Reviewer's report

Title: Response surface optimization for the extraction of 6-gingerol, 6-shogaol and antioxidant capacities and improving anticancer activity of ginger (Zingiber officinale Roscoe var. rubrum)

Version: 2
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Reviewer: Sonia Santos

Reviewer's report:

The manuscript “Response surface optimization for the extraction of 6-gingerol, 6-shogaol and antioxidant capacities and improving anticancer activity of ginger (Zingiber officinale Roscoe var. rubrum) presents valuable results about the optimization of bioactive components from ginger rhizomes. The information presented is novel and interesting. In my opinion this manuscript is suitable to be published in BMC Complementary and Alternative Medicine Journal with minor essential revisions.

The following specific comments are offered:
Page 6 Section of “Plant materials” Why did the authors used a controlled cultivation of ginger? This should be discussed.
Page 6, line 25 Substitute “powered” by “powdered”
Page 8, line 10 Substitute “forezen” by “frozen”.
Page 8 On the section “Determination of anticancer activity” you may specify which were the conditions used to obtain the “unoptimized extract”. You may also specify which was the control used to this assay.
Page 10, line 13. I can't understand the value 34.6%. Please verify.
Page 10, lines 14 and 15. This sentence should be rephrased, it is confused.
Page 13, line 6 Substitute “develop” by “developed”.
Page 13, line 17 Rephrase “Optimized (…) were used in order to evaluation of anticancer…” should be “Optimized (…) were used in order to evaluate the anticancer…”

The concluding section on p14 really just repeats the conclusions in lines 7 to 16 of the same page and both cannot be included.

Level of interest: An article of importance in its field

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