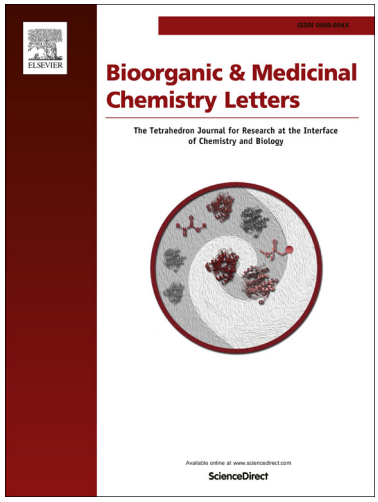

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Two new unusual monoterpene acid glycosides from *Acacia cyclops* with potential cytotoxic activity

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ABSTRACT

A phytochemical investigation of the Tunisian plant *Acacia Cyclops* pods led to the isolation of two new monoterpenoid glycosides, which have been designated Cyclopside **1** and Cyclopside **2**. Their structures were elucidated on the basis of extensive spectroscopic procedures including IR, MS and 2D-NMR. The cytotoxic effect of the isolates was also evaluated in vitro against the human breast cancer (MCF-7) and ovarian cancer (OVAR) cell lines. Results showed that the highest cytotoxic activity (90.88%) was against MCF-7 cell line and was exhibited by the Cyclopside **1** at the concentration of 50 µg/mL.

Key words: *Acacia cyclops*, Fabaceae, Pods, *O*-heterosides, 2D-NMR, Cytotoxic activity.

The genus *Acacia* is quite large and widespread in the warm arid and sub-arid regions in the word. Little is known about the chemistry of most species. *Acacia Mill*. is the second largest genus belonging to the subfamily Mimosoideae of the family Fabaceae with about 1350 species.[1] The main use of *Acacia* species is as a fodder source but they have a long history of traditional medicinal use for the treatment of diarrhea, urinary tract infections, headaches, sore throat, gastritis problems, tuberculosis and bronchial asthma. *Acacia* has been also proven useful in high blood pressure, hypoglycemia, inflammation, dysentery, colitis, leucorrhoea and leprosy.[2-5]It was the case in Tunisia, whereby some *Acacia* species have been used in folk medicine. According to information gathered from herbalists, inhabitants of rural regions and traditional healers, in south Tunisia, *Acacia salicina*, for example, is frequently used in diverse applications for the treatment of inflammatory diseases, as a febrifuge, to treat cancer