

Review of: "Evaluation of Antioxidant Activity and α -Amylase Inhibitory Potential of Melilotus indicus Ethanolic Extract: An In Vitro and In Silico Study"

C. N. Prashantha¹

¹ REVA University

Potential competing interests: No potential competing interests to declare.

The overall work mentioned in the manuscript is completely basic. While understanding of research objectives and the experimental procedures followed is very basic.

Authors need to focus more on the qualitative analysis of plant extract.

While understanding of statistical analysis, the author does not mention the concentrations used for the study.

Minimal concentrations were shown in the antioxidant activity (IC₅₀ = 1.6 mg/mL) to vitamin C (IC₅₀ = 0.01 mg/mL), but clarity regarding why Vitamin C is used for this study is not given.

While understanding the insilico studies, the author has selected the protein PDB structure directly from the PDB database. No information is given on what basis the author selected the target protein. The modelling procedure, structural quality evaluation, and active site prediction methods are not discussed.

While understanding the docking study, the algorithm used for docking is not mentioned, and only the docking binding interactions alone are mentioned in the manuscript. The author needs to provide information related to the number of hydrogen bonds formed, bond energy, bond length, and atom positions, and how the protein-ligand is docked.

Acarbose also shows a strong interaction with the target protein, but the binding energies of each protein and ligand docking are not described.

The conclusion mentioned in the manuscript is not appropriate.