

## Polyprenols of *Hypericum Perforatum*

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*Hypericum perforatum* (St.John's wort) is well known as medicinal plant containing numerous compounds with a broad spectrum of biological activity. Although there are many investigations on the phytochemistry of flavonoids and anthraquinones there are only a few studies related to terpenoids mostly of monoterpenes and sesquiterpenes of essential oil [1]. Accumulation of long-chain polyprenols in plant leaves was found in a number of gymnosperm and angiosperm species [2].

Polyprenols of *Hypericum perforatum* were isolated and identified from hexane extracts of flowering plant without stem collected in July (Sample 1), in August (Sample 2) and separately collected flowers (Sample 3). There are polyprenols in free and esterified form in St.John's wort. Only polyprenyl acetates are found in the flowers (0,015% of dry weight). Polyprenol content is highest in the sample 1(0,04%), followed by the sample 2 (0,015%). The ration of free to esterified polyprenols is 1:4 in sample 1 and 2:1 in sample 2. Polyprenols are composed of 8 – 12 isoprene units. Predominant polyprenol is component with 9 isoprene units.

### References:

1. S. Erken, H. Mayer, F. Demirci, B. Demirci, K.H.C. Baser, *Chemistry of Natural compounds*, 2001, **37**, 5, 434-438.
2. E. Swiezewska, W. Sasak, T. Mankowski, W. Jankowski, T.Vogtman, I. Krajewska, J. Hertel, E. Skoczylas, T. Chojnacki, *Acta Biochimica Polonica*, 1994, **41**, 3, 221-260.