

## Activity of *Azadirachta indica* against Herpes through deactivation of Herpes Simplex virus Type II Protease (1AT3)

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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 II Protease (1AT3) enzyme. It was found that Tocopherol and Isorhamnetin 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 II Protease (1AT3) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.