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**ANTICOAGULANT ACTIVITY OF METHANOL EXTRACTS
FROM *Parkia speciosa* PERICARP**

By

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DECLARATION

“I hereby declare that this thesis is based on my original work and has not been previously or currently been submitted for any other degree at UiTM as well as any other institutions.”

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ABSTRACT

Anticoagulant Activity of Methanol Extracts from *Parkia speciosa* Pericarp

Parkia speciosa is a medicinal plant that is used traditionally in several ailments of blood diseases. However, there is no report regarding its anticoagulant activities. So this study was conducted to evaluate the potential of methanol extract of *Parkia speciosa* pericarp as an anticoagulant. The anticoagulant activity will be evaluated by using PT, aPTT, and TT. Fresh pericarps were collected, cut into small pieces and air-dried for several days. Dried pericarp was grounded into powder. Maceration technique was applied for the extraction of *Parkia speciosa* pericarp. Methanol extraction (1:2) was done in a Schott bottle for 4 days at room temperature with occasional stirring and shaking. Extract was filtered using Whatman No.1 filter paper. The extract was then concentrated using rotary evaporator at low temperature and pressure as well as been dissolved in DMSO. Anticoagulant activity for PT, aPTT, and TT were tested at concentrations of 160, 80, 40, 20, and 10 µg/mL of extract. Analysis of result was performed using One way ANOVA followed with Dunnett t-test. For the aPTT test, the methanolic extract of *Parkia speciosa* pericarp was shown to contain anticoagulant and procoagulant properties. Significant results were obtained at concentrations of 10, 20, 80, and 160 µg/mL. As for PT and TT tests, significant results were shown only at concentration of 160 µg/mL. Hence, the methanolic extract of *Parkia speciosa* pericarp was shown to possessed anticoagulant (at higher concentration of extract) as well as procoagulant properties (at lower concentration of extract).

Keywords: *Parkia speciosa*; methanol; anticoagulant; extract; plant