

Activity of *Berginia ligulata* against COVID 19 through deactivation of SARS-CoV-2 nucleocapsid protein N-terminal RNA binding domain (6M3M)

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Abstract: An in-silico study was performed to determine the activity of *Berginia ligulata* against COVID 19. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate SARS-CoV-2 nucleocapsid protein N-terminal RNA binding domain (6M3M) enzyme. It was found that Ferulic acid helped to prevent COVID 19.

Introduction: *Berginia ligulata* is known for its medicinal activities. *Ligulata* possesses cooling, laxative, analgesic, abortifacient, aphrodisiac properties and used in treatment of vesicular calculi, urinary discharges, excessive uterine haemorrhage, diseases of the bladder, dysentery, menorrhagia, splenic enlargement and heart diseases.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophytes
Class	Angiosperms
Order	Saxifragales
Family	Saxifragaceae
Genus	<i>Bergenia</i>
Species	<i>ligulata</i>

Major phytochemicals present in the plant are:

- Pelargonidin
- Ferulic acid
- Rutin
- Epicatechin

One of the major enzymes required for the survival of the organism causing COVID 19 is SARS-CoV-2 nucleocapsid protein N-terminal RNA binding domain (6M3M) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.