

ANTIOXIDANT ACTIVITY OF EXTRACTS FROM THE LEAVES OF *BLUMEA BALSAMIFERA* DC AND THEIR MAJOR FLAVONOIDS WITH THE β -CAROTENE-LINOLEIC ACID MODEL SYSTEM

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*The antioxidant activity of different organic extracts of *Blumea balsamifera* DC leaves and their major flavonoids was evaluated using a model system consisting of β -carotene-linoleic acid. Antioxidant activity of crude extracts (0.1, 0.5 and 1.0 mg/mL) as assessed with the β -carotene bleaching method decreased in the order of: methanol extract > chloroform extract > pet-ether extract. The antioxidant activity of all compounds (5.2 % 10^{-5} M) tested decreased in the order of: tamarixetin > rhamnetin > butylated hydroxytoluene > luteolin > butylated hydroxyanisole > α -tocopherol > quercetin > 5,7,3',5'-tetrahydroxyflavanone > blumeatin > dihydroquercetin-7,4'-dimethyl ether > dihydroquercetin-4'-methyl ether. The total polyphenols of the extracts was determined spectrophotometrically according to the Folin-Ciocalteu procedures. Methanolic extracts contained high polyphenols. The result indicates that extracts containing high phenolics may provide the sources of natural antioxidants.*

Keywords: Blumea Balsamifera, Total Polyphenols, Antioxidants, Flavonoids, β -carotene-Linoleic Acid Model.