Reviewer’s report

Title: Ethanol extract of Pinus koraiensis leaves containing lambertianic acid exerts anti-obesity and hypolipidemic effects by activating adenosine monophosphate-activated protein kinase (AMPK)

Version: 0 Date: 20 Oct 2015

Reviewer: Jiaur Gayen

Reviewer's report:

Comments
In this present study, Lee et al described anti-obesity and hypolipidemic effects of Lambertianic acid isolated from Pinus koraiensis leaves and Ethanol extract of Pinus koraiensis leaves. The manuscript is well written and may be accepted with minor revision.

1) Isolation, purification, characterization, quantification of LA should be added in method section.

2) P13, L195: fifty rats, four groups (n=10 per group), how? Is it low fat diet or standard diet? You may mention the %fat of the diets.

3) P16, L248: it is better to present as either mean+SE or mean+SD for all data.

4) Fig 1A,B never mentioned in MS

5) Lot of abbreviations are used throughout the MS, which needs to be mentioned.

6) Extract used as 50 ug/ml (in vitro). What is the eqv LA conc in term of uM

7) P18, L286, Tthe correct it as The.

8) P18, L290: dose dependent manner (fig 3A); I do not see that much dose dependency. Cross check the data.

9) 100, 200 mg/kg used as in vivo dose. What may be the circulating conc of LA?

10) P20, L324,325: check the statistics between 18.3+2.91 and 15.7+1.86, is it significant?
11) P21, L336: check the figure numbers and correct

12) P22, L357, check the statistics between 24.4+2.47 and 21.2+1.88, is it significant?

**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.

I recommend additional statistical review

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

Acceptable

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