ABSTRACT

ISOLATION, CHARACTERIZATION, AND ANTIOXIDANT ACTIVITY DETERMINATION OF ANTHOCYANINS FRACTION IN PURPLE SWEET POTATO (Ipomea batatas)

By

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The extraction of the anthocyanins compound from purple sweet potato (Ipomea batatas) was performed by maceration method using aquadest + 0.1% concentrated HCl. Extract obtained from maceration concentrated by freeze drying method. Further separation using column chromatography with sephadex LH-20 as the stationary phase and methanol as the eluent. The separation continued by chromatotron method with butanol: acetic acid: water (BAA) eluent with ratio 5: 1: 4. The purity of the compound was determined by TLC with BAA eluent (4: 1: 5). The isolated anthocyanins compound evidenced by TLC chromatogram showed one spot with BAA (4: 1: 5) eluent. Isolated compounds have a maximum wavelength at 281 nm and 522 nm, which indicates the isolated anthocyanin compounds as sianidin types. Determination of antioxidant activity performed by DPPH (2,2-di phenyl-1-picrylhydrazyl) method, EC₅₀ value for crude extract is 1.0716 ppm and the EC₅₀ value for isolated fraction is 2.5248 ppm.

Key Words: Ipomea batatas, Cyanidin, Antioxidant activity, and DPPH.