

## Activity of *Bauhinia variegata* 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 *Bauhinia variegata* 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 Cryptoxanthin helped to prevent Herpes.

**Introduction:** *Bauhinia variegata* is known for its medicinal activities. The bark decoction is used for diarrhoea control, as an astringent alternative and for treating scrofula, herpes, skin diseases and ulcers.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Equisetopsida
Order	Fabales
Family	Fabaceae
Genus	<i>Bauhinia</i>
Species	<i>variegata</i>

Major phytochemicals present in the plant are:

- Cryptoxanthin
- Carotene
- Lutein
- Lycopene

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.