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Abstract title ANTI-CANDIDAL ACTIVITY OF 7-HYDROXYCALAMENENE ISOLATED FROM CROTON CAJUCARA

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The leaves and bark from *Croton cajucara* Benth. (family Euphorbiaceae), a shrub from the Amazon, have been used locally used in folk medicine to treat diabetes, malaria, gastrointestinal and liver disorders [1]. A chemotype of this species was found, with an essential oil rich in 7-hydroxycalamenene [2]. 7-hydroxycalamenene is a hydroxylated sesquiterpene of molecular weight 218 found in *Heritiera ornithocephala* [3], *Eremophila drummondii* [4], *Heteroscyphus planus* [5], *Tilia europea*, *Morus alba* [6], *Ulmus thomasii* [7] and other elm species, and methanolic and dichloromethanic extracts of *Bazzania trilobata*. This substance is reported to have antifungal activity against *Botrytis cinerea*, *Cladosporium cucumerinum*, *Phytophthora infestans*, *Pyricularia oryzae* and *Septoria tritici* [8]. During our studies with *C. cajucara* essential oil, we isolated 7-hydroxycalamenene by silicagel column chromatography. The pure compound (+98% by GC) was tested against some *Candida* species. Minimum inhibitory concentration (MIC) was evaluated in triplicate according standard method from the Clinical and Laboratory Standards Institute (CLSI) [9]. The calculated MIC's were 39,06 µg/mL was found to *C. albicans* (ATCC10231), *C. dubliniensis* e *C. albicans* (CaA), of 78,125 µg/mL to *C. albicans* (Cab) e *C. parapsilosis* and *C. albicans* (CaB) > 2500 µg/mL. From these data, it was observed 7-hydroxycalamenene is a compound with good activity against these *Candida* species.

Key words 7-hydroxycalamenene | Croton cajucara | red sacaca | essential oil | anti-Candidal activity

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