

Activity of *Adansonia digitata* 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 *Adansonia digitata* 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 Peonidin helped to prevent Herpes.

Introduction: *Adansonia digitata* is known for its medicinal activities. The various parts of the plant (leaves, bark and seeds) are used to cure tuberculosis, fever, microbial infections, diarrhea and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Malvales
Family	Bombacaceae
Genus	<i>Adansonia</i>
Species	<i>digitata</i>

Major phytochemicals present in the plant are:

- a. Resveratrol
- b. Phenyl isothiocyanate
- c. Capsaicin
- d. Peonidin

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.