

## Overview

<b>Description</b>	Recombinant SARS-CoV-2 Spike protein fragment 4 is produced by E.coli expression system and the target gene encoding Glu819-Asn919 is expressed with a 6His tag at the N-terminus.
<b>Expression system</b>	E.coli
<b>Species</b>	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
<b>Alternative names</b>	Spike glycoprotein ; Spike protein
<b>Accession #</b>	QHD43416.1

## Specifications

<b>Predicted Molecular Mass</b>	12.91kDa
<b>Actual Molecular Mass</b>	12.91kDa, reducing conditions
<b>Purity</b>	>90% as determined by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.
<b>Endotoxin level</b>	Please contact with the lab for this information
<b>Bioactivity</b>	Testing in progress
<b>Formulation</b>	Supplied as lyophilized from PBS, pH7.5

## Preparation and storage

<b>Shipping</b>	In general, proteins are shipped out with blue ice unless customers require otherwise.
<b>Stability &amp;Storage</b>	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 °C for one week . Store at -20 to -80 °C for twelve months from the date of receipt.
<b>Reconstitution</b>	Reconstitute in ddH <sub>2</sub> O to a concentration of 0.1-1.0 mg/mL. Do not vortex.

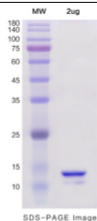
## Background

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Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2, DPP4, CEACAM etc.. 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. It's been reported that 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.

## SDS-PAGE image

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## Note

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For research use only. Not for use in clinical diagnostic procedures.