

Review Form 1.6

Journal Name:	Journal of Pharmaceutical Research International
Manuscript Number:	Ms_JPRI_75558
Title of the Manuscript:	Interference of Antioxidant Flavonoids with MTT Tetrazolium Assay in a Cell Free System
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://peerreviewcentral.com/page/manuscript-withdrawal-policy>)

PART 1: Review Comments

	Reviewer's comment	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p>	<p>Thank you for giving me the opportunity to review this manuscript which highlights issues derived from the use of MTT assay in the evaluation of flavonoids effect on cell viability. Authors conducted a comparison between MTT and SRB assays, which are the two methods widely used to test cell proliferation and cytotoxicity. To this aim, authors used two cancer cell lines treated with different concentrations of some flavonoids. Overall, this study suggests that SBR test is a more suitable method to determine the effect of flavonoids on cell viability.</p> <p>In general, the manuscript is well structured and has a medium scientific priority.</p> <p>Nevertheless, it needs to be revised and improved by strengthening some crucial parts to be considered for publication in Journal of Pharmaceutical Research International.</p> <p>Sincerely, Prof. Assunta Pandolfi</p>	<p>In general, this manuscript highlighted issues derived from the use of MTT assay in the evaluation of flavonoids effect on cell viability by comparing it with the alternative method SBR. The authors provide a different approach in the study of cancer cell viability by suggesting SBR as a more suitable method to determine flavonoids cytotoxicity. However, some issues should be addressed in order to improve the manuscript.</p> <ul style="list-style-type: none"> - English editing and correction of grammatical errors are strongly suggested. - ABSTRACT: The abstract should be improved and better structured. The aim of the study is not well explained. Moreover, the cell lines used are not mentioned in the abstract. - MATERIALS AND METHODS: <ol style="list-style-type: none"> 1. in the "2.2 MTT assay" paragraph authors specify that tests were performed by treating cells with flavonoids at ranging concentrations from 25µM to 200µM. I suggest to correct the figure 2 caption accordingly. 2. in the "2.4 Statistical analysis" paragraph authors should specify the test used for the statistical analysis. - RESULTS: <ol style="list-style-type: none"> 1. In the "3.1 Effect of solvent DMSO on absorption" paragraph authors describe the results obtained by incubating cells with different percentages of DMSO. Please add a representative figure showing these results. 2. in the "3.3 effect of flavonoid concentration on absorbance without cells" paragraph authors motivate the performance of MTT analysis without cells by mentioning that results of MTT assay do not correspond to those obtained from SRB analysis. For this reason, please rearrange the order of the paragraphs in the section of results. 3. in the "3.4 Effect of incubation time on MTT reduction" paragraph authors specify that flavonoids were used at concentration of 50 µM. Please modify figure 4 caption accordingly. 4. In order to strengthen the purpose of the work, it would be interesting to evaluate the effects of flavonoids by using another sensitive viability assay such as the Cell Counting Kit – 8. Please provide these data. - DISCUSSION: Please improve the discussion by updating references and better clarify concepts explained in the third paragraph. 	
<p>Minor REVISION comments</p>			

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Optional/General comments			
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PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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