

## Activity of *Mentha piperata* 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 *Mentha piperata* 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 Sulforaphane and Tannic acid helped to prevent Herpes.

**Introduction:** *Mentha piperata* is known for its medicinal activities. It is used for treatment of a variety of conditions, including irritable bowel syndrome (IBS), nausea, herpes and other digestive issues, as well as the common cold and headaches.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Lamiales
Family	Lamiaceae
Genus	<i>Mentha</i>
Species	<i>piperata</i>

Major phytochemicals present in the plant are:

- Sulforaphane
- Carotene
- Digoxin
- Tannic acid

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.