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From the herbage of *Dracocephalum nutans* L. we have previously isolated three glycosides of flavonoid nature [1, 2]. After preparative purification of an ethanolic extract on cellulose followed by rechromatography on polyamide, from chloroform-ethanol (8:2) eluates we obtained a flavonoid which we have denoted by DN₄.

Substance DN4 has mp 238-242°C, R_f 0.11 (15% acetic acid); UV spectrum: λ_{max} (ethanol) 352, 269, 256 nm. The hydrolysis of DN4 with 10% sulfuric acid for three hours gave D-glucose and an aglycone which was identified on the basis of physicochemical and spectral studies and also by comparison with an authentic sample, as luteolin [3].

Analysis of the UV spectra with complex-forming and ionizing additives showed that the carbohydrate substituent was attached in position 3'.

IR spectroscopy and enzymatic hydrolysis confirmed the pyranose form of sugar and a β glycosidic bond [4].

Thus, substance DN₄ is luteolin $3'-\beta-D$ -glucopyranoside (dracocephaloside) [5].

LITERATURE CITED

- 1. A. A. Shamyrina, V. A. Peshkova, and N. I. Shergina, Khim. Prirodn. Soedin., 255 (1975).
- 2. A. A. Shamyrina, V. A. Peshkova, and N. I. Shergina, Khim. Prirodn. Soedin., 577 (1977).
- 3. T. J. Mabry, K. R. Markham, and M. B. Thomas, The Systematic Identification of Flavonoids, Springer, New York (1970).
- 4. I. P. Kovalev and E. V. Titov, Infrared Absorption Spectra of Some Groups of Natural Compounds [in Russian], Khar'kov (1966).
- 5. M. F. Denikeeva, V. I. Litvinenko, and K. L. Stukkei, in: Questions of Pharmacognosy [in Russian], No. 4, Leningrad (1967), p. 120.

Tyumen' State Medical Institute. Irkutsk Institute of Organic Chemistry, Siberian Branch of the Academy of Sciences of the USSR. Translated from Khimiya Prirodnykh Soedinenii, No. 6, pp. 805-806, November-December, 1978. Original article submitted July 18, 1978.