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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	43740568	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	Purification
HEK293 cells	>95% by SDS-PAGE;> 95% by HPLC

Calculated MW	Observed MW
26.2 kDa	35-40 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 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.

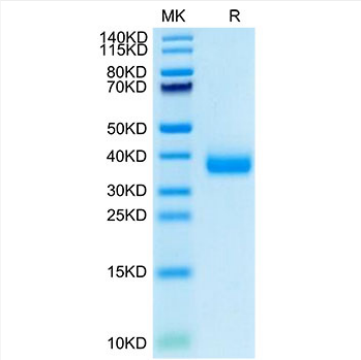
Basic Information

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.

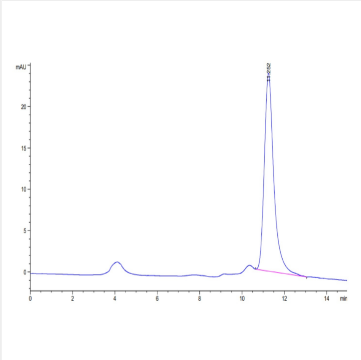
Bio-Activity
Immobilized SARS-COV-2 Spike RBD (B.1.1.529/Omicron) His Tag at 1 μg/mL (100 μL/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC_{50} of 7.5 ng/mL determined by ELISA.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

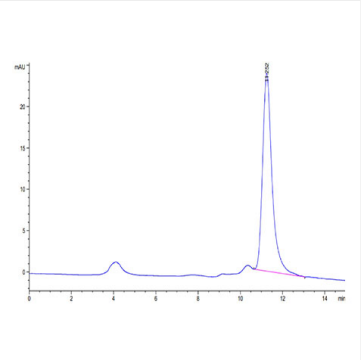
Validation Data



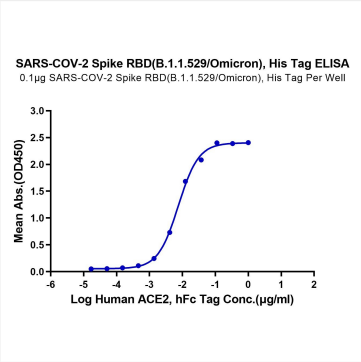
Recombinant SARS-CoV-2 Spike RBD(B.1.1.529/Omicron) Protein was determined by Tris-Bis PAGE under reducing conditions.



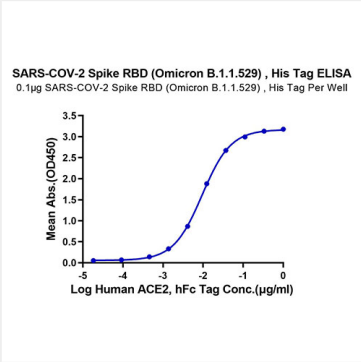
The purity of SARS-COV-2 Spike RBD (B.1.1.529/Omicron) is greater than 95% as determined by SEC-HPLC.



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 1μg/ml (100μl/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC_{50} of 7.5ng/ml determined by ELISA.



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