

Identification of chemical constituents from fruit of *Antidesma bunioides* by GC-MS and HPLC-DAD-ESI-MS

ABSTRACT

Antidesma bunioides is an edible berry fruit with many benefits, such as natural antimicrobials, anticancer, natural dyes, etc. However, data on chemical content in the fruit is still limited. The purpose of this research is to identify volatile compounds of *Antidesma bunioides* fruit. We extracted and analyzed the *A. bunioides* fruit's chemical content using GC-MS and HPLC-DAD-ESI-MS methods. Forty-nine compounds representing 99.91% of the total chromatogram's relative peak area were detected. *Antidesma bunioides* is rich in 5-hydroxymethylfurfural (HMF) and ten other compounds with relative peak area >1%, such as furaldehyde, citric acid and others. We also found 109 compounds tentatively identified through HPLC-DAD-ESI-MS. *Antidesma bunioides* contained HMF, several volatile compounds, organic acid, long-chain fatty acid, and photochromic compound.

Keyword: *Antidesma bunioides*; Berry; Bignay; GC-MS; HPLC-DAD-ESI-MS; Volatile