

**INVESTIGATION ON ANTIMICROBIAL POTENTIAL OF ETHANOLIC EXTRACT OF  
*Brosimum gaudichaudii* Trécul (Moraceae), IN THE CONTROL OF YEAST AND BACTERIAS  
OF CLINICAL INTEREST.**

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The biological, pharmacological, chemical and toxicological study of medicinal plants has been increasingly explored over the past few years in order to develop new drugs with phytotherapeutic bioactive principles. The *Brosimum gaudichaudii* popularly known as “mama-cadela”, belongs to the Moraceae family and is widely found all along the South Mato Grosso Cerrado. It is commonly used in folk medicine for phytotherapeutic purposes, allergy treatments and more. The aim of this research was to determine the minimum inhibitory concentration (MIC) of the ethanolic extract of *Brosimum gaudichaudii*, compared to cultures of yeast and bacteria of clinical interest. The tested microorganisms were from the American Type Culture Collection (ATCC, Rockville, MD, USA), namely: *Candida glabrata* ATCC 2001, *Candida tropicalis* ATCC 750, *Candida krusei* ATCC 6558, *Candida albicans* ATCC 90028, *Escherichia coli* ATCC 25922, *Pseudomonas aeruginosa* ATCC 27853, *Enterobacter aerogenes* ATCC 13048, *Klebsiella pneumoniae* ATCC 13883, *Staphylococcus epidermidis* ATCC 12228, *Bacillus cereus* ATCC 11778, *Salmonella typhimurium* ATCC 14028, *Proteus mirabilis* ATCC 35659, *Enterococcus faecalis* ATCC 29212, *Staphylococcus aureus* ATCC 25923, *Salmonella enteritidis* ATCC 13076, *Listeria monocytogenes* ATCC 7644. The dried and powdered plant material was mixed in 1000 mL of absolute ethyl alcohol 95% and held at 25°C for 48h, with occasional agitation. After being filtered, the plant extract was thoroughly evaporated at 35°C and subsequently lyophilized. The MIC susceptibility assays were performed using the microbroth dilution assay in sterile 96 well microplates in accordance to the guidelines of the Clinical and Laboratory Standards Institute (CLSI, 2014) with some adjustments to the extract usage. It was used RPMI-1640 medium for yeasts and Muller Hinton medium for bacteria. The ethanolic extract of *Brosimum gaudichaudii* presented antimicrobial activity against *C. tropicalis* (CIM = 1000 mg / mL) and for the other evaluated microorganisms no antimicrobial activity was observed. Thus the ethanolic extract of *Brosimum gaudichaudii* did not correspond as expected in the analysis but it is believed that this study may serve as a basis for future research to develop new medicines.

**Keywords:** mama-cadela, minimum inhibitory concentration, *C. tropicalis*.

**Development Agency:** CNPq, FUNDECT / MS E UFGD.