

ABSTRACT

Mayangsari Manik. 24020220120010. Antioxidant Activity Test of Endophytic Fungal Isolates of Tin Plant (*Ficus carica L.*), under the guidance of Endang Kusdiyantini and Sri Pujiyanto.

Antioxidants are compounds that can prevent or delay oxidative stress caused by free radicals. Tin plant (*Ficus carica L.*) is one of the Moraceae family plants that contains antioxidants. The development of biotechnology makes the use of endophytic microbes to produce secondary metabolite compounds of endophytic molds isolated from tin plants (*Ficus carica L.*). The purpose of this study was to determine the antioxidant activity produced by endophytic mold isolates from tin plants (*Ficus carica L.*). The stages carried out in this study are by conducting an initial screening of antioxidant activity on seven isolates of tin plant endophytic mold (*Ficus carica L.*) based on the percentage of inhibition produced. The selected isolates were then tested for antioxidant activity using KLT and the DPPH method using a UV-Vis spectrophotometer. The results of this study showed that the isolate of tin plant endophytic mold (*Ficus carica L.*) that has antioxidant activity is isolate B3. Antioxidant activity test using KLT on B3 endophytic mold isolate of tin plant (*Ficus carica L.*) ethyl acetate extract and n-hexane extract (4:6) has antioxidant activity indicated by the color change to yellowish on KLT plate. Antioxidant testing on endophytic mold isolates from tin plants (*Ficus carica L.*) with DPPH method using UV-Vis spectrophotometer showed antioxidant activity. Antioxidant activity of endophytic mold isolate B3 ethyl acetate extract has strong antioxidant activity with IC_{50} value of 62.5 ppm and AAI 2.52 and antioxidant activity of endophytic mold isolate B3 n-hexane extract has moderate antioxidant activity with IC_{50} value of 138.53 and AAI 1.13. Vitamin C as a positive has very strong antioxidant activity with an IC_{50} value of 6.24 ppm and AAI 25.28.

Keywords: Antioxidant, DPPH, Endophytic Fungi, Tin Plant