Author's response to reviews

Title: Calycosin-7-O-beta-D-glucoside Promotes Oxidative Stress-Induced Cytoskeleton Reorganization Through Integrin-Linked Kinase Signaling Pathway in Vascular Endothelial Cells

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Author's response to reviews:

Dear Editors,

We thank the reviewers for the constructive critique of our manuscript (5787949981695329). We have addressed all the issues raised by the learned referee to improve the manuscript. The corrections are amended with Track Changes in the revised manuscript. The point to point answers of the comments are provided in the rebuttal letter. We hope that the revised version of the article will be accepted for publication in your esteemed journal.

Reviewer: Jing Lu

This study investigated the function of calycosin in LPS-induced endothelial injury, and found calycosin could promote oxidative stress-induced cytoskeleton reorganization in HUVECs, possibly through suppression of Rho/ROCK pathway and regulation of AKT pathway. It’s an interesting and meaningful research.

Minor Essential Revisions:

1. Valsartan is an angiotensin II receptor antagonist. Please explain the role of Valsartan in this research. Is it a positive control? As Abstract part shown: ‘as well as through comparison of the effects of calycosin with the reported Rho/ROCK inhibitors.’ does it mean Valsartan also is a Rho/ROCK inhibitor except Y27632?

Re: Angiotensin II is directly involved in the activation of Rho/ROCK pathway in essential hypertension and many other diseases. Valsartan belongs to highly selective non-peptide antagonist of angiotensin II receptor. Besides, valsartan demonstrates prominent anti-inflammatory and antioxidant efficacy. Valsartan plays an active effect by regulating the downstream of the cell signals, such as Rho/ROCK pathway, MAPK pathway, NF-kB pathway and/or etc, after blocking to the angiotensin II 1 receptor. So, valsartan was chosen as the positive control.
2. There are five figures shown in the manuscript. However, these figures were mislabeled in Results part.

Re: We have corrected the mislabeled description and figure legends.

3. In Results part: Effect of calycosin on gene and protein expresses of HUVECs induced by LPS “PCR microarray was employed to screen the genes that might be involved in remodeling of endothelial structure and function. The results are listed in table 1.” However, I couldn’t find Table 1.

Re: We apologize for the mistake that we missed out Table 1 during generating the PDF version. And we added them on.

Reviewer: Nasheeman Ashraf

This manuscript entitled “Calycosin-7-O-β-D-glucoside Promotes Oxidative Stress-Induced Cytoskeleton Reorganization through Integrin-Linked Kinase” embodies effect of Calycosin on LPS mediated inhibition of endothelial migration and disorganization of cytoskeleton as well as effect of calycosin on gene and protein expression of HUVECs induced by LPS.

Although the manuscript contains useful information, but it cannot be accepted in the current form.

Major Compulsory Revisions

More experimentation needs to be done in order to explain mode of action of calycosin. The experiments done here do not suffice the standards of this journal.

Re: Thank reviewers for constructive suggestions. We performed some more experiments during these days and added cell viability, apoptosis assays and assessment of intracellular reactive oxygen species (ROS) generation. The results were added to the manuscript. We hope that the supplement would be helpful to explain mode of action of calycosin and be endorsed by the reviewers.

Minor Essential Revisions

1. The manuscript needs grammatical help and overall language improvement. The authors seem to like to use several long sentences, when one short and direct sentence may convey the same information.

Re: We have had the manuscript modified by native English speaker. And some minor corrections have been made in the revised manuscript and some errors in syntax, grammar, and formatting have been corrected.

2. It would be useful to add more information in the discussion and conclusion part of the manuscript as the arguments provided are fragmentary.

Level of interest: An article of importance in its field.

Quality of written English: Not suitable for publication unless extensively edited.

Re: Figure legends and discussion have been restructured according to the reviewers’ suggestions.

Reviewer: Dalia O Saleh
Reviewer’s report:

The manuscript is very well written, organized and informative. However, there are "Minor Essential Revisions" as the abbreviations is not written in the abstract in the right order i.e. write the abbreviations in the abstract. Also, in figure 1A, B and D no statistical analysis has been done to compare between the groups.

Re: Thank reviewers’ suggestions. We have corrected the Abstract and Figure Legends according to the reviewers’ comments.

For the further improvement of the manuscript, we have once again gone through the whole article and some minor corrections have been made in the revised manuscript and some errors in syntax, grammar, and formatting have been corrected. All the changes made in the revised article have been highlighted in red and blue.

We hope that the revision is acceptable, and we look forward to hearing from you.

Yours sincerely,
Yue-Hua Jiang and Wei Li