Reviewer’s report

Title: Ethyl acetate extract of germinated brown rice attenuates hydrogen peroxide-induced oxidative stress in human SH-SY5Y neuroblastoma cells: Role of anti-apoptotic, pro-survival and antioxidant genes.

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Reviewer: NAGARAJA HALEAGRAHARA

Reviewer’s report:

Manuscript: Ethyl acetate extract of germinated brown rice attenuates hydrogen peroxide-induced oxidative stress in human SH-SY5Y neuroblastoma cells: Role of anti-apoptotic, pro-survival and antioxidant genes.

• Is the question posed by the authors well defined?
The research question is not well defined. Authors should provide a clear research hypothesis and the aim/objective of the study in the last paragraph in the introduction section.

• Are the methods appropriate and well described?
Yes, the research methods are appropriate and described clearly.

• Are the data sound?
The research data has been analyzed with appropriate statistical analyses. But the authors have to check the comparison between the groups again. The statistical significance between the groups have not been identified clearly in the bar diagrams. # p < 0.05 versus control has not been presented in Figure 1. BR+250M H2O2 at 15ppm has a high SD and has P<0.05 significance to control. Authors should check the comparison again to confirm this. Figure 4 and 5 comparisons are not clearly stated in the Figure legends. Authors should spell out clearly what comparisons the different letters on the bars [a, b, c] represent. Some of the groups [Fig 5 AKT1 expression] has very high SD but still the figure shows P<0.05 significance with other groups. This part of the comparison needs a relook.

• Does the manuscript adhere to the relevant standards for reporting and data deposition?
Manuscript adhered to the standards for reporting the data.

• Are the discussion and conclusions well balanced and adequately supported by the data?
Yes, the discussion is well written and adequately supported by the data.

• Are limitations of the work clearly stated?
No, there is no clear statements regarding the limitations of the study.

• Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes, authors acknowledged the previous studies by the group.

- Do the title and abstract accurately convey what has been found?
Yes, title clearly depicts the aim and the study conclusion.
- Is the writing acceptable?
Writing is acceptable.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Other Comments:
- Expand BR at its first use in the abstract.
- Expand all the abbreviations in the abstract at its first use.
- Aim in the abstract says the study explored the potential antioxidant effect of GBR, leading upto Alzhiemers. But the conclusion in the end didn’t mention anything about it.
- Authors should provide few introductory points regarding human neuroblastoma cells.
- Introduction – line 101…. correct this sentence.
- Introduction – line 113….correct this sentence.
- Methods – Line 152….correct 50OC

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