

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 77748

Title: DNA methylation of RASSF1A in plasma by digital PCR detection as an early detection biomarker for colorectal cancer and hepatocellular carcinoma patients

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06143350

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: Germany

Author's Country/Territory: China

Manuscript submission date: 2022-05-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-05-30 23:55

Reviewer performed review: 2022-06-12 23:46

Review time: 12 Days and 23 Hours

| Scientific quality | [] Grade A: Excellent [Y] Grade B: Very good [] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish |
|--------------------|--|
| Language quality | [] Grade A: Priority publishing [Y] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection |
| Conclusion | [] Accept (High priority)[] Accept (General priority)[Y] Minor revision[] Major revision[] Rejection |
| Re-review | [Y]Yes []No |



| Peer-reviewer | Peer-Review: [Y] Anonymous [] Onymous |
|---------------|---------------------------------------|
| statements | Conflicts-of-Interest: [] Yes [Y] No |

SPECIFIC COMMENTS TO AUTHORS

Due to its invasive characteristics, it is difficult to use for cancer screening and early diagnosis. Noninvasive biological samples have the advantages of being minimally invasive or noninvasive, having a simple operation and being suitable for multiple collections. Blood DNA mainly includes plasma or serum DNA and blood cell DNA. It is generally believed that DNA in plasma or serum mainly comes from tumor cell necrosis or apoptosis. Accurate qPCR quantification relies on a standard curve and good amplification efficiency and is sensitive to factors affecting amplification efficiency. This study evaluated the diagnostic value of RASSF1A methylation in plasma for colorectal cancer and hepatocellular carcinoma using a digital PCR detection method. The study is designed well. Samples are enough, and methods are described in detail. The results of DNA methylation comparison are interesting, and well discussed. The references are updated. Figures are informative. Minor comments: 1. Some minor language polishing should be revised. 2. Please take attention about the abbreviations. 3. Images should be updated with high resolution images.



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Peer-review model: Single blind

Reviewer's code: 06143360

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Research Associate

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

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| Scientific quality | [] Grade A: Excellent [Y] Grade B: Very good [] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish |
|--------------------|---|
| Language quality | [Y] Grade A: Priority publishing [] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection |
| Conclusion | [] Accept (High priority) [Y] Accept (General priority) [] Minor revision [] Major revision [] Rejection |
| Re-review | []Yes [Y]No |



| Peer-reviewer | Peer-Review: [Y] Anonymous [] Onymous |
|---------------|---------------------------------------|
| statements | Conflicts-of-Interest: [] Yes [Y] No |

SPECIFIC COMMENTS TO AUTHORS

This is a very interesting study of DNA methylation of RASSF1A in plasma by digital PCR detection for colorectal cancer and hepatocellular carcinoma patients. The results are excellent, and well discussed. The reviewer recommends to accept this study after a minor editing.



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Peer-review model: Single blind

Reviewer's code: 06099605

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: India

Author's Country/Territory: China

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Review time: 12 Days and 23 Hours

| Scientific quality | [] Grade A: Excellent [Y] Grade B: Very good [] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish |
|--------------------|--|
| Language quality | [] Grade A: Priority publishing [Y] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection |
| Conclusion | [] Accept (High priority) [Y] Accept (General priority) [] Minor revision [] Major revision [] Rejection |
| Re-review | []Yes [Y]No |



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|---------------|---------------------------------------|
| statements | Conflicts-of-Interest: [] Yes [Y] No |

SPECIFIC COMMENTS TO AUTHORS

This study is a very designed study. The authors evaluated the diagnostic value of RASSF1A methylation in plasma for CRC and HCC. The results are positive. The manuscript is well written. I have no specific comments.