

Isolation of triterpenes from *Euphorbia macrostegia*

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Background and Aims: Euphorbiaceae is one of the largest families of the phylum Anthophyta. In this family the largest genera is Euphorbia which comprises well over 2000 species in tropical and temperate zones of Asia and other parts of the world. In Iran 70 species are reported that 17 of them are endemic. In traditional medicine Euphorbia was used as treatment of intestinal parasites and skin diseases. However, multidisciplinary biological screening tests carried out in recent years have shown that some of them were useful as anti-tumors, pesticides and antiviruses.

Methods: In this research, *Euphorbia macrostegia* Boiss. was collected from Yasuj, and the compound were purified using column chromatography run by Silica gel, and HPLC column YMC Pack-Sil, (25*300 mm). The structures of the isolated compounds were elucidated by ¹³C- and ¹H-NMR as well as 2D-NMR, IR and by the aid of mass fragmentation pattern and comparing with the literature.

Results: Triterpenes were isolated from dried acetone:chloroform extract (1:2) of aerial parts of *Euphorbia macrostegia* Boiss for the first time.

Conclusions: These findings confirm that this plant is a new and non expensive source for this group of compounds, and suggest further study in the future for drug discovery.

Keywords: *Euphorbia macrostegia* Boiss; HPLC; NMR; Triterpenes