

## INTISARI

Daun tanaman sembung [*Blumea balsamifera* (L.) DC.] biasa digunakan untuk mengobati disentri dan diare. Daun tanaman sembung memiliki kandungan aktif berupa tanin, pirokatechin, glikosida, borneol, sineol dan limonenen. Kandungan borneol dalam daun tanaman sembung bersifat sebagai antibakteri dan dapat mengobati disentri. Penelitian ini bertujuan untuk menguji potensi antibakteri minyak atsiri daun sembung dan mengetahui Kadar Hambat Minimal (KHM) dan Kadar Bunuh Minimal (KBM) minyak atsiri daun sembung terhadap *Bacillus subtilis* dan *Shigella dysenteriae*.

Isolasi minyak atsiri dilakukan dengan cara destilasi uap dan air. Uji potensi antibakteri minyak atsiri daun tanaman sembung dilakukan dengan metode difusi sumuran. Penentuan Kadar Hambat Minimal (KHM) dan Kadar Bunuh Minimal (KBM) dilakukan secara dilusi padat. Identifikasi kandungan minyak atsiri melalui Kromatografi Lapis Tipis (KLT) dengan fase diam silica gel GF 254, fase gerak toluen-etil asetat (93:7) dan pembanding borneol. Analisis statistik menggunakan uji *Kolmogorov Smirnov*, ANOVA satu arah dan *Least Significant Difference* (LSD).

Hasil penelitian menunjukkan minyak atsiri daun tanaman sembung memiliki potensi antibakteri. Minyak atsiri daun sembung memiliki KBM 0,4%, baik terhadap *B.subtilis* dan *S. dysenteriae*. Dari uji KLT diketahui minyak atsiri daun sembung mengandung borneol.

Kata kunci : potensi antibakteri, Kadar Hambat Minimal (KHM), Kadar Bunuh Minimal (KBM), *Blumea balsamifera* (L.) DC., minyak atsiri, *Bacillus subtilis*, *Shigella dysenteriae*, borneol

## ABSTRACT

Sembung leaves [*Blumea balsamifera* (L.) DC.] often used for diarrhoea treatment. Sembung leaves contains active compounds, i.e tannin, pirocatechin, glycoside, borneol, cineol, and limonenen. Borneol compound in the sembung plants has been as antibacterial and antidysenteria. This research was aimed to test the antibacterial potency from essential oil of sembung leaves and to know Minimum Inhibitory Concentration (MIC) and Minimum Bacterisidal Concentration (MBC) of essential oil from sembung against *Bacillus subtilis* and *Shigella dysenteria*.

Essential oil isolation was isolated by steam and water destilation. Antibacterial potency from essential oil of sembung leaves was tested by sumuran difusion method. MIC and MBC was tested by solid dilution. Essential oil compound was identified by thin layer chromatography (TLC) with stationary phase silica gel GF 254, mobile phase toluene-etil asetat (93:7) and equal with borneol. Statistical analysis was analyzed by *Kolmogorof Smirnov*, one way ANOVA and *Least Significant Difference* (LSD).

The result of this research showed essential oil from sembung leaves had antibacterial potency. Essential oil from sembung leaves had 0,4% as MBC against both *Bacillus subtilis* and *Shigella dysenteria*. By TLC test showed essential oil from sembung leaves had borneol compound.

Key words: Antibacterial potency, Minimum Inhibitory Concentration (MIC), Minimum Bacterisidal Concentration (MBC), [*Blumea Balsamifera* (L.) DC.], essential oil, *Bacillus subtilis*, *Shigella dysenteria*, borneol.