

Activity of Santalum album 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 Santalum album 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 Isorhamnetin and Ferulic acid helped to prevent Herpes.

Introduction: Santalum album is known for its medicinal activities. Sandalwood oil has been widely used in folk medicine for treatment of common colds, bronchitis, skin disorders, heart ailments, general weakness, fever, herpes, infection of the urinary tract, inflammation of the mouth and pharynx, liver and gallbladder complaints and other maladies.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Santalales
Family	Santalaceae
Genus	Santalum
Species	album

Major phytochemicals present in the plant are:

- Hesperidin
- Isorhamnetin
- Rutin
- Ferulic acid

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.