Reviewer's report

Title: Neuroprotective effects of Liriope platyphylla extract against hydrogen peroxide-induced cytotoxicity in human neuroblastoma SH-SY5Y cells

Version: 2 Date: 8 April 2015

Reviewer: Ko Fujimori

Reviewer's report:

Park et al. reported the suppression of H2O2-mediated cytotoxicity of LPE in human SH-SY5Y cells. P38 MAPK phosphorylation was repressed by the pre-treatment with LPE in H2O2-treated cells. The results were sound and manuscript is easy to read. However, there are concerns that should be improved.

1. Why did the authors use 100 uM H2O2? How did the authors decide this concentration?
2. The authors should indicate the method to isolate the protein from cells. Moreover, determination of protein concentration should also be stated.
3. In mitochondria membrane potential assay, how did the authors calculate the Red/Green ration? Please indicate the method to calculate in Materials and Methods part.
4. In Western blot analysis, please indicate the protocols for measurement of band intensities.
5. What amount of proteins did the authors load in each lane?
6. LPE suppressed the phosphorylation of p38 in H2O2-treated SH-SY5Y cells. The protective mechanism is still unclear. The authors had better discuss the possible mechanism of LPE-mediated anti-oxidant and anti-apoptic effects.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

There are no competing interests.