Datasheet for ABIN6952756

SARS-CoV-2 Nucleocapsid ELISA Kit

Go to Product page

Overview

Quantity:	96 tests
Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Reactivity:	Human, SARS Coronavirus-2 (SARS-CoV-2)
Method Type:	Sandwich ELISA
Detection Range:	0.07 ng/mL - 50 ng/mL
Minimum Detection Limit:	0.07 ng/mL
Application:	ELISA

Product Details

Purpose:	The COVID-19 / SARS-COV-2 Nucleocapsid Protein ELISA kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of COVID-19 N Protein in serum (plasma is not recommended in this assay) and cell culture supernatants.
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This ELISA antibody pair detects virus COVID-19 N Protein
Characteristics:	COVID-19 N-Protein ELISA
Components:	• Pre-Coated 96-well Strip Microplate • Wash Buffer • Stop Solution • Assay Diluent(s)

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Product Details

	• Lyophilized Standard • Biotinylated Detection Antibody • Streptavidin-Conjugated HRP • TMB One-Step Substrate
Material not included:	• Distilled or deionized water • Precision pipettes to deliver 2 µL to 1 µL volumes • Adjustable 1-25 µL pipettes for reagent preparation • 100 µL and 1 liter graduated cylinders • Tubes to prepare standard and sample dilutions • Absorbent paper • Microplate reader capable of measuring absorbance at 450nm • Log-log graph paper or computer and software for ELISA data analysis

Target Details

Target:	SARS-CoV-2 Nucleocapsid (SARS-CoV-2 N)
Alternative Name:	SARS-CoV-2 Nucleocapsid Protein (SARS-CoV-2 N Products)
Target Type:	Viral Protein
Background:	The spike protein (S-protein) and nucleocapsid protein (N-protein) are encoded by all coronaviruses, including the coronavirus (COVID-19). Nucleocapsid protein is a most abundant protein of coronavirus. The nucleocapsid protein is a structural protein that binds to the coronavirus RNA genome, thus creating a shell (or capsid) around the enclosed nucleic acid. The N protein of coronavirus is chosen as a diagnostic tool since its strong immunogenicity.

Application Details

Sample Volume:	100 µL
Plate:	Pre-coated
Protocol:	This assay employs an antibody specific for COVID-19 N Protein coate on a 96-well plate. Standards and samples are pipetted into the wells and COVID-19 N Protein present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-COVID-19 N Protein antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of COVID-19 N Protein bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Application Details

Assay Procedure:	1. Prepare all reagents, samples and standards as instructed. 2. Add 100 µL standard or sample to each well. Incubate 2.5 hours at room temperature. 3. Add 100 µL prepared biotin antibody to each well. Incubate 1 hour at room temperature. 4. Add 100 µL prepared Streptavidin solution. Incubate 45 minutes at room temperature. 5. Add 100 µL TMB One-Step Substrate Reagent to each well. Incubate 30 minutes at room temperature. 6. Add 50 µL Stop Solution to each well. Read at 450 nm immediately.
Calculation of Results:	Calculate the mean absorbance for each set of duplicate standards, controls and samples, and subtract the average zero standard optical density. Plot the standard curve on log-log graph paper or using Sigma plot software, with standard concentration on the x-axis and absorbance on the y-axis. Draw the best-fit straight line through the standard points.
Restrictions:	For Research Use only

Handling

Storage:	-20 °C
Storage Comment:	The entire kit may be stored at -20°C for up to 1 year from the date of shipment. Avoid repeated freeze-thaw cycles. The kit may be stored at 4°C for up to 6 months. For extended storage, it is recommended to store at -80°C.
Expiry Date:	12 months