

ABSTRACT

Determination Of Antioxidan Aktiviti Of Methanol Of Extract Of Kratom Leaves (*Mitragyna speciosa*) Digestion Result Using The DPPH Method

*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. The aim is to determine the antioxidant activity of kratom leaf extract (*Mitragyna speciosa*) the method used is to measure 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 digestion. The test was carried out by taking a sample of 10 mg of kratom leaf extract (*Mitragyna speciosa*) at a concentration of 50 ppm, 100 ppm, 150 ppm, 200 ppm, and 250 ppm, then repeated 3 times. From the data obtained the results of the absorbance of replicates 1, 2 and 3 are different. The greater the concentration, the smaller the absorbance produced. The results of the study showed that the antioxidant activity of kratom leaves (*Mitragyna speciosa*) was expressed by an IC50 value of $394,125 \pm 6,984$ with an RSD value of 27,526%. So it can be concluded that the methanol extract of kratom leaves (*Mitragyna speciosa*) has a strong antioxidant activity with an IC50 $394,125 \pm 6,984$ value of with an RSD value of 27,526%.*

Keywords: Kratom leaf (*Mitragyna speciosa*), Antioxidant, IC50