Reviewer’s report

Title: Flavonoids of Polygonum hydropiper L. attenuates lipopolysaccharide-induced inflammatory injury via suppressing phosphorylation in MAPKs pathways

Version: 0 Date: 22 Sep 2015

Reviewer: Bulus Adzu

Reviewer's report:

General observation

The manuscript (BCAM-D-15-00212), entitled 'Flavonoids of Polygonum hydropiper L. attenuates lipopolysaccharide-induced inflammatory injury via suppressing phosphorylation in MAPKs pathways', is a value added study on in vitro anti-inflammatory activities of an enriched flavonoid fractions of Polygonum hydropiper (FPH).

Despite the fact that the different parts of the plant materials Polygonum hydropiper is a popular and widely studied as summarised in the review by Moyeenul Hug et al. (2014) [A. K. M. Moyeenul Huq, Jamia Azdina Jamal, and Johnson Stanslas. Ethnobotanical, Phytochemical, Pharmacological, and Toxicological Aspects of Persicaria hydropiper (L.) Delarbre; http://dx.doi.org/10.1155/2014/782830, 2014] that includes area of anti-inflammation (T. Furuta, Y. Fukuyama, and Y. Asakawa, "Polygonolide, an isocoumarin from Polygonum hydropiper possessing anti-inflammatory activity," Phytochemistry, vol. 25, no. 2, pp. 517-520, 1986.), the intention of the work is good and has some added value effect because it advanced on the mechanism.

However, that was overshadowed by technical lapses; that if not properly addressed might gave the work little or no scientific value. Principal amongst which are:

1) It is unnecessary too long and can be considerably shortened focusing only on their finding and what it represents deleting all the well-known information. The Introduction (Backgound) alone had 36 references. This is not necessary since the report is not a review.

2) Since their preparation is an added value approach that also explains the in vitro mechanisms involved, the report should clearly define the vacuum missing in the numerous studies on Polygonum hydropiper; many of which were cited by the Authors and the review by Moyeenul Hug et al. (2014), and focus on that. The report has a lot of useful information that will be of interest to BCAM readers, but the way it is currently presented is a bit ambiguous.
Background

- Unnecessary long. Cited only relevant information to the study and what it represents. Do away with well-known information. For example, Page 2/3: line 34 - 41 can be shortened. Accordingly, use the most important/current references.

- Page 5: line 35. Polygonum hydropiper (italics)

Methods

- Page 4: line 51 -54. Insert the address of the companies (Sigma, Gibco, Applygen, Neobioscience etc.).

- The authors should define the purchased Polygonum hydropiper L. (specimen achieved) and the resultant extract (yield etc) properly for subsequent quality control and validity checks.

Results

- Page 10: 32 -38: The total flavonoid in FNP is 55.3%; and rutin, quercetin and quercitrin content only totals 50.7%. From fig. 1, the other constituents are likely to be more than the balance. This observation need to be clarified.

Discussion:

- The authors should focus on discussing their results and what it represents, deleting all the well-known information on the background for the action mechanisms

Figures

- Figure 1: insert numbering of all the identified constituents by the HPLC, and take out the compounds lettering from the HPLC trace, use numbers for identification and place the numbers in the figure heading.

Table:

- Table 1: delete the table and present only the statement in Results.

References:

- Not according to the Journals guidelines. Re do all.
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.

Yes

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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