

Purified anti-SARS-CoV-2 S Protein S1 Recombinant Antibody

Catalog# / Size	940601 / 25 µg 940602 / 100 µg
Clone	AM005415
Regulatory Status	RUO
Other Names	Spike glycoprotein, S glycoprotein (E2)
Isotype	Human IgG1, κ
Description	<p>Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a single- stranded RNA virus that belongs in a family of viruses known as coronaviruses. SARS-CoV-2 infection, known as COVID-19, was declared a pandemic by WHO on March 11, 2020 and among other symptoms leads to respiratory infection, pulmonary failure which can be fatal. SARS-CoV-2 is structurally composed of 4 main proteins (e.g. spike glycoprotein, envelope glycoprotein, membrane glycoprotein and nucleocapsid protein) and several accessory proteins. The spike glycoprotein (S) is a transmembrane molecule that forms homotrimers on the surface of the virus and facilitates virulence through binding to angiotensin-converting enzyme 2 (ACE2) expressed on host cells. This protein is composed of two subunits S1 and S2. S1 subunit is responsible for binding to the host cell via ACE-2 receptor and S2 for fusion with the host cell.</p> <p>This antibody is specific for the S1 subunit of SARS-CoV-2 and was derived, sequenced and expressed from patients that had recovered from COVID-19 infection.</p>

Product Details

Verified Reactivity	SARS-CoV-2
Antibody Type	Recombinant
Host Species	Human
Immunogen	SARS-CoV-2
Formulation	140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide
Preparation	The antibody was purified by affinity chromatography.
Concentration	1.0 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Prior to use, quick spin the antibody vial to ensure recovery of maximum volume. Antibody can be stored in single use aliquots in -20°C for 2 years. Avoid repeated freeze and thaws.
Application	ELISA Detection - Quality tested Direct ELISA - Verified
Recommended Usage	Recommended usage concentration for direct ELISA application is 36 ng/mL.
Application Notes	Clone name AM005415 is also referred as 415-5.
Additional Product Notes	1. Wan J. <i>et al.</i> 2020. <i>Cell Rep.</i> 32(3):107918
RRID	AB_2888748 (BioLegend Cat. No. 940601) AB_2888748 (BioLegend Cat. No. 940602)

Antigen Details

Structure	Spike glycoprotein is a homotrimer. Each monomer consists of 1,273 a.a with a molecular weight of approximately 141 kD and consists of S1 and S2 subunits. S1 subunit is 673 a.a. long.
Distribution	Viral envelope protein, host cell membrane, host cell endoplasmic reticulum-Golgi intermediate

compartment membrane

Function Host cell surface receptor binding

Interaction ACE2

Ligand/Receptor ACE2

Biology Area COVID-19

Antigen References

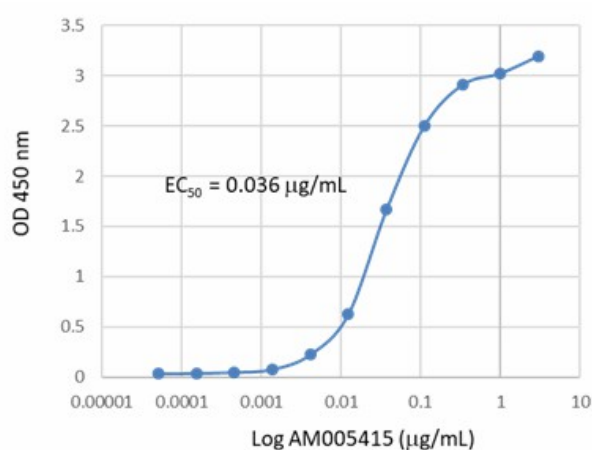
1. Walls A.C. *et al.* 2020. *Cell* 181(2):281-292
2. Yan R. *et al.* 2020. *Science* 367 (6485):1444-1448
3. Wrapp D. *et al.* 2020. *Science* 367 (6483):1260-1266
4. Shang J. *et al.* 2020. *PNAS* 117(21):11727-11734

Gene ID [43740568](#)

Other Formats

Purified anti-SARS-CoV-2 S Protein S1 Recombinant Antibody

Product Data



Recombinant SARS-CoV-2 S Protein S1 (Cat. No. 792904) coated onto Nunc™ Maxisorp™ ELISA Plates (Cat. No. 423501) at 2 µg/mL and then incubated with a dilution series of purified anti-SARS-CoV-2 S Protein S1 recombinant antibody (clone AM005415). Bound antibodies were detected with biotinylated anti-human IgG secondary antibody followed by avidin-horseradish peroxidase and TMB substrate solution. Absorbance was measured at 450 nm.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587