Activity of Bauhinia racemosa 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 Bauhinia racemosa 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 Sulforaphane and Digoxin helped to prevent Herpes.

Introduction: Bauhinia racemosa is known for its medicinal activities. Bauhinia racemosa leaves have been used in the treatment of asthma traditionally because of their antihistaminic action it also used to cure herpes and urethral discharges.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Equisetopsida
Order	Fabales
Family	Fabaceae
Genus	Bauhinia
Species	racemosa

Major phytochemicals present in the plant are:

a. Sulforaphane
b. Digoxin
c. Rosmarinic acid
d. Tannic 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.