

INTISARI

ROSATI, DI., 2019, UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL, FRAKSI *n*-HEKSAN, ETIL ASETAT, DAN AIR DARI RIMPANG BANGLE (*Zingiber cassumunar* Roxb.) TERHADAP BAKTERI MRSA (*Methicillin Resistant Staphylococcus aureus*) DENGAN METODE DIFUSI, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Bangle (*Zingiber cassumunar* Roxb.) mengandung senyawa triterpenoid, flavonoid, alkaloid, dan tanin yang diduga mempunyai aktivitas sebagai antibakteri. Tujuan penelitian ini untuk mengetahui aktivitas antibakteri ekstrak etanol 96%, fraksi *n*-heksan, fraksi etil asetat, dan fraksi air dari rimpang bangle terhadap bakteri *Methicillin Resistant Staphylococcus aureus* berdasarkan diameter zona hambat yang terbentuk.

Rimpang bangle diekstraksi dengan menggunakan metode maserasi dengan pelarut etanol 96%. Fraksinasi dilakukan dengan cara ekstraksi cair-cair menggunakan pelarut yang berbeda tingkat kepolarannya, yaitu *n*-heksan, etil asetat, dan air. Hasil ekstraksi dan fraksinasi dilakukan uji aktivitas antibakteri menggunakan metode difusi dengan konsentrasi 50%, 10%, 5%, dan 1%. Kontrol positif yang digunakan adalah vankomisin dan kontrol negatif CMC Na 0,5%. Hasil uji aktivitas antibakteri dianalisa dengan metode ANOVA *two way*.

Hasil penelitian rimpang bangle menunjukkan ekstrak, fraksi *n*-heksan, dan fraksi etil asetat mempunyai aktivitas antibakteri terhadap *Methicillin Resistant Staphylococcus aureus*. Hasil diameter zona hambat terbesar pada fraksi *n*-heksan konsentrasi 50% yaitu 12,06 mm. Hasil uji analisis ANOVA *two way* menunjukkan bahwa ekstrak konsentrasi 5% paling efektif dalam menghambat bakteri *Methicillin Resistant Staphylococcus aureus*.

Kata kunci : antibiotik, fraksi, *Methicillin Resistant Staphylococcus aureus*, rimpang bangle.

ABSTRACT

ROSATI, DI., 2019, ANTIBACTERIAL ACTIVITY TEST OF ETHANOL EXTRACT, *n*-HEXANE, ETHYL ACETATE AND WATER FRACTIONS FROM RIMPANG BANGLE (*Zingiber cassumunar* Roxb.) AGAINST BACTERIA MRSA (*Methicillin Resistant Staphylococcus aureus*) WITH DIFFUSION METHODE, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Bangle (*Zingiber cassumunar* Roxb.) contain triterpenoids, flavonoids, and tannins which have antibacterial activity. The purpose of the study was to determine the antibacterial activity of ethanol 96% extract, *n*-hexane fraction, ethyl acetate fraction, and water fraction from rimpang bangle to *Methicillin Resistant Staphylococcus aureus* bacteria based on the diameter of the inhibition zone.

Rimpang bangle was extracted by maceration method using 96% ethanol solvent. Fractionation was carried out by liquid-liquid extraction using solvents of different levels of polarity, namely *n*-hexane, ethyl acetate, and water. The results of extraction and fractination were tested for antibacterial activity using diffusion method with a concentration of 50%, 10% 5%, and 1%. The positive control used was vancomycin and negative control CMC Na 0,5%. The results of the antibacterial activity test were analyzed by two way ANOVA method.

The results of the study of rhizome bangle showed extract, *n*-hexane fraction, and ethyl acetate fraction had antibacterial activity against *Methicillin Resistant Staphylococcus aureus*. The results of the diameter of the largest inhibition zone in the *n*-hexane fraction concentration of 50% is 12.06 mm. Two-way ANOVA analysis showed that the extract of 5% concentration were most effective in inhibiting *Methicillin Resistant Staphylococcus aureus* bacteria.

Key word : antibacterial, fractions, *Methicillin Resistant Staphylococcus aureus*, rimpang bangle.