

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

Catalog No.: RP02107 Recombinant

# **Sequence Information**

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

Tags

C-His

## **Synonyms**

S1-RBD protein;NCP-CoV RBD Protein;novel coronavirus RBD Protein;2019-nCoV RBD Protein;S glycoprotein Subunit1 RBD Protein

# **Product Information**

Source HEK293 cells Purification >95% by SDS-

PAGE;> 95% by HPLC

# Endotoxin

< 1 EU/ $\mu g$  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 votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (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 RBD(B.1.1.529/Omicron) is produced by Expi293 cells expression system. The target protein is expressed with sequence (Arg319-Phe541(G339D, S371L, S373P, S375F, K417N, N440K, G446S, S477N, T478K, E484A, Q493R, G496S, Q498R, N501Y, Y505H)) of SARS-COV-2 Spike RBD(B.1.1.529/Omicron) (Accession #QHO60594.1) fused with His tag at the C-terminus.

## **Bio-Activity**

Immobilized SARS-COV-2 Spike RBD (B.1.1.529/Omicron) His Tag at 1  $\mu$ g/mL (100  $\mu$ L/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC<sub>50</sub> of 7.5 ng/mL determined by ELISA.

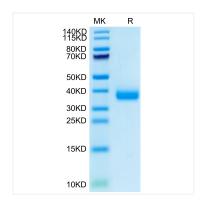
### Storage

Store the lyophilized protein at -20°C to -80 °C for long term.

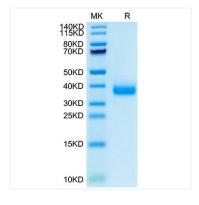
After reconstitution, the protein solution is stable at -20  $^{\circ}$ C for 3 months, at 2-8  $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

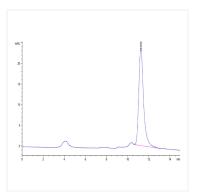
# **Validation Data**



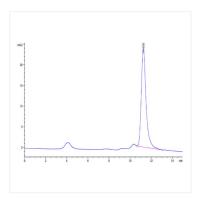
Recombinant SARS-CoV-2 Spike RBD(B.1.1.529/Omicron) Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 35-40 kDa.



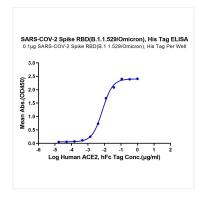
SARS-COV-2 Spike RBD (Omicron B.1.1.529) on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



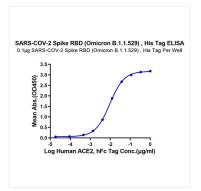
The purity of SARS-COV-2 Spike RBD (B.1.1.529/Omicron) is greater than 95% as determined by SEC-HPLC.



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



Immobilized SARS-COV-2 Spike RBD (B.1.1.529/Omicron), His Tag at  $1\mu g/ml$  ( $100\mu l/well$ ) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 7.5ng/ml determined by ELISA.



Immobilized SARS-COV-2 Spike RBD (Omicron B.1.1.529) , His Tag at  $1\mu g/ml$  (100 $\mu l/well$ ) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC $_{50}$  of 9.4ng/ml determined by ELISA.