Reviewer’s report

Title: Coix lacryma-jobi var. ma-yuen Stapf sprout extract has anti-metastatic activity in colon cancer cells in vitro

Version: 0 Date: 17 Aug 2017

Reviewer: Xiangnan Zhang

Reviewer’s report:

This investigation studied the anti-metastasis effects of CLSE on colon cancer. The topic is interesting, and several models are employed in this study. But the conclusions raised by the authors were not well supported by the current evidences, in particular the signaling part. The details are listed below,

1. Pg.5 ln.76, what is 'annual plant'?

2. The background should be rewritten, since it was not closely related to the topic of this paper. It is not clear why the authors aimed to study the anti-metastasis effects of CLSE?

3. In figure 1, it should be stated as 'Cell Viability' rather than 'Cell growth'.

4. In figure 2 and figure 3, the authors used the DFO to mimic hypoxia, however it is not clear whether the CLSE has direct chemical reaction with DFO and subsequently neutralizes its effects. To clarify this, the authors should have treated the cells with hypoxic gas. Alternatively, the authors should demonstrate that DFO still lead to hypoxia in the presence of CLSE.

5. In figure 4, why the signaling proteins were determined after 72 h of incubation? If the anti-metastasis effects can be observed with 24 h of incubation, these signaling should had been activated at an earlier stage.

6. In figure 4 B and C, the design is not related with the thesis of this paper. The author claimed that 'CLSE… through inactivation of the ERK1/2 and AKT pathway…'. To this end, they should reverse these signaling by activators and further observe whether the migration can be compromised with the presence of BOTH CLSE and signaling activators.

7. For the reasons aforementioned, the current evidences cannot support the conclusions.

8. The manuscript should be proof-read by some English native speakers.

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.

No

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

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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