Jentashapir Journal of Cellular and Molecular Biology
Volume 13 · Issue 1 · e123890

OPEN PEER REVIEW

Anti-proliferative Effects of *Ocimum basilicum* Leaf Aqueous Extract on Colon Cancer Cell Lines and the Expression of Apoptotic Genes

Mohammad Heydarnezhad Asl, Amin Ahmadi, Kazhal Karari, Mehdi Haghi, Mohammad Reza Tohidkia, Faezeh Pasban, Reza Safaralizadeh

SUBMITTED	REVISED	ACCEPTED	DOI
6 Mar 2022	26 Apr 2022	21 May 2022	10.5812/jjcmb-123890

About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

Contents

1 **Original submission** Editor-in-Chief 2
2 **Revision 1** Editor-in-Chief 4
Authors' reply to reviewers 5
Reviewer and editor comments 6

1 Original submission

1 comment · 12 Apr 2022

Editor-in-Chief

MAJOR REVISION 12 Apr 2022

Dear Dr. Haghi
Thank you for considering the JJCMB for the presentation of your valuable data. Based on the reviewers' comments, your article needs major revision, as there are some issues that should be addressed.

Reviewer 1
The manuscript is entitled “Anti-proliferative effects of Ocimum basilicum leaf aqueous extract on colon cancer cell lines and the expression of apoptotic genes”.
In this manuscript, the authors investigated the anti-proliferative and cytotoxic effects of Ocimum basillicum leaf aqueous extract on human colon cancer cell lines LS174T and COLO205 and the expression of apoptotic genes.
There are some issues that the authors need to note to improve their manuscript.
Minor points:
1-The English grammar and usage throughout the paper are very poor, and the paper should be revised to improve its English structure.
2-There are many spelling mistakes in the text, for example: thiazole or s linalool …
3-The Real-time temperature cycle as well as the description of the TRIzol method is not necessary.
4-Figures do not have numbers.
5-Specify the method of statistical analysis.
6-Please write the ethics code in the manuscript to confirm that the ethics committee of your university has approved this research.

Major points:
1-A normal cell line should be tested as a negative control. Which normal cell line did you use?
2-What was the reason for choosing these concentrations: 2, 4, 6, 8 mg/ml for MTT and 0.5, 1, 2, 4 mg/ml for real-time?
3-In the method section, you mentioned that 5 microliters of the extracted RNA was used for cDNA synthesis. Was this volume selected based on Nanodrop data? Your data do not appear to be normalized, and because you did not use the same concentration for all samples, the real-time results are not valid.
Reviewer 2
The paper entitled “Anti-proliferative effects of Ocimum basilicum leaf aqueous extract on colon cancer cell lines and the expression of apoptotic genes” is a basic study in which the anticancer effect of a naturally occurring component was evaluated against a cellular model of colorectal cancer. Although the topic was interesting, there are some issues that should be considered by the authors:
1. The manuscript should be revised by a native speaker.
2. The introduction should be restructured by detailing your specific research problem. It is a guide for your readers to understand why you have conducted this study.
3. Ethical Approval ID should be added.
4. The funding support should be defined carefully, even if the study was funded personally by the authors.
5. Conflict of interest should be changed to the following sentence: “The authors declare to conflict of interest”
6. Kits and reagents should be defined in this format: Name of Kit or reagent (company, country).
7. Data analysis should be written in more detail.
8. The Results section presents your key results, without explanation, and in an orderly and logical sequence

using both illustrative materials (Tables and Figures) and text. The text of the results section brings answers to the questions/hypotheses you identified. Authors usually write the text of the results section based upon the sequence of Tables and Figures.
9. Data should be presented as Mean±SD in both illustrative materials (Tables and Figures) and text.
10. Statistical asterisks should be defined in data analysis and put in bar charts.
11. Figure legends should start with a short-term title sentence for the whole figure and continue with a brief description of what is shown in each panel. Use any symbols in sequence and minimize the methodological details as much as possible.
12. The Bax/Bcl2 is an indicator of apoptosis in the cells. Why did the authors focus on Bax and Bad?
13. Discussion is not satisfying and should be revised by the authors carefully. The discussion shows the meaning, novelty, importance, and relevance of your data. The authors should focus on explaining and evaluating your results (and not repeating what you said in the introduction). A good discussion will show the readers why the research results are important and where they fit in the current literature.
Thanks again
Dr. Seyed Ali Mard

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1

1: *A normal cell line should be tested as a negative control. Which normal cell line did you use?*

HCT116 was used and is added to the manuscript

2; *What was the reason for choosing these concentrations? 2, 4, 6, 8 mg/ml for MTT and 0.5, 1, 2, 4 mg/ml for real time?*

Previous studies that are conducted similarly have been studied and the concentrations were decided upon afterward

3: *n the method section, you mentioned that 5 microliters of the extracted RNA was used for cDNA synthesis, is this volume selected based on Nanodrop data? Your data does not appear to be normalized, and because you did not use the same concentration for all samples, the real-time results are not valid.*

The concentration was decided upon after reading similar studies and doing a drop test. All data are normalized

Reviewer 2

All the comments have been applied

12: *The Bax/Bcl2 is an indicator of apoptosis in the cells. Why did the authors focus on Bax and Bad?*

These genes are pro-apoptotic and play important and crucial roles in the process of apoptosis. These genes are often downregulated in cancer cells which leads to uncontrolled proliferation of cancer cells in part due to lack of apoptosis. An increase in the expression of these genes can lead to the initiation of apoptosis in cancer cells which finally can help controlle the spread and progression of this disease.

2 Revision 1

1 comment · 21 May 2022

Editor-in-Chief

ACCEPT 21 May 2022

Dear Dr. Mehdi Haghi
Following the review of your manuscript, it is my pleasure to inform you that our team of reviewers decided to accept your paper for publication in JJCMB.
Thank you again for considering our journal for publishing your valuable results.
Dr. Seyed Ali Mard