

Activity of *Plantago major* 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 *Plantago major* 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 Genistein helped to prevent Herpes.

Introduction: *Plantago major* is known for its medicinal activities. *Plantago major* is used in wound healing and the leaves were used as a remedy of wounds and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Lamiales
Family	Plantaginaceae
Genus	<i>Plantago</i>
Species	<i>major</i>

Major phytochemicals present in the plant are:

- Genistein
- Daidzein
- Gallic acid
- Ellagic acid

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.