

# Diosgenin Glucuronides from *Solanum lyratum* and their Cytotoxicity against Tumor Cell Lines

Li-Xin Sun<sup>a</sup>, Wen-Wei Fu<sup>b</sup>, Wen Li<sup>a</sup>, Kai-Shun Bi<sup>a</sup>, and Min-Wei Wang<sup>a,\*</sup>

<sup>a</sup> College of Pharmacy, Shenyang Pharmaceutical University, 103 Wenhua Road, Shenyang, 110016, China. Fax: +86-24-23 91-5428. E-mail: minwei-wang@163.com

<sup>b</sup> College of Traditional Chinese Medicine, Shenyang Pharmaceutical University, 103 Wenhua Road, Shenyang, 110016, China

\* Author for correspondence and reprint requests

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Bioassay-directed fractionation of the cytotoxicity active fraction of the whole plant from *Solanum lyratum* led to the isolation of a new steroidal saponin, diosgenin 3-*O*- $\beta$ -D-glucopyranosiduronic acid methyl ester (**2**), as well as four known compounds, diosgenin (**1**), diosgenin 3-*O*- $\beta$ -D-glucopyranosiduronic acid (**3**), diosgenin 3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosiduronic acid (**4**), diosgenin 3-*O*- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuroniduronic acid methyl ester (**5**). The structures of the isolated compounds were elucidated on the basis of their spectral data and chemical evidences. Compound **1** was isolated for the first time from this plant, and compound **3** was isolated as a new natural product. Cytotoxic activities of the isolated compounds were evaluated and the cytotoxicities of compounds **2**–**5** reported for the first time.

*Key words:* *Solanum lyratum*, Cytotoxicity, Diosgenin Glucuronides