SARS-CoV-2 Spike RBD (Omicron BA.2.74) Protein

Cat. No. BA2-HM174

KACTUS

Description

Source	Recombinant SARS-CoV-2 Spike RBD (Omicron BA.2.74) Protein is expressed from HEK293 with His tag at the C-Terminus.
	It contains Arg319-Phe541(T19I, del24-26, A27S, G142D, V213G, G339D, R346T, S371F, S373P, S375F, T376A, D405N, R408S, K417N, N440K, L452M, S477N, T478K, E484A, Q493R, Q498R, N501Y, Y505H).
Accession	QHD43416.1
Molecular Weight	The protein has a predicted MW of 26.04 kDa. Due to glycosylation, the protein migrates to 35-42 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

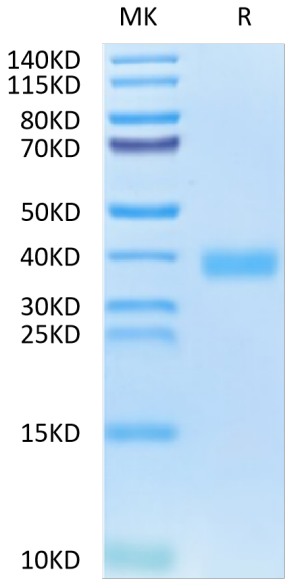
Formulation	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled 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

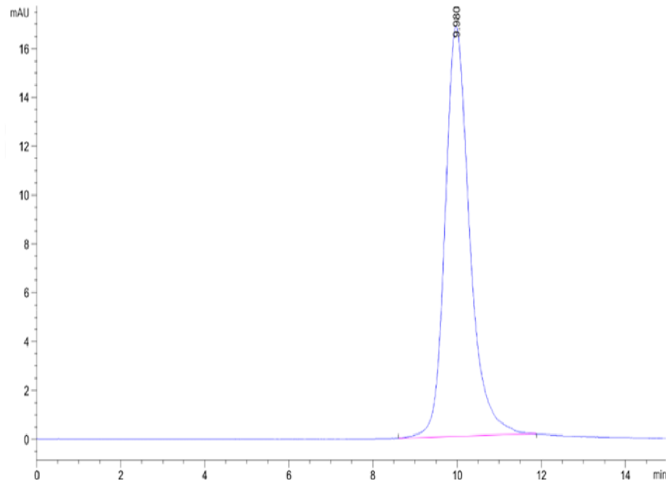
Bis-Tris PAGE



SARS-CoV-2 Spike RBD (Omicron BA.2.74) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

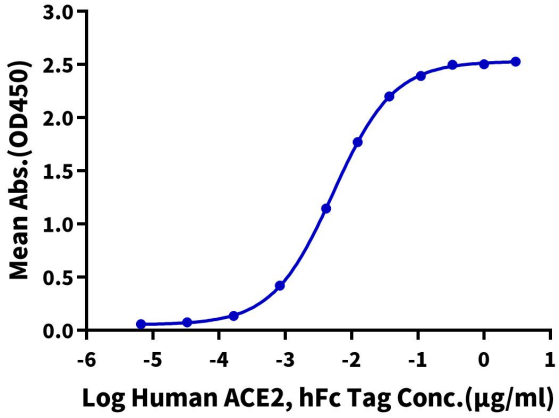


The purity of SARS-CoV-2 Spike RBD (Omicron BA.2.74) is greater than 95% as determined by SEC-HPLC.

ELISA Data

SARS-CoV-2 Spike RBD (Omicron BA.2.74), His Tag ELISA

0.05μg SARS-CoV-2 Spike RBD (Omicron BA.2.74), His Tag Per Well



Immobilized SARS-CoV-2 Spike RBD (Omicron BA.2.74) , His Tag at 0.5μg/ml (100μl/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 5.3ng/ml determined by ELISA.