

Free Phenolic Acids from the Seaweed *Halimeda monile* with Antioxidant Effect Protecting against Liver Injury

Jorge Mancini-Filho^{a,*}, Alexis Vidal Novoa^b, Ana Elsa Batista González^b,
Elma Regina S de Andrade-Wartha^a, Ana Mara de O e Silva^a,
José Ricardo Pinto^c, and Dalva Assunção Portari Mancini^c

^a Department of Food Science, Faculty of Pharmaceutical Science, University of São Paulo, São Paulo, Brazil. Fax: 055 11 3815 4410. E-mail: j Mancini@usp.br

^b Faculty of Biology, University of La Habana, La Habana, Cuba

^c Butantan Institute, São Paulo, Brazil

* Author for correspondence and reprint requests

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Phenolic compounds are found in seaweed species together with other substances presenting antioxidant activity. The objective of this work was to evaluate the antioxidant activity of the free phenolic acids (FPA) fraction from the seaweed *Halimeda monile*, and its activity to protect the expression of hepatic enzymes in rats, under experimental CCl₄ injury. The antioxidant activity was measured by the DPPH method. The FPA fraction (80 mg/kg, p.o.) was administered during 20 consecutive days to rats. The peroxidation was performed by thiobarbituric acid reactive substances (TBARS). The SOD and CAT enzymatic expressions were measured by RT/PCR. The histology technique was used to evaluate liver injuries. The expression of both, CAT and SOD genes, was more preserved by FPA. Only partial injury could be observed by histology in the liver of rats receiving FPA as compared with the control group; and CCl₄ administration induced 60% more peroxidation as compared with the rats receiving FPA. These data suggest that FPA could modulate the antioxidant enzymes and oxidative status in the liver through protection against adverse effects induced by chemical agents.

Key words: *Halimeda monile*, Antioxidant Activity, Hepatoprotective Effect