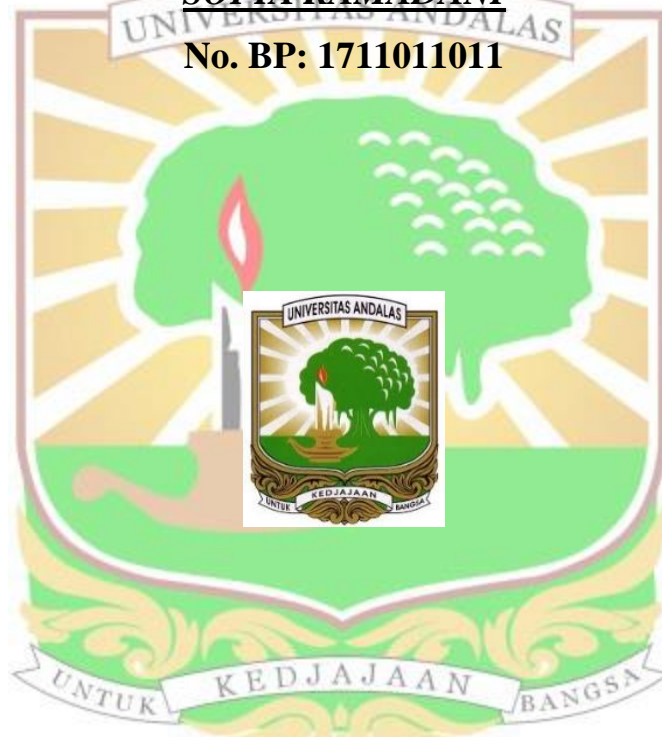


**PROFIL KANDUNGAN KIMIA MINYAK ATSIRI DARI KULIT BUAH
DAN DAUN JERUK SUNDAI (*Citrus x aurantiifolia*) “Sundai” SERTA
AKTIVITAS ANTIBAKTERINYA**

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ABSTRAK

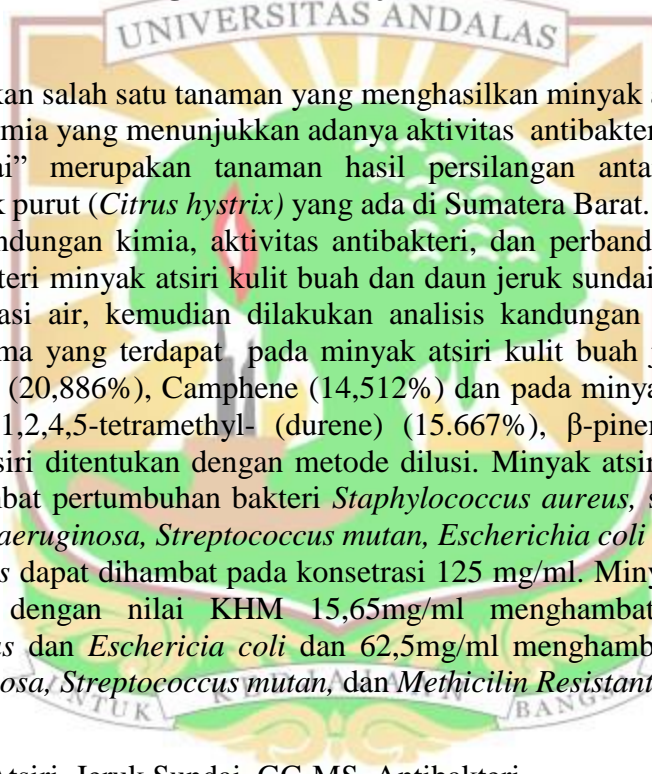
PROFIL KANDUNGAN KIMIA MINYAK ATSIRI DARI KULIT BUAH DAN DAUN JERUK SUNDAI (*Citrus x aurantiifolia*) “Sundai” SERTA AKTIVITAS ANTIBAKTERINYA

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Spesies jeruk merupakan salah satu tanaman yang menghasilkan minyak atsiri dengan kandungan berbagai komponen kimia yang menunjukkan adanya aktivitas antibakteri. Jeruk sundai (*Citrus x aurantiifolia*) “Sundai” merupakan tanaman hasil persilangan antara jeruk nipis (*Citrus aurantifolia*) dan jeruk purut (*Citrus hystrix*) yang ada di Sumatera Barat. Penelitian ini bertujuan untuk mengetahui kandungan kimia, aktivitas antibakteri, dan perbandingan kandungan kimia serta aktivitas antibakteri minyak atsiri kulit buah dan daun jeruk sundai. Minyak atsiri diisolasi dengan metode distilasi air, kemudian dilakukan analisis kandungan kimia dengan GC-MS. Komponen kimia utama yang terdapat pada minyak atsiri kulit buah jeruk sundai D-limonen (44,118%), γ -terpinen (20,886%), Camphene (14,512%) dan pada minyak atsiri daun γ -terpinen (21,97%), Benzene, 1,2,4,5-tetramethyl- (durene) (15,667%), β -pinene (5,563%). Aktivitas antibakteri minyak atsiri ditentukan dengan metode dilusi. Minyak atsiri kulit buah nilai KHM 62,5 mg/ml menghambat pertumbuhan bakteri *Staphylococcus aureus*, sedangkan pertumbuhan bakteri *Pseudomonas aeruginosa*, *Streptococcus mutan*, *Escherichia coli* dan *Methicilin Resistant Staphylococcus aureus* dapat dihambat pada konsentrasi 125 mg/ml. Minyak atsiri daun memiliki aktivitas antibakteri dengan nilai KHM 15,65mg/ml menghambat pertumbuhan bakteri *Staphylococcus aureus* dan *Escherichia coli* dan 62,5mg/ml menghambat pertumbuhan bakteri *Pseudomonas aeruginosa*, *Streptococcus mutan*, dan *Methicilin Resistant Staphylococcus aureus*.

Kata Kunci: Minyak Atsiri, Jeruk Sundai, GC-MS, Antibakteri.

ABSTRACT

PROFILE OF CHEMICAL CONTENTS OF ESSENTIAL OIL FROM SUNDAI PEELS AND LEAVES (*Citrus x aurantiifolia*) “Sundai” AND ANTIBACTERIAL ACTIVITIES

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Citrus species are one of the plants that produce essential oils containing various chemical components that show antibacterial activity. Sundai orange (*Citrus x aurantiifolia*) “Sundai” is cross between lime (*Citrus aurantifolia*) and kaffir lime (*Citrus hystrix*) in West Sumatra. This study aims to determine the chemical content, antibacterial activity, and the comparison of the chemical content and antibacterial activity from essential oil of fruit peel and sundai lime leaves. The essential oil was isolated by water distillation method, GC-MS was used to identify chemical composition. The main chemical components contained in the essential oil from sundai D-limonen orange fruit peel (44,118%), γ -terpinen (20,886%), Camphene (14,512%) and in leaf essential oil γ -terpinen (21,97%), Benzene, 1,2,4,5-tetramethyl- (durene) (15,667%), -pinene (5,563%). Antibacterial activity of essential oils was determined by the dilution method. Fruit peel essential oil MIC value of 62,5 mg/ml inhibited the growth of *Staphylococcus aureus*, while the growth of *Pseudomonas aeruginosa*, *Streptococcus mutans*, *Escherichia coli* and *Methicilin Resistant Staphylococcus aureus* were inhibited at concentrations of 125 mg/ml. Leaf essential oil has antibacterial activity with MIC value of 15,65mg/ml inhibits the growth of *Staphylococcus aureus* and *Escherichia coli* and 62,5mg/ml inhibits the growth of *Pseudomonas aeruginosa*, *Sterptococcus mutan*, and *Methicilin Resistant Staphylococcus aureus*.

Keyword: Essential Oil, Sundai Orange, GC-MS, Antibacterial Activity.

