Datasheet for ABIN7566481

Recombinant anti-SARS-CoV-2 Spike S1 antibody

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Overview

Quantity:	50 µg
Target:	SARS-CoV-2 Spike S1
Reactivity:	SARS Coronavirus-2 (SARS-CoV-2)
Host:	Mouse
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This SARS-CoV-2 Spike S1 antibody is un-conjugated
Application:	ELISA

Product Details

Purpose:	anti-SARS-CoV-2 Spike Protein S1 (NTD), mAb (rec.) (AB72-1-G09)
Immunogen:	Recombinant SARS-CoV-2 S1/S2 Protein (aa 14-1208 (proline substitutions at residues 986 and 987, ""GSAS"" substitution at the furin cleavage site (residues 682-685)) containing a C-terminal His-tag.
Clone:	AB72-1-G09
Isotype:	IgG2a
Characteristics:	Recombinant Antibody. Recognizes the SARS-CoV-2 S1 (N-terminal domain). Does not cross-react with HCoV-OC43, HCoV-229E, HCoV-NL63, HCoV-HKU1, MERS-CoV or SARS-CoV. Applications: ELISA. Clone: AB72-1-G09. Isotype: Mouse IgG2a. Formulation: Liquid. In PBS. Coronaviruses (CoVs) are enveloped non-segmented positive-sense single-stranded RNA viruses and can infect respiratory, gastrointestinal, hepatic and central nervous system of

human and many other wild animals. Recently, a new severe acute respiratory syndrome beta-coronavirus called SARS-CoV-2 (or 2019-nCoV) has emerged, which causes an epidemic of acute respiratory syndrome (called coronavirus human disease 2019 or COVID-19). SARS-CoV-2 shares 79.5 % sequence identity with SARS-CoV and is 96.2 % identical at the genome level to the bat coronavirus BatCoV RaTG133, suggesting it had originated in bats. SARS-CoV-2 contains 4 structural proteins, including Envelope (E), Membrane (M), Nucleocapsid (N) and Spike (S), which is a transmembrane protein, composed of two subunits S1 and S2. The S protein plays a key role in viral infection and pathogenesis. The S1 subunit contains the N-terminal domain (NTD) and a receptor binding domain (RBD), which binds to the cell surface receptor Angiotensin-Converting Enzyme 2 (ACE2) present at the surface of epithelial cells, causing mainly infection of human respiratory cells, whereas S2 harbors heptad repeat 1 (HR1) and HR2. The RBD domain first binds its receptor to form an RBD/ACE2 complex. This triggers conformational changes in the S protein, leading to membrane fusion mediated via HR1 and HR2 and consequently in viral entry into target cells. Antibodies targeting various regions of S protein have different mechanisms in inhibiting SARS-CoV-2 infection. For example, NTD-targeting antibodies bind the NTD to form an NTD/mAb complex, thereby preventing conformational changes in the S protein and blocking membrane fusion and viral entry. RBD-targeting antibodies form RBD/mAb or RBD/Nb complexes that inhibit binding of the RBD to ACE2, thereby preventing entry of SARS-CoV-2 into target cells.

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Purification:	Puified
Purity:	>95 % (SDS-PAGE)

Target Details

Target:	SARS-CoV-2 Spike S1
Alternative Name:	SARS-CoV-2 Spike Protein S1 (SARS-CoV-2 Spike S1 Products)

Application Details

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

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	In PBS.
Handling Advice:	After opening, prepare aliquots and store at -20 °C.Avoid freeze/thaw cycles.Please handle under sterile conditions to avoid contamination.
Storage:	4 °C,-20 °C
Storage Comment:	Stable for at least 1 year after receipt when stored at -20°C. Stable for at least 3 months after receipt when stored at +4°C.

