ISOLASI DAN KARAKTERISASI SENYAWA METABOLIT SEKUNDER DARI EKSTRAK ETIL ASETAT DAUN PUCUK MERAH (*Syzygium myrtifolium* Walp.)

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ABSTRACT

ISOLATION AND CHARACTERIZATION OF SECONDARY METABOLITE COMPOUNDS FROM ETHYL ACETATE EXTRACT OF PUCUK MERAH LEAVES (*Syzygium myrtifolium* Walp.)

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The pucuk merah plant (*Syzygium myrtifolium* Walp.) is an ornamental plant that is widely used to beautify home gardens or as a barrier on the highways. Pucuk merah plants are known to contain secondary metabolite compounds such as alkaloids, flavonoids, tannins, triterpenoids, steroids, saponins, and phenolic compounds. These compounds are known to act as natural antimicrobials for plants. Several studies have reported that leaf extracts from this plant have antimicrobials activity. In this study, secondary metabolite compounds were isolated from ethyl acetate extract of pucuk merah leaves. The isolation process was carried out by vacuum liquid chromatography and purification by the trituration method. The results were obtained is a white solid weighing 0,0069 g (6,9 mg) which has a melting point range of 171°C-173°C. The purity of the isolated compound was carried out by TLC test using several variations of eluent polarity, the results showed one dark purple spot on all eluent variations with different Rf values. The results of the identification of the isolated compound showed a positive test for phenolic compounds with the $FeCl_3$ reagent. Characterization of the isolated compound using a UV-Vis spectrophotometer showed maximum absorption at a wavelength of 354 nm. This indicates the occurance of a strongly conjugated electron transition $n \longrightarrow \pi^*$ caused by the C=O chromophore. Characterization using a FTIR spectrophotometer showed absorption at wave numbers 3600 - 3100 cm^{-1}; 2939,44 cm^{-1}; 1738,59 cm^{-1}; 1617,26 cm^{-1}; 1229,51 980 cm^{-1} which are suitable for the functional groups O-H stretching, C-H stretching, C=O stretching, C=C aromatic and C-O stretching.

Keywords : *Pucuk merah plant (Syzygium myrtifolium Walp.), secondary metabolite, vacuum liquid chromatography, phenolic*