

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastrointestinal Oncology*

**Manuscript NO:** 85344

**Title:** Pomolic acid and its glucopyranose ester promote apoptosis through autophagy in HT-29 colon cancer cells

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 06503217

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor, Chief Physician

**Reviewer's Country/Territory:** South Korea

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-05-21

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-05-24 00:51

**Reviewer performed review:** 2023-05-31 02:05

**Review time:** 7 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input 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 Grade E: Do not publish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

<b>Scientific significance of the conclusion in this manuscript</b>	<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
<b>Language quality</b>	<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
<b>Conclusion</b>	<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
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	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

Colon cancer remains as a high death leading cause in the world, which cannot be effectively cured by surgical treatment at the advanced stage. To address this challenge, in this study, the authors aimed at exploring the lethal effect of Pomolic acid and its glucopyranose ester on colon cancer cells. The authors used proliferation assay, cell apoptosis analysis, cell cycle analysis assay, real-time PCR and Western Blotting to verify their hypothesis. The results showed that PA and PAO can promotes apoptosis through autophagy in HT-29 conlon tumor cells. So, in my opinion, this paper is well-written. The experimental design is reasonable, and the results reflects the conclusion as well. I recommend its acceptance after the minor revision. The detailed comments are: 1. In the section of cell culture and proliferation assay, what is the criterion of the authors to select certain concentrations of PA and PAO in the experiments? 2. In my opinion, HT-29 cells are usually cultured using 10% FBS. Why did the authors use 5% FBS in this study? 3. The full name of PA appeared many times in the article, which is not necessary.

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**Peer-review model:** Single blind

**Reviewer's code:** 06503195

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor, Senior Researcher

**Reviewer's Country/Territory:** Germany

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-05-21

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-05-26 00:40

**Reviewer performed review:** 2023-06-01 01:13

**Review time:** 6 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input 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 checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<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
<b>Language quality</b>	<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
<b>Conclusion</b>	<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
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	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

The authors used a cell model of HT-29 to represent colon tumor and investigate the therapeutic role of PA and PAO in the progress of colon cancer. After reasonable grouping the HT-29 cells and performing various experiments, the authors showcased that PA and PAO can effectively increase the apoptosis of HT-29 cells and arrest these cells at G0/G1 stage by inducing autophagy signaling. This result also draws a conclusion that PA is a potential drug for colon tumor treatment. In short, the topic of this manuscript is timely and interesting. The authors have organized the manuscript rationally, with good methodology and well-written English. However, some important editing needs to be done before publication: 1) What are the common drugs in clinical for the treatment of colon tumor? Compared with these drugs, what is the key advantage of PA? 2) The authors have provided abundant data to verify the therapeutic role of PA and PAO on colon cancer. However, the high-resolution images of Figures 1, 2 and 4 are needed for publication.