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**Evaluasi *in Vitro* Efek Antibakteri Ekstrak Etanol Daun Pepaya (*Carica papaya* L.) terhadap Bakteri *Staphylococcus aureus***

ABSTRAK

**Latar Belakang:** Bakteri *Staphylococcus aureus* merupakan patogen Gram-positif yang sering menyebabkan infeksi kulit, jaringan lunak, hingga infeksi sistemik, serta menunjukkan peningkatan resistensi terhadap berbagai antibiotik. Kondisi ini mendorong pengembangan alternatif antibakteri dari bahan alam. Salah satu tanaman yang berpotensi adalah daun *Carica papaya* L. yang diketahui mengandung senyawa bioaktif seperti flavonoid, alkaloid, tanin, dan saponin yang secara teoritis memiliki aktivitas antibakteri. **Tujuan:** Mengetahui aktivitas antibakteri ekstrak etanol daun pepaya (*Carica papaya* L.) terhadap pertumbuhan *Staphylococcus aureus* secara *in vitro*. **Metode Penelitian:** Penelitian ini merupakan eksperimen laboratorik dengan desain *post-test only control group design*. Uji aktivitas antibakteri dilakukan menggunakan metode difusi sumuran pada media *Mueller–Hinton Agar* (MHA). Ekstrak daun pepaya diperoleh melalui metode maserasi menggunakan pelarut etanol 96%. Konsentrasi ekstrak yang digunakan adalah 50%, 60%, 70%, dan 80%, dengan kontrol positif *ciprofloxacin* dan kontrol negatif DMSO 10%. Pengukuran dilakukan dengan menilai diameter zona hambat (mm) setelah inkubasi 16–20 jam pada suhu 37°C. **Hasil:** Hasil uji menunjukkan bahwa pada konsentrasi 50%, 60%, 70%, dan 80% tidak terbentuk zona hambat (rata-rata 0 mm). Kontrol positif menunjukkan rata-rata zona hambat sebesar 48,78 mm (kategori sensitif kuat), sedangkan kontrol negatif tidak menunjukkan zona hambat (0 mm). **Kesimpulan:** Ekstrak etanol daun pepaya (*Carica papaya* L.) pada konsentrasi 50%, 60%, 70%, dan 80% tidak memiliki aktivitas antibakteri terhadap *Staphylococcus aureus* secara *in vitro* dengan metode difusi sumuran pada kondisi penelitian ini.

**Kata Kunci :** *Carica papaya* L., antibakteri, *Staphylococcus aureus*, difusi sumuran, *in vitro*.

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***in Vitro* Evaluation of The Antibacterial Effect of Ethanol Extract Of Papaya Leaves (*Carica papaya* L.) Against *Staphylococcus aureus***

ABSTRACT

**Background:** *Staphylococcus aureus* is a Gram-positive pathogen that frequently causes skin and soft tissue infections, as well as systemic infections, and has shown increasing resistance to various antibiotics. This condition encourages the development of alternative antibacterial agents derived from natural products. One plant with potential antibacterial properties is *Carica papaya* L. leaves, which contain bioactive compounds such as flavonoids, alkaloids, tannins, and saponins that are theoretically associated with antibacterial activity. **Objective:** To determine the antibacterial activity of ethanol extract of papaya leaves (*Carica papaya* L.) against the growth of *Staphylococcus aureus in vitro*. **Methods:** This study was a laboratory experimental research using a post-test only control group design. Antibacterial activity was assessed using the well diffusion method on *Mueller–Hinton Agar* (MHA). Papaya leaf extract was obtained through maceration using 96% ethanol as the solvent. The extract concentrations tested were 50%, 60%, 70%, and 80%, with ciprofloxacin as the positive control and 10% DMSO as the negative control. The diameter of the inhibition zone (mm) was measured after incubation at 37°C for 16–20 hours. **Results:** The results showed that no inhibition zones were formed at concentrations of 50%, 60%, 70%, and 80% (mean diameter 0 mm). The positive control demonstrated a mean inhibition zone of 48.78 mm (strong sensitivity category), while the negative control showed no inhibition zone (0 mm). **Conclusion:** The ethanol extract of papaya leaves (*Carica papaya* L.) at concentrations of 50%, 60%, 70%, and 80% did not exhibit antibacterial activity against *Staphylococcus aureus in vitro* using the well diffusion method under the conditions of this study.

**Keywords:** *Carica papaya* L., antibacterial activity, *Staphylococcus aureus*, well diffusion method, *in vitro*.