

**Synonym**

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

**Source**

SARS-CoV-2 S protein RBD, His Tag (SPD-C52H1) is expressed from human 293 cells (HEK293).

**Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 26.5 kDa. The protein migrates as 32 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Supplied as 0.2  $\mu\text{m}$  filtered solution in 10 mM PB, pH7.4.

Contact us for customized product form or formulation.

**Shipping**

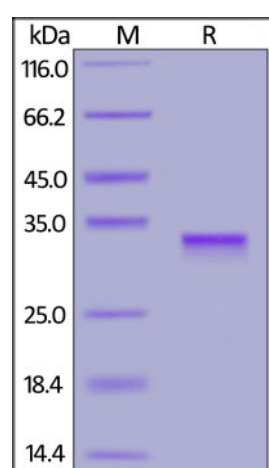
*This product is supplied and shipped as sterile liquid solution with dry ice, please inquire the shipping cost.*

**Storage**

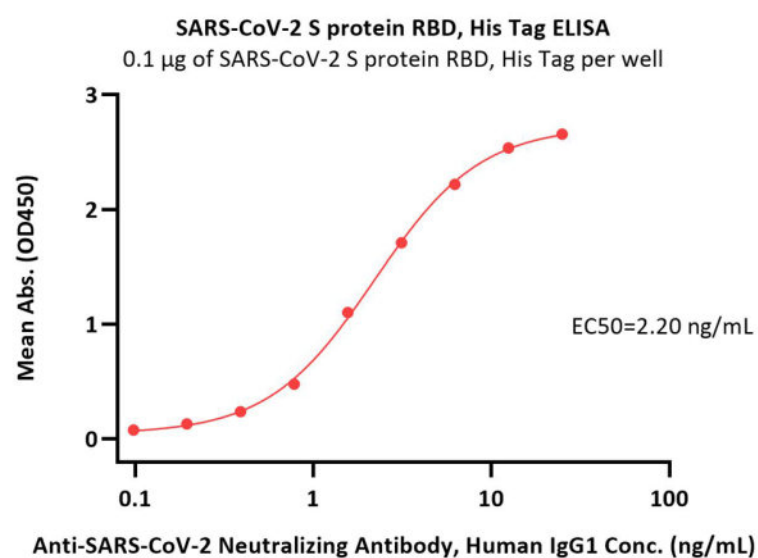
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

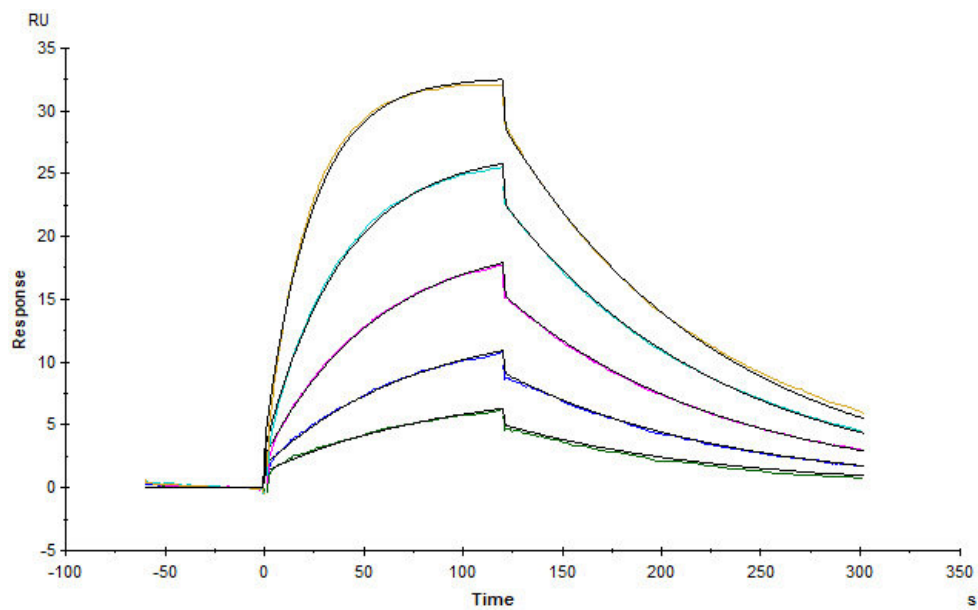
- The product MUST be stored at  $-70^{\circ}\text{C}$  or lower upon receipt;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions.

**SDS-PAGE**

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

**Bioactivity-ELISA**

Immobilized SARS-CoV-2 S protein RBD, His Tag (Cat. No. SPD-C52H1) 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 0.1-3 ng/mL (QC tested).

**Bioactivity-SPR**

Human ACE2, Fc Tag (Cat. No. AC2-H5257) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind SARS-CoV-2 S protein RBD, His Tag (Cat. No. SPD-C52H1) with an affinity constant of 17.3 nM as determined in a SPR assay (Biacore T200) (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.

**Clinical and Translational Updates**

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.