

عنوان مقاله:

Evaluation of In vitro Antioxidant and Antidiabetic Properties of Cydonia Oblonga Seeds' Extracts

محل انتشار:

مجله علوم دارویی و شیمی، دوره 5، شماره 6 (سال: 1401)

تعداد صفحات اصل مقاله: 11

نویسندگان:

Raghad Riyadh Khalil - *Department of Pharmaceutical Chemistry, College of Pharmacy, University of Mosul, Ninawah-۴۱۰۰۲, Iraq*

Eman Tareq Mohammed - *Department of Pharmaceutical Chemistry, College of Pharmacy, University of Mosul, Ninawah-۴۱۰۰۲, Iraq*

Yasser Fakri Mustafa - *Department of Pharmaceutical Chemistry, College of Pharmacy, University of Mosul, Ninawah-۴۱۰۰۲, Iraq*

خلاصه مقاله:

There is an unequivocal relationship between oxidative stress and diabetes development, progression, or both. In recent years, some novel bioactive compounds derived from plants have shown antidiabetic activity with more efficacy than the oral hypoglycaemic medications used in clinical therapy, implying a bright future for diabetes treatment. In this work, the powdered quince dried seeds were subjected to extract with ethanol, ethyl acetate, chloroform, n-hexane, and diethyl ether using sonication-catalyzed extraction. Then, a set of tests were used to conduct preliminary phytochemical screening. In vitro, hydroxyl radical- and DPPH radical-snaring assays were used to assess the antioxidant activity of the acquired extracts. The inhibition assays for α -glucosidase and α -amylase were used to determine the antidiabetic efficacy of the extracts. Compared to ethanol extract, ethyl acetate, chloroform, n-hexane, and ether extracts had weaker free radical-snaring, α -amylase, and α -glucosidase inhibitory activities. The results of this study revealed that the crude extracts of quince seeds are good sources of key phytochemical components with significant antioxidant and antidiabetic properties and can be considered a promising source of lead compounds for the management of diabetes mellitus.

کلمات کلیدی:

Cydonia Oblonga, Ultrasound-Catalyzed Extraction, seeds, Antioxidant, Antidiabetic

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1479031>

