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| Book Name: | [Contemporary Research and Perspectives in Biological Science](https://www.bookpi.org/bookstore/product/contemporary-research-and-perspectives-in-biological-science-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4230** |
| Title of the Manuscript: | **Phytochemical characterization and antioxidant activity in the extracts of folklore medicinal plant, Citrullus colocynthis (L.) Schard.** |
| Type of the Article | **BOOK CHAPTER** |

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| PART 1: 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. A minimumof 3-4 sentences may be required for this part.** | This manuscript is important as it reveals the phytochemical composition and antioxidant properties of *Citrullus colocynthis*, supporting its medicinal potential. It contributes to understanding regional variations in bioactive compounds, aiding pharmacological research and quality control. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title is informative but could be slightly refined for clarity and impact.  Like:  “Phytochemical Analysis and Antioxidant Potential of Citrullus colocynthis (L.) Schrad., a Traditional Medicinal Plant”  **OR**  "Phytochemical Analysis, Antioxidant Potential, and TLC Profiling of *Citrullus colocynthis* Extracts from Bullapur, Karnataka" |  |
| 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. | 1. Consider briefly explaining what the Rf values and phenolic content imply in terms of the plant's antioxidant capacity or potential medicinal value. 2. The abstract lacks a concluding statement summarizing the key findings or potential applications of the research. Adding a brief conclusion can strengthen the abstract's impact. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript appears scientifically accurate but could benefit from some refinements for clarity and consistency. Here are some points for improvement:   1. Consistency in Scientific Names:    * Ensure consistent formatting for *Citrullus colocynthis* throughout (italicized and with full species name on the first mention). 2. Introduction Section:    * Clearly differentiate between historical use and current scientific validation of medicinal properties.    * Minor grammatical refinements can enhance clarity (e.g., "the plant is mainly cultivated for its many ethnomedicinal and ethnoveterinary uses" rather than "is able to grow in desert areas"). 3. Methodology:    * Specify the basis for choosing the solvents (hexane and methanol) with a brief reference to polarity and compound solubility.    * Clarify the sample preparation steps, especially the use of methanol and hexane extracts in phytochemical analysis. 4. Phytochemical Screening:    * Clearly mention the standards used for each test, including positive and negative controls.    * Ensure proper citation when describing phytochemical test methods. 5. Antioxidant Analysis:    * The radical scavenging activity calculation formula is incomplete. Ensure the full formula with explanation is included.    * Clarify if the IC50 values were determined using standard curves and include any software used for calculations. 6. Results Section:    * Some numerical data appear to be inconsistent (e.g., the IC50 values for hexane and methanol extracts). Verify data accuracy.    * Ensure data presented in tables and figures match the descriptions in the text. 7. Discussion Section:    * The comparison with other studies is informative but could be expanded with more recent literature.    * Highlight limitations of the study and future directions. 8. References:    * Ensure proper citation style consistency.    * Verify that all references cited are included in the reference list and properly formatted. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The references are relevant but could be updated with more recent studies from the past five years. |  |
| Is the language/English quality of the article suitable for scholarly communications? | The language quality is generally suitable for scholarly communication but could benefit from minor refinements for clarity and consistency. |  |
| Optional/Generalcomments |  |  |

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| **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)* |  |

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| **Reviewer Details:** | |
| Name: | **Deepak Kumar** |
| Department, University & Country | **GPGC, India** |