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ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

UJI AKTIVITAS ANTIBAKTERI EKSTRAK METANOL DAUN PACAR KUKU (*LAWSONIA INERMIS*) TERHADAP PERTUMBUHAN BAKTERI ENTEROPATHOGENIC *ESCHERICHIA COLI* (EPEC)

ABSTRACT

ABSTRAK

Pacar kuku (*Lawsonia inermis*) merupakan salah satu tanaman obat yang telah dimanfaatkan oleh masyarakat Indonesia. Uji aktivitas antibakteri ekstrak metanol daun pacar kuku terhadap bakteri Enteropathogenic *Escherichia coli* (EPEC) telah dilakukan di Laboratorium Mikrobiologi, Fakultas Kedokteran, Universitas Syiah Kuala menggunakan metode difusi kertas cakram dengan variasi konsentrasi ekstrak yaitu 5, 10, 15 dan 20%. Hasil karakterisasi ekstrak metanol daun pacar kuku diperoleh kadar air sebesar 18,61 %, kadar abu total 0,27%, kadar sari larut air 21,74% dan kadar sari larut etanol 65,24%. Uji fitokimia menunjukkan bahwa ekstrak metanol daun pacar kuku mengandung senyawa kuinon, tanin, saponin, flavonoid, alkaloid dan steroid. Hasil uji aktivitas antibakteri dengan variasi konsentrasi ekstrak yaitu 5, 10, 15 dan 20% menunjukkan bahwa ekstrak metanol daun pacar kuku tidak dapat menghambat pertumbuhan bakteri EPEC. Oleh karena itu, dapat disimpulkan bahwa ekstrak metanol daun pacar kuku tidak memiliki aktivitas antibakteri terhadap bakteri EPEC.

Kata kunci : Daun pacar kuku (*Lawsonia inermis*), Enteropathogenic *Escherichia coli* (EPEC), dan metode difusi kertas cakram.

ABSTRACT

Henna (*Lawsonia inermis*) has been used of Indonesian community as the traditional medicine. Antibacterial activity of methanol extract of henna's leaves against Enteropathogenic *Escherichia coli* (EPEC) bacterium had been conducted at Microbiology Laboratory, Medicine Faculty, Syiah Kuala University using disc diffusion method with various concentration of extracts were 5, 10, 15 and 20%. The characterization of methanol extract of henna's leaves resulted the water content were 18,61%, total ash content were 0,27%, water soluble extract content were 21,74% and ethanol soluble extract content were 65,24%. Phytochemical test showed that methanol extract of henna's leaves contain quinone, tannin, saponin, flavonoid, alkaloid and steroid. The result of the antibacterial activity tested with various concentration of extract with 5, 10, 15 and 20% showed that the methanol extract of henna's leaves were not able to inhibited the growth of EPEC. Therefore, it can be concluded that methanol extract of henna's leaves did not has antibacterial activity against EPEC.

Keywords: Henna leaves (*Lawsonia inermis*), Enteropathogenic *Escherichia coli* (EPEC), and disc diffusion method.