

## **Study of the Effect of Extraction Solvent on the Content of Total Phenolic, Total Flavonoids and the Antioxidant Activity of an Endemic Medicinal Plant Growing in Morocco**

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**Abstract :** Aromatic and medicinal plants are used by man for different needs, including food and medicinal needs for their biological properties attributed mainly to phenolic compounds and for their antioxidant capacity. In our study, the aim is to compare three extraction solvents by evaluating the contents of phenolic compounds, the contents of flavonoids, and the antioxidant activities of extracts from different methods of extracting the aerial part of an endemic medicinal plant from Morocco. This activity was also confirmed by three methods (2,2-diphenyl-1-picrylhydrazyl (DPPH), antioxidant reducing power of iron (FRAP), and total antioxidant capacity (CAT)). The results showed that this plant is rich in polyphenols and flavonoids, as well as it has a very important antioxidant capacity in whatever the solvent or the extraction method. This suggests the importance of using extracts from this plant as a new natural source of food additives and potent antioxidants in the food industry.

**Keywords :** endemic plant of Morocco, phenolic compound, solvent, extraction technique, antioxidant activity

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