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ANTICANCER COMPOUND FROM GEWANG SEED EXTRACT (*Corypha utan* LAMK)

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ABSTRACT

Gewang (*Corypha utan* Lamk.) is a plant that grows wild in savanna area of East Nusa Tenggara (NTT). Gewang fruit is traditionally used by the people of Timor, NTT, as fish poison. This empirical fact gives an early indication of the presence of active toxic compounds in the Gewang plant. The purpose of this study was to isolate the active compounds in seed and knowing Gewang cytotoxic activity against cancer cells P-388 murine leukemia. Isolation methods started with maceration of Gewang seed with methanol. Methanol extract was then separated and purified by chromatography methods. The resulted isolates was evaluated by cytotoxicity test against Murin leukemia cancer cells P-388 and characterized using UV spectrometer, FTIR, and NMR (¹H NMR, ¹³C NMR, 1D NMR and 2D NMR). Isolation obtained was brownish white solids as much as 50 mg and based on the results of the characterization indicated that isolates was suspected as Piceatanol compound with the formula of C₁₄H₁₃O₄. Result of cytotoxicity test against Murin leukemia cancer cells P-388 showed IC₅₀ value = 1.56 ppm which is meant that the compound can be categorized as very active compound, hence it has good prospects as anticancer.

Keywords: *Corypha utan* Lamk, Murin cell leukemia P-388, Isolation, Piceatanol.

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ANTIOXIDANT ACTIVITY AND DETERMINATION TOTAL FLAVONOID CONTENT OF SLATRI LEAF EXTRACT (*Calophyllum soulattri*)

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ABSTRACT

Slatri leaves (*Calophyllum soulattri*) have potential antioxidant activity. This study aims to find free radical scavenger activity and determine the total flavonoid content from ethanol extract of slatri leaves. This research was done by eksperimental laboratorium method. Extraction using maseration method with ethanol 96%. Antioxidant activity was quantitatively determined using the DPPH (1,1-Diphenyl-2-Picrylhydrazyl) method. The total flavonoid content was determined by visible spectrophotometry method with AlCl₃ reagent. The results showed that the ethanol extract of the leaves slatri have antioxidant activity expressed by the IC₅₀ of 39,63 ± 14,99 ppm and total flavonoid content of leaf extract obtained slatri of 25,677 ± 0,046 %. Ethanol extract of slatri leaves have antioxidant activity that can be develop into a natural antioxidant.

Keyword: Antioxidants, *Calophyllum soulattri*, 2,2diphenyl-1-pikrilhidrazil (DPPH), total flavonoid