

**Antibacterial and phytochemical investigations of *Mikania micrantha* H.B.K
(Asteraceae) from Sabah, Malaysia**

Abstract

Previous study on *Mikania micrantha* had unveiled its importance as protein phosphatase-1 (PP1) inhibitor and cytotoxic agent against HL60 cells. The present study was carried out to investigate the antibacterial properties and to determine the phytochemicals content of *M. micrantha*. Crude methanolic extracts from powdered dry samples were partitioned using liquid-liquid separation technique and further fractionated using silica gel column chromatography to yield six partitionates and 5 fractions. All partitionates and fractions were challenged with Gram positive and Gram negative bacteria and the performances are compared with standard antibiotics. The results revealed that four partitionates (ME, CE, EAE and CME) possessed good antibacterial properties. While, fraction F1 from column chromatography is showing convincing activities towards tested bacteria. Phytochemical tests of the crude extracts, partitionates and fractions had detected the presence of tannins, polyphenols, alkaloids, saponins and triterpenoids. This result supports the potential of this plant species used as a new chemotherapeutic drug.