SARS-COV-2 Spike S1 Protein

Cat. No. COV-VM5S1

Description

Source	Recombinant SARS-COV-2 Spike S1 Protein is expressed from HEK293 with hFc tag and Avi tag at the C-Terminus.
	It contains Gln14-Arg683.
Accession	QHD43416.1
Molecular Weight	The protein has a predicted MW of 102.6 kDa. Due to glycosylation, the protein migrates to 130-140 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE
	> 95% as determined by HPLC

Formulation and Storage

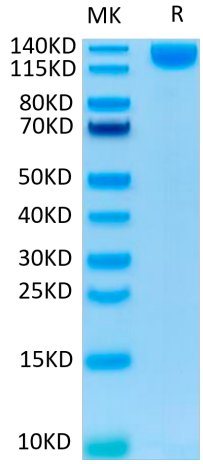
Formulation	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled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

The spike protein (S) of coronavirus (CoV) attaches the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) on S mediates this interaction.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

Assay Data

Tris-Bis PAGE



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

SEC-HPLC

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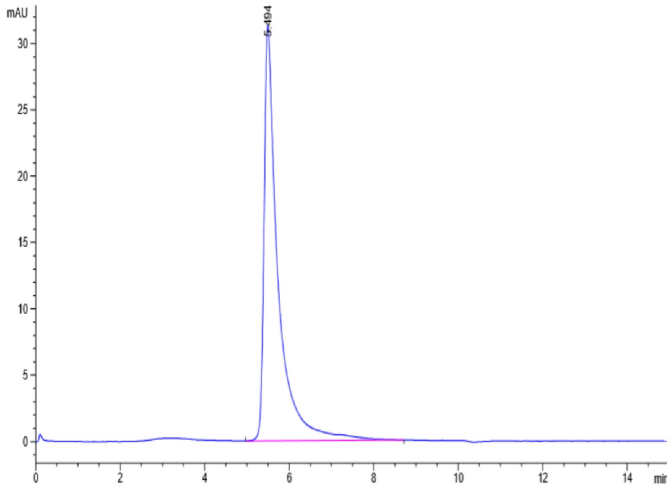
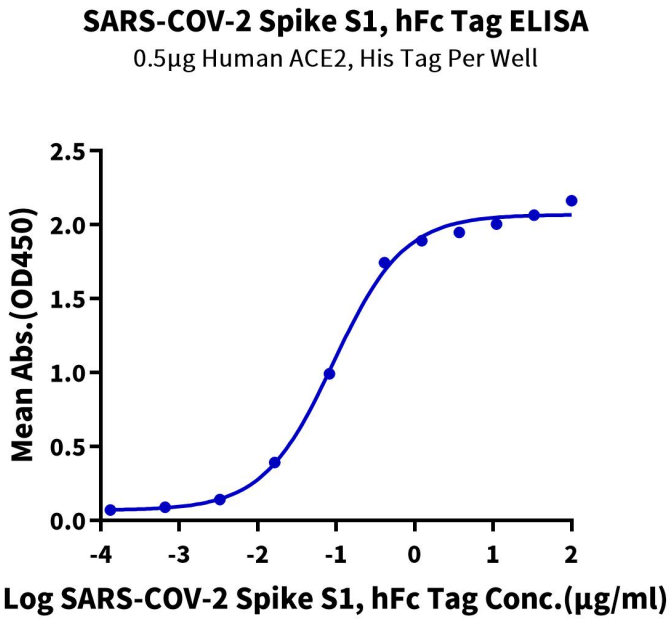
Assay Data



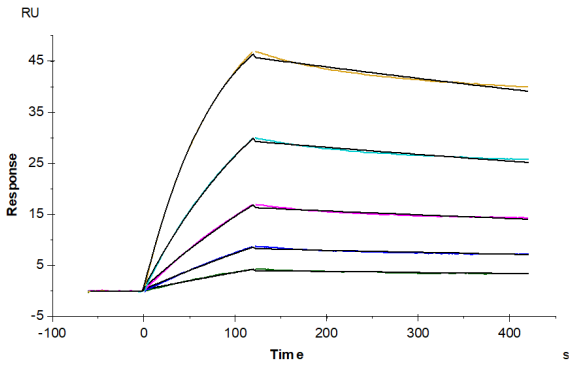
The purity of SARS-COV-2 Spike S1 is greater than 95% as determined by SEC-HPLC.

ELISA Data



Immobilized Human ACE2, His Tag at 5μg/ml (100μl/well) on the plate. Dose response curve for SARS-COV-2 Spike S1, hFc Tag with the EC50 of 92.3ng/ml determined by ELISA.

SPR Data



SARS-COV-2 Spike S1, hFc Tag captured on CM5 Chip via Protein A can bind Human ACE2, His Tag with an affinity constant of 3.80 nM as determined in SPR assay (Biacore T200).