

## Evaluation of antioxidant activity of total extract of *Onopordon leptolepis* L. in Vitro

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### Abstract

**Background and objectives:** Medicinal plants are valuable natural resources that have been considered nowadays in developed countries as raw materials for converting into safe drug for human. Antioxidants are compounds that effectively prevent oxygen free radical reactions and reduce damage or cell death, cardiovascular diseases and cancer.

**Material and Methods:** After extraction of floral and vegetative parts of *Onopordon leptolepis* plant, antioxidant activities were determined by two tests: 1. 1-diphenyl-2-picrylhydrazyl (DPPH) free radical-scavenging and ferric-reducing antioxidant power (FRAP).

**Results:** The hydro-alcohol extract (methanol 70%) of floral and vegetative parts of *O. leptolepis* plant was found as the most active in scavenging DPPH radicals and in FRAP. The antioxidant potential of hydro-alcohol (H.A70%) extracts of the floral part of *O. leptolepis* showed weak effect than the extract of vegetative part of *O. leptolepis* plant.

**Conclusion:** Results showed that the hydro-alcohol extract (methanol 70%) of vegetative part can be considered for medicinal and food industries due to the high antioxidant properties.

**Key Words:** Antioxidant, *Onopordon leptolepis*, DPPH, FRAP

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