

## ABSTRAK

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Program Studi : Farmasi

Judul : Studi Literatur : Aktivitas Ekstrak Rimpang Jahe Merah (*Zingiber officinal* var. *rubrum*) Terhadap Bakteri *Escherichia coli* dan *Staphylococcus aureus*.

Rimpang jahe merah (*Zingiber officinale* var. *rubrum*) merupakan tanaman famili Zingiberaceae yang ada di Indonesia dan diketahui memiliki kandungan senyawa yang berpotensi sebagai antibakteri terhadap bakteri Gram positif (*Staphylococcus aureus*) dan Gram negatif (*Escherichia coli*). Penelitian ini bertujuan mengetahui metabolit sekunder, metode dan pelarut, aktivitas antibakteri rimpang jahe merah pada bakteri *Staphylococcus aureus* dan *Escherichia coli* berdasarkan nilai Diameter Daya Hambat (DDH) dan Konsentrasi Hambat Minimum (KHM). Pencarian data dilakukan melalui: *Google Scholar*, *Pubmed* dan *DOAJ*. Pencarian jurnal yang dilakukan yaitu aktivitas ekstrak rimpang jahe merah (*Zingiber officinale* var. *rubrum*) terhadap bakteri *Escherichia coli* dan *Staphylococcus aureus*. Hasil studi literatur menunjukkan bahwa rimpang jahe merah memiliki kandungan metabolit sekunder seperti golongan fenol, flavonoid, alkaloid, terpenoid dan minyak atsiri. Metode sokletasi (panas) dengan pelarut n-heksan yang tepat untuk ekstraksi rimpang jahe merah. Ekstrak rimpang jahe merah memiliki aktivitas antibakteri terhadap bakteri *Escherichia coli* dan *Staphylococcus aureus* dengan KHM 5% pada *Escherichia coli* dan 12,5% pada *Staphylococcus aureus*.

Kata kunci : Ekstrak Rimpang Jahe Merah, Antibakteri, *Escherichia coli*, *Staphylococcus aureus*

## ABSTRACT

Name : Lulu Hayati Addiyar

Study Program : Pharmacy

Title : Literature study about : the Activity of Red Ginger Rhizome Extract (*Zingiber officinale* var. *rubrum*) against *Escherichia coli* and *Staphylococcus aureus* bacteria.

Red ginger rhizome (*Zingiber officinale* var. *rubrum*) is a plant of the Zingiberaceae family in Indonesia and is known to contain compounds that have potential as antibacterial properties against Gram positive (*Staphylococcus aureus*) and Gram negative (*Escherichia coli*) bacteria. This study aims to determine secondary metabolites, methods and solvents, antibacterial activity of red ginger rhizome on *Staphylococcus aureus* and *Escherichia coli* based on the value of Inhibition Diameter (DDH) and Minimum Inhibitory Concentration (MIC). Data search was carried out through: *Google Scholar*, *Pubmed* and *DOAJ*. Journal searches that was carried out was Activity of Red Ginger Rhizome Extract (*Zingiber officinale* var. *rubrum*) against *Escherichia coli* and *Staphylococcus aureus* bacteria. The results of literature studies show that red ginger rhizome contains secondary metabolites such as phenols, flavonoids, alkaloids, terpenoids and essential oil. Soxhletation (hot) methods with n-hexane solvent suitable for the extraction of red ginger rhizome. Red ginger rhizome extract has antibacterial activity against *Escherichia coli* and *Staphylococcus aureus* with a MIC of 5% in *Escherichia coli* and 12.5% in *Staphylococcus aureus*.

*Keywords :*

Red Ginger Rhizome Extract, Antibacterial, *Escherichia coli*, *Staphylococcus aureus*