

Activity of *Holoptelea integrifolia* against Herpes through deactivation of Herpes Simplex virus type 1 DNA polymerase (2GV9)

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Abstract: An in-silico study was performed to determine the activity of *Holoptelea integrifolia* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. It was found that Malvidin helped to prevent Herpes.

Introduction: *Holoptelea integrifolia* is known for its medicinal activities. The plant *Holoptelea integrifolia* is used traditionally for the treatment of inflammation, gastritis, dyspepsia, colic, intestinal worms, vomiting, wound healing, leprosy, diabetes, hemorrhoids, herpes, dysmenorrhea, and rheumatism.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Rosales
Family	Ulmaceae
Genus	<i>Holoptelea</i>
Species	<i>integrifolia</i>

Major phytochemicals present in the plant are:

- Naringin
- Limonene
- Glutathione
- Malvidin

One of the major enzymes required for the survival of the organism causing Herpes is Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.