

ABSTRACT

DETERMINATION OF ANTIOXIDANT ACTIVITY EXTRACTS KRATOM LEAF METHANOL (Mitragnya Speciosa K.) RESULTS OF DIGESTION USING DPPH METHOD

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Antioxidants are chemicals that can help slow or prevent free radical damage. Improper lifestyle changes can form free radicals. Kratom contains alkaloids, flavonoids, polyphenols, triterpenoid-steroids, saponins and tannins. This plant is located in West Kalimantan Putus sibau area. Kratom leaves have the main component contained indole alkaloid compounds as antioxidants. to determine the antioxidant activity of kratom leaf extract (Mitragnya Speciosa K) this method uses measurement of the amount of DPPH reduced from antioxidant compounds by UV-Vis spectrophotometry at a wavelength of 517nm with a comparison using Vitamin C solution with the Digestion method. This test was carried out sampling kratom leaf extract (Mitragnya Speciosa K) as much as 10 mg with concentrations of 50 ppm, 100 ppm, 150 ppm, 200 ppm, 250 ppm by doing 3x replication. From the results of the data obtained, the absorbance results for replications 1, 2, and 3 are different. If the greater the concentration value, the smaller the absorbance obtained. In the results of kratom leaf research (Mitragnya Speciosa K) stated with an IC50 value of 263.674 ppm with an RSD value of 0.707%. Based on the research that has been done on kratom leaves (Mitragnya speciosa K.), it can be concluded that there is antioxidant activity from the methanol extract of kratom leaves (Mitragnya speciosa K.) with this category stated by the IC50 value with the RSD value so that it can be concluded that it has very weak accuracy.

Key words:*Kratom Leaf (Mitragnya Speciosa K), Antioxidant, DPPH, Digestion, Vitamin C, IC50*