

Report on Published Article Exploring the Rational Designing of Protein Ligand Binding for Mouth Ulcer from Methanolic Extract of Olaxpsittacorum
Held on /Accepted– 9thFeb 2021

Date of Event	9 th Feb 2021
Student/Faculty Activity	Exploring the Rational Designing of Protein Ligand Binding for Mouth Ulcer from Methanolic Extract of Olaxpsittacorum, Indian Journal of Pharmaceutical Education and Research, 2021, 55(2), P 455-462
Conducted/ Publication by	Miss Priyabati Chodhury, Asst. Professor, School of Pharmacy
No. Of Participant	1

Exploring the Rational Designing of Protein Ligand Binding for Mouth Ulcer from Methanolic Extract of Olaxpsittacorum,

ABSTRACT

Olaxpsittacorum, a flowering plant grown in open forests, is consumed by the locals as dietary sources. This study was designed to check the phytochemical screening, antioxidant activity, antimicrobial studies and Chorioallantoic Membrane (CAM) study in the methanolic extract of Olaxpsittacorum. Further, in silico docking study was performed on the basis of GC-MS report of the methanolic extract. Antimicrobial activity was tested against five bacterial strains Escherichia coli, Salmonella typhi, Pseudomonas aeruginosa, Shigella flexneri, Staphylococcus aureus. In silico docking study was done by two software, Patchdock followed by Firedock and HEX 8.0.0. to find the best fit receptor ligand docked structure. Methanolic extract of Olaxpsittacorum has exhibited appreciable antioxidant activity. The study showed that the methanolic extract of Olaxpsittacorum (10mg/ml) with DMSO shows very less activity against Escherichia coli, Salmonella typhi and did not show any activity in Pseudomonas aeruginosa, Shigella flexneri, Staphylococcus aureus. The result of the CAM study showed that the extract has good antiangiogenic activity. The methanolic extract containing phytoligand 1, 2 - Benzenedicarboxylic acid, butyl octyl ester against salivary peroxidase shows maximum Global energy of -69.40 kcal/mol. This study attempted a new dimension for establishing phytochemicals present over methanolic extract of Olaxpsittacorum which may be useful for mouth ulcer prevention. Science and technology are growing faster to make up things much better but is still lagging with some issues. In vitro and in vivo models help us in determining many facts about plant and its constituent but still it also has many drawbacks. In an intention to overcome the drawbacks an economic and moreover not harming any life creature CAM studies were performed.

Exploring the Rational Designing of Protein Ligand Binding for Mouth Ulcer from Methanolic Extract of *Olax psittacorum*

Choudhury Priyabati^{1,*}, Adhikari Lopamudra², Pattanaik Sovan²

¹School of Pharmacy, ARKA JAIN University, Jharkhand, INDIA.

²Department of Pharmaceutical Analysis and Quality Assurance, School of Pharmaceutical Sciences, Siksha 'O' Anusandhan (Deemed to be University), Kalinga Nagar, Bhubaneswar, Odisha, INDIA.

Indian Journal of Pharmaceutical Education and Research | Vol 55 | Issue 2 | Apr-Jun, 2021