Reviewer’s report

Title: Identification of H₂O₂ induced oxidative stress associated microRNAs in HLE-B3 cells and their clinical relevance to the progression of age-related nuclear cataract

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Reviewer: Palsamy Periyasamy

Reviewer's report:

In this manuscript, Wang et al. performed a microRNA screening in human lens epithelial B3 cell lines subjected to oxidative stress upon H₂O₂ exposure. Also, the authors validated the key differentially expressed microRNAs both in vitro and ex vivo using qPCR. The authors also implied the pathway analysis for the potential targets for these differentially expressed microRNAs using commonly available bioinformatic online tools. The statistical analyses used in this manuscript is very appropriate. English language of the manuscript is also good. Overall, this manuscript can be accepted in this manuscript. Comments: It will be more convincing if the authors perform any target protein analysis for these differentially expressed microRNAs either using western blotting or immunostaining. Also, the authors can validate their findings of differentially expressed microRNAs both in vitro and ex vivo using in situ hybridization. Did the authors find any association between the differentially expressed microRNAs and the antioxidant genes? Explain.

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.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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