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Datasheet for ABIN7197829

SARS-CoV-2 Spike S2 Protein (E780Q) (His tag,ECD)

Overview

Quantity:	100 µg
Target:	SARS-CoV-2 Spike S2
Protein Characteristics:	E780Q
Origin:	SARS Coronavirus-2 (SARS-CoV-2)
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SARS-CoV-2 Spike S2 protein is labelled with His tag,ECD.

Product Details

Purpose:	Recombinant SARS-CoV-2 Spike S2 (E780Q)(ECD, His Tag)
Sequence:	Ser686-Pro1213
Specificity:	E780Q
Characteristics:	A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) Spike S2 (YP_009724390.1, with mutation E780Q) (Ser686-Pro1213) was expressed with the Fc region of human IgG1 at the C-terminus.
Purity:	> 90 % as determined by SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.
Biological Activity Comment:	Testing in progress

Target Details

Target: SARS-CoV-2 Spike S2

Abstract: [SARS-CoV-2 Spike S2 Products](#)

Target Type: Viral Protein

Background: The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors 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 term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. 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 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion, Defines the range of the hosts and specificity of the virus, Main component to bind with the neutralizing antibody, Key target for vaccine design, Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.

Molecular Weight: 84.7 kDa

NCBI Accession: [YP_009724390](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, 7.4.

Handling

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.