abcam

Product datasheet

SARS-CoV-2 IgG ELISA Kit ab275300

1 References

Overview

Product name	SARS-CoV-2 IgG ELISA Kit
Detection method	Colorimetric
Sample type	Serum, EDTA Plasma, Cit plasma, Lithium Heparin Plasma
Assay type	Semi-quantitative
Assay duration	Multiple steps standard assay
Product overview	SARS-CoV-2 IgG ELISA Kit (ab275300) is an Enzyme-Linked Immunosorbent Assay (ELISA) intended for semi-quantitative detection of IgG antibodies to SARS-CoV-2 in human serum or plasma collected in potassium EDTA, sodium citrate or lithium heparin. This kit is intended for use as an aid in identifying individuals with an adaptive immune response to SARS-CoV-2, indicating recent or prior infection. Understanding the timing, duration and effectiveness of humoral immune responses in individuals previously infected with SARS-CoV-2 will be important for conducting vaccine and epidemiological research. At this time, it is unknown for how long antibodies persist following infection and if the presence of antibodies confers protective immunity. Results are for the detection of SARS-CoV-2 antibodies. IgG antibodies to SARS-CoV-2 are generally detectable in blood several days after initial infection, although the duration of time antibodies are present post-infection is not well characterized. Individuals may have detectable virus present for several weeks following seroconversion. The sensitivity of SARS-CoV-2 IgG ELISA early after infection is unknown. Negative results do not preclude acute SARS-CoV-2 infection. False positive results for SARS-CoV-2 IgG ELISA may occur due to cross-reactivity from pre-existing antibodies to SARS-CoV 1 or other possible causes.
Notes	This kit provides for an indirect ELISA, in which a recombinant receptor binding domain (RBD) of the Spike1 protein of SARS-CoV 2 is coated on the wells of the microtiter plate. Antibodies to SARS-CoV-2 RBD when present in the test sample bind specifically to the RBD protein. After sample binding, unbound proteins and molecules are washed off, and a HRP-conjugated detection antibody is added to the wells to bind to the captured anti-SARS-CoV2 IgG antibodies. The chromogenic substrate TMB (3,3',5,5'tetramethylbenzidine) is then added. This reaction produces a blue product, which turns yellow when the reaction is terminated by addition of dilute

sulfuric acid. The absorbance of the yellow product at 450 nm, corrected for plate imperfections by subtracting the absorbance at 570 nm, is proportional to the amount of RBD-specific anti-SARS-CoV-2 IgG present in the sample.

After determining that the values for the Positive Control and Negative Control are valid and acceptable by comparing them to the value for the Calibrator, values for samples are compared to the Calibrator to generate a ratio. Ratios above a cutoff indicate positive samples and values below a cutoff indicate negative samples.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
96 well Precoated SARS-CoV-2 S1-RBD plate	1 unit
Assay Dilution Buffer (ready to use)	1 vial
Calibrator: Recombinant Human anti-RBD IgG antibody (ready to use)	1 vial
Detection Antibody: Goat Anti-Human IgG-Fc antibody – HRP conjugated (ready to use)	1 vial
Negative Control: Dilute normal human serum (ready to use)	1 vial
One Component TMB substrate: TMB/Hydrogen Peroxide (ready to use)	1 vial
Positive Control: Recombinant Human anti-RBD IgG (ready to use)	1 vial
Sealing Tape	3 units
Stop solution (0.18 M Sulfuric Acid; ready to use)	1 vial
TNT Wash Buffer packet for reconstitution	1 unit

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