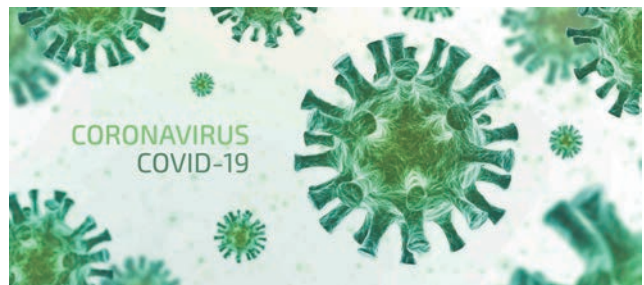




# SARS-CoV-2, Immunology, COVID-19, Human IgM IgG

## We support COVID-19 immunological studies

In response to the global threat of the novel coronavirus infection (COVID-19), stable distribution of materials (analysis tools, inspection tools, etc.) for diagnostic treatment research in Japan is required. The major tests for viral infections include PCR, which detects the virus itself, and detection of the immune response (IgG, IgM, IgA) that develops during infection. The former has already been used stably in Japan, but the latter has not achieved stable domestic distribution to meet demand. Therefore, it is an obstacle to the promotion of immunological clinical research at the infection stage. In order to accumulate immunological evidence, a research ELISA kit for detecting anti-SARS-CoV-2 antibodies (IgG, IgM) produced in the body after infection will be released urgently in response to the early stage of the epidemic. Our company will do our utmost to support the verification and research of the immunological reaction at the infection stage and the clinical diagnostic characteristics by combination with PCR tests.

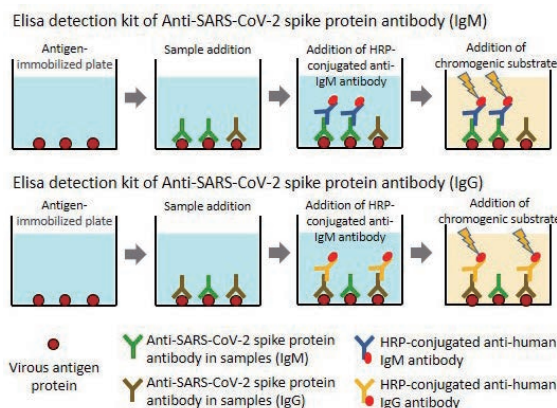


## COVID-19 Human IgM IgG ELISA kit (Spike Protein)

There are two main approaches for testing for viral infections: detection of the virus itself, such as PCR, and detection of the immune response (IgG, IgM, IgA) that develops during infection. This ELISA kit is a research ELISA kit for detecting IgM and IgG antibodies produced in the body when infected with the novel coronavirus. The plate supplied with the kit is coated with the recombinant spike protein of SARS-CoV-2 which binds to IgM and IgG antibodies in the sample and is then detected by HRP-conjugated anti-human IgM or IgG antibodies. In common infections, IgM is an antibody produced early in the infection and disappears with relief of symptoms. IgG begins to be produced later than IgM and continues to be produced for months after healing. This is known to reduce the symptoms of the next infection or to prevent the onset of the next infection.

## Measurement principle

- ① The immobilized SARS-CoV-2 recombinant spike protein on a plate is reacted with the antibody (hereinafter referred to as anti-spike protein antibody) in a sample that recognizes it.
- ② After the reaction, the sample is removed by washing.
- ③ React anti-spike protein antibody in the plate with HRP (horseradish peroxidase)-conjugated anti-human IgM / IgG antibodies.
- ④ Remove excess HRP-conjugated anti-human IgM / IgG antibodies by washing. Add a chromogenic substrate and measure the absorbance.



## Specification

Product name	QuaResearch COVID-19 Human IgM IgG ELISA kit (Spike Protein)
Product code	RCOEL961
List price	¥150,000 (tax excluded)
Number of tests	96 tests
Species reactivity	Human
Measurement sample	Serum
Measurement wavelength	450nm
Storage temperature	Keep HRP-conjugated anti-human IgM/IgG antibody at -20 °C. Keep other reagents and plate at 4 °C
Immobilize antigen	SARS-CoV-2 spike protein (S1+S2 domain, mammalian expression system)

## Kit contents

- SARS-CoV-2 spike protein-immobilized plate × 2
- HRP-conjugated anti-human IgM antibody 10 μL × 1
- HRP-conjugated anti-human IgG antibody 10 μL × 1
- Washing buffer (10 × PBST) 50 mL × 2
- Non-fat milk (for blocking buffer) × 1
- Diluent buffer (10 × ) 50 mL × 1
- R-1: Chromogenic substrate (TMB) 10 mL × 2
- R-2: Stop reagent (1 mol/L hydrochloric acid) 10 mL × 2
- Microplate seal × 2



## About the threshold

The QuaResearch COVID-19 Human IgA ELISA Kit is an ELISA kit product for the study of antibody tests for this disease. In a joint clinical study conducted with Japanese clinical research institutions, our company statistically clarified the Cut Off Index (threshold) of ELISA antibody titers in PCR-positive and -negative control groups (Pre-pandemic) and the fluctuation behavior of ELISA antibody titers during the infection period (paper under submission). If you have purchased the product, please contact our company support department (support @ cellspec.com) for further assistance in your research.

※ **This kit is for research use only. Not for use in diagnostic procedures.**



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