International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.2, pp 84-90, 2017

Phytochemical, TLC Profile, and Antioxidant Activity of Malinau Endemic Plant of Tabar Kedayan (*Aristolochia papilifolia* Ding Hou) Root Fractions

Islamudin Ahmad*[1], Mirhansyah Ardana[1], Riski Sulistyarini[1], Wisnu Cahyo Prabowo[2], Muhammad Arifuddin[2]

Departement of Pharmaceutical Sciences, Faculty of Pharmacy, Mulawarman University, Samarinda, East Kalimantan, Indonesia, 75116
Laboratory of Research and Depelovment of Farmaka Tropis, Faculty of Pharmacy, Mulawarman University, Samarinda, East Kalimantan, Indonesia, 75116

Abstract : Tabar Kedayan (*Aristolochia papilifolia* Ding Hou) is Malinau endemic plant as a traditional medicine by Dayak community. However, the scientific data from this plant is limited. This study aimed to know the secondary metabolite groups, TLC profile and antioxidant activity in the fraction of this plant. The dried sample (one kg) was macerated with ethanol for 2 x 24 hour. The obtained extract (80 gram) was partitioned using liquid-solid extraction with ethyl acetate, then ethyl acetate soluble fraction (22.4 gram) was conducted fractionation using vacuum liquid chromatography. Each fraction was analyzed of preliminary phytochemical, TLC profile, and antioxidant activity (qualitative and quantitative). Based on the results, had obtained data, such as preliminary phytochemical was showed the groups of alkaloid and steroid were present in fractions A, B, and C. Phenol groups was present only in the fraction F, while the fraction C, D, E, and F was present flavonoid. The TLC profile had demonstrated the ability of fluorescent components of based on the different properties of compounds contained in each fraction. Antioxidant activity determination of ethyl acetate soluble fraction from Tabar Kedayan (*A. papilifolia* Ding Hou) roots using DPPH (2,2-diphenyl-1-picrylhydrazyl) method with a qualitative activity (TLC autography method) was fraction C, and a quantitative activity (IC_{50} value) was 139.11 µg/ml.

Keywords: *Aristolochia papilifolia* Ding Hou, preliminary phytochemical, 2,2-diphenyl-1-picrylhydrazyl, IC_{50}, TLC autography.

*****