

Activity of *Myrica rubra* 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 *Myrica rubra* 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 Theobromine helped to prevent Herpes.

Introduction: *Myrica rubra* is known for its medicinal activities. The stem bark is used as a wash in the treatment of arsenic poisoning, skin diseases, wounds and ulcers. The fruit is carminative, herpes, pectoral and stomachic.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Fagales
Family	Myricaceae
Genus	<i>Myrica</i>
Species	<i>rubra</i>

Major phytochemicals present in the plant are:

- a. Theobromine
- b. Tannic acid
- c. Mangiferin
- d. Digoxin

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.