

## Antagonistic interaction between *Escovopsis* sp. and *Amycolatopsis* sp. isolated from attine ants

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### ABSTRACT

The ants of Attini tribe lives in symbiosis with a cultivar fungus (food fungus), a pathogenic fungus (*Escovopsis*) and actinobacteria. Actinobacteria are usually present in the exoskeleton of the ants and help in the colony protection, once they produce antimicrobial secondary metabolites that could inhibit the growth of *Escovopsis*. The genera of actinobacteria associated with ants include *Pseudonocardia*, *Streptomyces*, and *Amycolatopsis*. The chemical potential of *Amycolatopsis* in this association is poorly studied so in the present project we are investigating the metabolites produced by the strains that belong to *Amycolatopsis* sp. genus isolated from attine ants collected in the Amazonian region. In total, 33 actinobacteria were challenged against five different *Escovopsis* sp and presented good activity. Strains that showed higher fungal inhibition were cultivated and extracted. Crude extracts were purified by SPE and HPLC. All extracts and fractions were tested against the pathogens however, antifungal activity was not observed for these samples. Currently, adjustments in the extractions are being performed as well as analysis of the presence of siderophores which could have antifungal activity modulated by the metal chelating properties.

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CIBFar

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