

SARS-CoV-2 Spike RBD (Omicron XBB.1.5) Protein

Cat. No. XBB-HM115

Description	
Source	Recombinant SARS-CoV-2 Spike RBD (Omicron XBB.1.5) Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Arg319-Phe541 (G339H, R346T, L368I, S371F, S373P, S375F, T376A, D405N, R408S, K417N, N440K, V445P, G446S, N460K, S477N, T478K, E484A, F486P, F490S, Q498R, N501Y, Y505H).
Accession	QHD43416.1
Molecular Weight	The protein has a predicted MW of 26.22 kDa. Due to glycosylation, the protein migrates to 35-45 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE; 95% as determined by HPLC

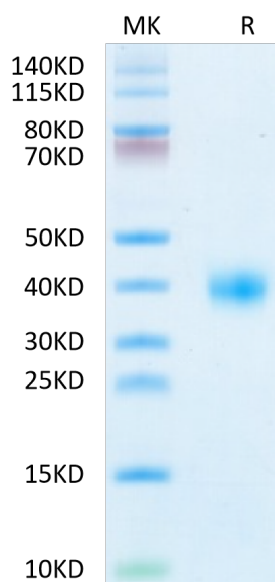
Formulation and Storage	
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized 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 ongoing coronavirus disease 2019 (COVID-19) pandemic has prioritized the development of small-animal models for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The resulting mouse-adapted strain at passage 6 (called MASCp6) showed increased infectivity in mouse lung and led to interstitial pneumonia and inflammatory responses in both young and aged mice after intranasal inoculation. Deep sequencing revealed a panel of adaptive mutations potentially associated with the increased virulence. In particular, the N501Y mutation is located at the receptor binding domain (RBD) of the spike protein.

Assay Data

Bis-Tris PAGE



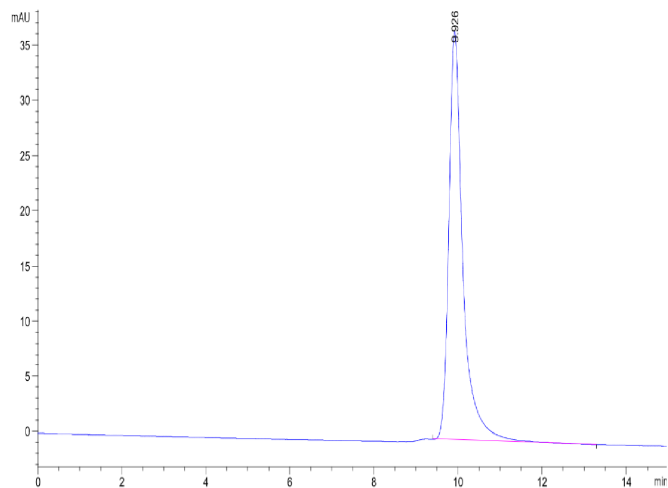
SARS-CoV-2 Spike RBD (Omicron XBB.1.5) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

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Assay Data

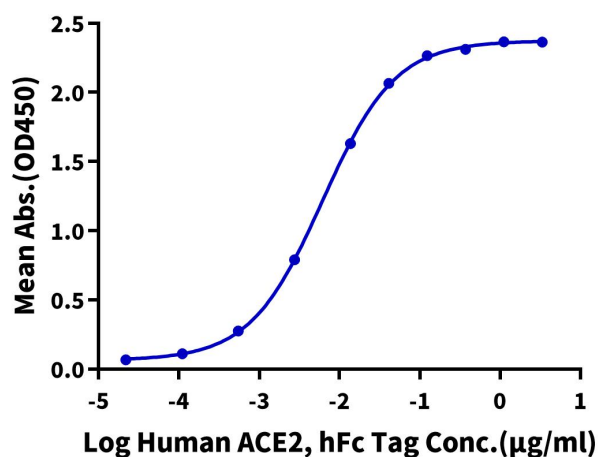


The purity of SARS-CoV-2 Spike RBD (Omicron XBB.1.5) is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human Spike RBD(Omicron XBB.1.5), His Tag ELISA

0.05µg Human Spike RBD(Omicron XBB.1.5), His Tag Per Well



Immobilized SARS-Cov-2 Spike RBD (Omicron XBB.1.5) , His Tag at 0.5 µg/ml (100 µl/Well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 6.2 ng/ml determined by ELISA.