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## Anti-Zygomycetes 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]. The essential oil from the leaves is rich in linalool [2] and presented antileishmanial and antimicrobial activities [3,4]. A chemotype of this species was found, with an essential oil rich in 7-hydroxycalamenene [5]. This substance is reported to have antifungal activity against *Botrytis cinerea*, *Cladosporium cucumerinum*, *Phytophthora infestans*, *Pyricularia oryzae* and *Septoria tritici* [6]. During our studies with *C. cajucara* oil, we isolated 7-hydroxycalamenene by silicagel column chromatography followed by preparative TLC. The pure compound (+98% by GC) was tested against some zygomycetes. A minimum inhibitory concentration (MIC) of 9.76µg/mL was found to *Absidia corymbifera*, *Cunninghamella elegans* and *Mucor circinelloides* f. *circinelloides*, while for *Rhizopus microsporus* and *Rhizopus oryzae* the MIC was 19.53µg/mL. The reference drug used, amphotericin B, presented a MIC of 43.9µg/mL for *C. elegans* and *M. circinelloides*, and 0.3µg/mL for the other species tested.

From these data, it was observed 7-hydroxycalamenene is a compound with good activity against zygomycetes.

**Keywords:** Zygomycetes, *Croton cajucara*, essential oil, antifungal activity

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