

BRINE SHRIMP LETHALITY TEST (BSLT) DARI EKSTRAK ETANOL 70% DAN ETANOL 96% DAUN UNGU (*Graptophyllum pictum* L.)

Halimatus Syadiyah

Abstrak

Penggunaan obat herbal sebagai alternatif pengobatan terus meningkat, termasuk daun ungu (*Graptophyllum pictum* L.) yang memiliki beragam efek biologis. Senyawa aktif tanaman berpotensi toksik dalam dosis tinggi, sehingga perlu dilakukan uji toksisitas untuk menjamin keamanannya. Ekstraksi metabolit sekunder dipengaruhi oleh kepolaran pelarut. Penelitian ini menganalisis toksisitas akut ekstrak etanol 70% dan 96% daun ungu terhadap larva *Artemia franciscana* menggunakan metode *Brine Shrimp Lethality Test* (BSLT) yang ditunjukkan melalui nilai LC_{50} . Ekstrak diperoleh dengan maserasi, dilanjutkan skrining fitokimia, *Total Flavonoid Content* (TFC) dan uji toksisitas BSLT menggunakan konsentrasi larutan ekstrak 100, 300, 500, dan 700 ppm. Kedua ekstrak positif mengandung senyawa aktif alkaloid, flavonoid, tanin, saponin, dan triterpenoid. TFC ekstrak etanol 70% dan etanol 96% masing-masing sebesar 25,9429 mgQE/g ekstrak dan 38,5714 mgQE/g ekstrak. Nilai LC_{50} ekstrak etanol 70% sebesar 423,338 ppm dan etanol 96% sebesar 313,079 ppm. Kedua ekstrak termasuk kategori toksik (Meyer) dan toksik sedang (Clarkson). Uji *T-Test Independent* menghasilkan nilai ($Sig < 0,05$) yang bermakna adanya perbedaan signifikan pada nilai TFC dan LC_{50} antara kedua jenis ekstrak.

Kata Kunci: *Artemia franciscana*, BSLT, Daun Ungu, LC_{50} , Uji Toksisitas

**BRINE SHRIMP LETHALITY TEST (BSLT) DARI EKSTRAK
ETANOL 70% DAN ETANOL 96% DAUN UNGU
(*Graptophyllum pictum* L.)**

Halimatus Syadiyah

Abstract

The use of herbal medicine as an alternative treatment continues to increase, including purple leaves (*Graptophyllum pictum* L.) which have various biological effects. Active plant compounds are potentially toxic in high doses, so toxicity tests are needed to ensure their safety. Extraction of secondary metabolites is influenced by solvent polarity. This study analyzed the acute toxicity of 70% and 96% ethanol extracts of purple leaves against *Artemia franciscana* larvae using the Brine Shrimp Lethality Test (BSLT) method which is indicated by the LC₅₀ value. The extract was obtained by maceration, followed by phytochemical screening, Total Flavonoid Content (TFC) and BSLT toxicity test using extract solution concentrations of 100, 300, 500, and 700 ppm. Both extracts positively contained active compounds of alkaloids, flavonoids, tannins, saponins, and triterpenoids. The TFC of 70% and 96% ethanol extracts were 25.9429 mgQE/g extract and 38.5714 mgQE/g extract, respectively. The LC₅₀ value of 70% ethanol extract was 423.338 ppm and 96% ethanol was 313.079 ppm. Both extracts are included in the toxic (Meyer) and moderately toxic (Clarkson) categories. The Independent T-Test produced a value (Sig <0.05) which means there is a significant difference in the TFC and LC₅₀ values between the two types of extracts.

Keywords: *Artemia franciscana*, BSLT, LC₅₀, Purple Leaves, Toxicity Test