



Plant-Based SARS-CoV-2 Spike Protein (RBD, His tag)



Product Information

Product Overview

Recombinant SARS-CoV-2 spike protein RBD (Arg319-Asn532) was expressed in *Nicotiana benthamiana* with a His tag at C-terminal.

Description

The spike glycoprotein (S) of SARS-CoV-2 is the protein functioned in the attachment of the virus to its cellular receptor, angiotensin converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) of S mediates the binding between the virus and its receptor. The S protein is known to be essential in the binding of the virus to the host cell at the advent of the infection process. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains the RBD, which is responsible for recognizing the cell surface receptor. The S protein plays key roles in the induction of neutralizing antibody and T-cell responses, as well as protective immunity.

Sources

Nicotiana benthamiana

Species

SARS-CoV-2

Tag

His

Biological Activity

SARS-CoV-2 spike protein RBD can bind with CR3022 mAb¹.

Form

Supplied as 0.22µm filtered solution in PBS (pH7.4)

Molecular Mass

The protein has a predicted MW of 27 kDa. Due to glycosylation, the protein migrates to approximately 40 kDa based on Bis-Tris PAGE result

Purity

>90% as analyzed by SDS-PAGE

Formulation

Liquid

Component

PBS, pH7.4

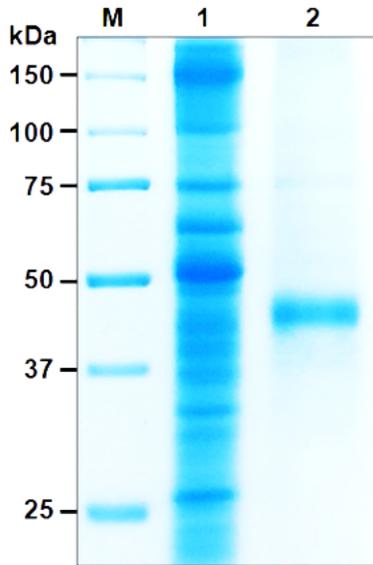
Storage

The product can be stored at -20 or below. Avoid repeated freezing and thawing cycles. The shelf life of the product is unspecified.

Note

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

SDS-PAGE

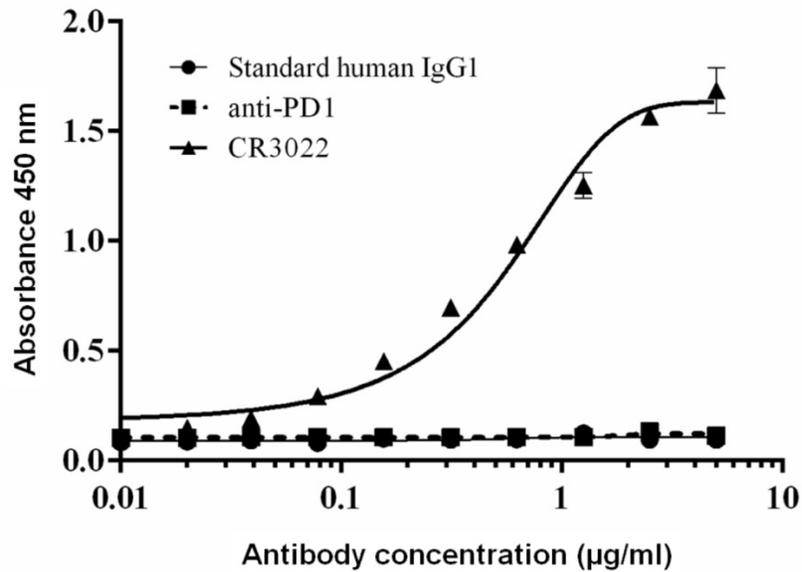


M: Protein ladder

1: Crude protein of *Nicotiana benthamiana*

2: RBD

IN VITRO Binding Assay



SARS-CoV-2 Spike protein (RBD, His Tag) can bind with CR3022 mAb¹

References

1. Tian X, Li C, Huang A, Xia S, Lu S, Shi Z, Lu L, Jiang S, Yang Z, Wu Y, and Ying T. Potent binding of 2019 novel coronavirus spike protein by a SARS coronavirus-specific human monoclonal antibody. *Emerg Microbes Infect.* 2020;9(1):382-384.