Reviewer’s report

Title: Effects of Panax notoginseng saponins on severe acute pancreatitis through the regulation of mTOR/Akt and caspase-3 signaling pathway by upregulating miR-181b expression in rats

Version: 1 Date: 09 Sep 2017

Reviewer: Shing-Hwa Liu

Reviewer's report:

Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of In this study, the authors investigated the protective effect of Panax notoginseng saponins on acute pancreatitis in a taurocholate-induced rat model and explored its underlying mechanisms. The authors concluded that Panax notoginseng saponins significantly reduced taurocholate-induced pancreas injury and autophagy and increased apoptosis through an up-regulation of miR-181b signaling pathway.

Comments

This is an interesting study. The reviewer has some concerns as follows:

1. In title page, the authors' names should be revised, for example, the name of first author and corresponding author is Ming-wei Liu, but not Liu Ming-wei; Liu is last name.

2. In Figures 2 and 4 and 6, the LC3-I expression should also be shown and the ratio of LC3-II/LC3-I should be measured.

3. How about the survival rate in rats after taurocholate-induced SAP? It should be mentioned in the Results.

4. The scales in the images of Figures 3 and 7 and 8 and 9 and 12 are not consistent. The real scale bar should be inserted in the images of these figures, but not just described the magnification in the legends.

5. In Figure 6, the total mTOR and Akt protein expressions should also be shown and the ratio of total form/phosphorylated form should be measured.

6. In Figure 8, the immunohistochemistry for caspase-3 and Bcl-2 is really not convincing. The images are awful. They should be revised.

7. In Figure 9, the images for TUNEL analysis are also not convincing. Where are the TUNEL-positive cells? It should be revised.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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.

No

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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