Reviewer's report

Title: Antitumor effects of Quercetin on Y79 retinoblastoma cells via JNK and p38 MAPK pathways

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Reviewer: Nitin Telang

Reviewer's report:

Overall, the manuscript is reasonably well written and contains good data on anti-proliferative and pro-apoptotic effects of Quercetin on Y79 retinoblastoma cell line. The study outcome provides convincing evidence for the involvement of the JNK and p38MAPK pathways in growth inhibitory efficacy. However, the following points need to be considered and appropriately addressed.

1. All the experiments have utilized an acute (24 hrs.) treatment of Quercetin. The extent of growth inhibition in response to long-term treatment is essential to justify potential clinical translation of the study outcome.

2. The CDK inhibitors p21 and p27 are also associated with the tumor suppressive function of p53. What is the status of p53 in the present cell culture model?

3. The tumor suppressive effects of the RB gene are known to be effective via cyclinD-CDK4/6-pRB-E2F cascade. What is the status of this pathway in the model, and what is the response of Quercetin to this pathway?

4. The rationale to examine cyclin D3-JNK-p38MAPK pathway needs to be stated, and its relationship with the traditional RB signaling needs to be discussed.
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?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
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Needs some language corrections before being published

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