

Activity of *Solanum torvum* 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 *Solanum torvum* 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: *Solanum torvum* is known for its medicinal activities. Fruit and leaf decoction is used to treat cough, herpes and to treat liver and spleen enlargement.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Solanales
Family	Solanaceae
Genus	<i>Solanum</i>
Species	<i>torvum</i>

Major phytochemicals present in the plant are:

- a. Campesterol
- b. Linamarin
- c. Glutathione
- d. 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.