

Datasheet for ABIN1031551

**anti-SARS-CoV-2 Envelope antibody (N-Term)****8** Images**9** Publications[Go to Product page](#)

## Overview

Quantity:	0.1 mg
Target:	SARS-CoV-2 Envelope (SARS-CoV-2 E)
Binding Specificity:	N-Term
Reactivity:	SARS Coronavirus-2 (SARS-CoV-2), SARS Coronavirus (SARS-CoV)
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SARS-CoV-2 Envelope antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

## Product Details

Immunogen:	<p>Anti-SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope antibody was raised against a peptide corresponding to 10 amino acids near the amino terminus of SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope protein.</p> <p>The immunogen is located within the first 50 amino acids of SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope.</p>
Isotype:	IgG
Predicted Reactivity:	Predicted reactivity based on immunogen sequence: SARS-CoV Envelope proteins: (100%)
Purification:	Affinity chromatography purified via peptide column

## Target Details

Target:	SARS-CoV-2 Envelope (SARS-CoV-2 E)
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## Target Details

Alternative Name:	SARS-CoV-2 Envelope Protein ( <a href="#">SARS-CoV-2 E Products</a> )
Target Type:	Viral Protein
Background:	Coronavirus disease 2019 (COVID-19), formerly known as 2019-nCoV acute respiratory disease, is an infectious disease caused by SARS-CoV-2, a virus closely related to the SARS virus. The disease is the cause of the 2019–20 coronavirus outbreak. The structure of 2019-nCoV consists of the following: a spike protein (S), hemagglutinin-esterase dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleocapsid protein (N) and RNA. Envelope protein is a small polypeptide that contains at least one $\alpha$ -helical transmembrane domain. It involves in several aspects of the virus's life cycle, such as assembly, budding, envelope formation, and pathogenesis. E protein has membrane permeabilizing activity, which provides a possible rationale to inhibit in vitro ion channel activity of some synthetic coronavirus E proteins, and also viral replication.
Gene ID:	43740570
NCBI Accession:	<a href="#">QHD43418</a>

## Application Details

Application Notes:	SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope antibody can be used for the detection of SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope protein in ELISA. It will detect 20 ng of free peptide at 1 $\mu$ g/mL.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	The antibody is supplied in PBS containing 0.02% sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Storage:	4 °C/-20 °C

## Handling

Storage Comment: The antibody can be stored at 4 ° C for three months and -20 ° C, stable for up to one year.

Expiry Date: 12 months

## Publications

Product cited in: Magro, Mulvey, Laurence, Sanders, Crowson, Grossman, Harp, Nuovo: "The differing pathophysiologies that underlie COVID-19-associated perniosis and thrombotic retiform purpura: a case series." in: **The British journal of dermatology**, Vol. 184, Issue 1, pp. 141-150, (2021) ([PubMed](#)).

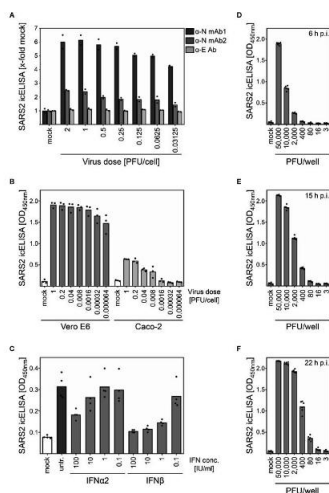
Vojdani, Vojdani, Kharrazian: "Reaction of Human Monoclonal Antibodies to SARS-CoV-2 Proteins With Tissue Antigens: Implications for Autoimmune Diseases." in: **Frontiers in immunology**, Vol. 11, pp. 617089, (2021) ([PubMed](#)).

Magro, Mulvey, Berlin, Nuovo, Salvatore, Harp, Baxter-Stoltzfus, Laurence: "Complement associated microvascular injury and thrombosis in the pathogenesis of severe COVID-19 infection: A report of five cases." in: **Translational research : the journal of laboratory and clinical medicine**, Vol. 220, pp. 1-13, (2020) ([PubMed](#)).

Mulvey, Magro, Ma, Nuovo, Baergen: "Analysis of complement deposition and viral RNA in placentas of COVID-19 patients." in: **Annals of diagnostic pathology**, Vol. 46, pp. 151530, (2020) ([PubMed](#)).

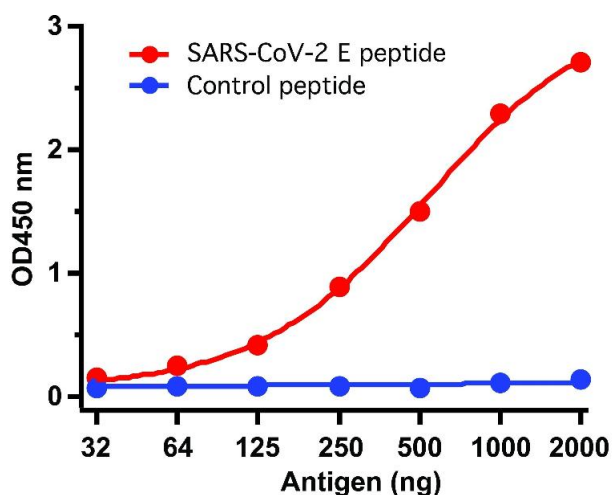
Nuovo, Tili, Suster, Matys, Hupp, Magro et al.: "Strong homology between SARS-CoV-2 envelope protein and a Mycobacterium sp. antigen allows rapid diagnosis of Mycobacterial infections and may provide specific anti-SARS-CoV-2 immunity via the BCG ..." in: **Annals of diagnostic pathology**, Vol. 48, pp. 151600, (2020) ([PubMed](#)).

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



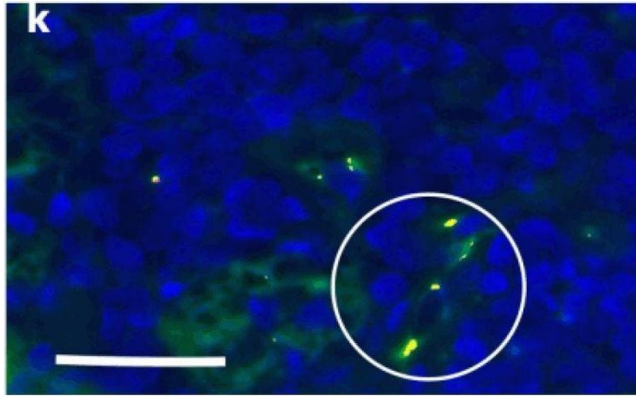
## ELISA

**Image 1.** The icELISA test allows quantification of SARS-CoV-2 replication and its inhibition by antiviral compounds. The  $\alpha$ -N mAb1 (ABIN6952435),  $\alpha$ -N mAb2 (ABIN6952433),  $\alpha$ -E Ab (ABIN1031551) were used. (A) Caco-2 cells were infected with indicated doses of SARS-CoV-2. At 3 d p.i., cells were fixed and detected by icELISA using E- and N-specific primary antibodies. For all further icELISAs,  $\alpha$ -N mAb1 was used. (B) Vero E6 and Caco-2 cells were infected with indicated doses of SARS-CoV-2. At 3 d p.i., cells were analyzed by icELISA. (C) Caco-2 cells were treated with indicated concentrations of IFN $\alpha$ 2 or IFN $\beta$ . At 3 h post treatment, cells were infected with SARS-CoV-2 (MOI 0.1). Viral replication was evaluated at 3 d p.i. by icELISA. (D-F) Vero E6 cells were infected with indicated doses of SARS-CoV-2. At 6, 15, and 22 h p.i. (D, E, and F, respectively), and cells were analyzed by icELISA. Bars depict the mean values. Dots show the values of the individual measurements. Source: PMC7581787



## ELISA

**Image 2.** ELISA Test Antibodies: SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope Antibody, ABIN1031551 (1 µg/mL). A sandwich ELISA was performed using antigen or control peptide as coating antigen and the anti-SARS-CoV-2 (COVID-19, 2019-nCoV) Envelope antibody as the capture antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 32 ng/mL to 2000ng/mL.



#### Immunofluorescence

**Image 3.** IF Validation of Envelope in COVID-19 Patient Skin: (Magro et al., 2020) Detection of SARS-CoV-2 Envelope protein in the skin of COVID-19 patients that were confirmed by PCR. The skin staining shows Envelope protein expression (green) detected by envelope antibodies (ABIN1031551, 3 µg/mL) in mononuclear cells with hematoxylin counterstain. The staining was negative in control normal skin/lung (not shown).

Please check the [product details page](#) for more images. Overall 8 images are available for ABIN1031551.