SECONDARY METABOLITES FROM *Humicola grisea* var. *thermoidea* WITH ANTIBIOTIC ACTIVITY

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The discovery and development of antibiotics were one of the most significant advances in medicine in the 20th century. Nevertheless, many antibacterial agents used to treat a variety of human infectious diseases are now ineffective. The aim of this work was to evaluate the antimicrobial activity by secondary metabolites by *Humicola grisea* var *thermoidea.* The production of secondary metabolites was carried out by inoculating 10^6 spore/g in solid medium (rice) at 40ºC for 60 days. The culture was filtered and submitted to the process of liquid-liquid partition furnishing. The ethyl acetate extract was concentrated by rotaevaporation, obtaining after that two fractions from acid-alkali extraction. Was developmented antibacterial assay of inhibitory minimum concentration against *Kocuria rhizophila* and *Staphylococcus aureus*. The inoculum was prepared by culturing each organism on Mueller Hinton Agar at 37ºC. This inoculum was transfered to 10 mL salt marsh solution (0,9%) turbidity equivalent to McFarland 0.5 standard. After this, 2 mL were transfered to 10 mL Mueller Hinton Broth. Twenty microliters of inoculum were distributed over Elisa´s plate with 20 microliters of extract solution (alkali fraction), that was prepared for solubilization of 1 mg in 150 µL DMSO and 1850 µL MHB. The interval of concentrations evaluated was from 50 µg/ml to 400 µg/ml. The inibhitory minimum concentration of alkali fraction against *K. rhizophila* was 250 µL/mL and against *S. aureus* 300 µL/mL.

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