

P-23**Evaluation of Antioxidant Chemiluminescence of Isolated Compounds from the Bark of *Shorea Bracteolate***

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Shorea species is the largest subfamily of Dipterocarpaceae and are the source of resveratrol oligomers (oligostilbene), sesquiterpenes and triterpenes. *Shorea bracteolate* also called white meranti is locally known as “Meranti Pa’ang” and is widely distributed in Sumatera, Peninsular Malaysia, Indonesia and Singapura. The tree is up to 50m in height and the timber is light hardwood. The study was undertaken to extract and isolate the chemical constituents from the stem bark of *Shorea* species namely *Shorea bracteolate* and to elucidate the structures of the chemical constituents isolated by using modern spectroscopic methods and evaluated their antioxidant chemiluminescence. The structure of the isolated compounds was determined based on analysis of spectroscopic data, including NMR, UV, IR and comparison with previous reported studies. Five oligomers resveratrol were isolated from the acetone extract of stem bark *Shorea bracteolate* namely hemsleyanol E (**1**), vaticanol A (**2**), ampelopsin H (**3**), hopephenol (**4**) and hopeaphenol A (**5**). The result showed that in antioxidant chemiluminescence, compound (**3**) and (**2**) showed moderate activity (IC₅₀: 6.7 μmol/ml and 10.7 μmol/ml) as compared to ascorbic acid (IC₅₀: 1.71 μmol/ml). However, compound (**1**), (**2**) and (**3**) displayed low activity IC₅₀: 17.1 μmol/ml, 15.8 μmol/ml and 14.3 μmol/ml.

Keywords: Dipterocarpaceae, *Shorea bracteolate*, oligomers resveratrol, antioxidant chemiluminescence, ampelopsin H.
