

사자발쑃(*Artemisia princeps* PAMPANINI, Sajabalssuk) 전초로부터
이차대사산물의 분리 및 동정

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Secondary metabolites from the aerial part of *Artemisia pinceps* PAMPANINI
(Sajabalssuk)

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Objectives

Artemisia princeps PAMPANINI has been used in traditional oriental medicine for the treatment of microbial infections and inflammatory diseases. 'Sajabalssuk' is a variety of *A. princeps*, an annual herb that grows in the wild in Ganghwa, Korea. It has high polyphenol and flavonoid (especially eupatilin and jaceosidin) contents compared to the *Artemisia* herbs produced in other regions in the east and south coasts of Korea. It has been widely used since the ancient times in traditional Asian medicine for its various anti-inflammatory activities. Anti-obesity, lipid-lowering, and anti-atherosclerotic effects were observed for the ethanolic extracts of 'Sajabalssuk'.

Materials and Methods

○ Materials

The dried aerial parts of 'Sjabassuk', were offered from Ganhwa Agricultural R&D Center(Incheon). IR spectra were obtained with a Perkin Elmer Spectrum One FT-IR spectrometer. FABMS data were recorded on a JEOL JMS-700 (Tokyo, Japan). ¹H-NMR (400 MHz) and ¹³C-NMR (100 MHz) spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer(California, USA).

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○ Methods

The aerial part of *A. princeps* Pamp. (Sajabalssuk) were extracted with EtOH and the concentrated extract was partitioned with *n*-hexane:EtOAc (24:1), *n*-hexane:EtOAc (12:12), *n*-BuOH and H₂O, successively. From the *n*-hexane:EtOAc (12:12 fraction, Flavonoid high content fraction), two flavonoids were isolated through the repeated silica gel and ODS column chromatographies.

Results

From the results of spectroscopic data including FABMS, IR, ¹H and ¹³C-NMR, DEPT and 2D-NMR (COSY, HSQC, HMBC), the chemical structure of the compounds were determined to be chrysopenetin (1) and so on. These compounds have been first isolated from the aerial part of *A. princeps* Pamp. (Sajabalssuk).