Bioassay-Directed Isolation of Active Compounds with Antiyeast Activity from a Cassia fistula Seed Extract

Type:
Article

Abstract:
Background and objective: Cassia fistula L belongs to the family Leguminosae, and it is one of the most popular herbal products in tropical countries. C. fistula seeds have been used as a herbal medicine and have pharmacological activity which includes antibacterial, anti-fungal, and antioxidant properties. The goal of this study was to identify compounds from C. fistula seeds which are responsible for anti-Candida albicans activity using bioassay-directed isolation. Results: The preliminary phytochemical screening of the plant seed revealed the presence of anthraquinones, flavonoids, saponins, tannins and terpenoids. The isolation of active compounds was carried out in four steps: multiple extractions, fractionation using column chromatography and purification using preparative thin-layer chromatography (TLC) and liquid chromatography/mass spectrometry (LC/MS). The structure of separated compounds was determined on the basis of mass spectrometry data. One compound was identified is roseanone. Conclusions: The MS analysis on the active fraction from seed extract of C. fistula confirmed the presence of roseanone with antiyeast activity.

Author

- Jothy, S. L.
- Zakaria, Z.
- Chen, Y.
- Lau, Y. L.
- Latha, L. Y.
- Shin, L. N.
- Sasidharan, S.

Source | Molecules
---|---
ISSN | 1420-3049
DOI | 10.3390/molecules16097583
Volume (Issue) | 16(9)
Page | 7583-7592
Year | 2011

Keyword:
bioactive compounds,bioassay-directed isolation,natural products,extractionfractionation medicinal-plants,natural-products,antibacterial,drugs
Bioassay-Directed Isolation of Active Compounds with Antiyeast Activity from a Cassia fistula Seed Extract. Molecules, 16, 7583-7592.

URL:
- http://apps.webofknowledge.com search via Accession No >>000295211000029
- http://www.mdpi.com/1420-3049/16/9/7583
- http://lib.bioinfo.pl/paper:21894090