

P 11 Steroidal Saponins from the Rhizomes of *Dioscorea nipponica*

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Materials and Methods

1. Plant material: Rhizomes of *D. nipponica* collected from mountains of Kyungpook area
2. Methods: Solvent extraction and chromatographic purification, IR spectra, ¹H-NMR spectra, ¹³C-NMR spectra

Results and Discussion

Dioscin is a steroidal saponin produced by several *Dioscorea-*

ceae and *Liliaceae* species. Recently, many studies have been reported on a variety of physiological roles of dioscin, such as antimutation, immunomodulation, inhibition of phospholipase A2, antineoplastic, antifungal activities and/or anticancer activities. In a phytochemical work on rhizomes of wild *Dioscorea nipponica*, three steroidal saponins such as prosapogenin A of dioscin, prosapogenin C of dioscin and dioscin were isolated and their structures were identified (Figure 1). Based on potential roles of dioscin, mass production of biomass through conventional cultivation or *in vitro* culture method might be useful tools for purification of dioscin from plant materials.

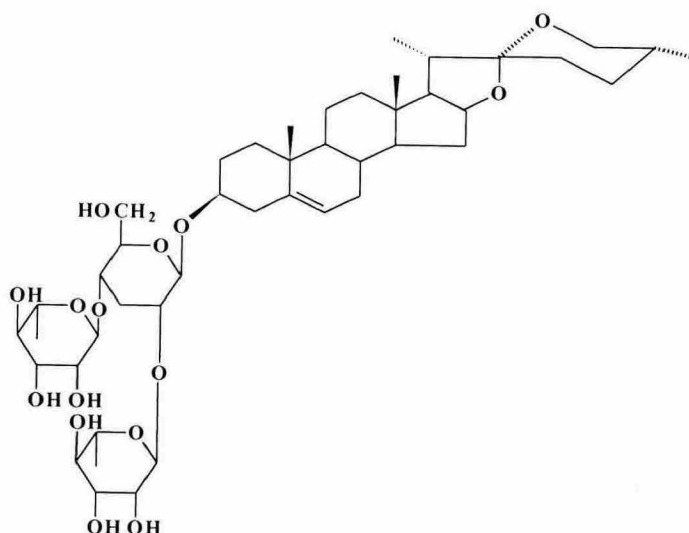


Figure 1. Chemical structure of dioscin isolated from *Dioscorea nipponica*.