Response to Reviewer 2 Comments

**Point 1:** The manuscript presents very interesting material documented professionally. You need to make some adjustments.

**Response 1:** Thanks for the comments. We had tried our best to address the comments by careful revision using point-by-point fashion to improve the quality of our manuscript. Please refer to the revisions as below.

**Point 2:** In the introduction part, there should be a figure showing the structure of ailanthone.

**Response 2:** Thanks for the suggestions. We have added an image for the structure of ailanthone. Please refer to line 68-69 in the updated manuscript.

**Point 3:** The abstract should be written in a uniform manner, ie delete the words: background, methods, results and conclusion.

**Response 3:** Thanks for the suggestions. We have re-depicted the abstract in a uniform manner. Please refer to line 17-35 in the updated manuscript.

**Point 4:** In the discussion, the cytotoxicity of ailanthone should be reported or recalled against normal cells, e.g. fibroblasts.

**Response 4:** Thanks for the comments. As the reviewer’s concern, the safety concern of ailanthone should be noted. The anti-tumor effects of ailanthone were examined in melanoma A375 and B16 cells, but the cytotoxicity of ailanthone in normal cells, e.g. Human HaCaT Keratinocytes or mouse L929 fibroblasts, wasn’t determined. We searched for the reports for the cytotoxicity of ailanthone in normal cells or animals. It has been reported that ailanthone significantly blocks tumor growth and metastasis, and doesn’t exert obvious hepatotoxicity in prostate cancer 22RV1 tumor-bearing mice (He Y, et al., Nat Commun., 2016), implying ailanthone could be a potential candidate for cancer treatment. We have added this report in the Discussion section. Please refer to line 368-373 in the updated manuscript.

**Point 5:** Please correct typing errors, e.g. line 57: \.

**Response 5:** Thanks for the kindly reminder. We have corrected the typing error. Please refer to line 58 in the updated manuscript.