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The HPLC screening of pentacyclic triterpenoid in *Epilobium* species

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Introduction: *Epilobium* L. is numerous genus of family *Onagraceae*. The herbs of *E. parviflorum*, *E. montanum*, *E. collinum*, and *E. roseum* are known as “*Epilobii herba*” in Europe and recommended as an infusion for treatment of micturition and prostatic disorders [2, 3]. Oleanolic (OA) and ursolic (UA) acids, naturally occurring pentacyclic triterpenoids, were reported inhibiting cell survival and proliferation of human prostate cancer cells [3, 4]. The aim of this study was determination of triterpenoids in plant raw materials of 8 *Epilobium* species.

Materials and methods: 1 g of aerial part was added into 10 ml of 90% ethanol (v/v) and extracted in an ultrasonic bath at a temperature 60°C for 30 min. HPLC analyses were carried out using a model Waters 2695 chromatography system, equipped with Waters 996 PDA detector. Absorption was measured at 203 nm. The separation and identification was referenced from our previous work [1].

Results: HPLC screening showed presence of OA and UA in aerial part of *E. palustre*, *E. collinum*, *E. montanum*, *E. tetragonum*, *E. obscurum*. UA were contained in range from 20.36±0.55 mg/100g to 74.84±2.24 mg/100g and dominated OA (2.03±0.05 - 32.09±0.73 mg/100g) in all samples. The aerial part of *E. roseum* had a lowest UA content (20.27±0.49 mg/100g) and OA was not detected in this species. The aerial part of *E. hirsutum* and *E. parviflorum* were deprived of studied terpenoid group.

Conclusions: The OA and UA were first identified in the aerial part of *E. palustre*, *E. collinum*, *E. montanum*, *E. tetragonum*, *E. obscurum* and only OA - in plant raw material of *E. roseum*. *E. parviflorum* and *E. hirsutum* differed from other samples due to absence of such triterpenoid group. The separation of species on this basis makes possible to use OA and UA as markers in chemotaxonomic studies of genus *Epilobium*.

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