EXTRACTION, CHEMICAL INVESTIGATION, ANTIMICROBIAL ACTIVITY OF CARRAGEENANS FROM THE RED ALGAE, Amansia multifida.

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Carrageenans are cell-wall polysaccharides composed mainly of units of sulfated galactose and 3,6-anhydrogalactose. This work described the chemical features and antimicrobial activity of carrageenans-rich fractions (FT and F3) extracted from red alga Amansia multifida. These compounds were characterized by elecrotrophoresis, paper chomatography, infrared spectra (FT-IR) and chemical analysis. The antimicrobial activity was mesured by method of difusion in solid medium using Staphylococcus aureus, Escherichia coli, Cryptococcus neoformans, Candida albicans and Rhodotorula sp. Chemical analysis showed high presence of sugars (FT: 54.3% and F3: 29.5%) and sulfate (FT: 40%, and F3: 58.9%). Galactose was found in both fractions, as well as, traces of xylose and glucuronic acid. FT-IR showed major absorptions bands at 1400, 1100 and 866cm⁻¹ that indicate the presence of sulfated groups in both fractions. The each carrageenans FT and F3 (30mg/mL: 8.5mm) inhibit de cell growth only when C. albicans was used.

Supported by: CNPq

Key words: carrageenans, *Amansia multifidia*, antimicrobial activity