

정금나무의 리그난 배당체 성분

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Lignan Glycosides of *Vaccinium oldhami* Miquel

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Objectives

The fruits of *Vaccinium oldhami* Miquel (Ericaceae) have been used as a folk medicine to treat inflammation, gonorrhea, vomiting, diarrhea, and eruption in Korea and China. In previous studies, we reported taraxerol and scopoletin as acetylcholinesterase inhibitors, and four tannin compounds. Further phytochemical study was performed to isolate two lignan glycosides.

Materials and Methods

- Plant material : The twigs of *V. oldhami* were collected and air-dried in May 2003 at Wanju, Jeonbuk, Korea. A voucher specimen was deposited in the herbarium of the college of pharmacy, Woosuk University.
- General procedure : ¹H- and ¹³C-NMR spectra were determined on a JEOL JMN-EX 400 spectrometer. TLC was carried out on Merck precoated silica gel F₂₅₄ plates. Sephadex LH-20 was used for the column chromatography (Pharmacia, 25–100 μm).
- Extraction and isolation : The twigs of *V. oldhami* was extracted with methanol and its extract was fractionated with methylene chloride, ethylacetate and *n*-butanol. Repeated column chromatography of *n*-butanol soluble fraction led to the isolation of two compounds.

Results and Discussion

In the course of phytochemical study of *n*-butanol soluble fraction of *V. oldhami*, two lignan compounds have been isolated. Their structures were elucidated as lyoniside and ssioriside by the physicochemical and spectral data. These compounds were isolated from this plant for the first time.

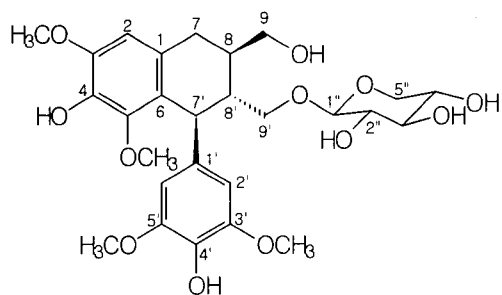
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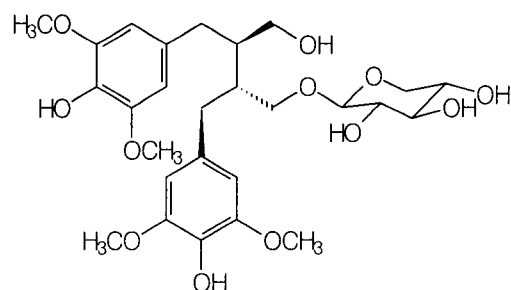
Tel 063-290-1574

Table 1. ^{13}C -NMR data of compounds 1 and 2

Carbon no.	1	2
1	130.1	133.2*
2	107.7	107.2
3	148.6	148.9
4	138.9	134.3
5	147.6	148.9
6	126.4	107.2
7	33.9	36.3**
8	40.4	41.4
9	66.0	70.8
1'	139.4	133.0*
2'	106.9	107.2
3'	148.9	148.9
4'	134.4	134.3
5'	148.9	148.9
6'	106.9	107.2
7'	43.0	36.1**
8'	46.7	43.9
9'	70.9	62.7
1''	105.5	105.3
2''	74.9	75.1
3''	78.0	78.0
4''	71.2	71.3
5''	67.0	67.0
OCH ₃	60.0(×2) 56.8, 56.6	56.6(×2) 56.5(×2)



Compound 1



Compound 2