

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.

Comments to authors:

1. The title should be shortened for better clarity and conciseness.
2. Please rewrite the paragraph discussing the findings reported by Mutukiri et al. on page 2/29 for better clarity and coherence.
3. Could you please provide rationale for choosing 50°C for 30 minutes and centrifugation at 4000 r.p.m for 15 minutes for the preparation of extracts? This information is on page 3/29.
4. Why did the authors choose the DPPH model to determine the free radical scavenging activity of the compounds from the extracts? This information is on page 3/29.
5. Typically, GC-MS analysis is conducted on volatile components such as essential oils or easily volatile compounds. However, you analyzed the GC-MS of the extracts obtained from materials soaked with a methanol/water solvent system (80/20, v/v). What standard compound series did you use for the GC-MS analysis of the extract samples? This is discussed on page 4/29.
6. Could you please provide the detector model of the Agilent 6890N analysis machine? Also, provide the brand of the chromatographic column with a film thickness of 0.15 micrometers and dimensions of 30m x 0.25mm ID. Additionally, provide the name of the library data for the Agilent 6890N machine. This information is on page 4/29.
7. From the GC-MS results table (Supplementary Data 1), why are characteristic compounds of the ginger family such as zingiberene, gingerol, paradol, gingerdione, and shogaol not appearing at all?
8. The authors claim that FD-G has higher antioxidant activity (DPPH radical quenching activity and ABTS scavenging activity) compared to OD-G and RW-G, even though the DPPH values of the extracts are nearly identical, specifically: DPPH radical scavenging property of RW-G (53.12%), OD-G (56.65%), and FD-G (57.65%). Similar results are observed for ABTS scavenging activity of RW-G (42.99 mg.TE/g), OD-G (63.35 mg.TE/g), and FD-G (67.30 mg.TE/g). Could you please clarify this discrepancy?

Upon revision and supplementation by the authors, the manuscript will be accepted for publication.

