

Activity of *Myrica rubra* against Herpes through deactivation of Herpes virus fusion regulator complex gH-GI (3M1C)

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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 Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. It was found that Tannic acid 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:

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| 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 Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.