop (*Annona muricata*) leaves extract and the correlation between its effect based on the inhibition zone measured in diameter and for every increases of the concentration of the extract while using wells diffusion method. A total of 700 gram of leaves was prepared and turned into ethanol extract using maceration technique and then the extract is diluted into various concentration, specifically 20%, 40%, 60%, 80%, and 100%. The process was repeated 3 times in order to obtain 24 samples. Ciprofloxacin was used as a positive control while the aquadest was used as the negative. All samples are incubated for 24 hours. Data obtained was analyzed using Pearson's r with Confidence interval of 95% and the data was statistically significant ($p=0,000$). The results shown that the Pearson's r was positive with every increases of concentration of extract in 1%, the diameter of inhibition zone (R^2) is also increased by amount of 0,731 mm. The Soursop extract shown its efficacy for every concentration which was tested and increases in concentration are correlated to the increases of the diameter of the inhibition zone.

Keywords: *Annona muricata*, *Staphylococcus aureus*, Wells Diffusion.