

Datasheet for ABIN6952616

Recombinant anti-SARS-CoV-2 Spike S1 antibody (RBD)

10 Images

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Overview

Quantity:	100 µg
Target:	SARS-CoV-2 Spike S1
Binding Specificity:	RBD
Reactivity:	SARS Coronavirus-2 (SARS-CoV-2)
Host:	Human
Expression System:	HEK-293 Cells
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Biological Activity:	Active
Conjugate:	This SARS-CoV-2 Spike S1 antibody is un-conjugated
Application:	ELISA, Neutralization (Neut)

Product Details

Purpose:	Anti-SARS-CoV-2 neutralizing antibody (Human IgG1)
Isotype:	IgG1
Specificity:	The product is specific for SARS-CoV-2 Spike Protein S1 subunit and its RBD domain, and can inhibit the interaction between SARS-CoV-2 Spike Protein RBD and ACE2.
Cross-Reactivity (Details):	This product is a specific neutralizing antibody against SARS-CoV-2 Spike Protein RBD domain and no cross-reactivity was detected against SARS-CoV Spike protein. The cross-reactivity with other coronaviruses has not been tested yet.

Product Details

Characteristics:	Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1 recognizes the SARS-CoV-2 Spike Protein RBD domain and can inhibit the interaction between SARS-CoV-2 Spike Protein RBD and ACE2. It has not been tested with other coronavirus. It is expressed from human 293 cells (HEK293).
Purity:	> 95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Biological Activity Comment:	IC50 = 1.47 µg/mL using SARS-CoV-2 Inhibitor screening Kit

Target Details

Target:	SARS-CoV-2 Spike S1
Abstract:	SARS-CoV-2 Spike S1 Products
Target Type:	Viral Protein
Background:	Protein S (PROS1) is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, DPP4, CEACAM etc.. It's been reported that 2019-nCoV 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.
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:	Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4 . Normally trehalose is added as protectant before lyophilization.

Handling

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: Wu, Wu, Wang, Liu, Chu, Jiang, Kwong, Chow, Li, Chen: "Microfluidic particle dam for direct visualization of SARS-CoV-2 antibody levels in COVID-19 vaccinees." in: **Science advances**, Vol. 8, Issue 22, pp. eabn6064, (2022) ([PubMed](#)).

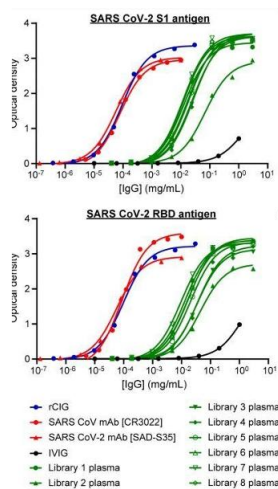
Chouchane, Grivel, Farag, Pavlovski, Maacha, Sathappan, Al-Romaihi, Abuaqel, Ata, Ismail Chouchane, Remadi, Halabi, Rafii, Al-Thani, Marr, Subramanian, Shan: "Dromedary camels as a natural source of neutralizing nanobodies against SARS-CoV-2." in: **JCI insight**, (2021) ([PubMed](#)).

Munitz, Edry-Botzer, Itan, Tur-Kaspa, Dicker, Marcoviciu, Goren, Mor, Lev, Gottesman, Muhsen, Cohen, Stein, Qimron, Freund, Wine, Gerlic: "Rapid seroconversion and persistent functional IgG antibodies in severe COVID-19 patients correlates with an IL-12p70 and IL-33 signature." in: **Scientific reports**, Vol. 11, Issue 1, pp. 3461, (2021) ([PubMed](#)).

Apostolou, Kyritsi, Vontas, Loizou, Hadjilouka, Speletas, Mouchtouri, Hadjichristodoulou: "Development and performance characteristics evaluation of a new Bioelectric Recognition Assay (BERA) method for rapid Sars-CoV-2 detection in clinical samples." in: **Journal of virological methods**, Vol. 293, pp. 114166, (2021) ([PubMed](#)).

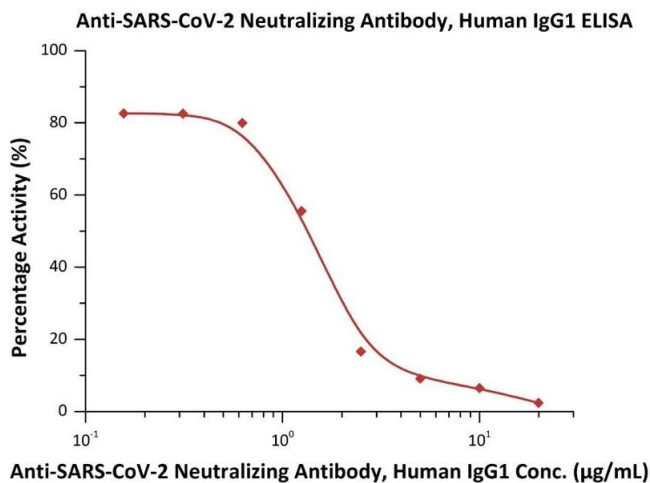
Leach, Miller, Bentley, Mattiuzzo, Thomas, McAndrew, Van Montfort, Rabbitts: "Implementing a method for engineering multivalency to substantially enhance binding of clinical trial anti-SARS-CoV-2 antibodies to wildtype spike and variants of concern proteins." in: **Scientific reports**, Vol. 11, Issue 1, pp. 10475, (2021) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



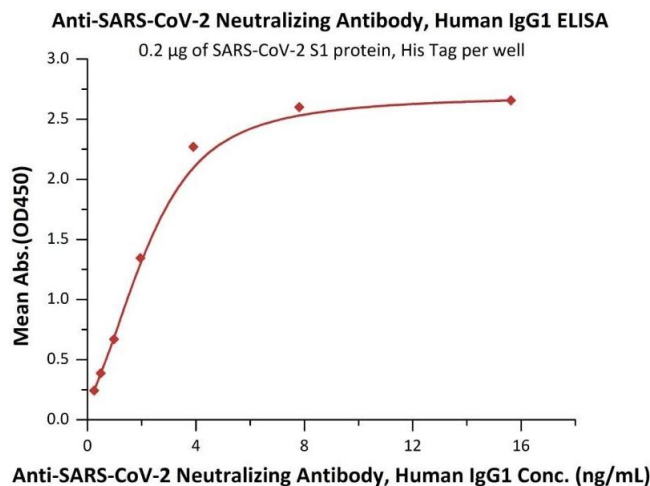
ELISA

Image 1. ELISA of the indicated samples against SARS CoV-2 S1 antigen (top) or RBD antigen (bottom). Source: 10.1101/2020.08.05.232975



ELISA

Image 2. Serial dilutions of Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1 (ABIN6952616) was detected by SARS-CoV-2 Inhibitor screening Kit (ABIN6952717) with a half maximal inhibitory concentration (IC₅₀) of 1.472 µg/mL (QC tested).



ELISA

Image 3. Immobilized SARS-CoV-2 S1 protein, His Tag (ABIN6952623) at 2 µg/mL (100 µL/well) can bind Anti-SARS-CoV-2 Neutralizing Antibody, Human IgG1 (ABIN6952616) with a linear range of 0.2-1.95 ng/mL (QC tested).

Please check the [product details page](#) for more images. Overall 10 images are available for ABIN6952616.