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New Phenylpropanoid Diglycosides from *Viburnum furucatum*

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Abstract

Two new phenylpropanoid diglycosides, 3-phenyl-(2*E*)-propenyl *O*-β-D-apiofuranosyl-(1 → 6)-β-D-glucopyranoside (**1**) and 4-allylphenyl *O*-α-L-arabinopyranosyl-(1 → 6)-β-D-glucopyranoside (**2**), have been isolated from *Viburnum furcatum,* along with the previously known 4-allyl-2-methoxyphenyl *O*-β-D-apiofuranosyl-(1→6)-β-D-glucopyranoside (**3**) and 3-phenyl-(2*E*)-propenyl *O*-α-L-arabinofuranosyl-(1→6)-β-D-glucopyranoside (**4**).

Key words: Caprifoliaceae, phenylpropanoid diglycosides, *Viburnum furcatum*

Introduction

In previous papers, we reported the isolation of two known flavonoid glycosides, isoquercitrin and kaempferol-7-*O*-α-L-rhamnoside-3-β-*O*-glucoside, from a methanol extract of *V. furcatum* (IWAGAWA *et al.* 1983). In addition three new bitter iridoid glycosides, together with α-amyrin palmitate, β-amyrin acetate, chavicol, sitosterol, ursolic acid, *p*-coumaric acid, succinic acid, sitosteryl β-D-glucopyranose, and 1-*O*-*p*-coumaroyl-β-D-glucopyranose were isolated (HASE *et al.*, 1985). The structure of furcatin was revised also to be 4-allylphenyl *O*-β-D-apiofuranosyl-(1 → 6)-β-D-glucopyranoside (HASE and IWAGAWA, 1985). Further investigation of the same plants resulted in isolation of two new phenylpropanoid diglycosides (**1-2**) together with two known phenylpropanoid diglycosides, 4-allyl-2-methoxyphenyl *O*-β-apiofuranosyl-(1→6)-β-D-glucopyranoside (**3**) (MACHIDA *et al.*, 1991) and 3-phenyl-(2*E*)-propenyl *O*-α-L-arabinofuranosyl-(1→6)-β-D-glucopyranoside (**4**) (COMTE *et al.*, 1996). In this report, we describe the isolation and characterization of the glycosides.

Materials and Methods

Plant Material: Leaves of *Viburnum furcatum* were collected in Miyazaki Prefectures in May of 1994 (collection no. 201). The late Dr. SAKO, Faculty of Agriculture of Kagoshima University, kindly provided the species determination. A voucher specimen has been deposited in the herbarium of the Faculty of Agriculture, Kagoshima University, Japan.

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