

عنوان مقاله:

Identification of medicinally active flavonoids, phenolic compounds and terpenoids from traditional healing plant
barleria strigosa and its antioxidant activity

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خلاصه مقاله:

Barleria strigosa willd, a popular medicinal plant used mainly in Asian countries as a natural medicine. The root and leaves of this plant has been used in various traditional medicine systems in Asia. The present study intends to explore the medicinal activities and to detect the phytochemical constituents responsible for the therapeutic activities. Major antioxidant assays such as ABTS (2,2'-azino-bis (3-ethylbenzothiazoline-6-sulphonic acid)) scavenging, nitric oxide quenching, ferric reducing and DPPH (1,1-diphenyl-2-picrylhydrazyl) scavenging were done on different extracts to identify the effective extraction method. An activity based isolation of major compounds was conducted on the hydroalcohol extract and characterizations of the isolated compounds were done using ¹H, ¹³C NMR and mass spectrometry. Among the tested samples, hydroalcohol extract revealed higher phenolics and flavonoids contents and also exhibited predominant results in various antioxidant assays. Significant compounds were p β -hydroxy-20(29)-lupene, lup-20(29)-ene-3 β ,28-diol, 3-beta-hydroxyolean-12-en-28-oic acid, 22,23-dihydrostigmastrol, 3,3',4',5,7-pentahydroxyflavone, (2S,3R)-2-(3,4-dihydroxyphenyl)chroman-3,5,7-triol and 3-caffeoylquinic acid. B. strigosa is a rich source of medicinally active terpenoid, phenolic and flavonoid compounds and possess potent antioxidant activities which are beneficial for human health as a green pharmaceutical medicine.

کلمات کلیدی:

Barleria strigosa, chemical constituents, Antioxidant activity, ¹H NMR, ¹³C NMR

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