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합환피(Albizia cortex)로부터 이차대사산물의 분리 및 동정

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Isolation and Identification of Secondary Metabolites from Albizia cortext

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Objectives

Albizia cortex is the stem bark of *Albizia julibrissin*. It is deciduous tree, growing abundantly in Korea. The dried stem bark of this plant has been used in China, Japan and Korea for the treatment of insomnia, diuresis, sthenia, ascariasis and contusion. It was also reported that Albizia cortex had the biological effect of anti-cancer, leukemia, tumor, antibacterial. The alcohol extracts improved some skin troubles caused by atopy. So this study was carried out to isolate the compounds had the effect of Albizia cortex.

Materials and Methods

○ Materials

Albizia cortex was collected at the experimental from in Kyung HeeUniversity (KHU-07-630). IR spectra were obtained with a Perkin Elmer Spectrum One FT-IR spectrometer. EI-MS was recorded On a JEOL JMSAX-505-WA. ^{1}H-NMR (400 MHz) and ^{13}C-NMR (100 MHz) and 2D-NMR spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer (Calofornia, USA).

○ Methods

Albizia cortex (3 kg) was extracted with 70% aqueous EtOH and the concentrated EtOH extacts were partitioned with EtOAc, *n*-BuOH and H_2O, successively. From the EtOAc fraction, two lignan and two sterol were isolated through the repeated silica gel and octadecyl silica gel (ODS) column chromatographies.

Results

From the EtOAc fraction, two lignan and two sterol were isolated through the repeated silica gel and octadecyl silica gel (ODS) column chromatographies. According to the results of physico-chemical data including NMR, UV, MS, and IR, the chemical structures of the compounds were determined as syringaresinol (1), lyoniresinol (2), sponasterol (3), β-sitosterol (4).

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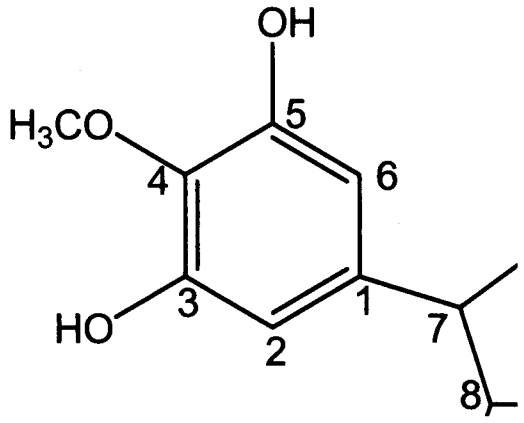
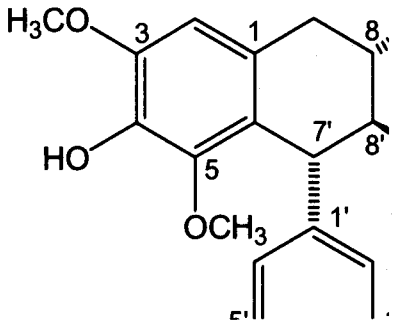
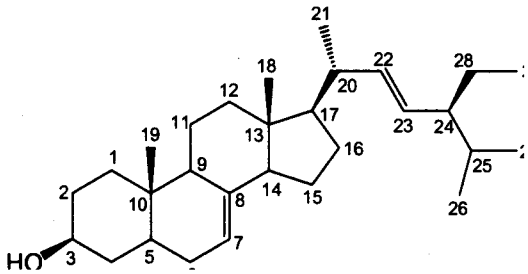
Fig. 1. Compounds from Albizia cortex.



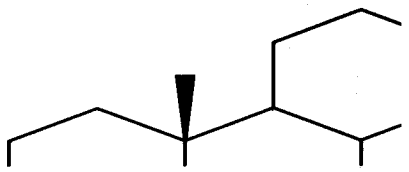
compound 1



compound 2



compound 3



compound 4