Activity of Hypericum hookerianum 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 Hypericum hookerianum 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 Salicylic acid and Astaxanthin helped to prevent Herpes.

Introduction: Hypericum hookerianum is known for its medicinal activities. It was recommended in the first century by Greek physicians as a diuretic, wound-healer, and treatment for menstrual disorders. It has been used as an anti-inflammatory, anti-bacterial, disinfectant, and a remedy for disorders of the respiratory tract and gall bladder and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Hypericaceae
Genus	Hypericum
Species	hookerianum

Major phytochemicals present in the plant are:

a. Malvidin
b. Salicylic acid
c. Ursolic acid
d. Astaxanthin

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.

ISSN: 2395-6216