



Optimization Method of Caffeine Isolation of Merapi Green Coffee Beans

*¹Isnindar, ²Subagus Wahyuono, ³Sitarina Widyarini, ²Yuswanto

¹Faculty of Medicines, Study Program of Pharmacy , University of Tanjungpura, Pontianak, Indonesia

²Faculty of Pharmacy, University of Gadjah Mada, Yogyakarta, Indonesia

³Faculty of Veterinary Medicines, University of Gadjah Mada, Yogyakarta, Indonesia

Abstract : Merapi Green coffee bean is a green and immature bean, that is originated from coffee plantations nearby volcano located in the province of Daerah Istimewa Yogyakarta, Indonesia. They are derived from waste product during harvesting. Alkaloid is one natural ingredient compounds contained in coffee bean and has a basic structure of nitrogen with a bitter taste. The purpose of this study was to optimize method of caffeine isolation of Merapi green coffee bean. Green coffee bean was macerated using chloroform and then partitioned with 80% of methanol. The results of partitioning were isolated by preparative thin layer chromatography (PTLC) method using a mobile phase of chloroform: ethyl acetate (1: 3) v/v. The active compounds were tested by TLC densitometry method. The results showed levels of caffeine in isolate was 67.27%.

Key words : green coffee bean, volcano, isolation, TLC, densitometry.

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