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Determination of Antioxidant Activity and Identification of Active Compounds From the Ethyl Acetate Extract of Avocado Peel

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A research had been conducted to test antioxidant activity and to identify the active compounds of antioxidant from the ethyl acetate extract of avocado peel. The research aims to determine antioxidant activity of the ethyl acetate extract from avocado peel using in vitro method based on DPPH and ABTS radical scavenging, reducing power of iron (III), total phenolic and flavonoid content. To identify the structure of the active compound of antioxidants from the ethyl acetate extract of avocado peel, FTIR spectroscopy and GC-MS are used. Ethyl acetate extract of avocado peel had antioxidant activity with IC₅₀ values of DPPH, ABTS radical scavenging, reducing power, total phenolic and flavonoid content are 18,387±0,022 µg/mL, 5,487±0,216 µg/mL, 179,748±3,057 mg of ascorbic acid/gram of extract, 13,178±0,809% w/w EGA and 39,835±0,607% w/w ER, respectively. Isolate compound of the ethyl acetate extract was identification to be 1,2,4-trihidroksiheptadek-16-yne-18-ene. Avocado peel can be used as natural antioxidant source to prevent diseases associated with free radical.

Biography

Irma Antasionasti has completed her undergraduate program from Chemistry Education at Halu Oleo University, Kendari, Indonesia. She is currently doing her MSc Program in Faculty of Pharmacy Gadjah Mada University, Yogyakarta, Indonesia. She receives scholarship from The Indonesia Endowment Fund for Education, Ministry of the Finance Republic of Indonesia. She is working on antioxidant activity and identification of active compounds from natural products.

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