

Name of the test

SARS-CoV-2 IgM and IgG antibodies

What is this test used for?

These tests are used to detect SARS-CoV-2 IgM and IgG antibodies in human serum or plasma. SARS-CoV-2 is a coronavirus, which causes COVID-19. After becoming infected or getting vaccinated, the human body usually starts producing antibodies, including IgM and IgG class antibodies.

IgG antibodies remain elevated for a longer period of time compared to IgM antibodies. However, it is currently still not fully known for how long these antibodies persist in the body.

When is the test ordered?

These tests are used to detect SARS-CoV-2 IgG and IgM antibodies in human serum or plasma. In non-vaccinated individuals, this provides some information about possible COVID-19 infection in the past. These antibody tests cannot detect the virus itself, so they are not useful to confirm COVID-19 diagnosis at the earlier stages of the disease.

SARS-CoV-2 does not always cause a severe illness and some patients are even asymptomatic. These tests provide information even about recently recovered patients, who may have had only a mild or asymptomatic COVID-19.

It must be noted, that it takes some time before the antibodies are produced. For this reason, these tests can be ordered after at least around 2-3 weeks have passed since the onset of COVID-19. Otherwise, the tests may not be able to detect the antibodies.

For the above-mentioned reasons, these tests are not used to diagnose an acute COVID-19 infection.[1-4]

Besides, it must be emphasized that according to the currently existing recommendations, the results of these antibody tests should not be used to decide whether vaccination is needed or not, and they should not be used to assess the level of protection against becoming infected with SARS-CoV-2 and developing COVID-19.[1-4]

How is this test performed?

A blood sample is taken from a vein.

How to prepare for the test

No special preparation is needed, however certain factors may affect the test results.

Interpretation of results

The test results should be interpreted by a doctor, considering information from other clinical and laboratory findings.

In non-vaccinated individuals, positive test results may be because of past COVID-19 infection, regardless of how severe were the symptoms.

However, it is not known exactly how long these antibodies persist after being produced. Besides, in some individuals, the antibody titers may be low. For example, the immune response may be weak in elderly people (age >65 years), in cancer patients, in people with high body-mass index or in patients who receive immunosuppressive treatment.[5]

It is important to remember that it takes some time before the antibodies are produced, so if the test is performed too soon after COVID-19 infection, the results may be negative. The results could also be negative in patients who have immunodeficiency or who are receiving immunosuppressants.

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References

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