

FUCANS EXTRACTED FROM ALGA *LOBOPHORA VARIEGATA* DOWN REGULATE THE ALTERNATIVE PATHWAY OF THE SYSTEM COMPLEMENT

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Fucoidans or fucans are a family of sulfated homo and heteropolysaccharides composed mainly of sulfated L-fucose residues. These sulfated polysaccharides have showed several biological activities, including anti-inflammatory, antitumoral and mitogenic activities. In the present work, we have focused our attention on the extraction, chemical analysis of sulfated fucans fractions F1.0 and F2.0 from the brown alga *Lobophora variegata*, as well as the action of these compounds on the alternative pathway of complement. The alternative pathway of the system complement was evaluated by hemolytic assay using red blood cells. The fucans were extracted by proteolytic digestion, followed by sequential acetone precipitation. Both fucans (F1.0 and F2.0) contain fucose, xylose and galactose. Assays with F1.0 (from 0.1 to 2 mg/ml) showed inhibitory effect (~30%; $p < 0.01$) only when the high dose was used. Furthermore, F2.0 (0.5mg/mL) showed high inhibitory effect in compare to the control (~55%; $p < 0,001$). These results suggest that these fractions presents potential pharmacological applications.

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