

## Activity of *Glycyrrhiza glabra* against Hepatitis C through deactivation of Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL)

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**Abstract:** An in-silico study was performed to determine the activity of *Glycyrrhiza glabra* against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. It was found that Genistein and Daidzein helped to prevent Hepatitis C.

**Introduction:** *Glycyrrhiza glabra* is known for its medicinal activities. Traditionally used to treat many diseases, such as respiratory disorders, hyperdipsia, epilepsy, fever, sexual debility, paralysis, stomach ulcers, rheumatism, skin diseases, hemorrhagic diseases, and jaundice.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Fabales
Family	Fabaceae
Genus	<i>Glycyrrhiza</i>
Species	<i>glabra</i>

Major phytochemicals present in the plant are:

- a. Genistein
- b. Daidzein
- c. Theobromine
- d. Quercetin

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.