

## **Reviewer's report**

**Title:** HVC1 ameliorates hyperlipidemia and inflammation in LDLR<sup>-/-</sup> mice

**Version:** 0 **Date:** 18 Nov 2016

**Reviewer:** Shanmugam Nagarajan

### **Reviewer's report:**

In this manuscript the authors have evaluated beneficial effect of an herbal product, HVC-1. The authors have tested whether HVC-1 can prevent atherosclerosis in LDLR knockout mice and possible mechanisms for the protective effect of HVC-1. This study lacks clearly defined mechanism. The following are the concerns.

1. Atherosclerotic lesion data are not convincing. The anatomical location for each of the samples appears to be different. How did the author quantify the lesion area? The authors should quantify lesion size and area and present the data.
2. Based on the data presented in Figure 1, the authors have evaluated the effect of HVC-1 on plasma lipid profiles and genes that regulate cholesterol homeostasis in liver. Though it appears to be logical, without presenting lipid profiles and hepatic steatosis data the gene expression and protein analysis do not present the elucidate mechanism.
3. Why and how HVC-1 differentially regulate different forms of PPAR. If PPARs are regulated differently by HVC-1, the authors should support this finding with each of the PPAR specific gene expression profile.
4. The authors have mentioned that HVC-1 influence adiposity. It is misleading, because the authors have not evaluated adipose tissue in their study. It should be restated to hyperlipidemia.
5. Delete Figure 1A and Table 3.

### **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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