Reviewer's report

Title: Retama monosperma n-hexane extract induces cell cycle arrest and extrinsic pathway-dependent apoptosis in Jurkat cells

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Reviewer: Yung Hyun Choi

Reviewer's report:

This manuscript described the antitumor activity of Retama monosperma n-hexane extract in human leukemia cells. The studies are well-designed and the manuscript is well written. While the manuscript in general is well-written, they also need to address the following minor issues.

1. In Materials and methods, more detailed description on the devices used for mass spectrometry (GC/MS) and Gas chromatography and analysis is needed.
2. There are no exact information about antibodies used in Western blots.
3. It would be interesting to quantify cell toxicity by other techniques, such as MTT assay or LDH dehydrogenase method in order to clarify this point.
4. In Fig. 2C and 4B (Bax), more clear western blotting results had better be provided.
5. Other known markers of apoptosis such as DNA fragmentation, mitochondrial membrane potential or PARP degradation should be investigated.
6. Some paragraphs begin with title that is actually a kind of conclusion. It should be avoided because all conclusions can be done after results discussion based on obtained results.
7. Authors stated that Rm-HE activates both extrinsic pathway. However, caspase-8 was also activated. Just observing the activation of caspase-9 and induction of FasL are not sufficient to support authors hypothesis.

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.

Declaration of competing interests:

I declare that I have no competing interests.