

Activity of *Portulaca oleracea* 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 *Portulaca oleracea* 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 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:

- Allicin
- Ajoene
- Theobromine
- Quercetin

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.