

ABSTRACT

DETERMINATION OF ANTIOXIDANT AKTIVITY OF METHANOL EXTRACT OF KRATOM LEAVES (*Mitragyna speciosa*) MACERATION RESULTS USING THE DPPH METHOD.

Anggi Ayu Windari

Improper lifestyle changes can lead to the formation of free radicals. Continuous free radical reactions in the body can cause various diseases. Antioxidants are compounds that can prevent the formation of free radicals. Kratom is a typical plant from the southern Putussibau area, in West Kalimantan. Kratom plants contain alkaloids, triterpenoid-steroids, saponins, tannins and flavonoids. The main component of kratom leaves is indole alkaloids which are efficacious as antioxidants. To determine the antioxidant activity of kratom leaf extract (*Mitragyna speciosa*) the method used is the measurement of the amount of reduced DPPH of antioxidant compounds by UV-Vis spectrophotometry at a wavelength of 517nm using Vitamin C as a comparison. The extraction method used is maceration. The test was carried out by taking a sample of 10 mg of kratom leaf extract (*Mitragyna speciosa*) at a concentration of 10 ppm, 20 ppm, 30 ppm, 40 ppm, and 50 ppm, then repeated 3 times. From the data obtained the results of the absorbance of replicates 1, 2 and 3 are not much different. The greater the concentration, the smaller the absorbance produced. The results showed that the methanol extract of kratom leaves (*Mitragyna speciosa*) had strong antioxidant activity with an IC50 value of 44.169 ppm.

Keyword : Kratom Leaf (Mitragyna speciosa), vitamin C, Free Radicals, Antioxidants, Methanol, Maceration, DPPH.