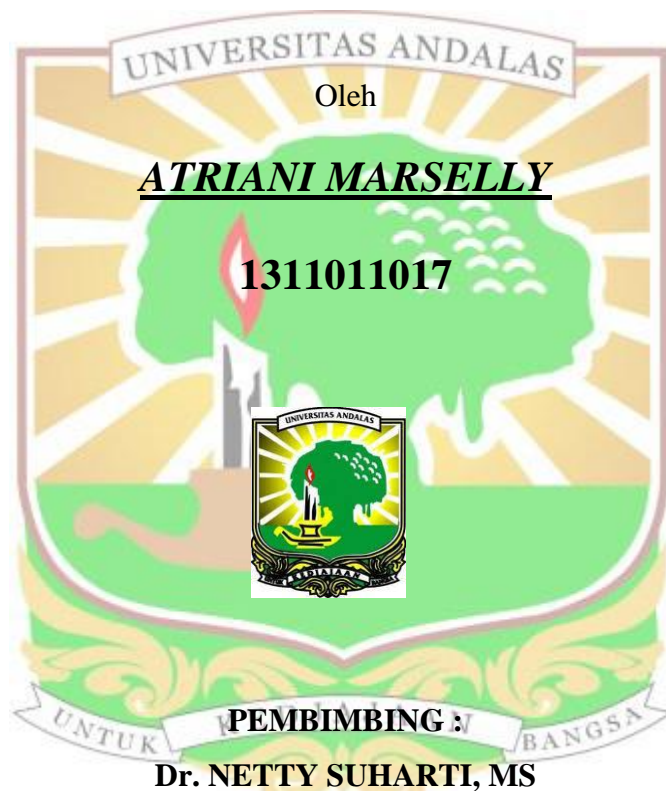


**KARAKTERISASI SIMPLISIA DAN EKSTRAK
SERTA UJI AKTIVITAS ANTIOKSIDAN EKSTRAK
ETANOL RIMPANG JAHE PUTIH BESAR (*Zingiber
officinale* Roscoe.) YANG DIINOKULASI FUNGI
MIKORIZA ARBUSKULAR (FMA)**

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ABSTRAK

Penelitian ini bertujuan untuk menggambarkan karakterisasi simplisia dan ekstrak etanol rimpang jahe putih besar yang diinokulasi mikoriza, menentukan kadar fenolat total dengan metoda Folin-Ciocalteu dan uji aktivitas antioksidan dengan metode *Ferric Reducing Antioxidant Power* (FRAP). Rimpang jahe putih besar dikoleksi dari desa Bari, Padang Pariaman, Sumatera Barat. Kemudian dimaserasi menggunakan pelarut etanol 70% selama 3 hari, diuapkan sehingga didapatkan ekstrak kentalnya. Karakter makroskopis simplisia rimpang jahe putih besar didapatkan bahwa bentuknya irisan, warna putih kekuningan, rasa pedas dan bau yang khas. Karakter mikroskopis menunjukkan berupa butir amilum, parenkim, dan serabut. Parameter susut pengeringan simplisia diperoleh 6,79%. Kadar abu total dan kadar abu tidak larut asam diperoleh 6,51% dan 0,28% secara berturut-turut. Kadar sari larut air dan kadar sari larut etanol diperoleh 10,49% dan 5,48%. Karakter makroskopik ekstrak etanol bentuknya cairan kental, warna coklat, rasa pedas dan bau yang khas. Rendemen ekstrak etanol adalah 14,42%, kadar air, kadar abu total dan kadar abu tidak larut asam diperoleh 7,32%, 17,84%, 2,52% secara berturut-turut. Hasil penentuan kadar fenolat total ekstrak etanol rimpang jahe putih besar adalah 18,78 g/100g, dengan aktivitas antioksidan adalah 1,69 mmol Fe(II)/100g.

Kata Kunci : Jahe Putih Besar, Fungi Mikoriza Arbuskula, Fenolat Total, Antioksidan, FRAP



ABSTRACT

The purposes of this research were to describe the characterization of crude drugs and ethanolic extract of large white ginger rhizome inoculated mycorrhiza, to determine total phenolic content by Folin-Ciocalteu's method and antioxidant activity by Ferric Reducing Antioxidant Power (FRAP) method. Large white ginger rhizome collected from the Bari village, Padang Pariaman, West Sumatra. It was macerated using ethanol 70% for 3 days, and evaporated to produce viscous ethanolic extract. The macroscopic characters of crude drugs of large white ginger rhizome were in slices, white yellow in color, spicy taste and specific odor. The microscopic character showed amyllum grains, parenchyma, and fibers. The parameter of loss on drying was 6,79%. Total ash content and content of ash insoluble in acid were 6,51% and 0,28% respectively, water soluble and ethanol soluble were 10,49% and 5,48%. The macroscopic characters of ethanolic extract were viscous liquid, brown in color, spicy taste and specific odor. The yield of ethanolic extract was 14,42%, meanwhile water content, total ash content and content of ash insoluble in acid were 7,32%, 17,84%, and 2,52% respectively. The result of determination of total phenolate content of ethanol extract of large white ginger rhizome was 18,78 g/100g, with antioxidant activity of 1,69 mmol Fe(II) /100g.

Keywords : Large White Ginger, Arbuscular Mycorrhizal Fungi, Total Phenolate, Antioxidant, FRAP

