Activity of Euphorbia peplus 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 Euphorbia peplus 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 Lutein and Theobromine helped to prevent Herpes.

Introduction: Euphorbia peplus is known for its medicinal activities. The plant is administered in the form of herbal tea as diuretic, laxative and emollient. It is also used for the treatment of asthma and bronchitis, as it relaxes the smooth muscles of bronchi. It is recommended against dry cough, herpes, runny nose and liver diseases.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Euphorbiaceae
Genus	Euphorbia
Species	peplus

Major phytochemicals present in the plant are:

a. Lutein
b. Digoxin
c. Tannic acid
d. Theobromine

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.

ISSN: 2395-6216