Reviewer’s report

Title: The total antioxidant content of more than 3100 foods, beverages, spices, herbs and supplements used worldwide.

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Reviewer: Francisco FJ Romero

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This manuscript from Carlsen et al. describes the total antioxidant content of 3100 food products, allowing the authors to develop a database that could be used in a wide range of nutritional research.

The study is well planned and organized, and the manuscript is well written, however there is many data in the literature about this subject, and in fact, one third of the results have been previously published by the authors (as they mentioned in the material and methods section). Therefore this erodes the impact of the results. Despite of this, the interest of this manuscript falls on the database developed, since it is a helpful tool for researchers in the field of nutrition.

Minor essential revisions:

- In the methods section, regarding to Sample collection and sample preparation, authors mentoined that: “On arrival at the laboratory, samples were either analyzed at arrival or stored at 4ºC for a few days or frozen at -20ºC before analysis”. They should provide more details about the time stored at 4º or the days that the samples were frozen, since it is known that these processes affect to the antioxidant content. They should also describe in which cases samples were store at 4º or frozen.

- In the results section, if authors decide to explain berries and berry products in a different paragraph to fruits and vegetables, they should at least mention them one following the other since berries belong to fruits and vegetable categorie.

- Finally, regarding to the measurement of the antioxidant content, in addition to the fact that it is not necessarily a direct relationship between the antioxidant content of a product and the subsequent antioxidant activity in the target cell, authors should take into account that methods based on the total antioxidant capacity do not allow to identified the antioxidant compounds as well as the mechanisms by which they act. Therefore any discussion regarding to the biological effects should be avoid.

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

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests