

## Activity of *Swertia chirata* against Herpes through deactivation of Thymidine Kinase of Herpes Simplex virus (1KIM)

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**Abstract:** An in-silico study was performed to determine the activity of *Swertia chirata* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Thymidine Kinase of Herpes Simplex virus (1KIM) enzyme. It was found that Naringin helped to prevent Herpes.

**Introduction:** *Swertia chirata* is known for its medicinal activities. People use the parts that grow above the ground to make medicine. *Chirata* is used for fever, constipation, herpes, upset stomach, loss of appetite, intestinal worms, skin diseases, and cancer.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Gentianales
Family	Gentianaceae
Genus	<i>Swertia</i>
Species	<i>chirayita</i>

Major phytochemicals present in the plant are:

- Theobromine
- Limonene
- Naringin
- Limonene

One of the major enzymes required for the survival of the organism causing Herpes is Thymidine Kinase of Herpes Simplex virus (1KIM) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.