عنوان مقاله:

Cytotoxicity and antimycobacterial activity of fractions and chemical constituents of Lecaniodiscus cupanioides Planch. Ex Benth

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خلاصه مقاله:

Introduction: Mycobacterial infections remain a global problem that demands an urgent solution. Lecaniodiscus cupanioides Planch. ex Benth. is traditionally used as a medicinal plant to treat coughs, skin infections, cancers, sexual dysfunction, and malaria. This study focused on the antimycobacterial activity, cytotoxicity, and isolation of bioactive constituents of L. cupanioides chloroform leaves extract. Methods: Antimycobacterial activity was assessed using the micro-dilution assay. Cytotoxic activity of the plant was evaluated using MTT (٣-(٤,٥-dimethylthiazol-٢-yl)-٢,٥-diphenyltetrazolium bromide, a tetrazole) assay. Column chromatography was used to purify the extract. Results: Phytochemical investigation of L. cupanioides resulted in the isolation of three compounds, including eicosene (١), nonadecanol (٢), and stigmasterol (٣). The isolates ١-٣ as well as the column fractions displayed antimycobacterial activity, with minimum inhibitory concentration (MIC) ranging from ٠.٥٠ to ١.٠ mg/mL. The studied extract, column fractions, and isolated compounds exhibited no cytotoxicity against the human cervical cancer (HeLa) cell line. Conclusion: The current results indicate that L. cupanioides has the potential to be employed in the formulation of herbal products or the development of new drugs against mycobacterial infections. .However, more studies should be carried out using normal human cell lines to further unravel plant safety

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: