

ABSTRACT

(LITERATURE REVIEW)

TOXICITY TEST OF SOURSOP LEAVES (*Annona muricata*) TO SHRIMP (*Artemia salina* Leach.) LARVAE USING BRINE SHRIMP LETHALITY TEST (BSLT) METHOD

Umiyati

Soursop leaves contain compounds including alkaloids, tannins, and several other chemical constituents, including acetogenin. To determine the bioactivity of one compound, isolation and activity tests are carried out, one of which is a toxicity test. The simplest, easiest, and most reliable method of toxicity test is *Brine Shrimp Lethality Test* (BSLT), which uses *Artemia salina* Leach shrimp larvae. This study aimed to determine the activity of soursop leaf infusion using BSLT method.

The design of this research was literature study. Manuscripts are searched through official sources that are relevant to the research topic. The library search flow is carried out by scanning, skimming, and mapping.

Based on article results, the first article stated that at a concentration of 2.5 ppm the total death was 33.33%, at a concentration of 5 ppm; 12.5 ppm; and 25 ppm, the total death was 63.33%; 76.66%; and 93.33% respectively. The LC_{50} is 3.9201 ppm. In the second article, the LC_{50} of soursop leaf infusion was 38.73 mg/L. Therefore, it has toxic effect. In the third article, the LC_{50} for fraction 3 through 11 of the methanol extract was 4481.25; 37; 11.46; 0.85; 3.02; 0.23; 10.97; 8.53; and 4093 ppm respectively. Fractions 3 and 11 are not toxic, while the other fractions are toxic and have the potential effect as anticancer.

Based on the results of a literature review, it can be concluded that soursop leaf (*Annona muricata*) has potential toxicity to *Artemia salina* Leach. larvae and has antitumor and anticancer potential activity.

Keyword: *Annona muricata* leaves; *Artemia salina* Leach. larvae; *Brine Shrimp Lethality Test* (BSLT); toxicity test.