Activity of Houttuynia cordata 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 Houttuynia cordata 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 Tangeretin and Limonene helped to prevent Herpes.

Introduction: Houttuynia cordata is known for its medicinal activities. It is used as a fresh herbal garnish. In northeastern India, it is commonly used in salads and as a garnish over side dishes. The tender roots can also be ground into chutneys along with dry meat or fish, chilies, and tamarind. It is taken raw as salad and cooked along with fish as fish curry. In Japan and Korea, its dried leaves may be used as a tea. Houttuynia cordata was used in traditional Chinese medicine.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophytes
Class	Angiosperms
Order	Piperales
Family	Saururaceae
Genus	Houttuynia
Species	cordata

Major phytochemicals present in the plant are:

a. Tangeretin
b. Salicylic acid
c. Limonene
d. Naringin

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.

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