Reviewer’s report

Title: Protective effects of chebulic acid on alveolar epithelial damage induced by urban particulate matter

Version: 0 Date: 15 May 2017

Reviewer: Hsiu-Mei Chiang

Reviewer’s report:

The purpose of this study was to investigate the protective effect of CA against urban particulate matter (UPM)-mediated collapse of the pulmonary alveolar epithelial (PAE) cell. The results indicated that UPM aggravated the generation of reactive oxygen species (ROS) and decreased mRNA and protein levels of junction molecules and barrier integrity in NCI-H441.

There is some points must be clarified.

1. In cell viability assay and Figure 1, authors stated that "Incubation with UPM (0.1, 1, and 10 μg/mL) for 24 h and UPM (10, 50, and 100 μg/mL) for 6 h (Fig. 1B, C) had no significant effect on cell viability." However, Figure 1B and 1C shown that UPM significantly decrease the cell viability of NCI-H441.

2. The label of X axis in Figure 2B was confused.

3. In Figure 4 A, the bands of occludin and α-tubulin were not consistent. The same problem present in Figure 4B. The experiment may not do at the same time or not from the same sample. Please redo the experiment and revise them.

4. Authors have to discuss their result and compare to other reports.

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.
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.

I am able to assess the statistics

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

Needs some language corrections before being published

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