ABSTRACT

TOXICITY TEST OF 70% ETHANOL EXTRACT OF ANDE-ANDE LUMUT LEAVES (Selaginella doederleinii) USING METHOD (BSLT) Brine Shrimp Lethality Test

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The moss Ande-ande lumut (Selaginella doederleinii) originates from the Selaginellaceae family. This plant contains chemical compounds such as alkaloids, flavonoids, saponins, and tannins. It is beneficial for treating cancer, cough, lung inflammation, tonsillitis, swollen fingers, and broken bones. This study was conducted to determine the toxicity effect of the 70% ethanol extract of Ande-ande lumut leaves (Selaginella doederleinii) on shrimp larvae (Artemia salina) using the Brine Shrimp Lethality Test (BSLT) method. The research stages included ethanol-free testing, concentration preparation, toxicity testing, and calculation of the LC50 value based on the mortality rate of shrimp larvae (Artemia salina). The toxicity test of the 70% ethanol extract of Ande-ande lumut leaves was conducted using 5 concentrations with the following mortality rates: 1 ppm (20%), 2 ppm (26,67%), 3 ppm (30%), 4 ppm (33,33%), 5 ppm (36,67%), and 0 ppm (0%) as the control. From the results of the toxicity test, an LC50 value of 12,261 ppm was obtained, indicating that the 70% ethanol extract of Ande-ande lumut leaves is highly toxic and has potential as an anti-cancer drug.

Keyword: *Sellaginela doederleinii, Artemia salina, toxicity,* LC₅₀.