

Title: OBTAINMENT OF ANTIFUNGAL METABOLITES FROM SECONDARY METABOLISM OF STREPTOMYCES SP.

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Abstract:

The production of bioactive compounds derived from bacteria and fungi have been described since the early twentieth century, and the actinobacteria have been the target of the biotechnology industry to be considered an inexhaustible source of bioactive secondary metabolites of chemical structure and extremely diverse pharmacological action. In addition to antibiotics, these bacteria also produce metabolites properties with anti-inflammatory, antitumor, antioxidant, antiviral, antiparasitic, anticoagulant, and enzymes, and vitamins siderophores. This study evaluated the antifungal potential from antimicrobial metabolites produced by *Streptomyces* sp MPO-4 isolated from rhizospheric soil *Aniba parviflora* *Syn fragrans* (Macacaporanga) initially through the agar block technique against filamentous fungi *Postia placenta*, *Rhizoctonia solani*, and the yeasts *Candida albicans* and *Candida krusei*. The secondary metabolites were obtained through fermentation in a liquid medium in ISP-2 stir for 120h. The crude extract was obtained by extraction of the free liquid metabolic cells using the organic solvent ethyl acetate in the ratio 2: 1. Subsequently evaluated was the minimum inhibitory concentration (MIC) by the microdilution plate method. *Streptomyces* sp. MPO-4 was active against *Rhizoctonia solani*, *Candida albicans* and *Candida krusei*, and the antifungal metabolites were produced from the fermentation 24 hours front *Candida albicans*, and after 48 hours for *Candida krusei* and *Rhizoctonia solani*. The Minimum fungicidal for *Candida krusei* concentration was 2.000 mg / ml for *Candida albicans* 1.500 g / ml and 1.200µg / mL for *Rhizoctonia*. This study recorded the production of bioactive compounds by *Streptomyces* sp MPO-4 with antifungal activity against yeasts and molds of clinical and environmental interest.

Key-boards: *Streptomyces* sp., secondary metabolites, antifungal potential