

Review of: "Uncovering Insights Into the Bio-Efficiency of Zingiber Officinale Roscoe: Understanding Components That Contribute Significantly to Ginger's Anti-inflammatory and Antioxidant Potential in Relationship With Modern Drying Methods"

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Potential competing interests: No potential competing interests to declare.

- 1: Ensure consistency in the use of abbreviations and terms throughout the methodology section. For example, use "mg GAE/100 g" consistently for Total Phenolic Content (TPC) and "mg CE/100 g" for Total Flavonoid Content (TFC).
- 2: Some steps could be further clarified for better understanding. For instance, in the preparation of extracts, specify the speed and duration of centrifugation, and the type of filter used for filtration.
- 3: Double-check the units and measurements used in the methodology, ensuring they are consistent and correctly stated. For example, ensure that all temperatures are consistently mentioned in Celsius (°C) and that volumes are consistently expressed in milliliters (mL) or microliters (µL).
- 3: If you refer to supplementary data (e.g., GC-MS plots), ensure that these are clearly labeled and accessible for readers.
- 4: Provide more details about the specific parameters and settings used in the molecular docking simulations, such as the grid size and spacing, the number of poses generated, and the scoring function used.
- 5: Double-check the text for typographical errors or inconsistencies in formatting.
- 6: In the ADMET property studies, specify the specific compounds obtained from both leaf and seed samples that were subjected to the predictions. Also, provide more details on the results obtained, especially regarding the Lipinski rule of five violations.
- 7: Provide more details on the parameters used in the molecular dynamics simulations, such as the force field, temperature, pressure, and integration time step. Additionally, specify the specific systems (e.g., protein-ligand complexes) that were simulated and the rationale behind their selection.
- 8: In the results section, provide a brief summary of the key findings related to the GC-MS analysis and phytochemical screening of raw, oven-dried, and freeze-dried ginger samples. Highlight any significant differences or trends observed in



the results.

- 9: Ensure that all references cited in the methodology section are correctly formatted and included in the reference list.
- 10: Ensure clarity and consistency in the presentation of results. For example, use consistent formatting for the presentation of data (e.g., percentages, mg TE/g) and ensure that the results are clearly labeled and easy to understand.
- 11: Mention the statistical analysis performed, if any, to determine the significance of the differences observed in the antioxidant and anti-inflammatory activities among the different ginger extracts.
- 12 Discuss how the antioxidant and anti-inflammatory activities of the ginger extracts compare to each other and to the standard drugs used.
- 13. Provide a brief interpretation of the protein-ligand interaction results, discussing the implications of the binding affinities of the ginger compounds to the active sites of the anti-inflammatory and antioxidant receptors.

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