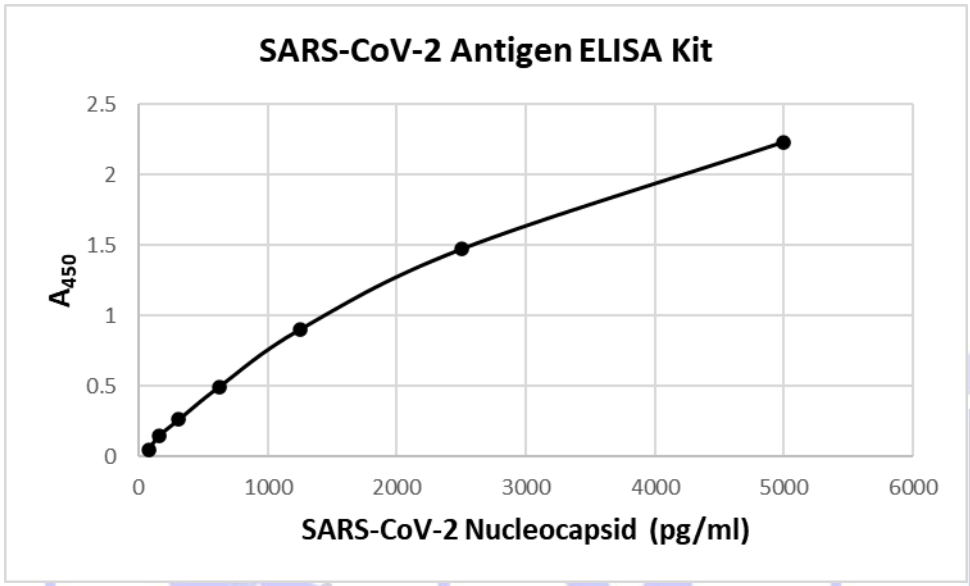
ALPHA DIAGNOSTIC INTERNATIONAL

SARS-CoV-2 Antigen ELISA Kit Cat#RV-405500

The SARS-CoV-2 ELISA Kit is a highly sensitive sandwich ELISA for the measurement of SARS-CoV-2 Nucleocapsid in serum, plasma, saliva, cell culture supernatants, or other appropriately qualified matrices



NP (pg/ml)	0	78	156	312	625	1250	2500	5000
A_{450}	0.09	0.138	0.237	0.355	0.587	0.993	1.563	2.322

SARS-CoV-2 Antigen ELISA Kit features

- Anti-SARS-CoV-2 Nucleocapsid antibody pre-coated, ready-to-use 96-well breakable strip plate, suitable for multiple runs over 6-12 months
- Lyophilized Nucleocapsid standards
- **Assay length**: 3 hour & 45 minutes. 4 incubation steps at room temperature
- **Dynamic range**: 78-5,000 pg/ml
- **Sensitivity** ~20 pg/ml
- **Storage:** 2-8ºC (whole kit)
- **Shelf life**: 6-12 months

Contains all necessary reagents. For in vitro research use only.

Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

Step 1. Pipette 100 ul of appropriately diluted samples and calibrators into wells and incubate for 2 hours at room temperature.
Step 2. Wash the wells 3X with 300 ul of wash buffer for each well
Step 3. Add 100 ul of biotin conjugated detection antibody to each well and incubate for 1 hour at room temperature
Step 4 Wash the wells 3X with 300 ul of wash buffer for each well
Step 5 Add 100 ul of Streptavidin-HRP conjugate to each well and incubate for 30 minutes at room temperature
Step 6 Wash the wells 3X with 300 ul of wash buffer for each well
Step 7. Add 100 ul of TMB Substrate solution to all wells, mix gently, and incubate at room temperature for 15 minutes.
Step 8. Pipette 100 ul of stop solution into each well and mix gently. Measure at 450 nm w/ 630 nm as a reference filter if available.

Performance Characteristics

Sensitivity: ~20 pg/ml
Average recovery: 100 ±15%
Average linearity: 100 ±15%
Precision: Intra-assay: <10% Inter-assay: <10%

Minimum recommended dilution:
Serum, Plasma, Saliva, & Culture supernatant: 2-fold
Note: Minimum recommended dilution represents the dilution which is needed to eliminate matrix interference effects. All samples must be diluted to at least the minimum recommended ratio. Samples may be further diluted if the sample values fall within the standard curve, if sample volume is to be preserved, or if the sample value is above the highest OD on the standard curve

General Information

SARS-CoV-2 virus (SARS-CoV-2), is a novel coronavirus emerged as a human respiratory pathogen and causing the 2020 pandemic named COVID-19. The SARS-CoV-2 genome is closely related to 2 bat-derived severe acute respiratory syndrome (SARS)-like coronaviruses (88% identity) and more distantly from 2 other human pathogenic coronaviruses, SARS-CoV (~79% identity) and MERS-CoV (~50% identity). SARS Nucleocapsid has been shown to be highly immunogenic and abundantly produced, therefore is used as a possible target for immunodiagnostics.

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