Review Form 3

Journal Name:	**Journal of Advances in Biology & Biotechnology**
Manuscript Number:	**Ms_JABB_126203**
Title of the Manuscript:	**DNA Barcoding assisted authentication of polyherbal formulation – Triphala**
Type of the Article	**Original Research Article**

Review Form 3

PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.		
Are subsections and structure of the manuscript appropriate?		
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -		

Review Form 3

Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**		
Optional/General comments	**Reviewer Comments** The study utilizes ITS DNA barcoding to authenticate the three core ingredients in the polyherbal formulation Triphala, addressing adulteration concerns in commercially available samples. **Strengths** □ Employs a scientifically rigorous DNA barcoding approach, advancing the reliability of species identification in herbal formulations. □ Provides an innovative modification to the CTAB DNA isolation method for acidic, polyphenolic-rich samples, enhancing DNA quality and PCR compatibility. □ Successfully demonstrates the applicability of species-specific primers to verify commercial Triphala samples, supporting quality assurance measures in the herbal industry. □ Contributes valuable data on the genetic diversity of the component species through phylogenetic analysis, adding depth to species-specific molecular identification. **Weaknesses** □ The study's scope is limited to a small sample size (seven commercial samples), which restricts generalizability across the diverse global market for herbal formulations. □ The analysis does not address the possible quantitative measurement of each component, which could provide further insights into the proportionate authenticity of Triphala formulations. □ Presence of unintended DNA bands in gel electrophoresis indicates potential contamination; however, the study lacks sufficient investigation into the sources or nature of these contaminants. □ Limited discussion on the implications of species admixtures observed in gel electrophoresis bands, which could reflect on commercial sample quality standards. **Minor Comments** □ Ensure consistency in abbreviations and terms (e.g., "ITS," "PCR") for readability and precision. □ Figures are informative but could benefit from higher resolution for clearer band visualization, particularly for validation figures. □ The introduction could elaborate further on the importance of each Triphala component's unique properties and their implications for therapeutic efficacy. **Recommendation** **Minor Revisions**: The study is methodologically sound and makes a valuable contribution to quality assurance in herbal medicine through DNA barcoding. However, minor revisions are recommended to expand on contamination sources in commercial samples, enhance the discussion on species admixture, and provide clearer figures.	

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Review Form 3

Reviewer Details:

Name:	**Mohammad Ahmad Ahamd Odah**
Department, University & Country	**Prince Sattam Bin Abdulaziz University, Saudi Arabia**