

# Uji Aktivitas Antibakteri Ekstrak Metanol Daun Alpukat (*Persea americana* Mill.) terhadap *Staphylococcus epidermidis*

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## ABSTRAK

**Latar Belakang:** *Staphylococcus epidermidis* merupakan salah satu bakteri penyebab infeksi. Terapi penyakit infeksi dengan antibiotik secara terus menerus dapat menyebabkan meningkatnya resistensi bakteri, sehingga diperlukan alternatif lain dengan memanfaatkan tanaman sebagai antibakteri seperti daun alpukat. Metabolit sekunder pada daun alpukat memiliki aktivitas antibakteri.

**Tujuan:** Mengetahui kandungan fitokimia daun alpukat serta mengetahui aktivitas antibakteri ekstrak metanol 70% daun alpukat (*Persea americana* Mill.) terhadap *S. epidermidis*.

**Metode:** Penelitian ini bersifat eksperimental laboratorium, perlakuan yang digunakan adalah kontrol (+) ciprofloxacin, kontrol (-) DMSO 10%, ekstrak konsentrasi 10%<sup>b/v</sup>, 20%<sup>b/v</sup>, 30%<sup>b/v</sup>, dan 40%<sup>b/v</sup>. Metode yang digunakan adalah metode difusi cakram Kirby-Bauer. Uji statistik menggunakan uji *one way Analysis of Variance* (ANOVA).

**Hasil:** Simplisia dan ekstrak metanol 70% daun alpukat (*P. americana* Mill.) positif mengandung polifenol, alkaloid, flavonoid, tanin, saponin dan triterpenoid. Hasil daya hambat pada semua konsentrasi ekstrak menunjukkan adanya zona hambat dengan kategori resisten. Uji ANOVA menunjukkan bahwa terdapat pengaruh konsentrasi ekstrak metanol 70% daun alpukat terhadap pertumbuhan bakteri *S. epidermidis* dengan p-value 0,000 ( $P < 0,05$ ).

**Kesimpulan:** Ekstrak metanol 70% daun alpukat (*P. americana* Mill.) memiliki aktivitas antibakteri terhadap bakteri *S. epidermidis*, tetapi potensinya jauh lebih rendah dibanding ciprofloxacin dalam menghambat pertumbuhan *S. epidermidis*.

**Kata Kunci:** *Staphylococcus epidermidis*, antibakteri, daun alpukat (*Persea americana* Mill.)

**Antibacterial Activity Test Of Avocole Leaves  
(*Persea americana* Mill.) Methanol Extract Against  
*Staphylococcus epidermidis***

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**ABSTRACT**

**Background:** *Staphylococcus epidermidis* is one of the bacteria that causes infection. Continuous treatment of infectious diseases with antibiotics can lead to increased bacterial resistance, so another alternative is needed by utilizing plants as antibacterials such as avocado leaves. Secondary metabolites in avocado leaves have antibacterial activity.

**Objectives:** To determine the phytochemical content of avocado leaves and to determine the antibacterial activity of 70% methanol extract of avocado leaves (*Persea americana* Mill.) against *S. epidermidis*.

**Methods:** This research is an experimental laboratory, the treatment used was control (+) ciprofloxacin, control (-) 10% DMSO, extract concentrations of 10% w/v, 20% w/v, 30% w/v, and 40% w/v . The method used is the Kirby-Bauer disc diffusion method. The statistical test uses the one way *Analysis of Variant* (ANOVA) test.

**Results:** Simplisia and 70% methanol extract of avocado leaves (*P. americana* Mill.) positively contained polyphenols, alkaloids, flavonoids, tannins, saponins and triterpenoids. The results of inhibition at all extract concentrations showed the presence of zones of inhibition with the resistance category. The ANOVA test showed that there was an effect of the concentration of 70% methanol extract of avocado leaves on the growth of *S. epidermidis* bacteria with a p-value of 0.000 ( $P < 0.05$ ).

**Conclusion:** 70% methanol extract of avocado leaves (*P. americana* Mill.) has antibacterial activity against *S. epidermidis* bacteria, but its potential is much lower than ciprofloxacin in inhibiting the growth of *S. epidermidis*.

**Keywords:** *Staphylococcus epidermidis*, antibacterial, avocado leaf (*Persea americana* Mill.)