

## **Evaluation of Antidiabetic Activity of Two Plants *Berberis vulgaris* and *Zygophyllum geslini***

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### **Abstract**

This work is part of the valorisation of the methanolic extract and aqueous solutions of *Berberis vulgaris* and *Zygophyllum geslini* as antidiabetic plants; widely used in Algeria and more specifically in the region of the West as a remedy for diabetes. The method applied to measure the antioxidant activity is that of trapping of free radicals to the help of DPPH after quantified the total polyphenols revealing an important content with a powerful antioxidant activity in which the percentage of inhibition radical is of (83.71%), (55.35%), (88.22%) and (75.89%) for 2 mg/l of the methanolic extracts and in aqueous of the two plants respectively. While it has been advocated to the test of the  $\alpha$ -amylase *in vitro* for the assessment of the effect antihyperglycemic agent, the results obtained revealed a capacity of remarkable inhibition on the activity of the enzyme with a slight peak for the methanolic extracts of *Berberis vulgaris* (89.81%).

**Keywords:** *Berberis vulgaris*; *Zygophyllum geslini*; Antioxidant activity;  $\alpha$ -amylase; Antidiabetic activity