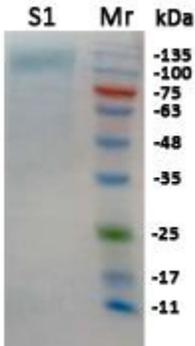




PRODUCT DATASHEET

Catalog No:	BSV-COV-PR-38	BSV-COV-PR-39
Pack Size	100 µg	500 µg
Product Name:	Recombinant SARS-CoV-2 Spike Glycoprotein (S1), Biotinylated	
Description:	Recombinant 2019-nCoV Spike S1 is a protein consisting of 680 amino acid residues. DNA sequence encoding the COVID-19 Spike extracellular fragment[16-675] of nCoV Spike S1 including a C-terminal His tag was expressed in CHO Cells.	
Species:	2019-nCoV, SARS-CoV-2	
Sequence:	DNA sequence encoding extracellular fragment [16-675] of nCoV Spike S1 including a C-terminal His tag was expressed in CHO cells.	
Accession No.:	QIC53204.1	
Tag:	C-terminal His-Tag	
Host:	CHO cells	
Applications:	The activity was tested by binding human ACE2-Fc in functional ELISA assay, the calculated EC50 was determined to be 0.1µg/ml.	
Purity:	>95% as determined by SDS-PAGE and HPLC.	

<p>Predicted Molecular Mass:</p>	 <p>Recombinant nCoV S1 is a protein consisting of 680 amino acid residues, due to glycosylation migrates as an approximately 80 kDa protein on SDS-PAGE.</p>
<p>Presentation:</p>	<p>Recombinant COVID-19 Spike S1 was lyophilized from 0.2 µm filtered PBS solution pH 7.4.</p>
<p>Endotoxin:</p>	<p>Endotoxin level is < 0.1 ng/µg of protein (<1.0 EU/µg purified protein) (LAL test)</p>
<p>Shipping, Storage and Stability:</p>	<p>The lyophilized protein is stable for at least 2 years from the date of receipt at -20°C.</p>

<p>Background:</p>	<p>The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. It has been reported that 2019-nCoV can infect the human Respiratory Epithelial cells through interaction with the human ACE2 receptor. The S 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. So, S protein has a key role in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.</p> <p>Known receptors binding 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.</p> <p>The S protein 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. Besides, 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.</p> <p>The main functions for the S 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.</p>
---------------------------	---

FOR RESEARCH LABORATORY TEST USE ONLY!