Reviewer's report

Title: Bioprotective properties of seaweeds: Investigation of antimicrobial activity against food borne bacteria and evaluation of their antioxidant activity in relation to polyphenolic content

Version: 2 Date: 18 March 2008

Reviewer: Antonio Jimenez-Escrig

Reviewer's report:

In this study the authors made an extensive screening assay with methanolic extracts of ten seaweeds, in search of its potential antimicrobial and multifunctional antioxidant activities. The work is well conducted and the conclusions are according to the results obtained. As the authors state, further research is need to elucidate the bioactive compounds responsible for these activities. I think that this work in its present form it is acceptable for publication in BMC Complementary and Alternative Medicine

However, some questions need to be clarified.<(Minor essential revisions)

Please, simplify the Title.

The taxonomy of the seaweeds should be included. In some cases the name of the seaweed is not completed.

Line 95-96. The % has to be placed after the value.
Line 93. Please clarify the use of Tween-20

Line 150. Total antioxidative power. FRAP assays measure the reduction ability of seaweed extracts towards the Fe(III) species. Thus, this activity could not be named as total antioxidative power, which is a general concept.

Line 162. TBARS assay involves interferences, since this method is not selective. Please include this limitation in the description of the assay. Please clarify the use of nM concentration in the expression of the results.

Please express the results in g/g, or in g/100g not in mg/g.

Please justify the use in different cases of ascorbic acid or BHT as reference compounds.

Please take the reference data out of the Conclusion.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.