

PANTHER Antibody Result FAQs

What does an antibody test show?

Antibodies are proteins made by the immune system in response to infections. Antibodies often assist in the body's 'fight' against infection, and in many cases, they prevent re-infection occurring. The PANTHER antibody test shows whether or not people have contracted COVID-19.

What does the titre level mean?

The titre is the concentration of antibodies in the blood. The titre range in our 500 follow-up samples was 2.65 to 0.08. Titres between 0.08 and 0.28 are negative results. Titres between 0.29 and 2.65 are positive results.

Which antibody has been measured?

The coronavirus which causes COVID-19 elicits development of different types of antibodies. IgG, IgM and IgA antibodies to two proteins on the surface of the coronavirus. These two proteins are known as the spike protein and the nucleocapsid protein. Each person makes a different type of antibody so we have tested for them all. Over the counter or ONS tests test for IgI to the spike protein, the commonest antibody produced.

For each of the blood samples that we have tested, we have measured for the presence of IgG, IgM and IgA antibodies to both the nucleocapsid and spike protein, and based on these results your sample was determined to be either positive or negative. The titre level shows the IgG production to spike protein.

My antibody tests are not the same as before – why is that?

As antibody production is a 'memory' process in some circumstances you can be antibody positive early in the study and negative later on, this is to be expected. The precise level of IgG and other antibodies will change according to when you were last exposed to COVID-19.

My antibody result is negative but the titre result is above 0, what does this mean?

There is a small degree of measurement error within the test. This could be caused by non-specific binding to non-COVID antibodies, or it could be that you have had some exposure to the virus but not had a significant enough infection to generate an antibody immune response.

I had a positive swab test or COVID symptoms but my result is negative, why is this?

It is possible to have had COVID-19, and not have detectable antibodies on this test. It is thought that in up to 20% of people with confirmed COVID-19 infection, we will not be able to detect antibodies in their blood and they will have a negative result on this blood test. This may be because you had a recent infection and haven't produced antibodies yet, or because you had the infection a long time ago, and the antibody levels have dropped. In a proportion of patients it is possible that they would not generate antibodies despite having had COVID as other responses (T-cell responses) can also fight off mild infections without antibody production

My result came back as positive but I never had symptoms of COVID-19. Why is this and what does it mean?

17-20% of individuals who contract the virus are asymptomatic. The transmission rates to contacts is estimated to be 3 to 25 times lower for people who are asymptomatic than for those with symptoms. Coughing, may result in far more viral particles being shed than talking and breathing, so people with symptomatic infections are more contagious, irrespective of close contact. On the other hand, asymptomatic and presymptomatic people may have more contacts than symptomatic people (who are isolating).

Does having a positive antibody test mean that I am immune

Most people who have had the virus are protected from catching it again for at least 5 months, although understanding around immunity is still evolving. These unknowns reflect why it is important to maintain precautions, which include, but are not limited to wearing appropriate PPE and vaccination.

My antibody test was positive on the results you issued earlier in the year, but is now negative. Why has this happened?

Antibody titres wane over time, and antibodies can drop to levels that are undetectable within 9 weeks of being infected. 4% of individuals who tested positive in their first PANTHER antibody test now have an undetectable antibody level. (This does not necessarily mean any immunity has been lost, as immunity is not necessarily driven by these antibodies alone, and immunological memory will be primed).