

# SARS-COV-2 Spike S1 (N501Y) Protein

Cat. No. COV-VM1SY

## Description

<b>Source</b>	Recombinant SARS-COV-2 Spike S1 (N501Y) Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Val16-Arg685.
<b>Accession</b>	YP_009724390.1
<b>Molecular Weight</b>	The protein has a predicted MW of 76 kDa. Due to glycosylation, the protein migrates to 115-140 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

A new variant of SARS-CoV-2 is spreading in the UK and is rapidly becoming a global threat. It is characterised by multiple mutations in the spike protein. Among them, N501Y is of major concern because it involves one of the six key amino acid residues determining a tight interaction of the SARS-CoV-2 receptor-binding domain (RBD) with its cellular receptor angiotensin-converting enzyme 2 (ACE2).

## Assay Data

### Tris-Bis PAGE



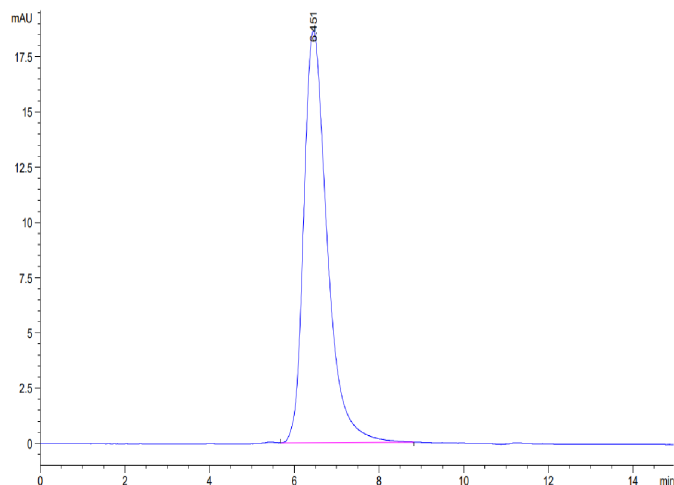
SARS-COV-2 Spike S1 (N501Y) on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

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## Assay Data

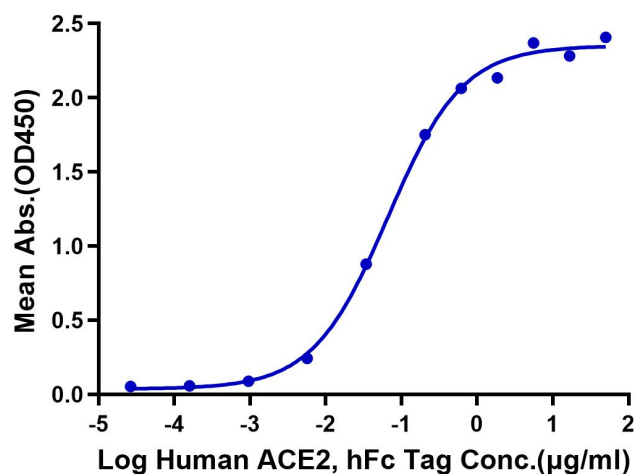


The purity of SARS-COV-2 Spike S1 (N501Y) is greater than 95% as determined by SEC-HPLC.

## ELISA Data

### SARS-COV-2 Spike S1 (N501Y), His Tag ELISA

0.05µg SARS-COV-2 Spike S1 (N501Y), His Tag Per Well



Immobilized SARS-COV-2 Spike S1 (N501Y), His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 66.2ng/ml determined by ELISA.