

Ferric reducing property of three species of *Ferula* (Apiaceae) from Iran

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Background and Aims: The genus of *Ferula* (Apiaceae) has been represented in Iran by 31 species which 16 species are endemic to Iran. Many investigations have proved different biological activity of these plants and in the present study the antioxidant activity of three species *F. Szowitsiana*, *F. hirtella* and *F. oopoda* has been evaluated through FRAP (Ferric Reducing Antioxidant Power) assay.

Methods: Dried and milled aerial parts of the species were extracted by using methanol and maceration method. The extracts were dried under reduced pressure. Antioxidant properties of the extracts were determined by a colorimetric method of FRAP at 593 nm with FeSO₄ calibration curve. BHT was used as positive control.

Results: The FRAP values of the extracts were calculated as 579.1 ± 7.7 , 337.4 ± 7.7 and $612.0 \pm 68.3 \mu\text{M FeSO}_4/\text{g}$ of extract for *F. Szowitsiana*, *Ferula hirtella* and *Ferula oopoda* respectively.

Conclusions: The results of the FRAP assay demonstrated antioxidant activity of the extracts. Since, *Ferula* species are rich in sesquiterpene lactones and coumarins, these compounds may be considered as antioxidant agents in these plants, however, further phytochemical investigations are necessary.

Keywords: FRAP; Antioxidant activity; *Ferula oopoda*; *Ferula Szowitsiana*; *Ferula hirtella*; Apiaceae