

Activity of *Curcuma longa* against COVID 19 through deactivation of methyltransferase-stimulatory factor complex of NSP16 and NSP10 (6W61)

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Abstract: An in-silico study was performed to determine the activity of *Curcuma longa* against COVID 19. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate methyltransferase-stimulatory factor complex of NSP16 and NSP10 (6W61) enzyme. It was found that Pelletierine helped to prevent COVID 19.

Introduction: *Curcuma longa* is known for its medicinal activities. Turmeric is used widely as a spice in South Asian and Middle Eastern cooking. The golden yellow colour of turmeric is due to curcumin which contains an orange-coloured volatile oil. It is used to protect food products from sunlight. Curcumin reduces inflammation.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophytes
Class	Angiosperms
Order	Zingiberales
Family	Zingiberaceae
Genus	<i>Curcuma</i>
Species	<i>longa</i>

Major phytochemicals present in the plant are:

- a. Pelletierine
- b. Isorhamnetin
- c. Theobromine
- d. Tannic acid

One of the major enzymes required for the survival of the organism causing COVID 19 is methyltransferase-stimulatory factor complex of NSP16 and NSP10 (6W61) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.