

## Systemic Evaluation of the Lectin from *Caulerpa cupressoides* in Mice

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Marine algae are sources of bioactive compounds, which have attracted interest in biological applications. Among these compounds, there are the lectins. The aim of this study was to analyze the effect of systemic administration of repeated doses of the lectin from the marine green alga *Caulerpa cupressoides* (CcL) in mice. The lectin was purified from total protein extract of the marine alga in 25 mM Tris-HCl buffer, pH 7.5, applied to ion exchange and affinity chromatographic procedures on columns of DEAE-cellulose and Sephadex G-100, respectively. The CcL (9 mg/kg) was iv administered in Swiss male mice daily for seven days. On the following day, blood samples were collected of the orbital plexus of animals under anesthesia and processed for serum dosages of transaminases (GOT and GPT) and urea. Then, the animals were killed and liver, kidney and heart were removed to evaluate the organ mass/ body mass relation. The results showed that the CcL did not cause hepatic and renal alterations, and not presented significant changes in activities of transaminases GOT (CcL=36.0±22.0;Saline=29.4±3.2U/l), GPT (CcL=17.6±2.7;Saline=13.6±3.4U/l) and urea (CcL=270±24.0;Saline=224.3±10,8U/l). Additionally, the CcL did not change the wet weight of liver (CcL=6.0±0.1;Saline=5.2±0.2), kidney (CcL=0.9±0.1;Saline=0,8±0.0) and heart (CcL=0.6±0.0;Saline=0.6±0.1) in relation to the body mass of the animals ( $p>0.05$ ). In summary, the lectin isolated from *Caulerpa cupressoides* showed to be tolerating at the dose tested, but it must be better evaluated in additional studies.

**Keywords:** Green alga, *Caulerpa cupressoides*, lectin, systemic effects.

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