

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 anti-bacterial, 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.

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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, extraction fractionation medicinal-plants, natural-products, antibacterial, drugs

Please Cite As:

JOTHY, S. L., ZAKARIA, Z., CHEN, Y., LAU, Y. L., LATHA, L. Y., SHIN, L. N. & SASIDHARAN, S. 2011. **Bioassay-Directed Isolation of Active Compounds with Antiyeast Activity from a Cassia fistula Seed Extract.** *Molecules*, 16, 7583-7592.

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