ABSTRACT

ISOLATION AND CHARACTERIZATION OF COUMARIN COMPOUNDS FROM SUBANG-SUBANG PLANTS (*Spilanthes paniculata* Wall. Ex. DC)

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Isolation of coumarin compound from ethyl acetate extract of Subang-Subang (*Spilanthes paniculata* Wall. Ex. DC.) was successfully established by column and preparative thin layer chomatography. Ethyl acetate extract was separated by column chromatography using silica gel as stationary phase. n-Hexane, ethyl acetate and methanol were used as mobile phase and then purified by preparative thin layer chromatography with n-Hexane : ethyl acetate (1:1) as the eluent. Isolated compound was obtained in the form of 11 mg white solid. Purity test of isolated compound with TLC (Thin Layer Chromatography) by using 10% NaOH has shown the blue colour fluorecence and UV spectrophotometer have shown the absorption peaks at wavelength 260 nm and 357 nm. Isolated compound was characterized by FT-IR spectrophotometer has shown the -OH stretching at the wave numbers 3435 cm^{-1}. Their absorption bands at wave numbers 2917 cm^{-1} which indicate the C-H stretching, the wave numbers of 1654 cm^{-1} indicate stretching C=O and absorption bands at wave numbers 1535 cm^{-1} has shown C=C stretching aromatic. Absorption bands at wave numbers 1462 cm^{-1} indicate the presence of C-H bending. Absorption bands at wave numbers 1241 cm^{-1} and 1165 cm^{-1} indicate the presence of ester groups. Based on the results of characterization, isolated compound was classified into *scopoletine* coumarin compounds. Bioactivity test as antibacterial of ethyl acetate extract and *scopoletine* coumarin compounds by disk diffussion method have shown that ethyl acetate extract and *scopoletine* coumarin compounds are inactive against *Neisseria sp* bacteria.

Keywords: Subang-Subang, *Spilanthes paniculata* Wall. Ex DC , *Scopoletin*, coumarin, antibacterial