

ANTINOCICEPTIVE EFFECT OF SULFATED POLYSACCHARIDES FROM *CODIUM ISTHMOCLADUM* IN MODELS WITH SWISS MICE

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Natural products are an important source of new chemical substance with potential therapeutic applicability. The green algae possess great heterogeneity of bioactive compound, such as sulfated polysaccharides. These polymers have several pharmacological activities such as antinociceptive activity. In this study, five polysaccharides fractions (F0.3, F0.5, F0.7, F0.9, F1.2) were obtained from the green alga *Codium isthmocladum* by proteolytic digestion and sequential acetone precipitation. The chemical analyses showed that they are composed mainly of galactose, manose, arabinose and xylose. The antinociceptive effect of the fractions (20mg/Kg, iv.) on swiss mice was evaluated by abdominal writhing reaction (AWR) induced by acetic acid 0,6% (ip.). F0.9 and Dipyrone produced significant inhibition of AWR (30mim), with 22.5 ± 2.5 and 24 ± 3.3 values respectively (control: 75.6 ± 3.05 ; $P<0.001$). This effect was time- and dose- dependent, reaching the highest activity 90mim and 10mg/kg after iv. administration. These results suggest that sulfated polysaccharides of F0.9 have a great potential as a antinociceptive compound. Moreover, further studies are necessary to characterize the possible mechanism of nociceptive action.

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