

The first research results on polyphenols in *Ruta graveolens* herb of Ukrainian origin

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Ruta graveolens is a promising plant of traditional Ukrainian folk medicine for study. It is distributed in the southwestern part, namely in the Ivano-Frankivsk, Lviv, Transcarpathian region, on the Crimean Peninsula. In Ukrainian folk medicine, the plant is used for urolithiasis, women's diseases, gastritis, nervous diseases, against convulsions, as an appetite stimulant. Also, rue has an effect on smooth muscles, the nervous system, and the structure of blood vessels. *Ruta* herb is included in the French and Brazilian pharmacopoeias, as well as into the British herbal pharmacopoeia. The plant is not included in the State Pharmacopoeia of Ukraine, and therefore requires detailed phytochemical analysis. The aim of our study was to identify the dominant marker compounds, which can be used to further standardization of herbal raw materials. *Ruta* herb was collected in the Ivan Franko National University of Lviv Botanical Garden (Ukraine) at July 2022. The plant powder (0.1 g) was extracted in 10 mL of 50% methanol in an ultrasonic bath (20 min) and then filtered. HPLC analysis of polyphenolics was carry outed on Waters preparative HPLC Purification System with a Symmetry Prep C₁₈ (300×19mm×7μm) column, using the mobile phase composition of a mixture of 0.1% (v/v) trifluoroacetic acid in pure water (A) and acetonitrile (B) solvents. As a result, were determined neochlorogenic acid (0,03±0,01 mg/g), chlorogenic acid (0,11±0,01 mg/g), and rutin (6,09±0,25 mg/g). The research is still ongoing. Thus, the established composition indicates the prospects for further study and standardization of rue herb.

Key words: *Ruta graveolens*, folk medicine, essential oil, alkaloids, coumarins, furocoumarins, Ukraine.