

# SARS-COV-2 Spike S1 Protein

Cat. No. COV-VM1S1

Description	
Source	Recombinant SARS-COV-2 Spike S1 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Gln14-Arg683.
Accession	QHO60594.1
Molecular Weight	The protein has a predicted MW of 76.1 kDa. Due to glycosylation, the protein migrates to 115-140 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per $\mu\text{g}$ by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

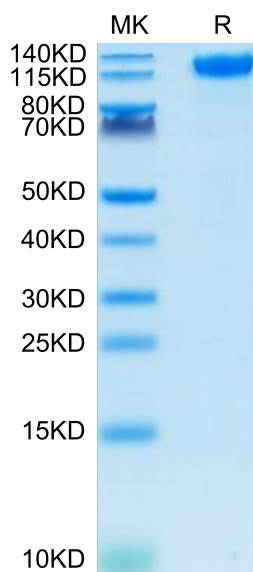
Formulation	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the 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

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

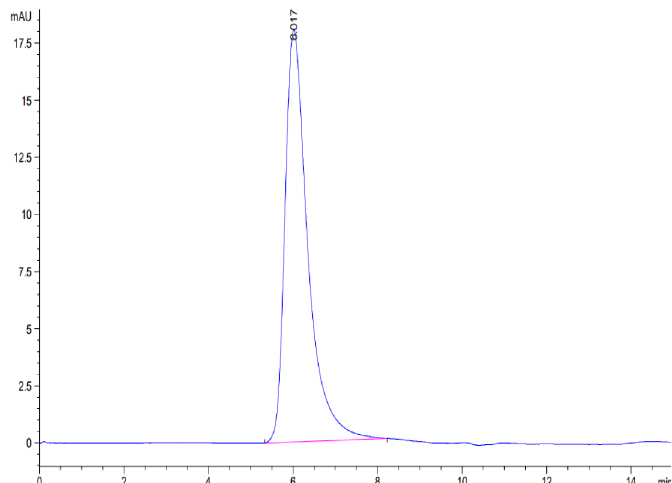
### Bis-Tris PAGE



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

### SEC-HPLC

Assay Data

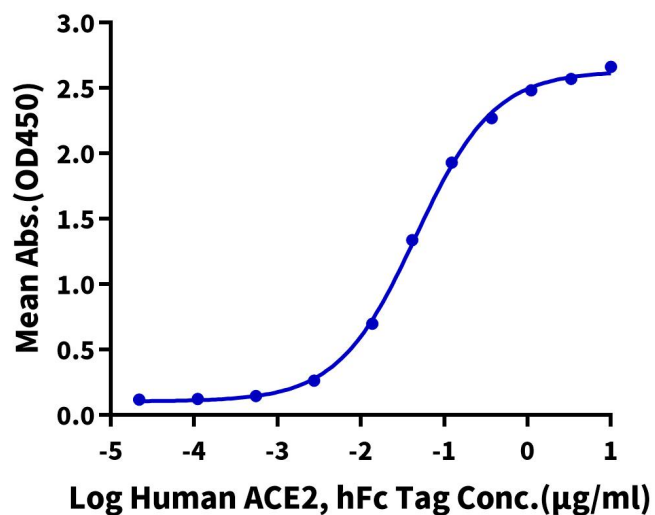


The purity of SARS-COV-2 Spike S1 is greater than 95% as determined by SEC-HPLC.

ELISA Data

**SARS-COV-2 Spike S1, His Tag ELISA**

0.1µg SARS-COV-2 Spike S1, His Tag Per Well



Immobilized SARS-COV-2 Spike S1, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 45.7ng/ml determined by ELISA.