

탐라오가피 열매(*Acanthopanax koreanum* Nakai)의

이차대사산물 분리 및 구조 동정

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Isolation of Secondary Metabolites from the Fruit of  
*Acanthopanax koreanum* Nakai

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### Objectives

*Acanthopanax* species grown in the Korean peninsula belong to the family Araliaceae. *A. senticosus* which is distributed in northern Asia, has been traditionally used as a tonic and a sedative, as well as in the treatment of rheumatism and diabetes. Many studies reported that *Acanthopanax* species exhibit a variety of pharmacological activities such as anti-bacterial, anti-inflammatory, anti-pyretic, anti-hyperglycemic, and immunostimulatory effects.

### Materials and Methods

#### ○ Materials

*Acanthopanax koreanum* Nakai were received from Jeju, Korea, in December 2006. IR spectra were obtained with a Perkin Elmer Spectrum One FT-IR spectrometer. <sup>1</sup>H-NMR (400 MHz) and <sup>13</sup>C-NMR (100 MHz) and 2D-NMR spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer (California, USA).

#### ○ Methods

*Acanthopanax koreanum* Nakai (1.8 kg) was extracted with 80% aqueous MeOH and concentrated MeOH extracts were partitioned with EtOAc, *n*-BuOH, and H<sub>2</sub>O, successively. From the EtOAc fraction, triterpenoid, sterol and coumarin were isolated through the repeated SiO<sub>2</sub> and octadecyl silicagel (ODS) column chromatographies.

### Results

From the EtOAc fraction, triterpenoid, sterol and coumarin 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 impressic acid (1), 3 $\alpha$ , 11 $\alpha$ -dihydroxy-23-oxo-lup-20(29)-en-28-oic acid (2), 3 $\alpha$ , 11 $\alpha$ -trihydroxy-23-oxo-lup-20(29)-en-28-oic acid (3), and so on.

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Fig. 1. Compounds from *Acanthopanax koreanum* Nakai.

