

**PHYTOCHEMICAL INVESTIGATION OF  
ANTIOXIDATIVE COMPONENTS FROM THE  
*MURRAYA* LEAVES**

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## ABSTRACT

### PHYTOCHEMICALS INVESTIGATION OF ANTIOXIDATIVE COMPONENTS FROM THE *MURRAYA* LEAVES

*Murraya koenigii* is a plant that contains antioxidant which can acts as beneficial to human. Study about the antioxidative compound in *Murraya* was done. Crude of the extract was examined to identify the antioxidative compound by qualitative and quantitative. Qualitative result was done by using Thin Layer Chromatography (TLC) analyzed by spraying reagent. Quantitative result was tested by using various concentrations which are 3.125, 6.25, 12.5, 25, 50 and 100  $\mu\text{g} / \text{mL}$  and it was analyzed by UV spectrophotometer. The strongest scavenging activity was petroleum ether while the lowest scavenging activity was dichloromethane. Secondary metabolites of *Murraya* that have been detected were terpenoid which correlated with the presence of antioxidant at  $R_f$  value 0.561, 0.622 and 0.917. Secondary metabolites that exhibit positive result of phytochemicals are tannins, alkaloids, flavonoid and terpenoids. Structures that had been obtained from dichloromethane extract were from different  $R_f$ . The structures were nonanoic acid, 9 - oxo -, methyl ester, estra - 1, 3, 5 (10) - trien - 17 $\beta$  - ol and oleic acid from  $R_f$  0.561.  $R_f$  0.622 showed structures Hexadecanoic acid, 1 - (hydroxymethyl) - 1, 2 - ethanediyl ester and 1 - phenanthrenecarboxylic acid 1, 2, 3, 4a, 5, 6, 7, 8, 9, 10, 10a - dodecahydro - 1, 4a - dimethyl - 7 - (1 - methylethyl) -, methyl ester, [1R - (1 $\alpha$ , 4a $\beta$ , 7 $\beta$ , 10 $\alpha\alpha$ )] -. The structure obtained from  $R_f$  0.917 were butylaldehyde, 4 - benzyloxy - 4 - [2, 2, - dimethyl - 4 - dioxolanyl and 2 - piperidione, N - [4 - bromo - n - butyl].

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