ABSTRACT

Infectious diseases are one of the problems in the health sector that has been suffered by the Indonesian people since long ago which from time to time continues to grow. Infectious diseases that many people suffer from are caused by several bacteria including *Escherichia coli, Staphylococcus aureus, Salmonella thyphi, Pseudomonas aeruginosa, Streptococcus mutans*. This study aims to determine the antibacterial activity of kersen (*Muntingia calabura* L.) leaf extract with 70% ethanol and n-hexane. The research was conducted by extracting kersen leaves with 70% ethanol and n-hexane so that each after evaporation obtained a thick extract. The extracts obtained were then tested for antibacterial activity using Nutrient agar media in the disc diffusion method. The results obtained showed that presence of antibacterial activity from each distiller, namely 70% ethanol distiller with a concentration of 25% had an inhibition zone diameter of 18.3 mm, 50% had an inhibition zone diameter of 19.6 mm, 75% had an inhibition zone diameter of 22, 6 mm and 100% has an inhibition zone diameter of 20 mm. While in the n-hexane distiller with a concentration of 25% have an inhibition zone diameter of 16.6 mm, 50% have an inhibition zone diameter of 19 mm, 75% have an inhibition zone diameter of 18 mm and 100% has an inhibition zone diameter of 21.6 mm. The positive control chloramphenicol with a concentration of 30µg/50µL had an inhibition zone of 24 mm and the negative control, DMSO 10%, showed no inhibition zone. From the results of the study, it was concluded that each concentration in both distillers had the highest antibacterial activity in inhibiting of *Escherichia coli* bacteria.

Keywords **:** Antibacterial, disc diffusion method, *Escherichia coli,* inhibition, kersen leaf

ABSTRAK

Penyakit infeksi merupakan salah satu masalah dalam bidang kesehatan yang banyak diderita oleh masyarakat Indonesia sejak dahulu yang dari waktu ke waktu terus berkembang. Penyakit infeksi yang banyak diderita masyarakat disebabkan oleh beberapa bakteri diantaranya *Escherichia coli, Staphylococcus aureus, Salmonella thyphi, Pseudomonas aeruginosa, Streptococcus mutans.* Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak daun kersen (*Muntingia calabura* L.) dengan penyari etanol 70% dan n-heksana. Penelitian dilakukan dengan cara ekstraksi daun kersen dengan etanol 70% dan n-heksana sehingga masing-masing setelah diuapkan diperoleh ekstrak kental. Ekstrak yang didapat kemudian di uji aktivitas antibakterinya menggunakan media *Nutrient agar* dalam metode difusi cakram. Hasil yang diperoleh menunjukkan adanya aktivitas antibakteri dari masing-masing penyari yaitu penyari etanol 70% dengan konsentrasi 25% memiliki diameter zona hambat 18,3 mm, 50% memiliki diameter zona hambat 19,6 mm, 75% memiliki diameter zona hambat sebesar 22,6 mm dan 100% memiliki diameter zona hambat 20 mm. Sedangkan pada penyari n-heksana dengan konsentrasi 25% memiliki diameter zona hambat sebesar 16,6 mm, 50% memiliki diameter zona hambat 19 mm, 75% memiliki diameter zona hambat 18 mm dan 100% memiliki diameter zona hambat sebesar 21,6 mm. Kontrol positif kloramfenikol dengan konsentrasi 30µg/50µL memiliki zona hambat sebesar 24 mm dan kontrol negatif yaitu DMSO 10% tidak menunjukkan adanya aktivitas antibakteri. Dari hasil penelitian disimpulkan bahwa masing-masing konsentrasi pada kedua penyari memiliki aktivitas antibakteri tertinggi dalam penghambatan aktivitas pertumbuhan bakteri *Escherichia coli.*

Kata Kunci : Antibakteri, daun kersen, daya hambat, *Escherichia coli*, metode difusi cakram