LUTEOLIN 7-GLUCOSIDE FROM Torilis arvensis

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UDC 547.97

Torilis arvensis (Huds), Link., family Umbelliferae, is widely distributed in the northern Caucasus. There is no information in the literature on the flavonoid composition of this plant.

We treated the air-dried herb successively with chloroform and methanol-ethanol (1:1). The alcoholic extracts were combined, and the solvent was distilled off to small bulk, the residue then being diluted with water (to 0.5 liter). The cooled solution deposited a dirty-yellow precipitate giving a positive cyanidin reaction. Chromatographic analysis showed the presence in it of only one substance of flavonoid nature, which, after recrystallization from ethanol, had the composition $C_{21}H_{20}O_{11}$, mp 257-259°C.

UV spectroscopy with ionizing and complex-forming additives showed that the substance is a tetrahydroxyflavone derivative glycosidated at C_7 with D-glucose. The aglycone was identified by its melting point, elementary analysis, and IR spectrum as luteolin. Enzymatic hydrolysis showed the presence of a β -glycosidic bond in the substance.

Thus, the substance that we isolated has been identified as luteolin 7-O-glycopyranoside.

Pyatigorsk Pharmaceutical Institute. Translated from Khimiya Prirodnykh Soedinenii, No. 3, pp. 369-370, May-June, 1971. Original article submitted November 19, 1970.

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