Activity of Gardenia sp. 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 Gardenia sp. 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 Genistein helped to prevent COVID 19.

Introduction: Gardenia sp. is known for its medicinal activities. Gardenia plants are known for its strong sweet scent of their flowers. Gardenia jasminoides (syn. G. grandiflora, G. Florida) is cultivated as a house plant. Its fruit is used as a yellow dye and used on fabric and food. Its fruits are also used in traditional Chinese medicine for their clearing, calming, and cooling properties.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophytes
Class	Angiosperms
Order	Gentianales
Family	Rubiaceae
Genus	Gardenieae
Species	Gardenia

Major phytochemicals present in the plant are:

a. Pelargonidin
b. Genistein
c. Isorhamnetin
d. Daidzein

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.

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