INTISARI

NINGTYAS, Y.L., 2017, UJI AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL 70%, FRAKSI *n*-HEKSANA, ETIL ASETAT, DAN AIR DARI DAUN CABE RAWIT (*Capsicum frutescens* L.) TERHADAP *Escherichia coli* ATCC 25922, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Daun cabe rawit (*Capsicum frutescens* L.) mengandung flavonoid, saponin, alkaloid, dan tanin yang diduga memiliki aktivitas antibakteri. Tujuan dari penelitian ini untuk mengetahui aktivitas antibakteri ekstrak etanol 70%, fraksi *n*-heksana, etil asetat, dan air dari daun cabe rawit (*Capsicum frutescens* L.) terhadap *Escherichia coli* ATCC 25922.

Serbuk daun cabe rawit lalu diremaserasi dengan etanol 70% kemudian difraksinasi dengan *n*-heksana, etil asetat dan air. Ekstrak etanol 70%, dan fraksi diuji aktivitas antibakteri menggunakan metode difusi, dengan konsentrasi 50%, 25%, dan 12,5% untuk menentukan ekstrak atau fraksi teraktif, dilanjutkan dengan uji aktivitas antibakteri menggunakan metode dilusi, dengan konsentrasi 50%; 25%; 12,5%; 6,25%; 3,125%; 1,5625%; 0,7813%; 0,3906%; 0,1959%; 0,0977% terhadap bakteri *Escherichia coli* ATCC 25922. Diameter daya hambat diukur, dan dilakukan uji statistik menggunkan uji ANOVA.

Hasil penelitian menunjukkan bahwa ekstrak etanol 70%, fraksi *n*-heksana, etil asetat, dan air dari daun cabe rawit (*Capsicum frutescens* L.) mempunyai aktivitas antibakteri, dan fraksi etil asetat dari daun cabe rawit mempunyai aktivitas antibakteri paling aktif terhadap *Escherichia coli* ATCC 25922, dengan konsentrasi bunuh minimum 12,5%.

Kata kunci : *Capsicum frutescens* L, *Escherichia coli* ATCC 25922*,* difusi, dilusi

ABSTRACT

NINGTYAS, Y.L., 2017 , ANTIBACTERIAL ACTIVITY TEST OF ETHANOL 70% EXTRACT, FRACTION *n*-HEXANE, ETHYL ACETATE AND WATER OF CHILI LEAVES (*Capsicum frutescens* L) AGAINST BACTERIA *Escherichia coli* ATCC 25922, THESIS , FACULTY OF PHARMACY , UNIVERSITY OF SETIA BUDI , SURAKARTA.

Chili leaves (*Capsicum frutescens* L.) contains flavonoids, saponins, alkaloids, and tannins that are suspected of having antibacterial activity. The purpose of this research was to know antibacterial activity of ethanol extract 70%, fraction of *n*-hexane, ethyl acetate, and water from chili pepper leaves (*Capsicum frutescens* L.) againt *Escherichia coli* ATCC 25922.

Chili leaves powder was remacerated with ethanol 70% then fractionated with n-hexane, ethyl acetate and water. The ethanol extract was 70%, and the fractions were tested for antibacterial activity using diffusion method, with concentration of 50%, 25%, and 12,5% to determine the most active extract or fraction, followed by antibacterial activity test using dilution method, with concentration 50%; 25%; 12.5%; 6.25%; 3.125%; 1.5625%; 0.7813%; 0.3906%; 0.1959%; 0.0977% against the bacterium *Escherichia coli* ATCC 25922. The diameter of inhibitory power was measured and statistically analysed using ANOVA.

The results showed that 70% ethanol extract, of *n*-hexane fraction, ethyl acetate, and water from chili pepper leaves (*Capsicum frutescens* L.) had antibacterial activity, and ethyl acetate fraction of chili pepper leaves had the most active antibacterial activity against *Escherichia coli* ATCC 25922, with a minimum kill concentration of 12,5%.

Keywords: *Capsicum frutescens* L, *Escherichia coli* ATCC 25922*,* diffusion, dilution.