

## Activity of *Ranunculus scleratus* against Hepatitis C through deactivation of Hepatitis C Virus IRES Pseudoknot domain

(3T4B)

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**Abstract:** An in-silico study was performed to determine the activity of *Ranunculus scleratus* against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus IRES Pseudoknot domain

(3T4B) enzyme. It was found that Daidzein helped to prevent Hepatitis C.

**Introduction:** *Ranunculus scleratus* is known for its medicinal activities. The whole plant has anti-inflammatory, analgesic, sedative and expectorant properties and it is recommended against skin diseases such as eczema, herpes, pruritus, burns and swellings.

The plant is classified as follows:

|          |                   |
|----------|-------------------|
| Kingdom  | Plantae           |
| Division | Tracheophyta      |
| Class    | Magnoliopsida     |
| Order    | Ranunculales      |
| Family   | Ranunculaceae     |
| Genus    | <i>Ranunculus</i> |
| Species  | <i>scleratus</i>  |

Major phytochemicals present in the plant are:

- a. Theobromine
- b. Daidzein
- c. Peonidin
- d. Limonene

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus IRES Pseudoknot domain

(3T4B) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.