

**Antiproliferative Activity of Rich Polysaccharides Fraction From *Caulerpa cupressoides* Against Cancer Cell Lines.**

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Introduction. Seaweed are important source of bioactive compounds, including sulfated polysaccharides. These molecules are described presenting a large biological properties, such the anticoagulant, antioxidant, antiviral, antimicrobial, antiadipogenic, anti-inflammatory, antitumor and antiangiogenic activities. The sulfated polysaccharides of green algae are the less studied from the marine macroalgae. Because of their structural heterogeneity, these compounds are promising sources of bioactive compounds. The Chlorophyceae *Caulerpa cupressoides* is largely found in sea coast of Rio Grande do Norte-Brazil. Previous research had been characterized its antioxidant and anticoagulant activity. However, its potential antiproliferative needs to be better understood. Objectives. The objective of this study was to evaluate the antiproliferative potencial of rich polysaccharides fractions extracted from the seaweed *C. cupressoides*. Material and Methods. The polysaccharides fractions was obtained by precipitation with increasing amounts of acetone (0.3, 0.5, 1.0 and 2.0 v). The proliferation inhibition to B16F10 melanoma cells, Hela cervical cancer cell and HT-29 colon cancer cell was assessed by the MTT colorimetric assay. Results and Discussion. The results revealed that the polysaccharide fractions were able to inhibit cell proliferation of the all cell lines, showing 40% the inhibition, approximately, compared to negative control. However, there was observed a dose dependent. Conclusions. These findings show that the *C. cupressoides* is a potential source of growth inhibitors compounds of cancerigenous cells. Furthermore, additional studies with the purified fractions become necessary to confirm the antiproliferative activity, as well as for the elucidation of its mechanism of action.

Key words: Seaweed, Sulfated Polysaccharides, Antiproliferative Potencial.