

ABSTRAK

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GAMBARAN PENGARUH PELARUT TERHADAP AKTIVITAS ANTI BAKTERI DAUN NANGKA (*Artocarpus heterophyllus L*) PADA BAKTERI *Staphylococcus aureus*

INTISARI

Latar belakang: Daun Nangka (*Artocarpus heterophyllus L*) dapat digunakan sebagai obat demam, bisul, luka, dan penyakit kulit. Daun Nangka terdaat kandungan saponin, flavonoid dan tanin yang bekerja sebagai antimikroba dan dapat menghambat pertumbuhan bakteri *Staphylococcus aureus*. Tujuan Penelitian ini adalah untuk mengetahui gambaran pengaruh pelarut terhadap aktivitas anti bakteri daun nangka (*Artocarpus heterophyllus L*) pada bakteri *Staphylococcus aureus*.

Metode: Penelitian menggunakan metode meta-analisis dalam *Literatur Review* 5 artikel dalam bentuk artikel hasil penelitian. Peneliti melakukan pengambilan kesimpulan berdasarkan analisis yang menggabungkan 5 artikel yang serupa.

Hasil: Aktivitas antibakteri daun nangka (*Artocarpus heterophyllus L*) pada artikel dengan pelarut etanol 96% dan aquadest yang terkandung pada sel bakteri seperti flavanoid dapat menghambat sintesis protein dan saponin dengan cara menurunkan tegangan permukaan sehingga mengakibatkan baiknya permeabilitas atau kebocoran sel. Hal ini dapat mempengaruhi pertumbuhan bakteri *Staphylococcus aureus*.

Kesimpulan: The difference in solvents can affect the antibacterial activity of jackfruit leaves (*Artocarpus heterophyllus L*) against the growth of *Staphylococcus aureus* bacteria. Ethanol 96% solvent provides more potential antibacterial activity than aquadest solvent, while the use of jackfruit leaves as much as 10,000 ppm inhibits the growth of *Staphylococcus aureus* bacteria by 10.50 mm for the FA fraction and 7.25 mm for the FH fraction.

Kata Kunci: Anti bakteri *Artocarpus heterophyllus L*, Pelarut, Bakteri *Staphylococcus aureus*

ABSTRACT

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DESCRIPTION OF SOLVENT EFFECT ON ACTIVITIES ANTI BACTERIA LEAF JACKFRUIT (*Artocarpus heterophyllus* L) BACTERIA IN *Staphylococcus aureus*

ABSTRACT

Background: Jackfruit leaves (*Artocarpus heterophyllus* L) can be used as a medicine for fever, ulcers, wounds, and skin diseases. Jackfruit leaves contain saponins, flavonoids and tannins which work as antimicrobials and can inhibit the growth of *Staphylococcus aureus* bacteria. This study aims to describe the effect of solvents on the anti-bacterial activity of jackfruit leaves (*Artocarpus heterophyllus* L) on *Staphylococcus aureus* bacteria.

Methods: The study used a meta-analysis method in the 5 article Literature Review in the form of research articles. Researchers make conclusions based on an analysis that combines 5 similar articles.

Result: The antibacterial activity of jackfruit leaves (*Artocarpus heterophyllus* L) in the article with 96% ethanol solvent and aquadest contained in bacterial cells such as flavonoids can inhibit protein and saponin synthesis by reducing surface tension resulting in good cell permeability or leakage. This can affect the growth of *Staphylococcus aureus* bacteria.

Conclusion: The difference in solvents can affect the antibacterial activity of jackfruit leaves (*Artocarpus heterophyllus* L) on the growth of *Staphylococcus aureus* bacteria. Ethanol 96% solvent provides more potent antibacterial activity than aquadest solvent. The active fraction of jackfruit leaves provides better antibacterial activity than 96% ethanol extract.

Keywords: Anti-bacterial *Artocarpus heterophyllus* L, Solvents, bacterium
Staphylococcus aureus