Activity of Portulaca oleracea 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 Portulaca oleracea 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 Ajoene helped to prevent Herpes.

Introduction: Portulaca oleracea is known for its medicinal activities. Portulaca oleracea has been used as a folk medicine in many countries, acting as a febrifuge, antiseptic, herpes and vermifuge.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Caryophyllales
Family	Portulacaceae
Genus	Portulaca
Species	oleracea

Major phytochemicals present in the plant are:

a. Allicin
b. Ajoene
c. Theobromine
d. Quercetin

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.