ISSN: 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-50483 Date: 04-03-2025

Title: Analysis of transcriptional activity of human Mucin5AC gene under the influence of V.cholerae GbpA protein.

Recommendation:
Accept as it is……**YES……**
Accept after minor revision……
Accept after major revision ……
Do not accept (*Reasons below*) ……

Rating	Excel.	Good	Fair	Poor
Originality	√			
Techn. Quality		√		
Clarity		√		
Significance			√	

Reviewer's Name: Mir Tanveer

Reviewer's Decision about Paper: **Recommended for Publication.**

Comments (*Use additional pages, if required*)
.

Reviewer's Comment / Report

The manuscript titled *'Analysis of Transcriptional Activity of Human Mucin5AC Gene Under the Influence of V. cholerae GbpA Protein'* presents a comprehensive investigation into the molecular mechanisms of GbpA-induced mucin secretion. The study provides valuable insights into the role of GbpA in the transcriptional regulation of the Mucin5AC gene, emphasizing its significance in V. cholerae colonization and pathogenesis.

The abstract effectively outlines the study's objective, methodology, and key findings, offering a clear summary of the research conducted. The introduction provides a well-grounded background on the interaction between V. cholerae GbpA and intestinal mucins, reinforcing the rationale for investigating the transcriptional activation of Mucin5AC.

The manuscript presents a meticulous methodology, including the expression and purification of recombinant GbpA, cell culture, construction of deletion promoters, transfection, and luciferase assay. The experimental design is well-structured, ensuring reliability and reproducibility of the results. The statistical analysis further strengthens the validity of the findings.

ISSN: 2320-5407
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Results are presented in a clear and logical manner, with detailed descriptions of promoter construction, GbpA dose-dependent responses, and the identification of the regulatory region between -324 bp to -64 bp of the Mucin5AC promoter. The use of luciferase-reporter assays to demonstrate transcriptional activity adds significant value to the study.

The discussion successfully interprets the findings, placing them in the context of existing literature. The study's implications for understanding bacterial-induced mucin overproduction and potential therapeutic interventions are well-articulated. The manuscript concludes with a strong emphasis on the broader impact of these findings in host-pathogen interactions and gastrointestinal diseases.

Overall, this study provides a rigorous and insightful contribution to the field of microbial pathogenesis and gene regulation. The integration of molecular techniques and functional assays enhances its scientific merit, making it a valuable reference for researchers investigating host-microbe interactions.