

Recombinant 2019-nCoV Spike protein S1, Fc-tagged

Cat. No. S-218C Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV Spike protein S1 (16-685) was expressed in CHO cells using a C-terminal Fc-tag.
Species	Sars-Cov-2
Source	CHO
ProteinLength	16-685
Description	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. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV-2 spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S RBD protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV-2 (2019-nCoV) as in recent COVID-19 outbreak.
Molecular Mass	160 kDa
Purity	>95%

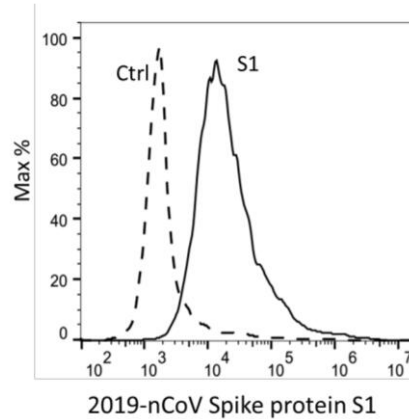
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Applications	FACS
Stability	One year at -70 centigrade from date of shipment.
Storage	Store product at –70 centigrade. For optimal storage, aliquot targets into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.05 µg/µL
Storage Buffer	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 90mM Glycine, 0.1mM PMSF.
GENE INFORMATION	
Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Synonyms	S; surface glycoprotein; spike glycoprotein; surface glycoprotein; structural protein; spike protein
Gene ID	43740568
mRNA Refseq	MN908947
Protein Refseq	YP_009724390

Activity



FACS assay showed 2019-nCoV Spike protein S1 can bind to ACE2 overexpressing cells. ACE2 overexpressing cells were stained with 2019-nCoV Spike protein S1, followed by anti-2019 CoV Spike Protein antibody and fluorescence-conjugated secondary antibody.

SDS-PAGE



The purity of nCoV-S1 was determined to be 95% by densitometry, approx. MW 160 kDa.