ISOLATION OF A BASIC LECTIN FROM *SARGASSUM CYMOSUM* ALGAE BY AFFINITY CHROMATOGRAPHY

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Sargassum cymosum (Phaeophyta) is a very broadly distributed algae at the Brazilian coast. Lectins are proteins or glycoproteins which interact with carbohydrates through their binding sites. The aim of this work was the characterization of *S. cymosum* hemagglutinating activity (HA) and isolation of algae lectin (ScyAL) by affinity chromatography. Extract (10%, w/v) was prepared in 0.15 M NaCl and treated with ammonium sulphate (20% of saturation). HA of 0-20% fraction (F0-20%) was evaluated at different temperatures (30-100 ºC) and pH values (6.0-10.0), as well as at presence of monosaccharides and cations (20 mM $MgCl_2$ and $CaCl_2$). To isolate the lectin Sephadex G-100 chromatography was performed. ScyAL was eluted with 0.3 M glucose and submitted to PAGE (7.5%, w/v) for basic or acidic proteins. Specific HA of F0-20% (11.1) increased in presence of Ca^{2+} (179) and Mg^{2+} (89); activity was kept in assayed pH values. F0-20% HA was detected in all used temperatures. ScyAL activity was mainly inhibited by galactose and glucose. PAGE for basic proteins revealed one protein band in lectin eluted with 0.3 M glucose. In conclusion, the basic and thermostable *S. cymosum* HA was isolated (ScyAL) to homogeneity by affinity chromatography.

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