

# Product Datasheet

## **SARS-CoV-2 Spike Antibody (CR3022) - Azide and BSA Free** **NBP3-11813**

Unit Size: 50 ug

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Updated 5/1/2025 v.20.1

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**NBP3-11813****SARS-CoV-2 Spike Antibody (CR3022) - Azide and BSA Free**

<b>Product Information</b>	
<b>Unit Size</b>	50 ug
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	CR3022
<b>Preservative</b>	0.02% Proclin 300
<b>Isotype</b>	IgA1 Kappa
<b>Purity</b>	Affinity purified
<b>Buffer</b>	PBS
<b>Product Description</b>	
<b>Description</b>	<p>This antibody does not have a J-chain.</p> <p>This reformatted human antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.</p>
<b>Host</b>	Human
<b>Gene ID</b>	43740568
<b>Gene Symbol</b>	S
<b>Species</b>	SARS-CoV-2, SARS-CoV
<b>Specificity/Sensitivity</b>	This antibody binds the amino acids 318-510 in the S1 domain of the SARS-CoV Spike protein as well as SARS-CoV-2 (COVID-19) Spike protein. The antibody also binds to P462L-substituted S318-510 fragments of the SARS spike protein. The binding epitope is only accessible in the "open" conformation of the spike protein.
<b>Immunogen</b>	The original monoclonal antibody was generated through an scFv library derived from a peripheral blood lymphocytes of a patient exposed to the SARS-CoV.
<b>Product Application Details</b>	
<b>Applications</b>	ELISA, Immunocytochemistry/ Immunofluorescence, Neutralization, Surface Plasmon Resonance, X-Ray Crystallography
<b>Recommended Dilutions</b>	ELISA, Immunocytochemistry/ Immunofluorescence, Surface Plasmon Resonance, Neutralization, X-Ray Crystallography

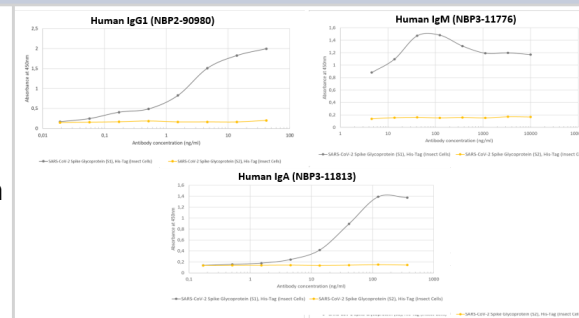


## Application Notes

This antibody binds to both SARS-CoV and SARS-CoV-2 with high affinity. The initial characterization of the binding of this antibody was performed by ELISA and indicates potential for the development of diagnostic assays, as both virus-capture assays, or as controls in serological assays measuring immune-responses to virus exposure. Human IgG1, IgG3, IgM and IgA isotypes are available to mimic antibody responses seen in COVID19. Human IgG2 and IgG4 subtypes, which are also seen in a small subset of COVID-19 patients, are also available to investigate their role in the response to SARS-CoV-2. The original human IgG1 version of the antibody works synergistically in combination with another non-competing SARS antibody CR3014 and is a potential candidate for passive immune prophylaxis of SARS-CoV infection. The original antibody (human IgG1) was also reported to bind the 2019-nCoV RBD (KD of 6.3 nM). This antibody has been attributed a potential to be developed as a therapeutic agent, alone or in combination with other neutralizing antibodies for treatment of 2019-nCoV infections. This antibody was used in an immunofluorescence assay.

## Images

ELISA: SARS-CoV-2 Spike Antibody (CR3022) - Azide and BSA Free [NBP2-90980] - ELISA plate coated with SARS-CoV-2 Spike Glycoprotein (S1), His-Tag (Insect Cells; grey line) and SARS-CoV-2 Spike Glycoprotein (S2), His-Tag (Insect Cells; yellow line) at concentrations of 5 ug/ml. A 3-fold serial dilution from 41.6 ng/ml was performed using NBP2-90980; from 370 ng/ml for NBP3-11813 and from 10000 ng/ml for NBP3-11776. Human IgM and human IgA were HRP-conjugated and for the detection of human IgG1 a 1:4000 dilution of HRP-labelled anti-human IgG antibody was used.



## Publications

Aristo Vojdani, Elroy Vojdani, Ashley L Melgar, Joshua Redd Reaction of SARS-CoV-2 antibodies with other pathogens, vaccines, and food antigens. *Frontiers in immunology* 2022-10-11 [PMID: 36211404]



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### **Products Related to NBP3-11813**

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G-102-C	Goat anti-Human IgG Secondary Antibody [Unconjugated]
NB7446	Goat anti-Human IgG Fc Secondary Antibody
NBP3-14666-100ug	SARS-CoV-2 Spike Recombinant Protein
10549-CV-100	SARS-CoV-2 Spike [Unconjugated]

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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