SARS-CoV-2 (COVID-19) S protein RBD, Mouse IgG2a Fc Tag

Catalog # SPD-C5251

Synonym

Spike,S protein RBD,Spike glycoprotein Receptor-binding domain,S glycoprotein RBD,Spike protein RBD

Source

SARS-CoV-2 S protein RBD, Mouse IgG2a Fc Tag(SPD-C5251) is expressed from human 293 cells (HEK293). It contains AA Arg 319 - Phe 541 (Accession # QHD43416.1).
Predicted N-terminus: Arg 319

Molecular Characterization

S protein RBD(Arg 319 - Phe 541) QHD43416.1	mFc(Glu 98 - Lys 330) P01863

This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 52.0 kDa. The protein migrates as 55-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Supplied as 0.2 μm filtered solution in 10 mM PB, Arginine, pH7.4.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

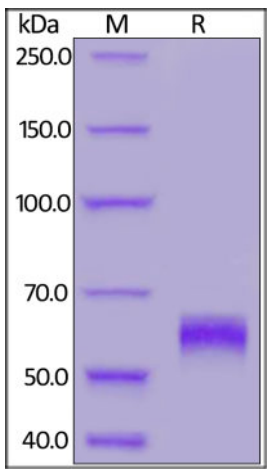
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

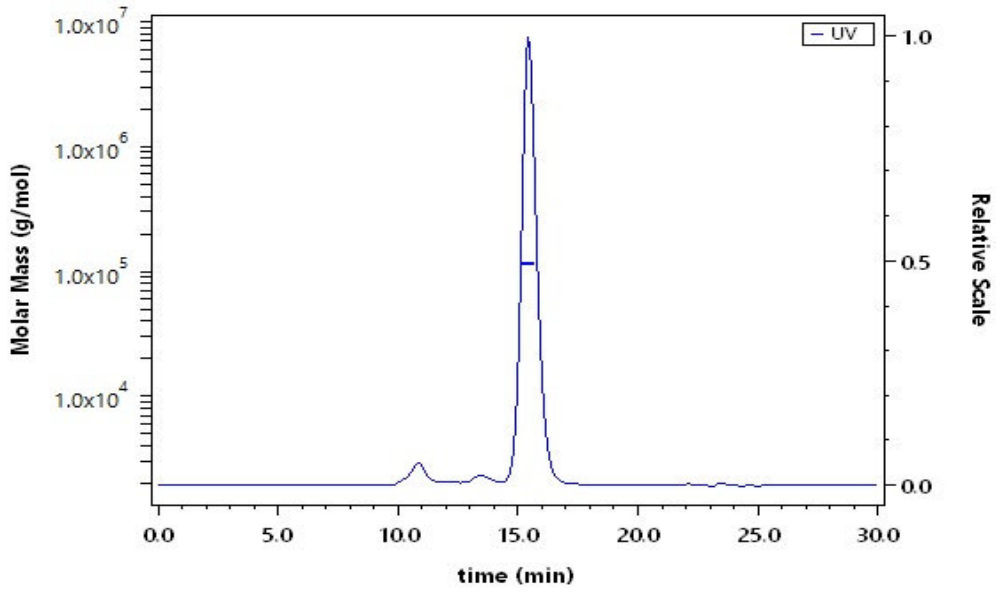
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



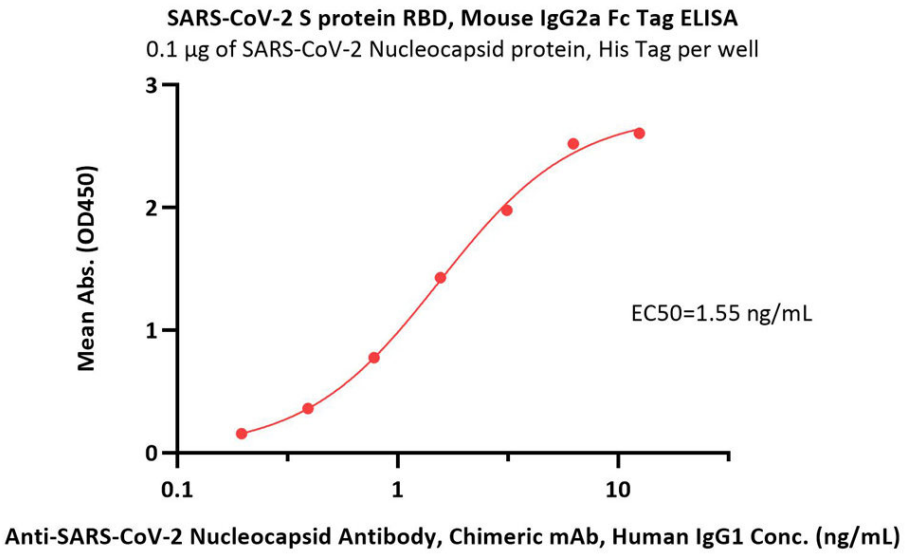
SARS-CoV-2 S protein RBD, Mouse IgG2a Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



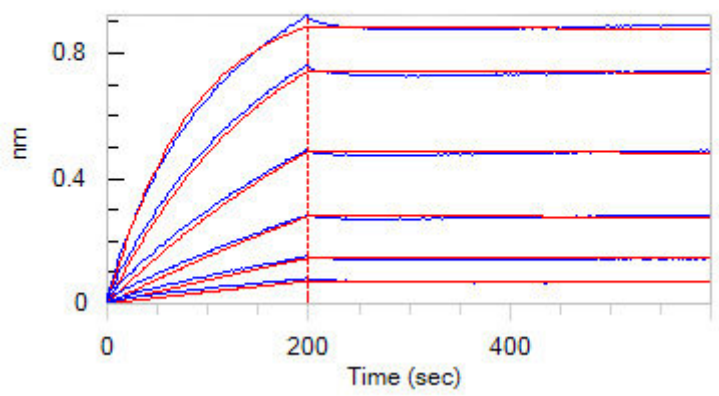
The purity of SARS-CoV-2 S protein RBD, Mouse IgG2a Fc Tag (Cat. No. SPD-C5251) is more than 90% and the molecular weight of this protein is around 110-125 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized SARS-CoV-2 S protein RBD, Mouse IgG2a Fc Tag (Cat. No. SPD-C5251) at 1 μg/mL (100 μL/well) can bind Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1 (Cat. No. SAD-S35) with a linear range of 0.2-3 ng/mL (QC tested).

Bioactivity-BLI



Loaded SARS-CoV-2 S protein RBD, Fc Tag (Cat. No. SPD-C5251) on Protein A Biosensor, can bind Human ACE2, His Tag (Cat. No. AC2-H52H8) with an affinity constant of 0.255nM as determined in BLI assay (ForteBio Octet Red96e)(Routinely tested).

Background

It's been reported that Coronavirus can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion.The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.