

ABSTRACT

Separation of Terpenoid Compounds and Antimicrobial Activity Test from Methanol Extract of *Anredera cordifolia* (Ten.) Steenis Leaves

Anredera cordifolia (Ten.) Steenis is one species of Basellaceae, often to be use as antidiabets. The aim of this research was to separate and identify terpenoid compound, and activity antimicrobial test. Separation of terpenoid compounds from leaves of *Anredera cordifolia* (Ten.) Steenis had been conducted. Separation was carried out by methanol maceration to obtain methanol extracts. The fractionation of methanol extract was achieved by vacuum liquid chromatography using gradient concentration of chloroform : methanol as mobile phase, and yielded six fractions. The third fraction was choosen to be separated by column chromatography and preparative thin layer chromatography. Isolate was identified with TLC and spectroscopy (UV-Vis, Infra red). Ultraviolet-visible spectra showed that the terpenoid compound, with characteristic wavelengths of 242 nm. Infrared spectra indicated characteristic functional groups of OH, C=O, and =C-H.

Antimicrobial activity test of methanol extract, *n*-butanol fraction and third fraction of *Anredera cordifolia* (Ten.) Steenis on *Staphylococcus aureus* (gram positive), *Eschericia coli* (gram negative) and *Candida albicans* (fungi) had been studied by using Agar Difution Method at 10,000-25,000 ppm. The results showed that the methanol extracts inhibited *Staphylococcus aureus* at 20,000 to 25,000 ppm and *Candida albicans* at 10,000 to 25,000 ppm, while it's didn't inhibited the growth of *Escherichia coli*. The *n*-buthanol fraction inhibited the growth of *Staphylococcus aureus* and *Escherichia coli* at 15,000 to 25,000 ppm and *Candida albicans* at 10,000 to 25,000 ppm. The third fraction inhibited at 10,000 to 25,000 ppm toward *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans*.

Keyword : *Anredera cordifolia* (Ten.) Steenis, separation, identification, terpenoid, Antimicrobial Activity.