Rev08
Update: Aug,31,2026

DATASHEET

SARS-CoV-2 Neutralizing Antibody Standard

Cat. No.: A02087

Overview

Specificity	The product is specific for SARS-CoV-2 RBD domain. *The product can neutralize Wild-Type SARS-CoV-2 and Variants of Concern (VOC) including Alpha, Beta, Gamma, Delta, but can't neutralize Omicron BA.1, Omicron BA.2 and Omicron BA.4/BA.5.*
Host Species	Not applicable
Immunogen	Recombinant SARS-CoV-2 RBD Protein
Conjugate	Unconjugated

Applications

Working concentrations for specific applications should be determined by the researchers. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following is the recommended concentration range of starting point for this product.

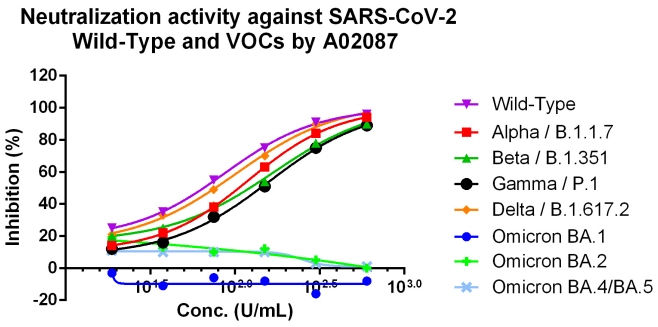
Application	Recommended Usage
ELISA	10 U/ml - 1,000 U/ml
Pseudovirus Neutralization Test (pVNT)	10 U/ml - 40,000 U/ml
Plaque Reduction Neutralization Test (PRNT)	100 U/ml -10,000 U/ml

Properties

Form	Liquid
Storage Buffer	The SARS-CoV-2 Neutralizing Antibody Standard supplied in 0.2 μm filtered PBS, pH 7.4. The volume of this standard is 100 μL
Concentration	1,000,000 U/ml
Unitage	The unitage of this product has been defined as an arbitrary unit of 100,000 U.
Storage Instructions	This standard should be stored at -20 °C upon receipt until use. Avoid repeated freezing and thawing cycles.

Purification	Protein A affinity column
Isotype	IgG
Clonality	Cocktail

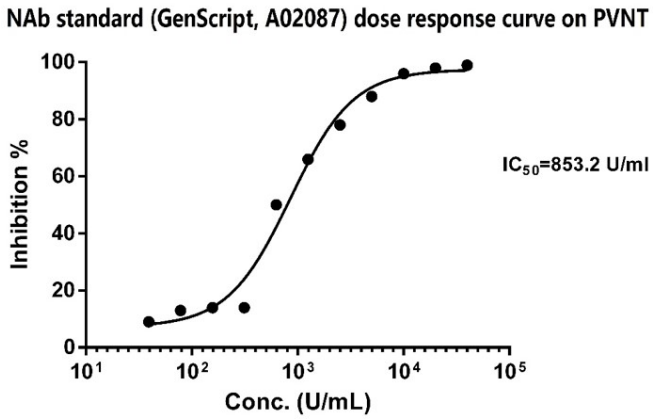
Examples



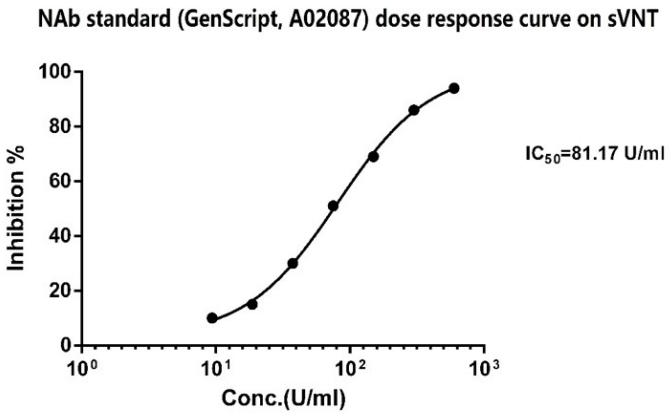
Dose-response curve of SARS-CoV-2 NAb standard (GenScript, A02087) on SARS-CoV-2 Multiplex sVNT.

S-RBD wild type (GenScript, Z03483)
S-RBD Alpha (GenScript, Z03533)
S-RBD Beta (GenScript, Z03537)
S-RBD Gamma (GenScript, Z03600)
S-RBD Delta (GenScript, Z03613)
S-RBD Omicron BA.1 (GenScript, Z03728)
S-RBD Omicron BA.2 (GenScript, Z03740)
S-RBD Omicron BA.4/BA.5 (GenScript, Z03745)

SARS-CoV-2 Neutralizing Antibody Standard (GenScript, A02087) can neutralize Wild-Type SARS-CoV-2 and Variants of Concern (VOC) including Alpha, Beta, Gamma, Delta, but can't neutralize Omicron BA.1, Omicron BA.2 and Omicron BA.4/BA.5.



Pseudovirus Neutralization Test of SARS-CoV-2 pseudovirus–hACE2 interaction with SARS-CoV-2 Neutralizing Antibody Standard (GenScript, A02087).
Control: HEK293/ACE2 cells were infected with SARS-CoV-2 pseudovirus.
SARS-CoV-2 Neutralizing Antibody Standard (GenScript, A02087) dilutions start from 40,000 U/ml.
IC_{50}= 853.2 U/ml



Surrogate Virus Neutralization Test (ELISA) of SARS-CoV-2 RBD–hACE2 interaction with SARS-CoV-2 Neutralizing Antibody Standard (GenScript, A02087).
SARS-CoV-2 Neutralizing Antibody Standard (GenScript, A02087) dilutions start from 600 U/ml.
IC50=81.17 U/ml

Background

Target Background : SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2), also known as SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2), also known as 2019-nCoV, is a positive-sense single-stranded RNA virus. It caused coronavirus disease in 2019 (COVID-19). SARS-CoV-2 contains glycosylated spike (S) protein, which is composed of S1 subunit and S2 subunit. The S1 contains a receptor-binding domain (RBD) that can bind to ACE2 receptor on target cells.Neutralizing antibodies against SARS-CoV-2 can block the interaction between SARS-CoV-2 RBD and ACE2. The blocking ability of SARS-CoV-2 neutralizing antibodies is affected by its quantity. This standard product is intended for the calibration of SARS-CoV-2 neutralizing antibodies in the materials or samples. It can be used in the assessment and development of assays for the detection and quantitation of SARS-CoV-2 neutralizing antibodies. The neutralizing antibody standard binds to multiple neutralizing epitopes in the receptor-binding domain. This product has been verified to calibrate the quantitative assay of SARS-CoV-2 neutralizing antibody with the Surrogate Virus Neutralization Test (sVNT) (GenScript, Cat.No L00847-A), plaque reduction neutralization test (PRNT) and pseudovirus neutralization test (pVNT) (GenScript, Cat.No SC2087). Users can design assays to detect and evaluate the quantitation of SARS-CoV-2 neutralizing antibodies by this product.

Synonyms : 2019-nCoV Neutralizing Antibody Standard；COVID19 Neutralizing Antibody Standard

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Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28Yongxi Road, Jiangning District, Nanjing, Jiangsu, China