

**ISOLASI DAN ANALISIS KOMPONEN KIMIA MINYAK ATSIRI DARI
DAUN GEDEBONG (*Piper aduncum* Linn) SERTA AKTIVITAS
ANTIBAKTERINYA**

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INTISARI

ISOLASI DAN ANALISIS KOMPONEN KIMIA MINYAK ATSIRI DARI DAUN GEDEBONG (*Piper aduncum* Linn) SERTA AKTIVITAS ANTIBAKTERINYA

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Gedebong (*Piper aduncum* Linn) merupakan tumbuhan yang tergolong ke dalam famili Piperaceae yang banyak ditemukan di Indonesia. *Piper aduncum* Linn seringkali digunakan untuk mengatasi sakit perut, penyembuhan luka dan penolak serangga. Beberapa penelitian sebelumnya telah melaporkan bahwa *Piper aduncum* Linn mengandung minyak atsiri yang memiliki aktivitas antijamur, sitotoksik dan antibakteri. Pada penelitian ini telah dilakukan isolasi, analisis komponen, dan aktivitas antibakteri dari minyak atsiri daun *Piper aduncum* Linn. Isolasi minyak atsiri dengan metode distilasi air menghasilkan minyak atsiri dengan rendemen 1,93 % (v/b) berupa cairan kuning jernih dan berbau khas. Komponen kimia penyusun minyak atsiri daun *Piper aduncum* Linn dianalisis dengan GC-MS (*gas chromatography-mass spectroscopy*) menunjukkan 13 komponen kimia dengan komponen kimia utama apirole (39,07 %), *trans-β-Caryophyllene* (14,68 %), *valencene* (8,33%), *α-Curcumene* (6,33%) dan *piperitone* (9,83%). Aktivitas antibakteri minyak atsiri daun *Piper aduncum* Linn dilakukan dengan metode difusi cakram. Hasil uji aktivitas antibakteri minyak daun *Piper aduncum* Linn memiliki aktivitas antibakteri yang lemah terhadap bakteri *Staphylococcus aureus* dan *Escherichia coli*.

Kata kunci : *Piper aduncum* Linn, distilasi, GCMS, antibakteri



ABSTRACT

ISOLATION AND ANALYSIS OF CHEMICAL COMPONENTS OF ESSENSIAL OIL FROM GEDEBONG (*Piper aduncum* Linn) LEAVES AND THEIR ANTIBACTERIAL ACTIVITY

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Gedebong (*Piper aduncum* Linn) is a plant of Piperaceae which is commonly found in Indonesia. *Piper aduncum* Linn is often used for treat colic, wound treatment and insect repellents. Several previous studies have reported *Piper aduncum* Linn containing essential oils which have antifungal, cytotoxic and antibacterial activity. In this research, isolation, analysis of chemical components, and antibacterial activity of essential oils of *Piper aduncum* Linn leaves were carried out. Isolation of essential oil was obtained by water distillation method. The result showed that essential oils with a yield of 1.93% (v / b) which yellow liquid and aromatic. The chemical components of essential oil from *Piper aduncum* Linn leaves were analyzed by GC-MS (gas chromatography-mass spectroscopy) showed that 13 chemical components with main components were apiole (39.07%), trans- β -Caryophyllene (14.68%), valencene (8.33%), α -Curcumene (6.33%) and piperitone (9.83%). Antibacterial activity of essential oils from *Piper aduncum* Linn leaves tested with disk diffusion method. The essential oils from *Piper aduncum* Linn leaves showed the less antibacterial activity against bacteria *Staphylococcus aureus* and *Escherichia coli* respectively.

Keyword : *Piper aduncum* Linn, GC-MS, distillation, antibacterial

