Reviewer's report

**Title:** Anti-inflammatory effects of sargachromenol-rich ethanolic extract of Myagropsis myagroides on lipopolysaccharide-stimulated BV-2 cells

**Version:** 1  **Date:** 11 March 2014

**Reviewer:** pengfei tu

**Reviewer's report:**

**Major Compulsory Revisions**

This study investigated the anti-neuroinflammatory activities of Myagropsis myagroides ethanolic extracts (MME) in lipopolysaccharide (LPS)-stimulated BV-2 cells. The experiment is well designed. The detection methods and conclusion are reasonable. However, there are some problems should be point out.

1. Methods. The collected Myagropsis myagroides, Undaria pinnatifida, Saccharina japonica, Sargassum horneri, and S. fulvellum should be checked by professional certification.

2. Figure 1C (viability assay). There are two groups marked by LPS(+) and MME (50ug/ml), I think it’s a slip of the pen, please check it.

3. Figure 4A. Scale should be added into the picture.

4. Figure 5A. Statistical assay should be performed for p-p38 and p-Akt.

5. Whether MME directly regulated NF-kB activity or indirectly via ERK and JNK signal? The results are ambiguous. The authors should discuss more about it.

6. If sargachromenol inhibits inflammation via targeting NF-kB pathway or MAPK pathway, this compound should be able to transfer into the cells? Please show the evidence.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests