

ABSTRAK

Elsa Linatha Siregar, NIM 4192520018 (2023). Aktivitas Antibakteri Ekstrak Etanol Daun *Tithonia diversifolia* Terhadap Bakteri *Escherichia coli* Penyebab Diare.

Kipahit (*Tithonia diversifolia*) merupakan tumbuhan liar yang banyak ditemukan di dataran tinggi. Kipahit (*Tithonia diversifolia*) merupakan salah satu tumbuhan yang digunakan sebagai obat tradisional di Indonesia dan di berbagai negara. Tujuan dari penelitian ini adalah untuk mengetahui aktivitas antibakteri ekstrak etanol daun Kipahit (*Tithonia diversifolia*) dengan adanya zona hambat terhadap bakteri *Escherichia coli*. Proses ekstraksi dilakukan dengan menggunakan metode maserasi menggunakan pelarut etanol 96%. Pengujian aktivitas antibakteri menggunakan metode difusi cakram dengan variasi konsentrasi 10%, 20%, 30%, 40%, 50% dan 60%. Kontrol positif menggunakan Chloramphenicol dan kontrol negatif menggunakan Etanol 96%. Pengujian dilanjutkan dengan menentukan konsentrasi hambat minimum (KHM). Hasil penelitian menunjukkan semua konsentrasi ekstrak etanol daun Kipahit (*Tithonia diversifolia*) dapat menghambat pertumbuhan bakteri *Escherichia coli*. Diameter zona hambat ekstrak etanol daun Kipahit (*Tithonia diversifolia*) terhadap bakteri *Escherichia coli* paling besar pada konsentrasi 60% (17,21 mm), yang termasuk dalam kategori kuat. Konsentrasi hambat minimum ekstrak etanol daun Kipahit (*Tithonia diversifolia*) terhadap bakteri *Escherichia coli* yaitu pada konsentrasi 10%.

Kata Kunci: Antibakteri, *Tithonia diversifolia*, *Escherichia coli*, Konsentrasi hambat minimum



ABSTRACT

Elsa Linatha Siregar, NIM 4192520018 (2023). Antibacterial Activity Of Kipahit Leaves (*Tithonia diversifolia*) Ethanol Extract Against *Escherichia coli* Bacteria Causes Diarrhea.

Kipahit (*Tithonia diversifolia*) is a wild species commonly found in the high altitudes. Kipahit (*Tithonia diversifolia*) is one of a medicinal plants that we use as a traditional medicine in Indonesia and many countries. The purpose of this study was determine of antibacterial activity of ethanol extract of Kipahit (*Tithonia diversifolia*) leaves in the presence of an inhibition zone against *Escherichia coli* bacteria. Extraction process of active compounds was carried out using the maceration method using ethanol 96%. Antibacterial activity testing used the disc diffusion method, with the concentration 10%, 20%, 30%, 40%, 50%, and 60%. Positive control using Chloramphenicol and negative control using 96% Ethanol. The test was continued by determining the minimum inhibitory concentration (MIC). The results showed that the leaf of Kipahit (*Tithonia diversifolia*) ethanol extract could inhibit the growth of *Escherichia coli* for all concentration. The diameter of inhibition zone of ethanol extract Kipahit leaves (*Tithonia diversifolia*) against *Escherichia coli* bacteria was greatest the concentration of 60% (17, 21 mm), which was included in the strong category. The minimum inhibitory concentration (MIC) of the ethanol extract of Kipahit leaves (*Tithonia diversifolia*) against *Escherichia coli* bacteria is a concentration of 10%.

Keywords: Antibacterial, Kipahit (*Tithonia diversifolia*), *Escherichia coli*, Minimum inhibitory concentration.

