Activity of Mentha piperata 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 Mentha piperata 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 Sulforaphane 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	Mentha
Species	piperata

Major phytochemicals present in the plant are:

a. Sulforaphane
b. Carotene
c. Digoxin
d. Tannic acid

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.