

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

Catalog# / Size	938601 / 25 µg 938602 / 100 µg
Clone	AM006415
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.
Application	ELISA - Quality tested
Recommended Usage	Recommended usage concentration for direct ELISA application is 65 ng/mL.
Application Notes	Note: Clone AM006415 is also referred to as Clone 415-6.
Additional Product Notes	<p>Prior to use, quick spin the antibody vial to ensure recovery of maximum volume.</p> <p>Antibody can be stored in single use aliquots in -20°C for 2 years. Avoid repeated freeze and thaws.</p>
Application References	1. Wan J, <i>et al.</i> 2020. <i>bioRxiv</i> . doi: https://doi.org/10.1101/2020.05.19.104117
Product Citations	1. Alves J, <i>et al.</i> 2021. <i>Sci Rep.</i> 11:18428. PubMed
RRID	AB_2876763 (BioLegend Cat. No. 938601) AB_2876763 (BioLegend Cat. No. 938602)

Antigen Details

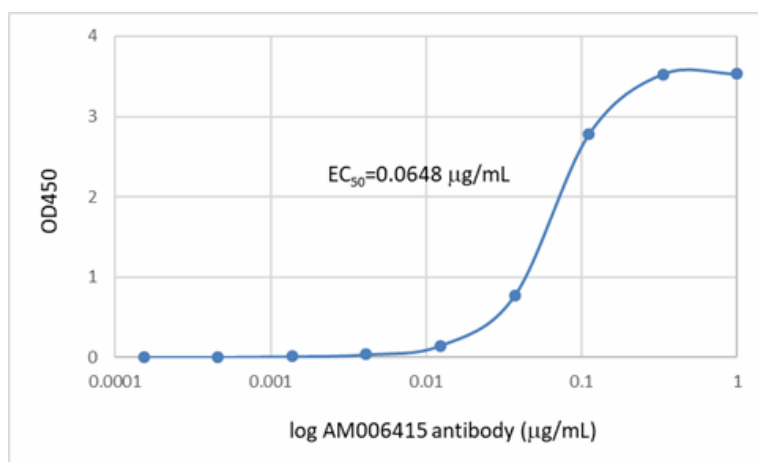
Structure	Spike glycoprotein is a homotrimer. Each monomer consists of 1,273 a.a with a molecular weight of approximately 141 kD and consists of S1 and S2 subunits. S1 subunit is 673 a.a. long.
Distribution	Viral envelope protein, host cell membrane, host cell endoplasmic reticulum-Golgi intermediate compartment membrane
Function	Host cell surface receptor binding
Interaction	ACE2
Ligand/Receptor	ACE2
Biology Area	COVID-19
Antigen References	<ol style="list-style-type: none">1. Walls AC, <i>et al.</i> 2020. <i>Cell</i>. 181(2):281-292.2. Yan R, <i>et al.</i> 2020. <i>Science</i>. 367 (6485):1444-1448.3. Wrapp D, <i>et al.</i> 2020. <i>Science</i>. 367 (6483):1260-1263.4. Shang J, <i>et al.</i> 2020. <i>PNAS</i>. 117(21):11727-11734

Gene ID [43740568](#)

Other Formats

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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 AM006415). 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.

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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