

Datasheet for ABIN6952628

SARS-CoV-2 Spike S1 Protein (RBD) (His tag)**3** Images**5** Publications[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	SARS-CoV-2 Spike S1
Protein Characteristics:	RBD
Origin:	SARS Coronavirus-2 (SARS-CoV-2)
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SARS-CoV-2 Spike S1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA

Product Details

Purpose:	SARS-CoV-2 (COVID-19) S protein RBD, His Tag (MALS verified)
Sequence:	AA 319-537
Characteristics:	SARS-CoV-2 S protein RBD, His Tag is expressed from human 293 cells (HEK293). It contains AA Arg 319 - Phe 541 (Accession # QHD43416.1). Predicted N-terminus: Arg 319 This protein carries a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by SDS-PAGE. > 90 % as determined by SEC-MALS.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	SARS-CoV-2 Spike S1
Abstract:	SARS-CoV-2 Spike S1 Products
Target Type:	Viral Protein
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.
Molecular Weight:	26.5 kDa
Gene ID:	43740568
UniProt:	P0DTC2

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	4 °C, -20 °C, -80 °C
Storage Comment:	For long term storage, the product should be stored at lyophilized state at -20°C or lower. This product is stable after storage at: 4-8°C for 12 months in lyophilized state, -70°C for 3 years under sterile conditions after reconstitution.

Publications

Product cited in:	Sasisekharan, Pentakota, Jayaraman, Tharakaraman, Wogan, Narayanasami: "Orthogonal immunoassays for IgG antibodies to SARS-CoV-2 antigens reveal that immune response lasts beyond 4 mo post illness onset." in: Proceedings of the National Academy of Sciences of the
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United States of America, Vol. 118, Issue 5, (2021) ([PubMed](#)).

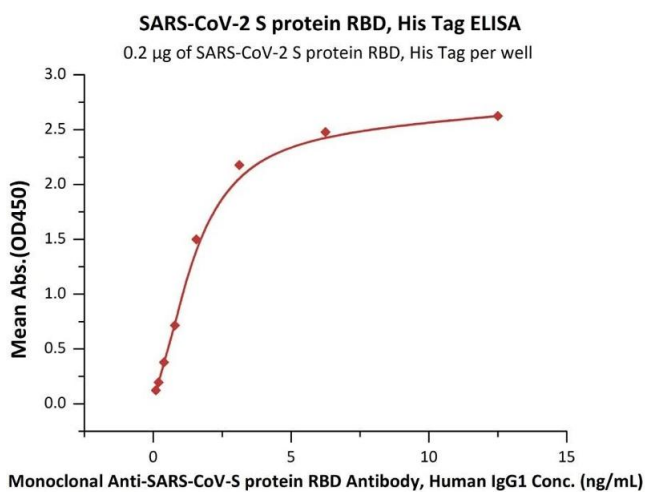
Narang, James, Balmer, Wilson: "Protein Footprinting, Conformational Dynamics, and Core Interface-Adjacent Neutralization "Hotspots" in the SARS-CoV-2 Spike Protein Receptor Binding Domain/Human ACE2 Interaction." in: **Journal of the American Society for Mass Spectrometry**, (2021) ([PubMed](#)).

Guo, Huang, Zhang, Yao, Zhou, Shen, Shen, Li, Li, Zhang, Chen, Chen, Wu, Fu, Zeng, Feng, Pi, Wang, Zhou, Lu, Li, Fang, Lu, Hu, Wang, Zhang, Gao, Adrian, Wang, Yu, Peng, Gabibov, Min, Wang, Huang et al.: "A SARS-CoV-2 neutralizing antibody with extensive Spike binding coverage and modified for optimal therapeutic outcomes. ..." in: **Nature communications**, Vol. 12, Issue 1, pp. 2623, (2021) ([PubMed](#)).

Longworth, Dittmar: "An antigen microarray protocol for COVID-19 serological analysis." in: **STAR protocols**, Vol. 2, Issue 3, pp. 100815, (2021) ([PubMed](#)).

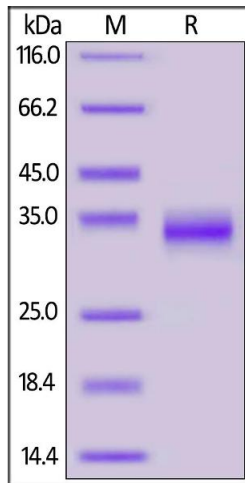
Wei, Wan, Yan, Wang, Zhang, Yang, Zhang, Fan, Li, Deng, Sun, Gong, Yang, Wang, Wang, Li, Yang, Li, Zhang, Wang, Du, Zong, Yin, Zhang, Wang, Peng, Lin, Feng, Qin, Chen, Gao, Zhang, Cao, Zhong: "HDL-scavenger receptor B type 1 facilitates SARS-CoV-2 entry." in: **Nature metabolism**, Vol. 2, Issue 12, pp. 1391-1400, (2020) ([PubMed](#)).

Images



ELISA

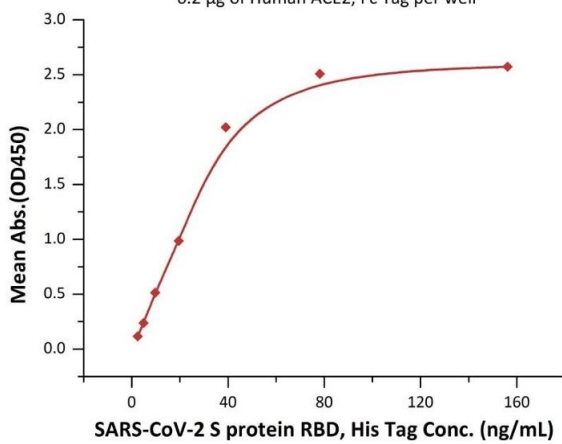
Image 1. Immobilized SARS-CoV-2 S protein RBD, His Tag (ABIN6952628) at 2 µg/mL (100 µL/well) can bind Monoclonal Anti-SARS-CoV-2 S protein RBD Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (Routinely tested).



SDS-PAGE

Image 2. 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 % .

SARS-CoV-2 S protein RBD, His Tag ELISA
0.2 µg of Human ACE2, Fc Tag per well



ELISA

Image 3. Immobilized Human ACE2, Fc Tag (ABIN6952465) at 2 µg/mL (100 µL/well) can bind SARS-CoV-2 S protein RBD, His Tag (ABIN6952628) with a linear range of 2-39 ng/mL (QC tested).