

عنوان مقاله:

.Biological Activities of Aloin-rich Extracts Obtained from Aloe vera (L.) Burm.f

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خلاصه مقاله:

Aloe vera (L.) Burm.f. is an important medicinal plant which belonging to the Liliaceae family. This plant has widely been applied in the pharmaceutical, food, and cosmetic industries. In this study, Aloin was extracted from A. vera leaves using ultrasonic and stirring methods. The extract was purified, and their Aloin A and B percentages were determined using HPLC. According to the results, in all samples, the amount of Aloin B was significantly higher than Aloin A. The ethyl acetate extract of dried latex obtained by ultrasonic method had the highest yield (۲۴.۵۰ %) and amount of total Aloin (۸۴.۲۲%) compared to other samples and methods. Also, the relative percentages of Aloin B and A were ۸۶.۴۸ and ۱۳.۵۲%, respectively. Finally, the antioxidant and cytotoxic properties of Aloin-containing extracts were investigated by DPPH and MTT methods, respectively. According to the results, the ethyl acetate extract of dried latex obtained by ultrasonic method exhibited the highest antioxidant and cytotoxic activities. There was a significant correlation between extracts containing more Aloin and higher biological activity, and extracts with more Aloin had higher biological properties. Therefore, the extract of the dried latex obtained by ultrasonic method was the best sample in terms of the amount of Aloin and biological properties. In conclusion, using the ultrasonic method together with a dried sample provides the most Aloin and biological properties

کلمات کلیدی:

Aloin, Aloe vera, Antioxidant, Cytotoxic, PURIFICATION

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