

Title: CHEMICAL CHARACTERIZATION OF METABOLITES ISOLATED FROM THE BASIDIOMYCETE ENDOPHYTIC FUNGUS OF *ANTHURIUM* SP.

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Abstract:

Secondary metabolites are low molecular weight molecules produced by living organisms, which exhibit different chemical profile according to the producer species. In general, they have applications in the medical-pharmaceutical and agriculture areas. These applications include antitumor, immunosuppressant, antiprotozoal, anthelmintic, antiviral and cholesterol-lowering activities. Moreover, they are the basis for the synthesis of new drugs. Because fungi are known to produce several bioactive metabolites, we evaluated the secondary metabolites produced by an unidentified basidiomycete fungus in the family Hymenochaetaceae. This fungus was isolated from *Anthurium* sp. plants sampled in São Sebastião-SP, Brazil. The strain was grown on 2% malt extract broth for 12 days at 28 °C and 150 rpm. The crude extract was filtered and partitioned with ethyl acetate. The ions separation was performed by chromatographic techniques, such as Sep-Pak silica column, Sephadex LH-20 column and HPLC. A pure fraction and a semi-pure fraction with two compounds were obtained, which were analyzed in a spectrometer of high mass resolution. The first compound has mass of 194.05. According to the Dictionary of Natural Products, this molecular mass has 30 corresponding compounds produced by fungi. This compound has a 32 Da fragmentation at m/z 163 $[M]^+$ (loss of a methoxyl). For this, the searches were refined resulting in 4 possible molecules. The semi-pure fraction has two compounds. The first exhibits molecular mass of 182.05, corresponding to 5 different compounds. The second has a molecular mass 150.03 and corresponds to 3 compounds. After initial purification, additional analysis of nuclear magnetic resonance (NMR) is necessary to determine unequivocally the structures and discover the putative novelty of these compounds.

Keywords: biomolecules, natural products, secondary metabolites

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