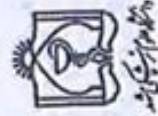
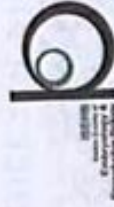


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Islamic Azad University, Mashhad, Iran



Dr. Javad Baharara
Dr. Mahmoud Zokaei
Dr. Mohammad Momen Heravi
Dr. Fatemeh Farrashbamoharram
Dr. Farideh Namvar



Identification and Determination of some Phenolic Compounds in Five Wild Growing *Salvia* Species of Iran

Fotovat M.¹, Radjabian T.¹, Saboora A.², Ejtahed R. S.¹

¹-Department of Biology, Faculty of Sciences, Shahed University, Tehran, Iran

²-Department of Biology, Faculty of Sciences, Alzahra University, Tehran, Iran

mfotovat1@yahoo.com

Salvia L. (Lamiaceae) is a large genus with over 700-1000 species broadly distributed in different regions of the world, of which 58 species are in Iran. *Salvia* plants are rich sources of di- and triterpenoids, phenolic acids, and flavonoids. Among the phenolic acids, caffeic acid derivatives such as rosmarinic acid, salvianolic acids A and salvianolic acid B are also present in *Salvia* extracts. In regards to wedy distribution of *Salvia* species in Iran and several medicinal applications of them, the major purpose of this study was identification and determination of some phenolic acids in leaves of five wild species (*S. officinalis*, *S. hypoleuca*, *S. xanthocheila*, *S. sylvestris* and *S. santolinifolia*). The plant materials were collected from different localities in Iran. Methanolic extracts of the dried and powdered leaf samples were prepared and the amounts of the phenolic compounds in the extracts were quantified by HPLC with UV detection (280 nm). Based on our results, among the studied species, leaves of *S. officinalis* with 14.14 ± 1.48 and 6.65 ± 0.98 mg/g DW were the richest sources of rosmarinic acid and salvianolic acid A, respectively. The highest content of salvianolic acid B with a value of 117.63 ± 5.96 mg/g DW was found in leaves of *S. santolinifolia*, followed by leaves of *S. hypoleuca* and *S. officinalis* with 81.68 ± 2.36 and 55.02 ± 4.22 mg/g DW, respectively. Carnosic acid was not detected in leaves extract of *S. xanthocheila* and the amount of this phenolic diterpene varied between 4.14 ± 1.08 to 12.72 ± 2.37 mg/g DW in leaves of other four species. Among the studied *Salvia* plants, leaves of *S. sylvestris* had the lowest contents of rosmarinic acid (2.64 ± 0.79 mg/g DW), salvianolic acid B (8.3 ± 1.16 mg/g DW), salvianolic acid A (1.36 ± 0.32 mg/g DW). In conclusion, some Iranian *Salvia* species could be introduced as new potent sources of rosmarinic acid and its derivatives.

Keywords: *Salvia* L., rosmarinic acid, salvianolic acid A, salvianolic acid B, carnosic acid