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Separating and determining the effective compounds percentage in Ecballium elaterium L. Cucurbitacins Syria

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Abstract

The Ecballium elaterium L. which grows in the Mediterranean region is considered one of the well known plants in folk medicine in treating liver diseases, especially jaundice.

Recent studies have indicated its effectiveness in this area in addition to its valid use in the treatment of Enfluenza, Analgesic and antipyretic and Anti-in flammation. Its fruit is usually used due to the high percentage of the active ingredients and the ease of extraction without ruining or damaging these active ingredients.

This extraction contains a set of tri-terpene compounds responsible for the pharmaceutical effectiveness of the plant. These compounds are called Cucurbitacins and they have several types.

The study aims at conducting a series of tests and chemical assay in order to determine the juice content of chemical components and calibrate Cucurbitacins existed in the plant using the available ways (HPLC).

The plant fruit was collected from the coastal region and identified by morphological characteristics of sex and gender. Afterwards, it was manually squeezed , purified, and properly tested to detect and calculate the concentrations of Cucurbitacins especially Cuc I and Cuc E.

HPLC Examination of the intense methanolic juice, conducted on the waves (230 nm, 254 nm), has confirmed the presence of Cuc I and Cuc E (concentration of Cuc E was greater than that of Cuc I).

Ecballium elaterium L., Cucurbitacin (Cuc), HPLC. **KEYWORDS:**