MUSSANEOSIDE FROM Dodartia orientalis

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In the epigeal part of the plant <u>Dodartia orientalis</u> L. (family Scrophulariaceae) collected in August, 1986, in the Pskent region of Tashkent province, we have detected compound (I) of iridoid nature.

The air-dried comminuted raw material (2 kg) was exhaustively extracted with methanol, at room temperature. The methanolic extract was concentrated. This gave 275 g of a viscous mass part of which (30 g) was chromatographed on a column of silica gel. Elution of the column with the chloroform-methanol-water (70:23:4) solvent system followed by rechromatography of the fractions containing compound (I) in the chloroform-methanol (6:1) system gave 1.5 g of a white amorphous substance (yield on the air-dry raw material 0.7%), $C_{17}H_{26}O_{10}$, $[\alpha]_{D}^{20} - 100 \pm 2^{\circ}$ (c 0.70; methanol); $\lambda_{max}^{245}OH$; 234 nm (log ϵ 3.80); ν_{max}^{KBr} , cm⁻¹: 3420, 1700, 1640. PMR spectrum (100 MHz, H₂O, δ , ppm 0 - DSS) 1.39 (s 3H, 10-CH₃); 3.76 (s 3H, CH₃O); 5.56 (1H, 1-H, d, J = 4.5 Hz); 7.44 (s 1H, 3-H). The acetylation of 200 mg of compound (I) with acetic anhydride in pyridine at room temperature for two days followed by separation of the reaction product on a column of silica gel (elution with the ethyl acetate-toluene (3:5) system led to 115 mg of a tetraacetate $C_{25}H_{34}O_{14}$, mp 125-126°C (from acetone) $[\alpha]_{D}^{20} - 90.9 \pm 2^{\circ}$ (c 0.88; chloroform). ν_{max}^{KBr} , cm⁻¹: 3500, 1765, 1710, 1645, 1250. PMR spectrum (100 MHz, CDCl₃, δ , ppm, 0 - HMDS): 1.26 (s, 3H, 10-CH₃); 1.88-2.04 (12H, CH₃CO); 3.66 (s, 3H, OCH₃); 5.26 (1H, 1-H, d, J = 3.0 Hz); 7.26 (br.s, 1H, 3-H). M⁺ 558.

The physicochemical constants of compound (I) and its acetate given above corresponded to those for the known iridoid glycoside mussaenoside, previously found in the plants <u>Mussaenda parviflora</u>, <u>M. shikokiana</u> [1], and <u>Veronica officinalis</u> [2].

LITERATURE CITED

- 1. Y. Takeda, H. Nishimura, and H. Inouye, Phytochemistry, 16, 1401 (1977).
- F. U. Afifi-Yazar, O. Sticher, S. Uesato, K. Nagajima, and H. Inouye, Helv. Chim. Acta, 64, 16 (1981).

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