Learn more about COVID-19 antibody testing

Learn more about our range of COVID-19 solutions and how they could help with your diagnostic needs.

As we enter 2021, we also move into a new phase of the COVID-19 pandemic. Health services must be prepared to respond to new challenges, including the resurgence of the virus, the emergence of new strains, coordinating the roll-out of vaccination programmes, and supporting patients with 'long covid[1].' The development of reliable mass testing services is crucial in limiting the spread of COVID-19. Novacyt's range of end-to-end solutions for COVID-19 testing has cemented our position as leading innovators in diagnostics and highlighted our ability to design, develop, and distribute highly accurate and rapid testing platforms.

Novacyt – Your Partner in Diagnostics

Novacyt's series of COVID-19 testing products include both molecular tests - which enable direct detection of SARS-CoV-2 antigens - and antibody test. Direct detection assays determine whether someone is currently infected with the virus. In contrast, antibody testing measures the presence of antibodies against COVID-19 in the blood, and therefore, whether an individual has been infected in the past.

Direct Molecular Testing

genesig® is Novacyt's range of *in vitro* real-time PCR assays for diagnosis of COVID-19. These kits can detect nucleic acids from SARS-CoV-2 in nasopharyngeal and oropharyngeal swabs, sputum, and saliva. They offer rapid detection (providing results in under 2 hours) without compromising the high sensitivity, specificity, and accuracy you expect from Novacyt. The genesig® range includes the 2G assay, which detects SARS-CoV-2 at two different sites (ORF1ab and S gene targets). The genesig® series also includes the Winterplex panel, a multiplex assay allowing clinicians to sensitively distinguish SARS-CoV-2 from other common winter viral pathogens, such as influenza and respiratory syncytial virus (RSV), in a single test. Our world-leading genomic surveillance programme allows us to confirm that, as of January 2021, genesig® assays are still capable of 100% detection with all SARS-CoV-2 sequences published on the GISAID EpiCoV database.

Antibody testing

Antibody testing, also called serological testing, delivers distinct and complementary results to those provided by viral pathogen detection. Together, they provide comprehensive information to help clinicians monitor the progress of the disease both in individuals and in populations. Described in the British Medical Journal as "Cinderella's glass slipper[2]", accurate antibody tests will reveal a positive result only when they detect antibodies specific to COVID-19 antigens in a patient blood sample. A positive test indicates that an individual has previously launched an immune response to SARS-CoV-2, and IgG antibodies are typically detected in a patient's blood around two weeks after infection. **Microgen Bioproducts® SARS-CoV-2 IgG EIA** represents the gold-standard assay in serological testing for COVID-19. The test enables highly sensitive (100%) and specific (99.4%) detection of SARS-CoV-2 IgG antibodies and shows no cross-reactivity with other common viruses. With just a 90-minute incubation time, results are available rapidly. The demand for testing, and antibody tests in particular, will continue to increase once vaccines have been introduced on a large scale. Antibody testing can be used to monitor the level of immune protection that vaccination offers, and on a population level, can help to evaluate the immune status of local communities. Novacyt's testing platforms provide the

speed and reliability you need in your diagnostic services. **References**

1. Ham, C. The challenges facing the NHS in England in 2021. *BMJ* **371**, m4973 (2020).
2. Baraniuk, C. Covid-19 antibody tests: A briefing. *The BMJ* vol. 369 (2020).