

생강나무(*Lindera obtusiloba* Blume) 목부로부터 분리한 이차대사산물의 분리
서경화¹, 백미영¹, 이대영¹, 안은미², 백남인^{1*}

Secondary metabolites from the stem wood of *Lindera obtusiloba* Blume

¹Graduate School of Biotechnology & Department of Oriental Medical Materials and Processing, Kyung Hee University, Yongin 446-701, Korea,

²Department of Herbal Foodceutical Science, Daegu Haany University, Gyeongsan 712-715, Korea

Objectives

Lindera obtusiloba (Lauraceae) is a small arbor or shrub growing up to 7 m high, which is widely distributed in Korea, China, and Japan. This plant has been used for the treatment of extravasation and abdominal pain in Chinese medicine. Its stem wood have been reported to have anti-oxidant, whitening effect, and anti-inflammatory activities. We tried to isolate and identify the major active compounds from the stem wood of *Lindera obtusiloba* Blume.

Materials and Methods

- Materials

The stem wood of *Lindera obtusiloba* Blume were offered by GFC Co., Ltd., ¹H-NMR (400 MHz), ¹³C-NMR (100 MHz), and 2D-NMR spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer

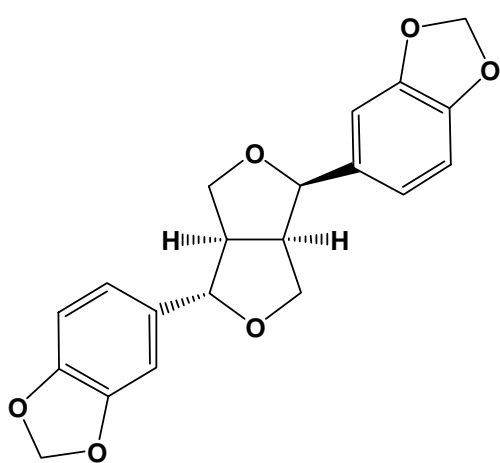
- Methods

The stem wood of *Lindera obtusiloba* Blume were extracted with 80% aqueous MeOH, and the concentrated extract was partitioned with EtOAc, *n*-BuOH, and H₂O, successively. From the EtOAc fraction, three compounds were isolated through the repeated SiO₂, ODS, and Sephadex LH-20 column chromatographies.

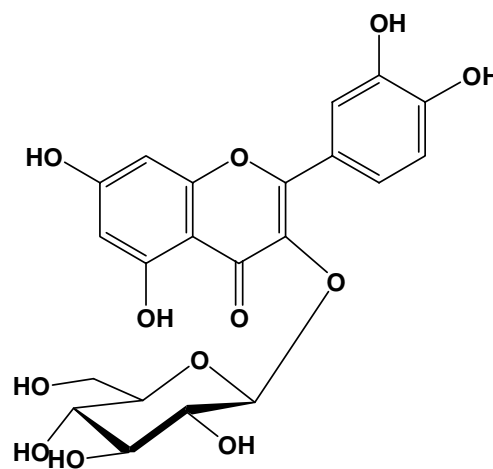
Corresponding author: Nam-In Baek E-mail: nibaek@khu.ac.kr Tel: 031-201-2661

Results

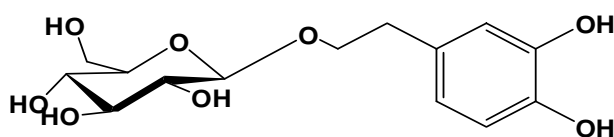
From the results of spectroscopic data including $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, DEPT and 2D-NMR (COSY, HSQC, HMBC), the chemical structures of the compound were determined to be asarinin (1), hyperin (2), daucosterol (3), 3,4-dihydroxyphenethyl glucoside (4) were isolated for the first time from *L. obtusiloba* Blume.



asarinin (1)



hyperin (2)



3,4-dihydroxyphenethyl glucoside (4)