

## ABSTRAK

Biji pepaya (*Carica pubescens*) merupakan biji yang dapat dimanfaatkan untuk pengobatan penyakit gangguan pencernaan, salah satu penyebab gangguan pencernaan yaitu *Enteropathogenic Escherichia coli* (EPEC). Tujuan penelitian ini adalah mengetahui aktivitas antibakteri ekstrak etanolik biji pepaya (*Carica pubescens*) dan konsentrasi yang paling optimal dalam menghambat pertumbuhan EPEC secara *in vitro*.

Rancangan penelitian adalah *post test only control groups design*. Penelitian menggunakan 9 kelompok yaitu terdiri dari kontrol positif, kontrol negatif, 1%, 10%, 20%, 40%, 60%, 80% dan 100%, setiap kelompok menggunakan bakteri *Enteropathogenic Escherichia coli* (EPEC). Analisa data zona hambat bakteri menggunakan analisa *Kruskal-Wallis* kemudian dilanjutkan dengan *Mann-Whitney*.

Hasil penelitian menunjukkan bahwa pada konsentrasi 1%, 10%, 20%, 40%, 60%, 80% dan 100% ekstrak etanolik biji pepaya memiliki zona hambat rata-rata secara berturut-turut sebesar 9,10 mm; 9,30 mm; 9,40 mm; 10,00 mm; 10,30 mm; 14,10 mm dan 22,40 mm sedangkan zona hambat rata-rata kontrol positif sebesar 45,60 mm dan kontrol negatif sebesar 0,00 mm.

Kesimpulan yang diambil adalah ekstrak etanolik biji pepaya dapat menghambat pertumbuhan bakteri EPEC dan konsentrasi yang paling optimal adalah 100%.

**Kata kunci:** *Enteropathogenic Escherichia coli*, Ekstrak Etanolik Biji Pepaya, Antibakteri

## **ABSTRACT**

**Background:** *Pepaya seeds (Carica pubescens) are seeds that has the ability to treat indigestion, one of the factors that causes indigestion is Enteropathogenic Escherichia coli (EPEC). The purpose of this research is to identify the antibacterial activity of the ethanolic extract of papaya seeds (Carica pubescens) and its optimal concentration in hampering EPEC bacteria in vitro.*

**Methods:** *The design of this study used is the post test only control groups design. This study used 9 groups consisting of the positive control, negative control, 1%, 10%, 20%, 40%, 60%, 80%, and 100%, and each groups containing the Enteropathogenic Escherichia coli (EPEC) bacteria. The data of the bacterial inhibition zone are analyzed using Kruskal-Wallis's method of analysis and then followed by Mann-Whitney.*

**Result:** *The result of this study shows that control groups at the concentration level of 1%, 10%, 20%, 40%, 60%, 80%, and 100% of the ethanolic extract of papaya seeds, had an average inhibition zone that is, 9.10 mm; 9.30 mm; 9.40 mm; 10.00 mm; 10.30 mm; 14.10 mm; and 22.40 mm, while the average positive control group of the inhibition zone is 45.60 mm and for the negative control group's average inhibition zone is 0.00 mm.*

**The conclusion:** *This study concludes that the ethanolic extract of the papaya seeds have the ability to inhibit EPEC bacteria effectively at the optimum concentration level which is at 100%.*

**Keywords:** *Enteropathogenic Escherichia coli, Ethanolic Papaya Seed Extract, Antibacterial*