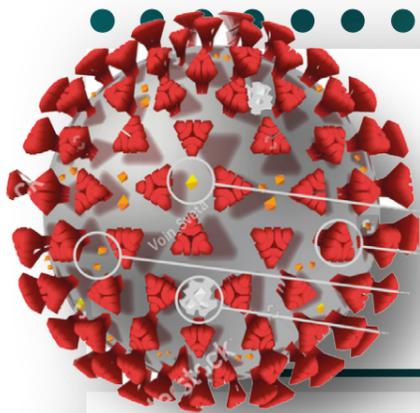


SARS-CoV-2: The roles of antibody testing and vaccines

BUILDING THE BIGGER PICTURE



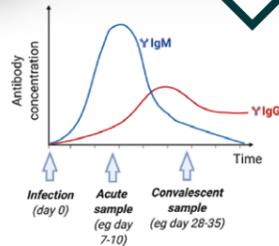
THE CORONAVIRUS STRUCTURE

Coronaviruses get their name from their distinctive crown-like shape, which comes from a distinctive spike protein dotting the virus membrane. The spike, and the nucleocapsid protein enclosing the virus itself, provide its unique fingerprints.

The spike and nucleocapsid proteins both trigger the immune system into action. Studies have found that the body's response to the spike protein is stronger.

Research into tests and vaccines for SARS-CoV-2 has therefore focused on the spike protein.

THE IMMUNE SYSTEM RESPONSE



Our immune system produces a variety of antibodies (also called immunoglobulin, or Ig) to counter viruses and other threats.

The IgG antibody is key to understanding coronavirus infection and long-term immunity. IgG cells appear in the blood around 10 days two weeks after infection and remain in the body for months thereafter.

The existence of SARS-CoV-2 IgG antibodies in the blood is evidence of past coronavirus infection, or vaccination, and could be predictive of immunity.



VACCINE DEVELOPERS TARGET THE SPIKE

Vaccines "train" the immune system by using harmless viruses that have been altered to resemble dangerous ones. In the case of SARS-CoV-2, vaccine developers have focused on mimicking the spike protein.



Three of the leading vaccine candidates all feature full-length SARS-CoV-2 spike trimers: Oxford University / AstraZeneca, Pfizer / BioNTech, and Moderna



AbC-19™ Rapid Test ANTIBODY DETECTION IN 20 MINUTES

The Abingdon Health AbC-19™ Rapid Test detects IgG antibodies to the full spike protein of SARS-CoV-2 and differs from other antibody tests.

At point of care and in just 20 minutes, the test can show if a person has been infected with SARS-CoV-2 – or has been successfully vaccinated against it.

THE ROLE OF ANTIBODY TESTING ALONGSIDE VACCINES

The AbC-19™ Rapid Test can be deployed across populations to inform vaccination programmes and health policy by showing:

- How COVID-19 infection spreads through communities
- Where and why immunity to COVID-19 might be developing
- How mass-immunisation campaigns could be designed



Find out more about the AbC-19™ Rapid Test's role in charting the course to a post-COVID world alongside clinical vaccines.

[READ THE WHITE PAPER](#)

The AbC-19™ Rapid Test and the Oxford University vaccine candidate both target the same antibody response to SARS-CoV-2. The assay could help establish whether people's immune systems are responding to the vaccine in the right way, and, ultimately, could be predictive of a protective immune response.

PROFESSOR LAWRENCE YOUNG, VIROLOGIST, UNIVERSITY OF WARWICK MEDICAL SCHOOL