

MICPS2-010-PS

Determination of Flavonoid Content and Antioxidant Activity of Soursop Leaves from Three Regions in South Sulawesi Province, Indonesia

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ABSTRACT

Soursop (*Annona muricata* L.) has anticancer and antioxidant activities; soursop leaves contain substances with the potential as antioxidants, such as flavonoids. Antioxidant assays and total flavonoid content from three different growing sites in South Sulawesi Province, namely Gowa, Takalar, and Pinrang, were carried out to obtain data on the highest antioxidant activity and flavonoid content of soursop leaves (*Annona muricata* L.) of three areas. Total Flavonoid content was determined by UV-Vis spectrophotometry, and antioxidant activity was measured by the DPPH (1,1-Diphenyl-2-picryl Hydrazyl) method. According to the study, soursop leaves (*Annona muricata* L.) from the Gowa, Takalar, and Pinrang regions have total flavonoid levels of 7,6484 mg QE/g, 3,74429 mg QE/g, and 3,3105 mg QE/g, respectively, and IC₅₀ values of 70.509 g/mL, 102.159 g/mL, and 99.246 g/mL, respectively. The results showed that soursop leaves (*Annona muricata* L.) from the Gowa area had the highest flavonoid content and antioxidant activity. Gowa region could be used as the source of soursop leaves to develop soursop as an herbal remedy.

Keywords: Soursop Leaf, Flavonoid Levels, Antioxidant, DPPH