

SKRINING FITOKIMIA DAN UJI ANTIBAKTERI DARI EKSTRAK
DAUN SENDUDUK (*Melastoma candidum*) TERHADAP BAKTERI *Bacillus cereus*, *Escherichia coli* DAN *Salmonella enterica*

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ABSTRAK

Pengendalian bakteri patogen penting dilakukan untuk mencegah penyebaran infeksi yang disebabkan penyakit luar maupun dalam, diantaranya dengan terapi antibiotik. Akan tetapi, penggunaan antibiotik dengan dosis dan waktu terapi yang tidak tepat dapat menimbulkan resistansi. Oleh karena itu, diperlukan adanya pencarian senyawa-senyawa antibakteri baru dari tumbuhan. Tujuan dari penelitian ini adalah untuk mengkajikandungan metabolit sekunder serta aktivitas antibakteri terhadap bakteri *B.cereus*, *E.coli* dan *S.enterica*.Pemisahan komponen bioaktif daun senduduk dilakukan dengan maserasi menggunakan aseton, penentuan golongan metabolit sekunder dilakukan dengan uji fitokimia, uji antibakteri dilakukan dengan metode difusi cakram kertas pada media MHA terhadap bakteri *B.cereus*, *E.coli* dan *S.enterica*. Sedangkan penetapan nilai MIC dan MBC dilakukan dengan metode mikrodilusi. Hasil penelitian menunjukkan bahwa ekstrak daun senduduk mengandung golongan metabolit sekunder alkaloid, flavonoid dan tanin. Aktivitas antibakteri terhadap bakteri *B.cereus*, *E.coli* dan *S.enterica*dengan zona hambat 9.3 mm terhadap bakteri *B.cereus*, 7.5 mm terhadap *E.coli* dan 8 mm terhadap *S.enterica*. Ekstrak senduduk memiliki nilai MIC 625 µg/mL terhadap ketiga bakteri, dan nilai MBC terhadap bakteri *E.coli* 1250 µg/mL sementara terhadap *B.cereus* dan *S.enterica* lebih dari 5000 µg/mL.

Kata Kunci : Daun Senduduk, *Melastoma candidum*, Fitokimia, MIC dan MBC, Metabolit Sekunder.

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SCREENING OF PHYTOCYMIA AND ANTIBACTERIAL TEST OF
POPULAR LEAF EXTRACT (*Melastoma candidum*) ON *Bacillus cereus*,
Escherichia coli AND *Salmonella enterica* BACTERIA

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ABSTRACT

Control of pathogenic bacteria is important to prevent the spread of infections caused by external or internal diseases, including antibiotic therapy. However, the use of antibiotics with inappropriate dosages and time of therapy can lead to resistance. Therefore, it is necessary to search for new antibacterial compounds from plants. The purpose of this study was to examine secondary metabolite content and antibacterial activity against *B. cereus*, *E.coli* and *S.enterica* bacteria. Separation of the leaf bioactive components was carried out by maceration using acetone, the determination of secondary metabolites was carried out by phytochemical tests, antibacterial tests were carried out by paper disc diffusion method on MHA media against *B. cereus*, *E.coli* and *S.enterica* bacteria. Whereas the determination of MIC and MBC values was carried out using the microdilution method. The results of the study showed that the leaf extract itself contained secondary alkaloid metabolites, flavonoids and tannins. Antibacterial activity against *B. cereus*, *E.coli* and *S.enterica* bacteria with 9.3 mm inhibition zone against *B. cereus* bacteria, 7.5 mm against *E.coli* and 8 mm against *S.enterica*. Sour extract had MIC values of 625 $\mu\text{g} / \text{mL}$ against all three bacteria, and MBC values for *E.coli* bacteria were 1250 $\mu\text{g} / \text{mL}$ while those against *B. cereus* and *S. enteric* were more than 5000 $\mu\text{g}/\text{mL}$.

Keywords: Senduduk Leaf, *Melastoma candidum*, Phytochemical, MIC and MBC, Secondary Metabolites.

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