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

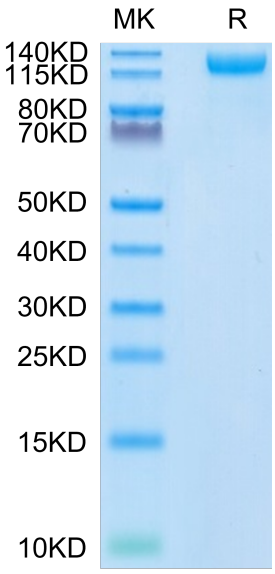
Formulation	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled 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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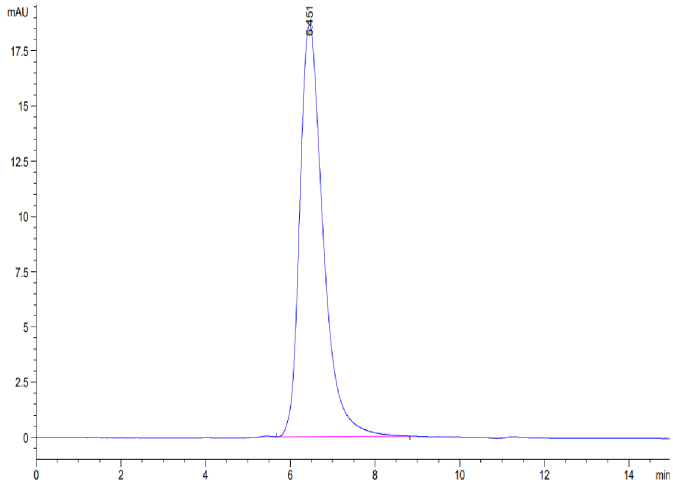
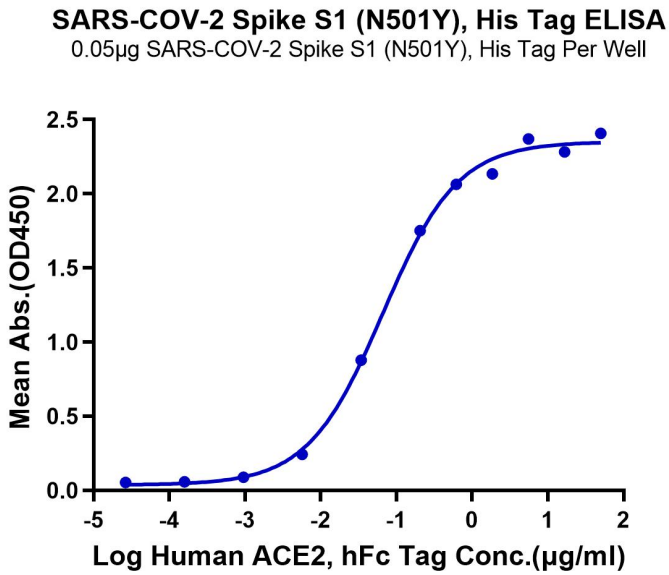
Assay Data



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

ELISA Data



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.