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Triterpenes from *Euphorbia denticulata*

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Background and Aims: The genus Euphorbia is one of the largest genera in family Euphorbiaceae comprising over 2000 species all around the world from which 70 species are reported from Iran that 17 are endemic. In traditional medicine some Euphorbia species were used as paste on sores. In recent studies by the authors, cycloarttanes isolated from Euphorbia species have shown immunomodulatory properties. This study was aimed to identify triterpene steroids from the endemic species *Euphorbia. denticulata* in order to achieve a new and effective drugs, with less side effects in the treatment of autoimmune diseases.
Methods: The compound were purified using column chromatography run by Merck, Silica gel, and High Performance Liquid Chromatography (HPLC) column YMC Pack-Sil, (25×300 mm). The structures of the isolated compounds were elucidated by Carbon Nuclear Magnetic Resonance (13C- NMR) and Hydrogen Nuclear Magnetic Resonance(1H-NMR) as well as 2D-NMR, IR and by the aid of mass fragmentation pattern and comparing with the literature.
Results: In this research, dried acetone:chloroform extract of aerial parts of *E. denticulata* collected from the West of Iran, afforded a number of steroids and cycloartanes including: cycloart-24-ene-3-Beta-ol, 24-methylene-cycloartan-3-Beta-ol,ergosta-8,24-dien-3-ol (obtusifoliol) and Beta-sitosterol for the first time isolated from this plant.
Conclusions: Coupling of HPLC and Thin Layer Chromatography (TLC) led to the isolation of these compounds, which could be new candidate for immunomodulatory tests in future studies.

Keywords: *Euphorboa denticulata*; Triterpen; Steroid; Cycloartan; Obtusifoliol