PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Infectious Diseases

Manuscript NO: 69172

Title: Can a radioimmunoassay kit be developed for the accurate detection of the S protein of severe acute respiratory syndrome coronavirus 2?

Reviewer's code: 05637853

Position: Peer Reviewer

Academic degree: BSc, MPhil, MSc

Professional title: Academic Research, Research Assistant, Research Scientist

Reviewer's Country/Territory: Pakistan

Author's Country/Territory: China

Manuscript submission date: 2021-06-19

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-26 10:08

Reviewer performed review: 2021-06-27 18:20

Review time: 1 Day and 8 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

SPECIFIC COMMENTS TO AUTHORS

Comments on 69172 Manuscript No.: 69172 Title: Can a radioimmunoassay kit be made for the accurate detection of the S protein of SARS-CoV-2? In this study, the author has studied "Can a radioimmunoassay kit be made for the accurate detection of the S protein of SARS-CoV-2?" A lot of studies have already been carried out on a similar topic, and comprehensive data is available in the literature. The English language used in the manuscript needs major improvements as there are some punctuation and grammatical mistakes present throughout the manuscript. No mechanism is explained, no figure is added, no tabular data is inserted. Experimental designs required more clarity. Moreover, research models are not discussed in an understandable manner, repetition of lines is common throughout the manuscript, which reflects that the author needs a more comprehensive way of thinking. It is obvious that the quality of the manuscript does not fulfill the standards of the journal, therefore should be rejected in its present form. Specific comments: 1. The Abstract needs to be critically revised. 2. Page 2: "Reverse transcription-PCR (RT-PCR) is the main method for the in vitro detection of SARS-CoV-2 in China." This statement is not correct because this is used throughout the world. 3. Please add more strong keywords. 4. Page 2: Souza PFN et al. [4,5] showed that 8 antibacterial peptides…" Please revise it. It is not the right way to insert two references after 'et al.' of a single author name. 5. Page 2: The whole introduction section is poor and general. Authors are advised to revise the introduction section carefully and add relevant data to support the problem statement and make a connection between each paragraph. Authors are jumped from one discussion to another without any authentic information, please revise it carefully. 6. Page 3: "Requiring only 10 amino acids for synthesis at a low cost." Can you please add the names of that amino acids? 7. Page 3: "RIA kits were prepared in the same manner as other kits on the market." This is not the

right way to report the method, please briefly explain. 8. Page 3: "COVID-19 is highly infectious and pathogenic….. consideration of the infectivity of SARS-CoV-2" This paragraph should be moved to the introduction section to create a research gap. 9. How much better results were/will be observed with the RIA assay? What is the cost of this method? What is the accuracy of this method compared to RT-PCR? 10. Authors are advised to proofread the manuscript to overcome grammatical mistakes.' 11. The discussion needs professional English editing, please revise it carefully to make it standard. Please focus on the main topic during the discussion.   12. The authors need to summarize their manuscript in a single sentence at the end.

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Name of journal: World Journal of Clinical Infectious Diseases

Manuscript NO: 69172

Title: Can a radioimmunoassay kit be developed for the accurate detection of the S protein of severe acute respiratory syndrome coronavirus 2?

Reviewer's code: 05432496

Position: Peer Reviewer

Academic degree: PhD

Professional title: Research Fellow

Reviewer's Country/Territory: Brazil

Author's Country/Territory: China

Manuscript submission date: 2021-06-19

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-27 20:11

Reviewer performed review: 2021-06-27 20:33

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] 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) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The manuscript, a Letter to the Editor, reports an alternative method for COVID-19. The central idea of the manuscript is clear, nevertheless the manuscript reports that RT-PCR for the detection has a low sensitivity (as low as 38%), an this information should be further discussed, such as targets, sequences, methods and variants. Please also further explain the low sensitivity described, several reports with RT-PCR report close to 100% sensitivity (10.1016/j.bjid.2020.04.003).