

SARS-COV-2 Spike S1 (N501Y) Protein

Cat. No. COV-VM1SY

Description

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

Formulation and Storage

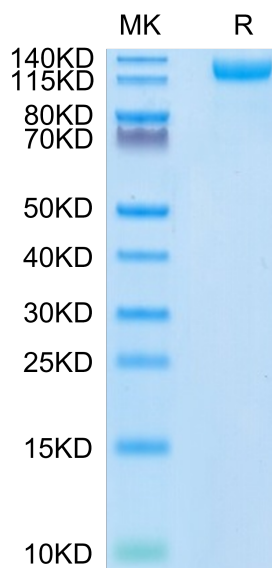
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months 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

Bis-Tris PAGE



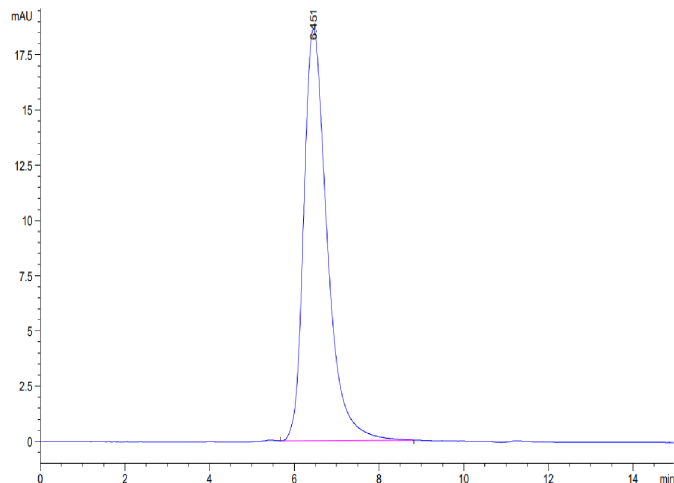
SARS-COV-2 Spike S1 (N501Y) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

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Assay Data

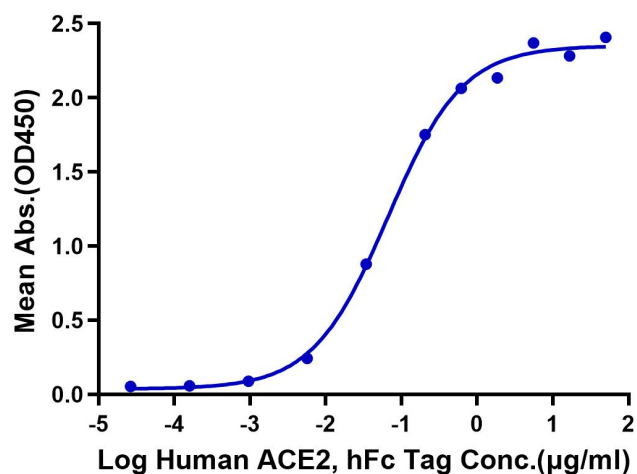


The purity of SARS-COV-2 Spike S1 (N501Y) is greater than 95% as determined by SEC-HPLC.

ELISA Data

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

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



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