

Recombinant SARS-CoV-2 Spike S1(B.1.1.529/Omicron) Protein

Catalog No.: RP02108 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
SARS-CoV-2	43740568	QHO60594.1

Tags

C-His

Synonyms

S1 protein; Spike glycoprotein
Subunit1;S glycoprotein Subunit1;Spike protein S1;novel coronavirus s1 Protein

Product Information

Source	Purification
HEK293 cells	>95% by SDS-PAGE;> 95% by HPLC

Calculated MW	Observed MW
76.38 kDa	130-145 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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.

Basic Information

Description

Recombinant SARS-CoV-2 Spike S1(B.1.1.529/Omicron) Protein is produced by Expi293 cells expression system. The target protein is expressed with sequence (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)) of SARS-COV-2 Spike S1(B.1.1.529/Omicron) (Accession #QHO60594.1) fused with His tag at the C-terminus.

Bio-Activity

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.

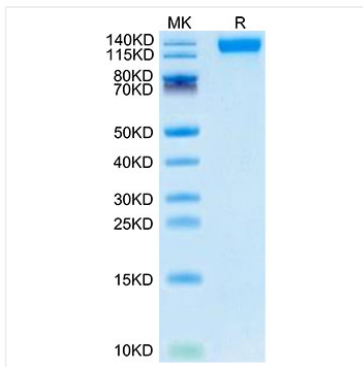
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

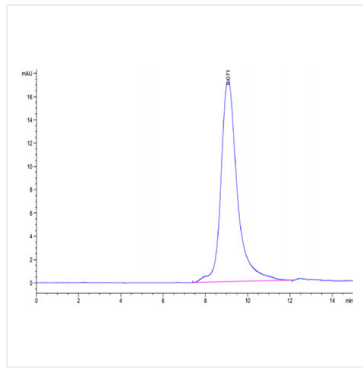
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

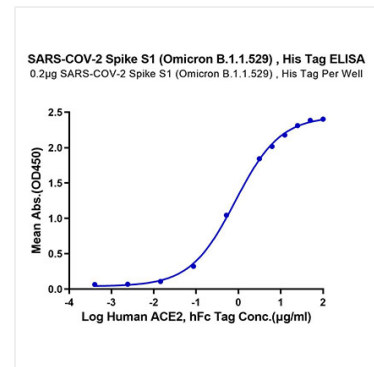
Validation Data



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



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



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.