

HPTLC Metabolite Fingerprinting of Artocarpus champeden Stembark from Several Different Locations in Indonesia and Correlation with Antimalarial Activity

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Abstract : Artocarpus champeden Spreng stembark (Moraceae) in Indonesia well known as 'cempedak' had been traditionally used for malarial remedies. The difference of growth locations could cause the difference of metabolite profiling. As a consequence, there were difference antimalarial activities in spite of the same plants. The aim of this research was to obtain the profile of metabolites that contained in A. champeden stembark from different locations in Indonesia for authentication and quality control purpose of this extract. The profiling had been performed by HPTLC-Densitometry technique and antimalarial activity had been also determined by HRP2-ELISA technique. The correlation between metabolite fingerprinting and antimalarial activity had been analyzed by Principle Component Analysis, Hierarchical Clustering Analysis and Partial Least Square. As a result, there is correlation between the difference metabolite fingerprinting and antimalarial activity from several different growth locations.

Keywords : antimalarial, artocarpus champeden spreng, metabolite fingerprinting, multivariate analysis

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