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S Recombinant SARS-CoV-2 (2019-nCoV) Spike S1 RBD Protein (His Tag)

Catalog No. CSI99102 Quantity: 100 μg

Alternate Names: Spike glycoprotein, Spike S1 subunit receptor binding domain

Description: The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to

certain receptors on the host cell. Known receptors that bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is essential for both host specificity and viral infectivity. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. It's been reported that SARS-CoV-2 (COVID-19 coronavirus, 2019-nCoV) can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 mediates fusion of the virion and cellular membranes by acting as a class I viral fusion protein. The S protein plays key parts in the induction of neutralizing-antibody

and T-cell responses, as well as protective immunity.

UniProt ID: P0DTC2

Accession Number: YP 009724390.1

Protein Construction: A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) Spike S1 RBD Protein

(Arg319-Phe541) was expressed with a polyhistidine tag at the C-terminus.

Source: CHO

Formulation: Sterile-filtered PBS

Molecular Weight: The recombinant SARS-CoV-2 (2019-nCoV) Spike S1 RBD protein (His Tag) consists of

234 amino acids with a predicted molecular mass of 26.54 kDa.

Purity: \geq 95 % as determined by SDS-PAGE

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C.

Store in working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

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