

## Activity of *Glycyrrhiza glabra* 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 *Glycyrrhiza glabra* 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 Alliin and Campesterol helped to prevent Herpes.

**Introduction:** *Glycyrrhiza glabra* is known for its medicinal activities. Traditionally used to treat many diseases, such as respiratory disorders, hyperdipsia, epilepsy, fever, sexual debility, paralysis, stomach ulcers, rheumatism, skin diseases, hemorrhagic diseases, and jaundice.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Fabales
Family	Fabaceae
Genus	<i>Glycyrrhiza</i>
Species	<i>glabra</i>

Major phytochemicals present in the plant are:

- Pelletierine
- Alliin
- Tangeretin
- Campesterol

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.