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Phytochemical Screening and Cytotoxic Test of Bagore Seed Extracts and Fraction (*Caesalpinia crista* L.) Using the Brine Shrimp Lethality Test (BSLT) Method

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ABSTRACT

The Bagore plant is one of the plants from the Fabaceae/Caesalpiniaceae family of thorny shrubs. These plants have been reported to have several activities and contain secondary metabolites. In the Sulawesi region, it grows a lot in coastal areas, especially in the area of West Sulawesi. Bagore fruit seeds have been used empirically as a traditional medicine for malaria. This research aims to analyze the phytochemical content and test the toxicity of the ethanolic extract of bagore fruit seeds. Sample extraction used a simple maceration extraction method with 96% ethanolic solvent then partitioned using the liquid-liquid partition method to produce the ethyl acetate fraction and the n-hexane fraction. The results of phytochemical screening of bagore fruit seed extract contain alkaloids, flavonoids, and saponins. The toxicity test was carried out using the BSLT method, shrimp larvae were put into the test solution in several variations of the concentration of ethanolic extract of bagore fruit seeds, 60 ppm, 80 ppm, 100 ppm, and 120 ppm. For the n-hexane fraction, a concentration series is used, namely 10 ppm, 20 ppm, 40 ppm, 60 ppm, and 120 ppm. then the ethyl acetate fraction uses varying concentrations, namely 10 ppm, 30 ppm, 60 ppm, 80 ppm, and 120 ppm. The IC50 value was obtained based on calculating the percentage of death of shrimp larvae using probit analysis. The research results showed that bagore fruit seed extract had an LC50 of 64.120 ppm, the n-hexane fraction was 19,364 ppm and the ethyl acetate fraction was 23,334 ppm. This value shows that bagore fruit seeds are very toxic.

Keywords: *Caesalpinia crista* L., Phytochemical Screening, Cytotoxic, BSLT.