

## 일본목련 열매로부터 신규 Phenolic glycoside의 분리 및 구조동정

경희대학교 : 서경화, 이대영, 백남인\*New phenolic glycosides from the fruits of *Magnolia obovata*

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*Magnolia obovata* (Magnoliaceae), a deciduous tree, grows up to 20 m high, and is widely distributed in Korea, China, and Japan. This plant has been used for the treatment of fever, headache, diarrhea, anxiety, and relief of asthma in Chinese medicine. Its fruits have been reported to have anti-platelet aggregation, prevention and treatment of neurodegenerative disease, and anti-oxidation activities. However, up to now, only few chemical constituents, such as magnolol, honokiol, obovatol, methyl caffeate, and syringin, have been isolated from *Magnolia obovata* fruits. Therefore the authors carried out this study to find out the lead compounds to search for active materials from the fruits of *Magnolia obovata*

**Materials and Methods****– Materials**

The fruits of *Magnolia obovata* were collected at Kyung Hee University, Yongin in September 2011. <sup>1</sup>H-NMR (400 MHz), <sup>13</sup>C-NMR (100 MHz) and 2D-NMR spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer.

**– Methods**

The fruits of *Magnolia obovata* were extracted with 80% aqueous MeOH, and the concentrated extract was partitioned with EtOAc, *n*-BuOH, and H<sub>2</sub>O, successively. From the EtOAc fraction, four phenolic glycosides were isolated through the repeated SiO<sub>2</sub>, ODS, and Sephadex LH-20 column chromatographies.

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## Results

Our phytochemical study on the fruits of *Magnolia obovata* led to isolation and identification of two new phenolic glycosides (**1**, **2**) from the results of spectroscopic data including  $^1\text{H-NMR}$ ,  $^{13}\text{C-NMR}$ , DEPT and 2D-NMR (gCOSY, gHSQC, gHMBC).

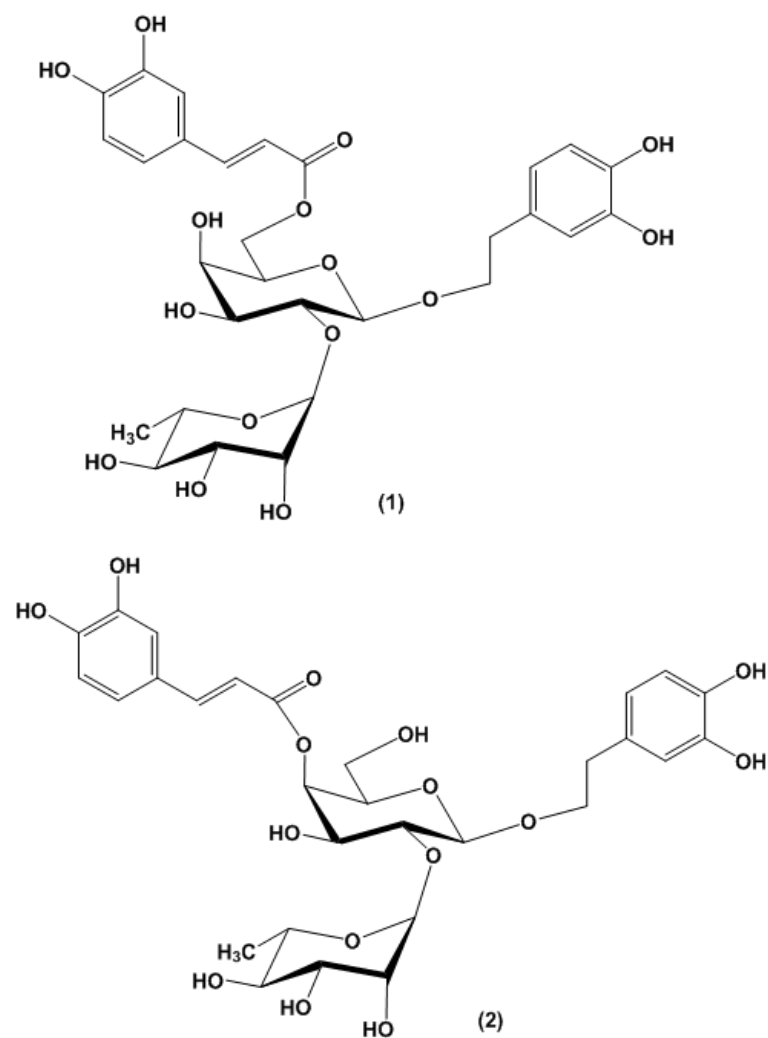


Fig. 1. Chemical structures of phenolic glycosides from *Magnolia obovata*