

SARS-COV-2 Spike RBD Protein

Cat. No. COV-VM4BD

Description

Source	Recombinant SARS-COV-2 Spike RBD Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Arg319-Asn532.
Accession	QHD43416.1
Molecular Weight	The protein has a predicted MW of 27 kDa. Due to glycosylation, the protein migrates to 36-40 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

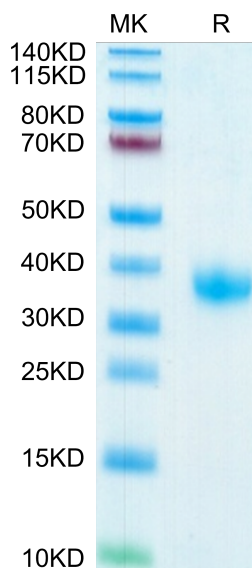
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized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

Assay Data

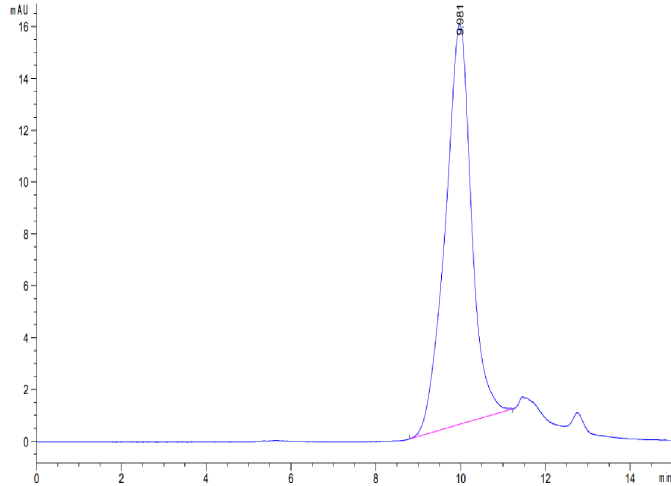
Bis-Tris PAGE



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

SEC-HPLC

Assay Data

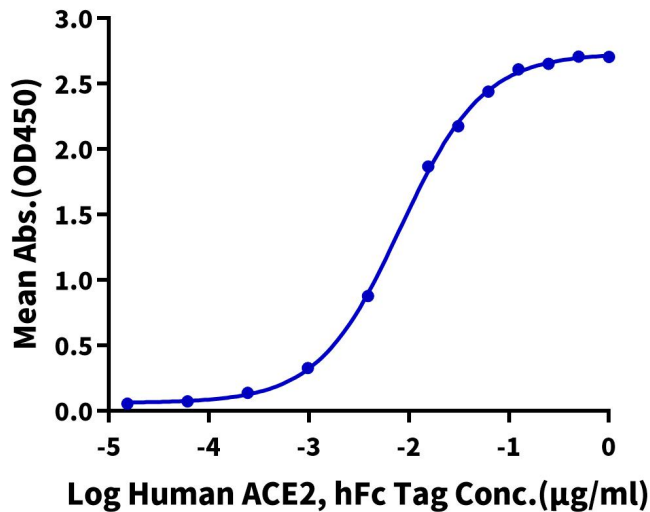


The purity of SARS-COV-2 Spike RBD is greater than 95% as determined by SEC-HPLC.

ELISA Data

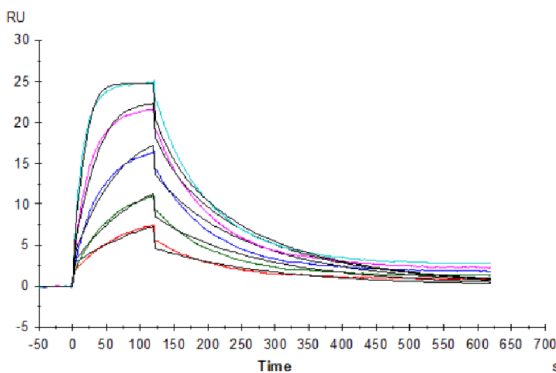
SARS-COV-2 Spike RBD, His Tag ELISA

0.1µg SARS-COV-2 Spike RBD, His Tag Per Well



Immobilized SARS-COV-2 Spike RBD, His Tag at 1µg/ml (100µl/Well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 8.2ng/ml determined by ELISA (QC Test).

SPR Data



Human ACE2, hFc Tag captured on Protein A chip, can bind SARS-COV-2 Spike RBD, His Tag with an affinity constant of 13.8nM as determined in a SPR assay (Biacore T200).