

A SULFATED GALACTAN IS THE UNIQUE SULFATED POLYSACCHARIDE FOUND IN THE RED ALGA *SOLIERIA FILIFORMIS*

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Red algae are an important marine source of sulfated galactans. Each algal species exhibit a specific structure for their sulfated galactan. In our work, we intend to isolate the sulfated polysaccharides from the rhodophyta *Solieria filiformis*. First, this compound was extracted by papain digestion. The supernatant was submitted to two different protocols of precipitation: a serial precipitation with increasing ethanol concentrations and a direct ethanol precipitation with 75% of this solvent. The crude polysaccharides precipitated with the second method were applied to a DEAE-cellulose-column, revealing only one peak of elution. The sulfated polysaccharides isolated in both protocols revealed the same bands in agarose gel electrophoresis when compared to the bands of crude polysaccharide. The materials precipitated with 30% and 70% of ethanol were applied to a Mono-Q/FPLC-column. Both materials were eluted at the same NaCl concentration as the crude polysaccharides. The peak from DEAE-column was analyzed in paper chromatography, suggesting the presence of only galactose residues. These data indicated that the sulfated galactan is the unique sulfated polysaccharide found in *Solieria filiformis*. The molecular weight of this sulfated galactan (over 80 kDa) was estimated by PAGE. The anticoagulant activity of this compound was assayed by aPTT, showing a 50-fold less activity than unfractionated heparin.