In Vitro HAEMOSTATIC ACTIVITY OF *Rhodomyrtus tomentosa* METHANOL STEM EXTRACT

By

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DECLARATION

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

Signature:

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ABSTRACT

In vitro HAEMOSTATIC ACTIVITY OF *Rhodomyrtus tomentosa* METHANOL STEM EXTRACT

Anticoagulants from natural origins can be a good source to treat haemostatic disorders. One of them is, a rose myrtle (*Rhodomyrtus tomentosa* (Aiton) Hassk.), locally known as 'kemunting'. This study aimed to determine the haemostatic activity of *Rhodomyrtus tomentosa* methanol stem extract concentration ranging from 20 – 100 mg/mL were used to determine the effect on APTT, PT, and TT, *in vitro* by using normal coagulation plasma. Total phenolics and flavonoids contents in the extracts were determined using Folin-Ciocalteu and colorimetric assays with Gallic acid and Quecertin as standard respectively. Significance prolonged with 35 seconds seen at 100 mg/mL concentration of extract for APTT. On the other hands, PT started significant prolongation at 40 mg/mL concentration. TT displayed unreliable significant results at 20, 40 and 100 mg/mL concentration. By using Pearson's correlation test revealed that only APTT and PT tests are significantly correlated to TPC and for TFC showed significantly correlated with PT. In summary, TFC and TPC found in *Rhodomyrtus tomentosa* contribute to anticoagulant activity. It is recommended to identify specific compound that responsible for anticoagulant effect of *Rhodomyrtus tomentosa*.

Keywords: *Rhodomyrtus tomentosa*, haemostatic, anticoagulant, phytochemicals.