SARS-CoV / SARS-CoV-2 (COVID-19) spike antibody [CR3022]

Cat. No. GTX01555

Host	Human
Clonality	Monoclonal
Isotype	IgG1
Applications	ELISA, Neutralizing /Inhibition
Reactivity	SARS Coronavirus, SARS Coronavirus 2

References (3)
Package
100 µg

PRODUCT

Summary

SARS-CoV / SARS-CoV-2 (COVID-19) spike antibody [CR3022] binds to both SARS-CoV and SARS-CoV-2 with high affinity (PMID: 16796401 & 32065055). 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. 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 (ter Meulen et al., 2006). The original antibody (human IgG1) was also reported to bind the SARS-CoV-2 RBD (KD of 6.3 nM). This antibody may have potential as a therapeutic agent, alone or in combination with other neutralizing antibodies for treatment of SARS-CoV-2 infections (Tian et al., 2020).

Applications

Application Note

*Optimal dilutions/concentrations should be determined by the researcher.

Suggested dilution	Recommended dilution
ELISA	Assay dependent
Neutralizing /Inhibition	Assay dependent

Not tested in other applications.

Product Note

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" confromation of the spike protein (Joyce et al. 2020)

Properties

Form	Liquid
Buffer	PBS
Preservative	0.02% ProClin 300
Storage	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4ºC. For long-term storage, aliquot and store at -20ºC or below. Avoid multiple freeze-thaw cycles.
Concentration	1 mg/ml (Please refer to the vial label for the specific concentration.)

For full product information, images and publications, please visit our website.

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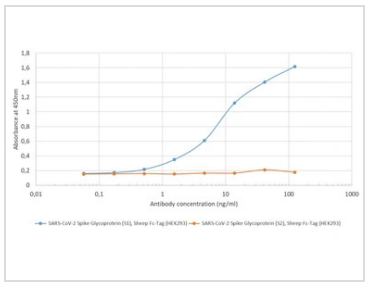
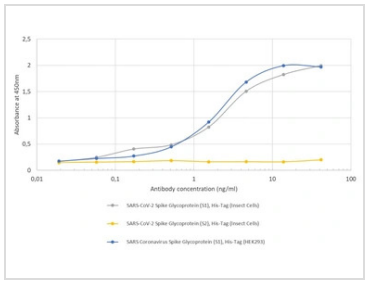
Immunogen	The original monoclonal antibody was generated by sequencing peripheral blood lymphocytes of a patient exposed to the SARS-CoV.
Purification	Protein A purified
Conjugation	Unconjugated
Note	For laboratory research use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption. Purchasers shall not, and agree not to enable third parties to, analyze, copy, reverse engineer or otherwise attempt to determine the structure or sequence of the product.

DATA IMAGES



GTX01555 ELISA Image

ELISA analysis of SARS-CoV-2 Spike S1 protein, Sheep Fc tag (blue line) and SARS-CoV-2 Spike S2 protein, Sheep Fc tag (orange line) at concentrations of 5 µg/ml using GTX01555 SARS-CoV / SARS-CoV-2 (COVID-19) spike antibody [CR3022]. A 3-fold serial dilution primary antibody from 125 ng/ml was performed. For detection, a 1:4000 dilution of HRP-labelled anti-human IgG antibody was used.



GTX01555 ELISA Image

ELISA analysis of SARS-CoV-2 Spike S1 protein, His tag (Insect Cells; grey line), SARS-CoV-2 Spike S2 protein, His tag (Insect Cells; yellow line) and SARS Coronavirus Spike S1 protein, His tag (HEK293 cells; blue line) at concentrations of 5 µg/ml using GTX01555 SARS-CoV / SARS-CoV-2 (COVID-19) spike antibody [CR3022]. A 3-fold serial dilution antibody from 41.6 ng/ml was performed. For detection, a 1:4000 dilution of HRP-labelled anti-human IgG antibody was used.

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