ABSTRACT

SEPARATION PLANT ESSENTIAL OIL BASIL (Ocimum sanctum L.) USING DISTILATION STAHL AND TEST METHOD ANTIOXIDANT ACTIVITY OF DPPH (1,1-diphenyl-2-pkrilhidrazil)

Negative impacts caused by free radicals is extremely harmful to the body, then it isnecessary antioxidants that can protect the negative effects arising, and relatively easy obtainment, one of which is the use of essential oils of basil. This study aimed to measure the antioxidant activity of natural essential oils of basil. Basil has a scientific name Ocimum sanctum Linn. Basil leaves that have a distinctive smell, and contains essential oils that are mostly eugenol. In this study basil distilled using distillation method Stahl. dried basil leaves for about a week with aerated, than blanded samples to expand the sample surface (botanicals), samples were inserted into the distillation flask and add 214 grams of distilled water as much as 2/3 of the size of the distillation flask. The sample was distilled for 4 hours, the next essential oil separated. Essential oil are still mixed with a little water is removed by adding NaCl. Basil essential oiil is then tested Thin Layer Chromatography (TLC), with the mobile phase a mixture of chloroform and benzene (1:1). Results showed purple spotting on TLC plates GF 254 when observed using UV light 254 with a Rf 0,73 which proved to contain terpenes. Tes the antioxidant activity of the essential oil of basil is done by using DPPH (1,1-diphenyl-2-pikrilhidrazil), were measured using UV-Vis spectrophotometer at 517 nm λ_{maks}. IC_{50} value of 71,22 ppm and the sample is relatively active as an antioxidant.

Keywords : *Antioxidant, DPPH, Basil, Thin Layer Chromatography (TLC), Essential Oil.*