

## Determination of triterpene contents of *Euphorbia osyridea*

E. Ahmadi<sup>1,\*</sup>, M. Ghanadian<sup>2</sup>, H. Saeidi<sup>1</sup>, M. Rahiminejad<sup>1</sup>, A. Ayatollahi<sup>3</sup>

<sup>1</sup>Department of Biology, Faculty of Sciences, University of Isfahan, Isfahan, I.R. Iran

<sup>2</sup>Isfahan Pharmaceutical Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, I.R. Iran

<sup>3</sup>Phytochemistry Research Center & School of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, I.R. Iran

**Background and Aims:** Recent studies in natural product sources have resulted in many compounds that are being developed to treat inflammatory diseases. *Euphorbia* species are traditionally used in folk medicine to treat inflammations and tumors. Previous investigation by the authors on triterpenes also led to the isolation of some pentacyclic triterpenes with marked immunoinhibitory effects. Therefore, in this study, phytochemical research on *E. osyridea* was carried out by our group in order to find a suitable lead compounds with low toxicity for researches on their anti-inflammatory activities.

**Methods:** Plant material was collected from North East part of Iran (Khorasan province) and identified by Department of botany, herbaceous sciences research center at Ferdowsi University of Mashhad. The dried plant was extracted with dichloromethane:acetone (2:1) and after defatting, transferred repeatedly on silica columns using hexane:ethylacetate as mobile phase. Finally the fractions were purified by HPLC column YMC Pack-Sil, (20\*250 mm). The structures of the isolated compounds were elucidated by mass and different NMR spectroscopic methods.

**Results:** In this research, dried acetone:chloroform extract of aerial parts of *Euphorbia osyridea*, afforded a number of penta cyclic triterpenes for the first time from this plant.

**Keywords:** *Euphorbia osyridea*; Pentacyclic triterpenes; NMR spectra; Chemosystematic