

عنوان مقاله:

Quantification of thymol content in different extracts of *Zataria multiflora* by HPLC method

محل انتشار:

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خلاصه مقاله:

*Zataria multiflora* Boiss is used in traditional folk remedies as antiseptic, analgesic, carminative, anthelmintic medication. The main components of *Z. multiflora* are phenolic compounds such as thymol and carvacrol. The aim of this study was developed a simple and rapid method for determination of the thymol in different extracts of *Z. multiflora* by HPLC method. The dried aerial parts of *Z. multiflora* in the flowering stage was extracted with ethanol ۳۴%, ۴۲% and ۷۰% for ۴۸ hours. Several mobile phase systems were applied for development and separation of thymol and carvacrol that have close retention time in HPLC system. The peaks of thymol and carvacrol are successfully separated in acetonitrile-water-acetic acid mobile phase. Thymol and carvacrol were separated with a retention times ۱۰.۴ and ۹.۸ minutes respectively, in an isocratic solvent system with HPLC. Thymol content was  $۲.۷ \pm ۰.۰۶$ ,  $۳.۷ \pm ۰.۰۷$  and  $۶.۰ \pm ۰.۱۱$  mg/g, in ethanol at concentration of ۳۴%, ۴۲% and ۷۰%, respectively. Thymol content in different hydroalcoholic extract of *Z. multiflora* is dependent to ethanol concentration in extraction solvent.

کلمات کلیدی:

*Zataria multiflora*, thymol, carvacrol, HPLC

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