

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 88022

Title: 5-methoxytryptophan induced apoptosis and PI3K/Akt/FoxO3a phosphorylation in colorectal cancer

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 00607640

Position: Editor-in-Chief

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: China

Manuscript submission date: 2023-09-06

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-10-09 01:16

Reviewer performed review: 2023-10-18 02:23

Review time: 9 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

In this paper, the authors investigated the effects of 5-MTP on the proliferation, migration, invasion, and apoptosis of colorectal cancer cells.. The paper is interesting and suitable for the Journal. However, some minor concern are for your consideration.

1. Abbreviations used should be with its full name when it firstly appears.
2. The sources of materials (ex. DCFHDA, 5-MTP..) are recommended to be added.
3. Figures: figure labeling '5-MT' should be corrected as "5-MTP".

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Title: 5-methoxytryptophan induced apoptosis and PI3K/Akt/FoxO3a phosphorylation in colorectal cancer

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03976790

Position: Editor-in-Chief

Academic degree: DSc, PhD

Professional title: Emeritus Professor

Reviewer's Country/Territory: France

Author's Country/Territory: China

Manuscript submission date: 2023-09-06

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-10-20 06:33

Reviewer performed review: 2023-10-27 14:47

Review time: 7 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Comments about the manuscript: “5-Methoxytryptophan induced apoptosis and PI3K/Akt/FoxO3a phosphorylation in colorectal cancer” The study presented here concerns the investigation of the effects of 5-methoxytryptophan (5-MTP), a metabolite of tryptophan on the proliferation, migration, invasion and apoptosis of colorectal cancer cells with the aim of using this in treatment of colorectal cancer. To do this, the authors studied the effects of this molecule on proliferation, apoptosis and reactive oxygen species (ROS) on cell lines. A study of the effects of 5-MPT on the PI3K/Akt signaling pathway in colorectal cancer cells was also carried out. This work provides interesting elements that could lead to treatment of colorectal cancer. However, the manuscript needs to be revised and improved before considering its publication. More particularly, the description of methods and techniques need to be better developed. Page 3, line 92. “Traditional Chinese medicine (TCM) has a long history of treating malignant tumors”: This point is interesting: explain the link between TCM and use of 5-MTP. Page 3, line 110. “All cells were derived from ATCC”: Some specifications on cell lines would be helpful. Page 3, lines 110-111. “cultured according to conditions defined in their

instructions”: Explain the method of culture: “according to conditions defined in their instructions” is not sufficient for a scientific paper. Page 3, lines 116 and 119. “collected by centrifugation”: give some explanations of how the cells were collected. Page 3, lines 119-120. “PI staining solution was prepared according to the kit instructions”: what is “PI staining” Explain the method: “prepared according to the kit instructions” is not sufficient for a scientific article. Page 3, lines 125-126. “Cells in each group were digested with EDTA-free trypsin, washed with PBS, and collected”: explain the centrifugation collection method. Page 4, lines 129-130. Write “400µL of binding buffer solution” instead of “400µL of Binding buffer solution”. (no capital first letter to “binding”). Page 4, line 133. “According to the manufacturer's instructions”: is not sufficient: explain the method. Page 4, line 134. “diluted DCFH-DA”: specify how the dye was diluted: concentration? Solvent? Page 4, line 136. “Hoechst 33342 Viable Cell Staining Solution”: explain the preparation of the dye. Page 4, line 141. “staining working solution”: explain. Page 4, lines 144-145. “added an appropriate amount of cell culture medium”: clarify what is an “appropriate amount”? Page 5, line 183. “fixed with methanol”: what is the composition of the fixative? Page 5, line 183. “crystal violet”: Some specifications on crystal violet (solvent, concentration) would be useful. Page 5, line 202. Write “Hoechst” instead of “Hochest”. Pages 11-12, figure 1. Figures e, g, I, representing cell cultures, must be explained: specify the dye used, explain what each figure represents. Page 12, figure 2, line 504. Write “The Hoechst staining” instead of “The hochest staining”. Figures a and d: specify the scale bar in the legend (too small on the picture). Explain each figure. Pages 14-15, figure 4: Specify the scale bars (too small on the picture). Explain each picture.