

**SARS-CoV-2 (COVID-19) S protein RBD, His Tag**

Catalog # AMS.SPD-C52H1

**Synonym**

Spike,S protein RBD,Spike glycoprotein Receptor-binding domain,S glycoprotein RBD,Spike protein RBD,COVID-19

**Source**

SARS-CoV-2 S protein RBD, His Tag (SPD-C52H1) is expressed from human 293 cells (HEK293). It contains AA Arg 319 - Lys 537 (Accession # [QHD43416.1](#)).

Predicted N-terminus: Arg 319

**Molecular Characterization**

S protein RBD(Arg 319 - Lys 537) QHD43416.1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 26.5 kDa. The protein migrates as 32-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Delivered as bulk protein in a 0.2 µm filtered solution of PBS, pH7.4.

Contact us for customized product form or formulation.

**Storage**

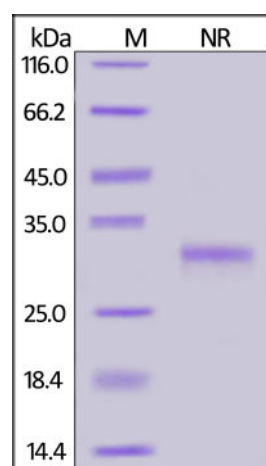
*Please avoid repeated freeze-thaw cycles.*

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.

**Shipping**


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

**SDS-PAGE**

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

**Bioactivity-ELISA**

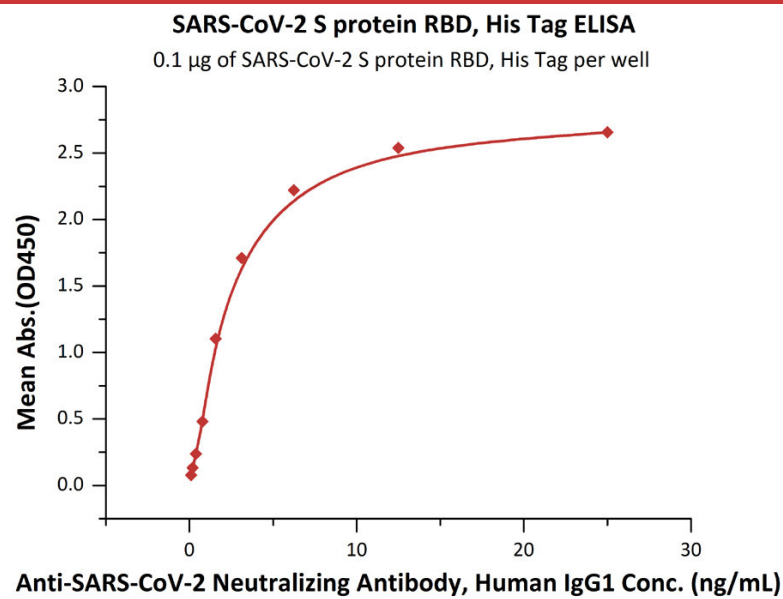
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Immobilized SARS-CoV-2 S protein RBD, His Tag (Cat. No. AMS.SPD-C52H1) at 1 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1 (Cat. No. AMS.SAD-S35) with a linear range of 0.1-3 ng/mL (QC tested).


## Background

It's been reported that SARS-CoV-2 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.

## References

- (1) [Wan Y, et al. J Virol. 2020. pii: JVI.00127-20.](#)
- (2) [Benvenuto D, et al. J Med Virol. 2020.](#)
- (3) [Chang CY, et al. AMB Express. 2020. 10\(1\):20.](#)

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