Reviewer’s report

Title: MiR-199a-3p affects the multi-chemoresistance of osteosarcoma through targeting AK4

Version: 3 Date: 15 Feb 2018

Reviewer: Vijay Pandey

Reviewer's report:

Background information is superficial.

Authors should represent more information regarding miRNA, AK4 gene, and OS in separate paragraphs. The complete name for AK4 abbreviation is missing in the manuscript.

Material and methods:

Authors should use proper nomenclature for the gene (mRNA and protein) as suggested by HUGO Gene Nomenclature Committee, or equivalent resources to ensure standardized nomenclature is used for species-specific gene and protein names.

The author should provide certificate number or details from IACUC committee approval of Anhui Medical University.

Interpretation of results is not conclusive. As most of the conclusion addressed by authors are MIGHT BE….

The discussion is superficial and not adequately written. Mostly repetition of results and introduction...

Overall, the current version of the manuscript needs scientific proofread.

Results:

Authors should provide predictive analysis of the targets of miR-199a-3p using the following websites: Targetscan, miRDB, and microRNA.org. Moreover, rational for AK4 selection for further analysis in this study.

Figure 2E, authors should provide new WB for MNNG/HOS (NC and 3PA), as control blot (GAPDH) for not look substantial.

One of the primary concern in this study is in vivo analysis, the tumour volume. Authors should provide details regarding protocol in the supplementary information.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal