

**ISOLASI DAN KARAKTERISASI SENYAWA ALKALOID DARI
CACING TANAH (*Lumbricus rubellus* Hoffmeister)**

ABSTRAK

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Dalam penelitian ini, telah dilakukan isolasi dan karakterisasi senyawa alkaloid dari cacing tanah (*Lumbricus rubellus* Hoffmeister). Ekstraksi dilakukan dengan metode maserasi menggunakan pelarut air. Fraksinasi dilakukan dengan cara Ekstraksi Cair-Cair menghasilkan fraksi n-heksan, etil asetat, dan air. Pemantauan fraksi dilakukan secara kromatografi lapis tipis (KLT) menggunakan fase diam silika GF₂₅₄ dengan fase gerak kloroform:metanol (3:7). Fraksi yang positif terhadap penampak bercak Dragendorff adalah fraksi etil asetat. Fraksi etil asetat kemudian difraksinasi kembali menggunakan metode Kromatografi Cair Vakum dengan fase diam silika gel H 60 dan fase gerak n-heksan, etil asetat dan metanol. Subfraksi dipantau kembali dengan metode KLT. Fraksi terpilih (fraksi 9) dimurnikan dengan KLT-preparatif menggunakan fase diam silika gel GF₂₅₄ dan fase gerak kloroform:metanol (7:1) sehingga diperoleh isolat. Uji kemurnian isolat menggunakan KLT pengembangan tunggal dan 2 dimensi menunjukkan satu bercak. Karakterisasi isolat menggunakan penampak bercak Dragendorff menunjukkan positif alkaloid. Karakterisasi dengan spektrofotometer UV-Sinar Tampak menunjukkan isolat memiliki gugus kromofor dengan serapan pada panjang gelombang maksimum 309 nm.

Kata Kunci: Cacing tanah (*Lumbricus rubellus* Hoffmeister), alkaloid, spektrofotometri UV-Sinar Tampak

**ISOLATION AND CHARACTERIZATION OF ALKALOID
COMPOUNDS FROM EARTHWORM (*Lumbricus rubellus* Hoffmeister)**

ABSTRACT

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Isolation and characterization of alkaloid compounds from earthworm (*Lumbricus rubellus* Hoffmeister) had been conducted. Extraction was done using maceration method with water as the solvent. Fractionation was done by liquid-liquid extraction and n-hexane, ethyl acetate, and water fractions was collected. The fractions were monitored by using thin layer chromatography (TLC) with silica gel GF₂₅₄ as stationary phase and chloroform:methanol (3:7) as mobile phase. Fraction that positive to Dragendorff spray was ethyl acetate fraction. Subfractionations of ethyl acetate fraction was done using vacuum liquid chromatography with silica gel H 60 as stationary phase and n-hexane, ethyl acetate, methanol as mobile phase. Subfractions were monitored by using TLC. Selected subfraction (fraction 9) was isolated by using preparative TLC with silica gel GF₂₅₄ as stationary phase and chloroform:methanol (7:1) as mobile phase to collect isolate. The result of purity test of isolate using single elution and 2-dimensional TLC showed one spot. Characterization using Dragendorff spray showed that the isolate was alkaloid. Characterization of the isolate using spectrophotometer UV-Vis showed that isolate had chromophore group with maximum wavelength of 309 nm.

Keywords: Earthworm (*Lumbricus rubellus* Hoffmeister), alkaloid, spectrophotometry UV-Visible