

**UJI EFEKTIVITAS ANTIBAKTERI EKSTRAK ETANOL DAUN
DARUJU (*Acanthus ilicifolius* L) ASAL KECAMATAN CENDRANA
KABUPATEN BONE TERHADAP *Escherichia coli***

Latar Belakang : Penyakit infeksi seperti diare akibat *Escherichia coli* menjadi masalah kesehatan di Indonesia, khususnya Sulawesi Selatan. Penggunaan antibiotik yang tidak rasional meningkatkan resistensi antimikroba. Daun Jeruju (*Acanthus ilicifolius*) mengandung senyawa glukosida, alkaloid, flavonoid, dan terpenoid yang memiliki potensi antimikroba. Penelitian sebelumnya menunjukkan ekstrak daun Jeruju efektif melawan *Staphylococcus aureus*, *Salmonella typhi*, dan *Vibrio harveyi*.

Tujuan Penelitian: Penelitian ini bertujuan untuk mengetahui efektivitas antibakteri ekstrak etanol daun Daruju (*Acanthus ilicifolius*) terhadap pertumbuhan *Escherichia coli* dan menentukan konsentrasi terbaik ekstrak etanol daun Daruju dalam menghambat pertumbuhan bakteri tersebut.

Metode Penelitian : Metode penelitian ini menggunakan pendekatan eksperimen dengan pengujian antibakteri ekstrak etanol daun Daruju (*Acanthus ilicifolius*) terhadap bakteri *Escherichia coli*. Ekstraksi dilakukan melalui metode maserasi, diikuti dengan identifikasi komponen kimia aktif seperti alkaloid, flavonoid, tannin, saponin, dan fenol. Aktivitas antibakteri diuji dengan metode difusi cakram menggunakan konsentrasi ekstrak 100 ppm, 250 ppm, dan 500 ppm, kontrol positif kloramfenikol, dan kontrol negatif akuades. Data dianalisis menggunakan uji ANOVA dan Post-Hoc LSD untuk menentukan perbedaan signifikan antar kelompok.

Hasil : Hasil penelitian menunjukkan ekstrak daun Daruju (*Acanthus ilicifolius*) mengandung alkaloid, flavonoid, fenol, saponin, dan tannin, serta memiliki potensi antibakteri terhadap *Escherichia coli*. Ekstrak dengan konsentrasi 100 ppm, 250 ppm, dan 500 ppm menghasilkan zona hambat berturut-turut 1,5 mm, 2 mm, dan 2,2 mm, sementara kontrol negatif tidak menunjukkan efek dan kontrol positif menghasilkan zona hambat 3,33 mm. Uji ANOVA one-way menunjukkan perbedaan signifikan.

Kata Kunci : efektivitas, daun daruju , *Escherichia coli*

THE EFFECTIVENESS TEST OF THE ANTIBACTERIAL ACTIVITY OF
ETHANOL EXTRACT OF DARUJU LEAVES (*Acanthus ilicifolius* L)
FROM CENDRANA SUBDISTRICT, BONE REGENCY AGAINST
Escherichia coli

Background: Infectious diseases such as diarrhea caused by *Escherichia coli* are a health problem in Indonesia, especially in South Sulawesi. The irrational use of antibiotics increases antimicrobial resistance. The Jeruju leaf (*Acanthus ilicifolius*) contains glucosides, alkaloids, flavonoids, and terpenoids, which have antimicrobial potential. Previous studies have shown that Jeruju leaf extract is effective against *Staphylococcus aureus*, *Salmonella typhi*, and *Vibrio harveyi*.

Objective: This study aims to determine the antibacterial effectiveness of ethanol extract from Jeruju leaf (*Acanthus ilicifolius*) against the growth of *Escherichia coli* and to identify the optimal concentration of the ethanol extract in inhibiting bacterial growth.

Methodology: This research uses an experimental approach with antibacterial testing of ethanol extract from Jeruju leaf (*Acanthus ilicifolius*) against *Escherichia coli*. Extraction was done using the maceration method, followed by the identification of active chemical compounds such as alkaloids, flavonoids, tannins, saponins, and phenols. The antibacterial activity was tested using the disk diffusion method with concentrations of 100 ppm, 250 ppm, and 500 ppm, with positive control chloramphenicol and negative control distilled water. Data were analyzed using one-way ANOVA and Post-Hoc LSD to determine significant differences between groups.

Results: The study results show that Jeruju leaf (*Acanthus ilicifolius*) extract contains alkaloids, flavonoids, phenols, saponins, and tannins, and has antibacterial potential against *Escherichia coli*. The extract at concentrations of 100 ppm, 250 ppm, and 500 ppm produced inhibition zones of 1.56 mm, 2 mm, and 2.2 mm, respectively, while the negative control showed no effect and the positive control produced a 3.33 mm inhibition zone. One-way ANOVA revealed significant.

Keywords: effectiveness, Jeruju leaf, *Escherichia coli*.