# TOTAL POLYPHENOL AND FLAVONOID CONTENT AND ANTIOXIDANT CAPACITY of *Inula crithmoide*(*Compositae*).

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**Introduction & Objectives:**

Antioxidants play an important role of protecting the human body against damage by the free radicals. Plants containing phenolic compounds have been reported to possess strong antioxidant properties (1). Hence, this study focuses on the evaluation of the antioxidant activity, total phenolic and flavonoid contents of *Inula crithmoide* aerial part butanolic extract.

**Methodology (Material and methods):**

The colorimetric method Folin- Ciocalteu was used for the quantification of total phenolic content and the method of aluminum chloride was employed for the quantification of total flavonoid. The antioxidant activities of *Inula crithmoide*extract were determined by the hydroxyl radical (°OH), total antioxidant capacity (TAC) and ferrous reducing antioxidant property (FRAP) methods. A phytochemical screening was carried out by specific coloring and precipitation reactions.

**Results and Discussion:**

The plant extract shows considerable antioxidant activity and exhibited dose-dependent activity from all assays carried out. *Inula crithmoide* (600 µg/ml) had the highest °OH scavenging (80.59 %), TAC (68.23%), and FRAP ($A_{700}$=0.93) activities, compared with standards. These observations provide comprehensible supporting evidence for the antioxidant potential of the plant extract. Total phenols and flavonoids content in the butanolic extract of *Inula crithmoide* were 207(mgGAEq/g) and 36.3(mgQAEq/g), respectively. Phytochemical screening tests showed positive results for flavonoids.

**Conclusion:**

*Inula crithmoide* extract exhibited antioxidant properties and could serve as primary antioxidants for pharmaceutical plant-based products.

**Keywords:** *Inula crithmoide*, flavonoids, antioxidant

**References**

Rana A., Samtiya M. et al.(2022), J Food Biochem. 2022 Jun 13:e14264. doi: 10.1111/jfbc.14264.