TITLE: PROSPECTING OF BIOACTIVE PRODUCTS PRODUCED BY *Streptomyces* sp. **ISOLATED FROM AMAZONIAN SOIL**

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ABSTRACT:

The Amazon Rainforest is known as one of the main environments rich in plants and animals with wide genetic diversity. However, there is little reference to the microbial diversity of this biome. Therefore, it is important to investigate autochthonous microbiodiversity and describe its biotechnological potential. The genus *Streptomyces* is the most important biotechnological in the actinobacteria group, being responsible for the production of a large part of the antibiotics already known and for producing several enzymes of industrial application. This work aimed to evaluate the production of antimicrobial metabolites and enzymes of industrial interest produced by *Streptomyces* sp. Isolated from rhizospheric soil of a plant native to the Amazon. The actinobacteria line isolated from rhizospheric soil of *Aniba parviflora Syn Fragans* (Macacaporanga) was identified by classical and molecular methods presenting a high degree of similarity with *Streptomyces cinereus*, and was named MPO11. The MPO11 line presented aerial mycelium varying from white to gray, with a powdery and opaque appearance, thus tracing the cultural profile, regarding its antimicrobial potential, was evaluated the activity against microorganisms of clinical and phytopathogenic interest. This bacteria produces from submerged fermentation, antimicrobial metabolites with varied action spectrum with antibacterial and phytopathogenic action, in addition to the production of several extracellular enzymes of industrial interest such as caseinase, lipase and catalase, physiological and biochemical profile not tolerant to salinity 3-5 % of NaCl consumes several nitrogen and carbon sources for its metabolism, demonstrating the potential of this group of microorganisms native to Amazonian soils that are not described in the literature. Thus, the present work contributes to the study of the microbiodiversity of this Biome and shows its biotechnological potential in the production of bioactive substances of microbial origin.

Keywords: Actinomycetes, rhizosphere, secondary metabolism, Amazon Soil.