

P-158**Phytochemical and Bio-Activity Study on the Stem Bark of *Shorea Roxburghii* (Meranti Temak Nipis)**

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Shorea roxburghii or locally known as 'meranti temak nipis' is one of the many species of *Shorea* found in Malaysian forest. The species which come from Dipterocarpaceae family is known to contain resveratrol oligomers, a group of plant secondary metabolites that showed various biological activities [1]. In this study, phytochemical investigation was carried on the stem bark of *Shorea roxburghii* collected from FRIM Mata Ayer, in Perlis. The stem bark of *S. roxburghii* was extracted exhaustively with acetone at room temperature. Purification of the crude acetone extract using various chromatographic techniques lead to the isolation of a tetramer resveratrol which was identified as hopeaphenol. The structures of the isolated compound was elucidated based on spectroscopic methods (IR, 1D and 2D NMR) and comparison with literature [2]. The crude extract of *Shorea roxburghii* and the isolated compound were also tested for antibacterial activity against 4 types of bacteria (MRSA, *S. aureus*, *E.coli* and *S. dysenteriae*) using Kirby Baueur disc diffusion method. Results showed that the crude extract gave a resistant response with zone inhibition of 10 mm for MRSA whereas the isolated compound gave a zone inhibition of 7 mm for bacteria *S. Dysenteriae*. The antioxidant activity of the isolate was evaluated using DPPH assay and was found to exhibit 91.08 % inhibition which is comparable to synthetic antioxidant, BHT which was 93.93%.

REFERENCES

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 - [2] Tukiran SA, Achmad EH, Hakim YM, *et al.* Oligostilbenoids from the stem bark of *Shorea selanica blume* (Dipterocarpaceae). Malay J Sci 2005; 24: 27-31.
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