Activity of Wrightia tinctoria 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 Wrightia tinctoria 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 Malvidin helped to prevent Hepatitis C.

Introduction: Wrightia tinctoria is known for its medicinal activities. It is the most commonly prescribed Siddha herbal medication for skin diseases, in specific psoriasis. The "777 oil" made from the fresh leaves of the plant exhibits various analgesic, anti-inflammatory, and antipyretic activities and it is a highly cited medication for the treatment of psoriasis.

The plant is classified as follows:

| Kingdom | Plantae |
|----------|---------------|
| Division | Tracheophyta |
| Class | Magnoliopsida |
| Order | Gentianales |
| Family | Apocynaceae |
| Genus | Wrightia |
| Species | tinctoria |

Major phytochemicals present in the plant are:

- a. Campesterol
- b. Malvidin
- c. Myricetin
- d. Pelargonidin

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

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