

EFFECT OF FUCANS FROM *LOBOPHORA VARIEGATA* ON PLATELET AGREGATION

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Fucans are a family of sulfated homo and heteropolysaccharides composed mainly of sulfated L-fucose residues. Six polysaccharides-rich fractions from *Lobophora variegata* were extracted by proteolytic digestion and sequential acetone precipitation. Electrophoresis in agarose gel in PDA buffer (0.05M), pH 9.0 showed the presence of sulfated polysaccharides in all the fractions. Chemical analysis showed F1.0 and F2.0 fractions were composed by galactose: fucose: xylose in a molar ratio 2:1:1 and 8:1:1, respectively. In addition, traces of glucuronic acid were found in both fractions. The platelet aggregation was measured by method of Born with both fractions (from 5.0 to 100µg), ADP or collagen were used as positive control. The fraction F2.0 showed aggregant effect, it stimulated 26.4% of platelet aggregation with 50µg. However, this effect was abolished with 100µg of F2.0. The fraction F1.0 was the most potent compound analyzed, it stimulated 67.8% of platelet aggregation, this effect was dose-dependent reaching the highest activity with 50µg. The results indicated that high amount of galactose decreased the aggregant activity of fucans. Over all, the data suggest that these compounds are new inductors of the platelet aggregation with potential pharmacological application.

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Key words: sulfated polysaccharide, *Lobophora variegata*, platelet aggregation.