

عنوان مقاله:

Identification of phenolic antioxidants in Ipomoea mauritiana jacq. using spectrophotometric and mass spectroscopic studies

محل انتشار:

مجله گیاهان دارویی ابن سینا، دوره 4، شماره 2 (سال: 1393)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Cheruthazhakkat Sulaiman - Centre for Medicinal Plants Research, Arya Vaidya Sala Kottakkal-۶۷۶۵۰۳, Kerala, India

Sivadasan Pillai Geetha - Centre for Medicinal Plants Research, Arya Vaidya Sala Kottakkal-۶۷۶۵۰۳, Kerala, India

Balachandran Indira - Centre for Medicinal Plants Research, Arya Vaidya Sala Kottakkal-۶۷۶۵۰۳, Kerala, India

خلاصه مقاله:

Objective: Ipomoea mauritiana is used in both Ayurveda and folk medicine systems. The tuberous roots are known to be diuretic, depurative, carminative, and anthelmintic. The objective of the current study was to identify phenolic antioxidants from I. mauritiana using spectrophotometric and LC-MS analysis. Materials and Methods: An activity-guided fractionation and purification process was used to identify the antioxidative components from I. mauritiana tuber. Dried mature tubers of I. mauritiana were extracted with 80% methanol and then partitioned by chloroform, ethyl acetate, acetone, and methanol. The acetone fraction showed the strongest 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical scavenging activity among four fractions and was subjected to separation and purification using preparative reverse-phase high-performance liquid chromatography (HPLC). Results: Two compounds were separated from the acetone fraction using preparative LC fraction collector. The purified compounds were screened for their antioxidative potential using DPPH assay. The compounds were subjected to LC-MS analysis in ESI negative mode. One of the compounds was identified as Caffeoyl glucose based on the mass fragmentation. Conclusion: The acetone fraction showed highest radical scavenging activity and the phytoconstituents of the same were identified by LC-MS/MS analysis.

کلمات کلیدی:

Ipomoea mauritiana, Phenolics, DPPH, LC-ESI-MS

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/930549>

