Reviewer’s report

Title: Antiproliferative and apoptotic effects of proteins from black seeds (Nigella sativa) on human breast MCF-7 cancer cell line

Version: 2 Date: 05 Nov 2019

Reviewer: Lina Dahabiye

Reviewer’s report:

In this manuscript, the authors investigated the anticancer property of the proteins of Nigella sativa, a member of family Ranunculaceae, on MCF-7 cell line. The work is interesting but I have some minor comments

1. Have the authors evaluated the amount of protein in the crude seed extract (precipitated by ammonium sulphate) using protein quantification kit (i.e, Bradford assay, BCA protein assay kit …..) to determine % recovery.

2. Generally, more details should be added to the methods section. Example; what was the number of fractions collected, volume and amount of protein loaded on gel, Concentrations of crude extract and fractions tested in MTT assay ……

3. In One-way ANOVA why the authors used Tukey’s post hoc and not Dunnett especially that they are comparing to control.

4. Sentence line 237, page 11, please clarify. 11-18 fractions?

5. Page 11 under Analysis of pro-apoptotic, Figure 4 not 3

6. In MS identification, what was the minimum number of matched peptides for identification? Was there any protein that was identified with only one or two matched peptides?

7. Why the crude extract (even at high concentration) did not show any cytotoxic effect although it is supposed to have all the fractions.

8. In figure 4 legend, what does it mean the data were normalized with GAPDH?

9. Try to be consistent (hour or h, Nigella sativa or NS…), abbreviation should be mentioned the first time as pI

10. Slight mistakes; line 177 remove by, line 232 remove the, line 349 belong
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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