

Activity of *Alpinea galanga* against Hepatitis C through deactivation of Hepatitis C Virus protease

(3M5O)

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Abstract: An in-silico study was performed to determine the activity of *Alpinea galanga* against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus protease

(3M5O) enzyme. It was found that Tangeretin helped to prevent Hepatitis C.

Introduction: *Alpinea galanga* is known for its medicinal activities. *Alpinia* is a plant related to ginger. The horizontal underground stem (rhizome) is used to make medicine. *Alpinia* is used to treat fever, muscle spasms, intestinal gas, and swelling (inflammation); to kill bacteria; and as a stimulant.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Zingiberales
Family	Zingiberaceae
Genus	<i>Alpinea</i>
Species	<i>galanga</i>

Major phytochemicals present in the plant are:

- a. Cryptoxanthin
- b. Tangeretin
- c. Salicylic acid
- d. Limonene

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus protease