ABSTRACT

ANTIOXIDANT TEST ETHANOL EXTRACT 50% ROSEMARY LEAVES (*Rosmarinus officinalis* L.*)* MACERATION RESULTS WITH DPPH METHOD

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Antioxidants are compounds that can inhibit oxidation by binding free radicals and very active molecules to help inhibit cell damage. Antioxidants are divided into two, namely synthetic antioxidants and natural antioxidants. Natural antioxidants include derivatives (enol, coumarin, hydroxycinnamic, locopherol, diphenol, navonoid, dihydroflavone, catechin, ascorbic acid. Synthetic antioxidants include butyl hydroxylanisole, butyl) hydroxytoluene, propyl gallate, ethoxyquine. Rosemary in the form of an extract has antioxidant activity and has been widely used in food. Many of the ingredients in rosemary extract have been determined to have natural antioxidant properties. These components consist of three phenolic diterpenes, namely carsonic acid, karsonol, and rosmarinic acid. The method used is the spectrophotometric method with DPPH. The samples obtained were extracted by maceration. This method was chosen because spectrophotometry is one of the analytical chemistry methods used to determine the composition of a sample both quantitatively and qualitatively. The test was carried out by taking samples of rosemary extract as much as 10 mg with concentrations of 10 ppm, 20 ppm, 30 ppm, and 50 ppm and then repeated 3 times. And the data obtained can be concluded that the absorbance results from tests 1, 2 and 3 are not much different. The greater the concentration, the smaller the absorbance produced. The results of the spectrophotometric measurements showed that 50% Rosemary ethanol extract had a very strong antioxidant with an IC50 value of 35.388 ppm. Further studies can be carried out using different UV-VIS spectrophotometry and further studies using other solvents and methods.

Keywords: Rosemary, Extraction, Antioxidant, IC50.