

# SARS-COV-2 Spike S1 (Omicron B.1.1.529) Protein

Cat. No. COV-VM1SO

## Description

Recombinant SARS-COV-2 Spike S1 (Omicron B.1.1.529) Protein is expressed from HEK293 with His tag at the C-Terminus.

### Source

It contains Gln14-Arg683(A67V, HV69-70del, T95I, G142D, VYY143-145del, N211del, L212I, ins214EPE, G339D, S371L, S373P, S375F, K417N, N440K, G446S, S477N, T478K, E484A, Q493R, G496S, Q498R, N501Y, Y505H, T547K, D614G, H655Y, N679K, P681H).

### Accession

QHO60594.1

### Molecular Weight

The protein has a predicted MW of 76.38 kDa. Due to glycosylation, the protein migrates to 130-145 kDa based on Tris-Bis PAGE result.

### Endotoxin

Less than 1EU per  $\mu\text{g}$  by the LAL method.

### Purity

> 95% as determined by Tris-Bis 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

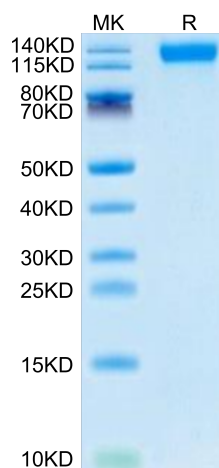
-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## 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



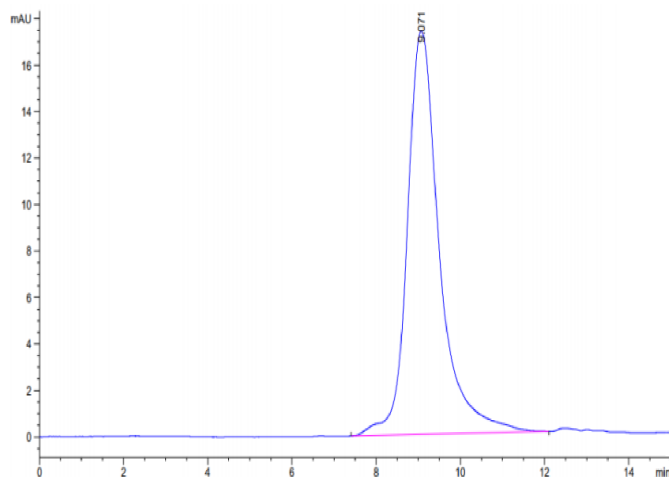
SARS-COV-2 Spike S1 (Omicron B.1.1.529) on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

# SARS-COV-2 Spike S1 (Omicron B.1.1.529) Protein

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## Assay Data

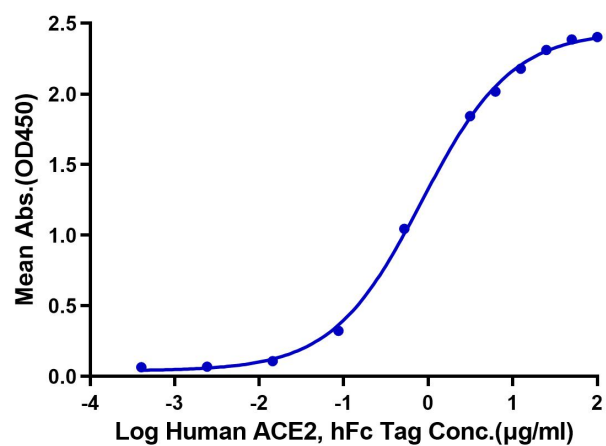


The purity of SARS-COV-2 Spike S1 (Omicron B.1.1.529) is greater than 95% as determined by SEC-HPLC.

## ELISA Data

### SARS-COV-2 Spike S1 (Omicron B.1.1.529) , His Tag ELISA

0.2µg SARS-COV-2 Spike S1 (Omicron B.1.1.529) , His Tag Per Well



Immobilized Human ACE2, hFc Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for SARS-COV-2 Spike S1 (Omicron B.1.1.529) , His Tag with the EC50 of 0.8µg/ml determined by ELISA.