

THE STRUCTURE OF ACIDIC GALACTAN FROM THE EGGS OF MOLUSC *POMACEA SP.*

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During the embryonic development of the mollusc *Pomacea sp* occur the appearance of neutral and acidic galactans (AG) around the 7th day and progressively decrease until the 12th day with the appearance of chondroitin sulfate. The objective of this study was to investigate the acidic galactan structure using definitive methods of structural carbohydrate analysis. The polysaccharides were extracted by proteolysis (maxatase), trichloroacetic acid and precipitation with ethanol. The AG obtained was isolated by acetone precipitation. The characterization was carried out by methods such as pyruvic acid determination, hexosamines, gel filtration chromatography, relative viscosity, and ¹H and ¹³C NMR spectroscopy. The acidic galactan molecular weight is approximately 25 x 10⁵ Da, and the amount of pyruvic acid present is approximately 1 mol/100mol of galactose in the molecule. The hexosamine present is 6,14% and D-galactose 86%. Regarding to the relative viscosity the value was 1.74±0.07dL⁻¹.g. The ¹³C NMR establishes the structure of the AG to be even more complex than previously determined containing anomer carbons at about 106.1ppm and 107 ppm. The signals at 71.70, 75.48, 73.48 and 77.80 ppm are from C-2, C-3, C-4 and C-5, respectively. These results have a particular interest since they revealed important information about structure of the AG that can be used as a bioactive polymer.

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Key words: Acidic galactan, *Pomacea sp*, Structural analysis.