



**ASSESSMENT OF ANTICOAGULANT ACTIVITY OF HEXANE EXTRACT
OF *Parkia speciosa* PERICARP**

By

NIK HARYANTI BINTI NIK IBRAHIM

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DECLARATION

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

Nik Haryanti Nik Ibrahim

920614035518

2013234814

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ABTRACT

Assessment of Anticoagulant Activity of hexane extract of *Parkia Speciosa* Pericarp

Limitations of existing anticoagulants have led to the research for development of alternative anticoagulant agents such as by using herbal medicine. *Parkia speciosa* or stink bean is abundantly found in tropical regions like Malaysia, Indonesia, Thailand and Philippines. It was believed by the locals to have medical properties. Therefore, the present study was conducted to evaluate the potential of hexane extract of *Parkia speciosa* pericarp as an anticoagulant agent. The extract of *Parkia speciosa* pericarp prepared using hexane as an extraction solvent was screened for its anticoagulant activity. The pericarps were left to dry and transformed into powder form before being soaked in hexane for about 25 days using the exhaustive method. An *in vitro* coagulation assay of activated partial thromboplastin time (aPTT), prothrombin time (PT) and thrombin time (TT) was performed on control plasma spiked with different concentrations of extract (10, 20, 40, 80 and 160 µg/ml). It was found that hexane extract of *Parkia speciosa* pericarp had significant effect ($p < 0.05$) only at 160 µg/ml compared with control. Therefore, the present study showed that the extract of *Parkia speciosa* pericarp possess significant anticoagulant activities *in vitro* when used at concentration of 160 µg/ml.

Keywords: *Parkia speciosa*, Anticoagulant, Hexane Extract, Prothrombin Time, Thrombin Time, Activated Partial Thromboplastin Time