#### Short Protocol, continued

- 7. Add 100 µL/well of Anti-IgG HRP Conjugate and incubate 30 minutes at RT.
- Wash the plate with 1X AdvanWash<sup>™</sup> Washing Solution 3 times (250 µL/well per wash).
- 9. Add 100  $\mu\text{L/well}$  TMB substrate and incubate 30 minutes at RT. Protect the plate from light during this step.
- 10. Add 100 µL/well Stop Solution.
- 11. Measure absorbance at 450nm.

#### Troubleshooting and FAQ

Some common problems that are encountered are addressed below:

Problem	Possible Cause
No Signal	<ul> <li>Reagents added in incorrect order, or incorrectly prepared. Review protocol then repeat the assay.</li> <li>Reagent contamination. Repeat with fresh reagents.</li> </ul>
High Background	<ul> <li>Insufficient washing. Increase the number of washes to 4–5 times and add a 30 second soak in-between each wash.</li> </ul>
High %CV	<ul> <li>Insufficient plate washing. If using an automated plate washer, check that all ports are clean and free of obstructions.</li> <li>Plate contamination. Use a fresh plate sealer for each incubation step. Do not reuse pipet tips.</li> </ul>
Plate Turned Uniformly Blue	<ul> <li>Insufficient plate washing. Increase the number of washes to 4-5 and add a 30 second soak in-between each wash.</li> <li>Substrate was contaminated. Ensure that the substrate is clear prior to addition to the plate.</li> <li>Reagent contamination. Repeat with fresh reagents.</li> </ul>



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# SARS-CoV-2 IgG ELISA Kits

High sensitivity SARS-CoV-2 IgG ELISA kits for detection of human SARS-CoV-2 IgG in serum and plasma

#### For Catalog Numbers

K-16026-001	SARS-CoV-2 IgG ELISA Kit, Nucleocapsid, 96-wells
K-16027-001	SARS-CoV-2 IgG ELISA Kit, Spike (RBD), 96-wells

#### Kit Contents

- 96-well ELISA Plate: L-07081-001
- SARS-CoV-2 Antigen (depending on the kit):
  - Spike (RBD) Protein: R-03156-025 or
  - Nucleocapsid Protein: R-03157-025
- 1X EIA Coating Buffer: R-03155-C12
- 10X AdvanWash: R-03024-C50



- AdvanBlock-EIA Blocking Solution: R-03728-C50
- Positive Control Serum: R-03158-200
- Negative Control Serum: R-03159-200
- Anti-IgG HRP Conjugate: R-03160-C12
- TMB Substrate: R-03161-C12
- Stop Solution: R-03162-C12

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#### SARS-CoV-2 IgG ELISA Kits \_\_\_\_

## Storage Information

The SARS-CoV-2 IgG ELISA Kits are stable for at least 6 months when kit components stored properly as indicated on labels.

#### Warnings and Precautions

- The SARS-CoV-2 IgG ELISA Kits are for research use only.
- Bring all reagents to room temperature (18-25°C) before use.
- This assay is designed for qualitative detection only. Results should not be the sole basis for clinical diagnosis or treatment. The confirmation of COVID-19 infection must be combined with the patient's clinical symptoms in conjunction with other tests.
- Always wear appropriate Personal Protective Equipment (PPE) such as gloves, goggles and lab coat while working.
- Specimens should always be treated as if infectious and/or biohazardous in accordance with safe laboratory procedures.
- Handle all samples and controls as if they are capable of transmitting infectious agents.
- This product is guaranteed to be free of manufacturer defects, and to function as described when the enclosed protocol is followed by properly trained personnel.

### Additional Materials Required

- 96-well Plate Sealers
- 96-well Dilution Plate
- Reagent Reservoirs
- Microplate reader capable of measuring a wavelength of 450 nm
- Microplate washing apparatus (Multichannel wash bottle or automated plate washing system)

# Preparation of Solutions

- 1X AdvanWash<sup>™</sup> Washing Solution: Prepare 500mL of wash solution by adding 50mL of 10X AdvanWash to 450mL of high purity water. Mix well prior to use.
- 1X Antigen Coating Solution: To 12mL of 1X EIA coating buffer add 24µL of Antigen stock solution. Mix well by inversion.

#### Sample Dilution

- **Controls:** Each control sample is provided as a ready-to-use sample. Mix well prior to use.
- Samples: Prepare sufficient sample to evaluate in duplicate. Dilute serum or plasma samples 1:50 in a 96-well dilution plate with AdvanBlock<sup>™</sup>-EIA. For example, to 196µL of AdvanBlock<sup>™</sup>-EIA add 4µL of sample.

#### Short Protocol

- 1. Coat the ELISA plate with 100  $\mu\text{L/well}$  of 1X Antigen Coating Solution and incubate 1h at room temperature (RT).
- Wash the plate with 1X AdvanWash™ Washing Solution 3 times (250 µL/well per wash).
- Block the plate with 250 µL/well AdvanBlock<sup>™</sup>-EIA and incubate 30 minutes at RT.
- Wash the plate with 1X AdvanWash™ Washing Solution 3 times (250 µL/well per wash).
- 5. Add the diluted Samples and Controls (50 μL/well diluted 1:50 in AdvanBlock™-EIA) and incubate 1h at RT.
- Wash the plate with 1X AdvanWash<sup>™</sup> Washing Solution 3 times (250 µL/well per wash).

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