The immune response of COVID-19 infection

Antibodies against SARS-CoV-2 indicate previous COVID-19 infection. Past infection is mainly thought to prevent re-infection at least for some time with a few reported exceptions. The full picture of the immune response is still not fully understood.

The SARS-CoV-2 specific antibody levels reach the peak within 3–4 weeks and decline slowly during the following months. Patients with severe disease have higher antibody levels but it has been shown that antibodies are also generated in patients with mild or asymptomatic infections. There is high individual variation in the neutralizing activity of antibodies, but the activity has been observed to last at least 5 months after mild COVID-19 cases. Interestingly, the levels of IgG antibodies seem to reflect the neutralizing activity.

Use of rapid tests for antibody detection

When resources are limited, testing with rapid antibody tests is recommended to evaluate sero-prevalence and the locations of outbreaks. This is especially important among healthcare personnel and other essential high-risk areas. In addition, this gives timely information for taking relevant public health measures and making control strategies of outbreaks.

The antibody detection tests are currently considered most useful on a population level to support serosurveillance studies, to determine mortality rate and to evaluate changes in incidences and prevalences. On an individual level, antibody detection can provide information of previous infection, thus helping to identify e.g. reasons for unexpected secondary health problems caused by mild COVID-19. Rapid antibody detection tests with proven performance can help especially in high prevalence situations.

Fast antibody detection has a role in COVID-19 management

Our solution for rapid antibody detection: Acro 2019-nCoV IgG/IgM Rapid test Cassette

- Convenient use as only a fingerstick blood sample is needed
- Evaluated with clinical samples and used in independent evaluations
- Results in 10 minutes
- CE marked

Acro 2019-nCoV IgG/IgM Rapid test Cassette, 25 tests
Product number: INCP-402
Order number: 154601

Please contact us: aidian@aidian.eu / orders@aidian.eu
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References


5. Maor, Y. et al. (2020) Compassionate use of convalescent plasma for treatment of moderate and severe pneumonia in COVID-19 patients and association with IgG antibody levels in donated plasma. EClinicalMedicine 26, 100525


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