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PHYTOCHEMICAL PROFILING BY UHPLC-MS, *IN VITRO* EVALUATION OF TOTAL PHENOLIC CONTENTS, ANTIOXYDANT ACTIVITY OF *CISTUS CLUSII* FROM ALGERIA

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The leaves of *Cistus clusii* (Cactaceae), have been traditionally used as natural remedy in Algerian folk medicine by the locals specially to treat the infection diseases. The aim of the present study, is to identify the polyphenolic compounds by UHPLC-MS and to investigate the antioxidant potential of aqueous extract, using three different techniques, such as scavenging activity on 1,1-diphenyl-2-picrylhydrazyl (DPPH) radicals, Cuprac (Cupric reducing antioxidant capacity) assay and β -carotene bleaching test. The total phenolic content of the *Cistus clusii* extract was also carried out by the Folin-Ciocalteu's method. The chemical profile of the aqueous extract of *Cistus clusii* is dominated by the presence of the phenolic acids, and flavonoids. The aqueous extract showed significantly the high total phenolic content

(173,59 \pm 1,83 μ g GAE/ml) by Folin-Ciocalteu's method; DPPH scavenging capacity and antioxidant activity β -carotene bleaching assay and Cupric reducing antioxidant capacity tests showed a high antioxidant activity in the three techniques. Aqueous extract revealed also a profile rich on the phenolic acids and the flavonoids were predominant, in the aqueous extract. This extract contains a large amount of phenolic compounds and show a high antioxidant activity. Our findings obtained in this study are clearly showed the antioxidant activity of *Cistus clusii* from Algeria. The riches of *Cistus clusii* on phenolic acids, and Flavonoids and the high antioxidant potential suggest the use of this plant as natural source of antioxidant molecules as prevention of oxidative stress.

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