

Abstract

In vitro Antioxidant Properties of *Bersama abyssinica* Stem Bark Extracts [†]

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Abstract: *Bersama abyssinica*, belonging to the Melianthaceae family, is distributed across Sub Saharan Africa. Decoctions of the bark, leaves, and roots of *B. abyssinica* have been extensively used in traditional medicine to manage many stomach complications such as colic, diarrhea, dysentery, and intestinal worms. In this study, we examined three extracts (ethyl acetate, methanol and water) obtained from *B. abyssinica* stem barks in terms of antioxidant properties. The antioxidant abilities were investigated by different chemical methods, including free radical scavenging (DPPH and ABTS), reducing power (CUPRAC and FRAP), metal chelating and phosphomolybdenum assay. In addition, total phenolic and flavonoid contents in the extracts were calculated. The highest level of phenolics was determined in water extract (230.83 mg GAE/g extract), followed by methanol (216.79 mg GAE/g extract) and ethyl acetate (100.57 mg GAE/g extract). In same line with total phenolic content, the best antioxidant properties were noted for water and methanol extracts. Our findings suggested that *B. abyssinica* stem bark extracts could be considered as promising sources of natural antioxidants.

Keywords: *Bersama*; antioxidant; free radicals; phenolic



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