

ABSTRACT

Study of *Mitrephora polypyrena* (Bl.) Miq., *Lepisanthes rubiginosum* (Roxb.) Leenh., and *Alectryon serratus* Radlk Ethanol 80 % Extract by TLC Autography and Spectrophotometry Method

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The extracts were placed on TLC plate and eluated by ethyl acetate : chloroform : methanol: formic acid (5:3:2:1). Then TLC plates sprayed with 0,2 % DPPH in methanol. The presence of purple DPPH bleaching on TLC plate was meant to show existence of free radical scavenging activity. The instrument for spectrophotometry method is UV-Vis spectrophotometer. Absorbance of the extracts were measured at three visible wavelengths (497 nm,517 nm, and 537 nm) by reacting 0,3 mL sampel solution (various concentration) with 2,7 mL 0,004% DPPH in methanol solution. The IC₅₀ value of each extracts was analyzed by using linear regression and compared with the IC₅₀ value of ascorbic acid (vitamin C) as standards. The result showed that the 80% ethanol extract of *Alectryon serratus* leaf had the smallest IC₅₀ with the value was 1,964 ppm, which means have the highest free radical scavenging activity among the other extracts. Contrarily, the 80% ethanol extract of *Mitrephora polypyrena* leaf had the lowest free radical scavenging activity among the other extracts with the largest IC₅₀ was 93,48 ppm

Keyword : *Mitrephora polypyrena*, *Lepisanthes rubiginosum*, *Alectryon serratus*, DPPH, vitamin C, TLC Autography, Spectrophotometry, Free Radical Scavenging Activity