

In vitro Antioxidant and Anti-inflammatory Activities of the Extracts of Helichrysum stoechas (L.) Moench

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Abstract

The genus Helichrysum contains about 500–600 herbaceous and shrub species widely distributed in Southern Europe, Africa (including Madagascar), South Asia, South India, Sri Lanka and Australia. Despite the great interest of this genus, little is known about the species Helichrysum stoechas which is generally aromatic, perennial, having dense leaves with rustic flower heads. Immortelle has been used to treat wounds and respiratory conditions. The objective of this study is the determination of the secondary metabolites of Helichrysum stoechas harvested in the mountain of common dirah in Bouira and the study of their antioxidant and anti-inflammatory activities. The EtOH (S) of Helichrysum stoechas is found rich of polyphenolic compounds and to possess significant antioxidant activity. Profiles of figure.1 show that EtOH (S) has concentration dependent anti-inflammatory activity and inhibited membrane alteration and the BSA protein denaturation very significantly ($p < 0.001$) compared to standard diclofenac. Results show that The EtOH (S) is more efficient than standard diclofenac. This in vitro assay indicates that this plant extract is a significant source of natural anti-inflammatory agents which might be helpful in preventing the progress of various inflammatory diseases. Conclusion: Our study showed that Helichrysum stoechas is rich of total polyphenols, flavonoids and tannins, with antioxidant activity greater than the standard and a considerable anti-inflammatory effect.

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Biography

Experienced Researcher with a demonstrated history of working in the higher education industry. On Hands expertise on ABI 3730XL Genetic Analyzer, ABI 7500 Real Time PCR BD LSRII Flow Cytometer, Skilled in Mouse Models, ELISA, Real-Time Polymerase Chain Reaction

(qPCR), Genetics, and Cell Biology. Strong research professional with a Master of Philosophy focused in Molecular Biology (Genetics) from Centre of Excellence in Molecular Biology in Algeria