

Activity of *Portulaca oleracea* against Herpes through deactivation of Herpes Simplex virus Type II Protease (1AT3)

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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 II Protease (1AT3) enzyme. It was found that Allicin and 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 Herpes Simplex virus Type II Protease (1AT3) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.