Reviewer's report

Title: Oryeongsan inhibits LPS-induced production of inflammatory mediators via blockade of the NF-kappaB, MAPK pathways and leads to HO-1 induction in macrophage cells

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Reviewer: Dong-Yeul DYK Kwon

Reviewer's report:

Reviewer comment

In this manuscript, Oh et al examined the effects of a Oryeongsan (herbal decoction which is consist of five herbs) on LPS-induced production of NO, inflammatory cytokines, expression of HO-1, and activation of NF-kappaB and MAPKs in a murine macrophage RAW 264.7 cells. Data showed that the Oryeongsan dose-dependently inhibited production of NO, TNF-alpha and IL-6, activation of NF-kappaB, ERK1/2 (but not p38 and JNK) MAPK in RAW 264.7 cells upon LPS stimulation. Also, Oryeongsan dose-dependently induced expression of HO-1, both protein and mRNA level.

Comments:

1. The more detail methods for herbal decoction extraction should be described in the “Preparation of herbal decoction OR”. Also amount of each herb were not listed in the manuscript. Authors should consider appear composition and amount of each herb in the manuscript by table.

2. The author measured only TNF-alpha and IL-6 cytokines? If so authors should consider measure other cytokines such as GM-CSF or IL-1beta.

3. RT-PCR conditions such as annealing temperature in the Materials and Methods should be arranged with sequences of genes in the Table 1.

4. Quality and resolution of the figures (especially figure 6 and 7) has to be increased.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.