

PERSETUJUAN PEMBIMBING

Skripsi Yang Berjudul:

**UJI SITOTOKSIK FRAKSI ETIL ASETAT DAUN KELOR
(*Moringa oleifera* Lamk) TERHADAP LARVA UDANG
(*Artemia salina* Leach)**

Oleh

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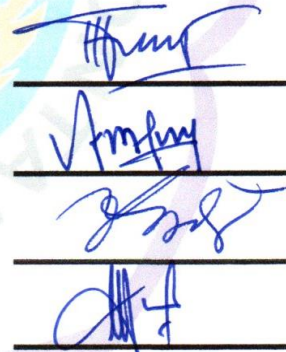
Telah Dipertahankan Di Depan Dewan Penguji

Hari / Tanggal : Rabu , 8 Juli 2020

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ABSTRAK

Indri Towana. 2019. Uji Sitotoksik Fraksi Etil Asetat Daun Kelor (*Moringa Oleifera* Lamk) Terhadap Larva Udang (*Artemia Salina* Leach). Skripsi, Program studi SI, Jurusan Farmasi Fakultas Olah Raga Dan Kesehatan Negeri Gorontalo, Pembimbing I Dr. Yuszda K.Salimi, M.Si dan pembimbing II Madania, S.Farm M.Sc.,Apt

Tanaman kelor (*Moringa oleifera* L) merupakan salah satu tanaman yang kaya nutrisi mengandung vitamin A, vitamin C, vitamin B, kalsium, kalium, besi dan protein dalam jumlah sangat tinggi yang mudah dicerna dan diasimilasi oleh tubuh manusia. Tujuan penelitian ini untuk mengetahui efek sitotoksik pada fraksi etil asetat daun kelor (*Moringa oleifera* Lamk) terhadap *Artemia salina* Leach dengan menggunakan metode *Brine Shrimp Lethality Test* (BSLT). Penelitian yang dilakukan dengan metode *true experimental design*. Desain penelitian yang digunakan dalam penelitian adalah *pretest-posttest control group* penelitian ini menggunakan 4 perlakuan konsentrasi fraksi etil asetat pada daun kelor yakni 10,50,100 dan 500 ppm yang diuji sitotoksik menggunakan 10 ekor larva udang (*Artemia salina* L) yang berumur 48 jam, perlakuan diulangi 2 kali (*duplo*) dan diamati larva udang (*Artemia salina* L) yang mati selama 24 jam. Selanjutnya dihitung nilai *Lethal Concentration* (LC50) dengan menggunakan analisis probit. Hasil penelitian terhadap fraksi etil asetat daun kelor (*Moringa oleifera* Lamk) terhadap larva udang (*Artemia salina* L) memiliki aktivitas sitotoksik terhadap larva udang (*Artemia salina* L) dengan LC50 nya adalah 4,197 ppm sehingga termasuk dalam kategori sangat toksik karena memiliki $LC50 < 1000$ ppm.

Kata Kunci: daun kelor, sitotoksik, *brine shrimp lethality test*, *Lethal Concentration*

ABSTRACT

Indri Towana. 2019. Cytotoxic Test of Moringa Oleifera Lamk Ethyl Acetate Fraction on Shrimp Larvae (Artemia Salina Leach). Thesis, SI Study Program, Department of Pharmacy Faculty of Sport and Health of Gorontalo State, Advisor I Dr. Yuszda K.Salimi, M.Sc and supervisor II Madania, S.Farm M.Sc, .Apt

Moringa oleifera Lamk or commonly known as Moringa leaf is a shrub plant with a stem height of 7-11 meters. Brittle woody stems (easily broken), sparse branches, but have strong roots. The flower smells fragrant, yellowish white, and the flowering hood is green, whereas, the fruit is triangular. Many studies have suggested that flavonoids are an antioxidant that plays a role in inhibiting the growth of cancer cells. The purpose of this study was to determine the cytotoxic effect on the ethyl acetate fraction of Moringa leaves (Moringa oleifera Lamk) on shrimp larvae (Artemia Salina Leach) using the Brine Shrimp Lethality Test (BSLT) method. The study used 4 treatments of Moringa leaf ethyl acetate fraction concentration ie 10,50,100 and 500 ppm. Each concentration used 10 shrimp larvae (Artemia Salina Leach) which were 48 hours old, the treatment was repeated 2 times (duplo), and observed the number of shrimp larvae (Artemia Salina Leach) that died after 24 hours. Then LC50 is calculated using probit analysis. The results of research on moringa leaves (Moringa oleifera Lamk) showed at a concentration of 10 ppm percent mortality of shrimp larvae (Artemia Salina Leach) by 15%, 50 ppm percent death of shrimp larvae (Artemia Salina Leach) by 20%, 100 ppm percent death of shrimp larvae (Artemia Salina Leach) by 45% and 500 ppm percent mortality of shrimp larvae (Artemia Salina Leach) by 60%. Probit analysis results showed that the LC50 value of the Moringa leaf ethyl acetate fraction was 4,197 ppm. Based on the results of probit analysis, the LC50 value of the ethyl acetate fraction of leaves is in the very toxic category with an LC50 value of 0-250 ppm. This shows that Moringa leaf ethyl acetate fraction has a cytotoxic effect on shrimp larvae (Artemia Salina Leach).

Keywords: Moringa leaf, cytotoxic, BSLT (Brien Shrimp Lethality Test), LC50.