

## Activity of *Azadirachta indica* 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 *Azadirachta indica* 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 Tocopherol helped to prevent Herpes.

**Introduction:** *Azadirachta indica* is known for its medicinal activities. Neem has an anti-inflammatory property which helps reduce acne, herpes, skin blemishes and malaria.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Sapindales
Family	Meliaceae
Genus	<i>Azadirachta</i>
Species	<i>indica</i>

Major phytochemicals present in the plant are:

- a. Tocopherol
- b. Isorhamnetin
- c. Rutin
- d. Azadirachtin

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.