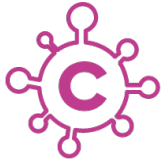




CovAb[™]
SARS-CoV-2 Ab Test

CovAb[™] and Neutralizing Antibodies



Who are they?

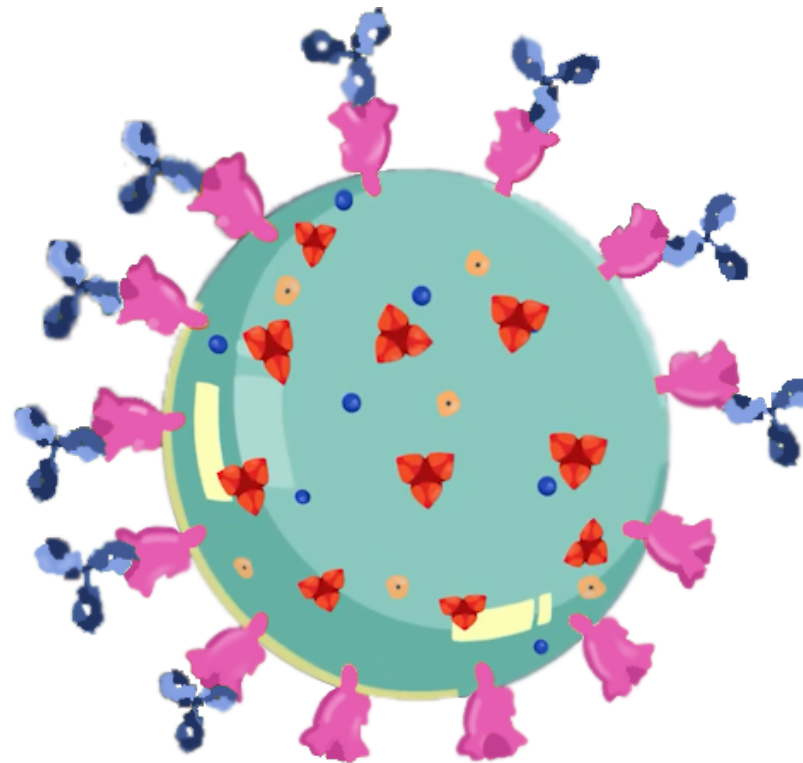
Neutralizing antibodies are Y shaped protein structures that are produced by B cells to combat Covid-19 virus.





What do they do?

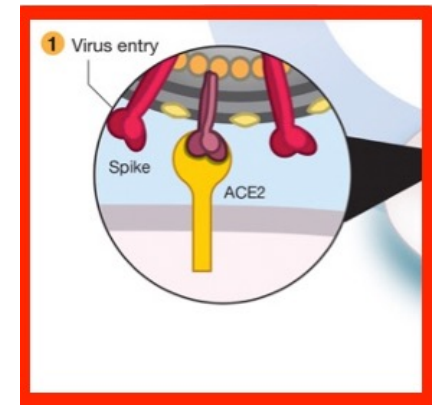
Neutralizing antibodies attach to the spike protein of the Covid-19 virus.



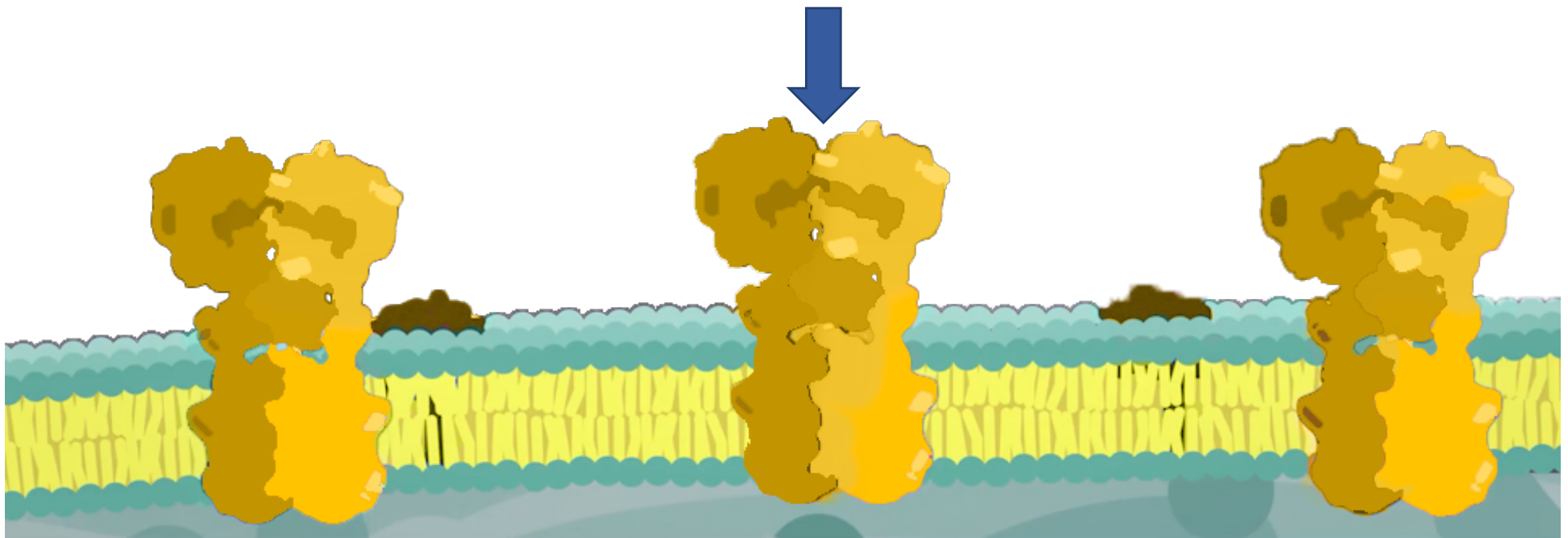


ACE Receptors

Mucosal and respiratory cells contain ACE receptors that allow the spike proteins and the Covid-19 virus to enter the human cells.



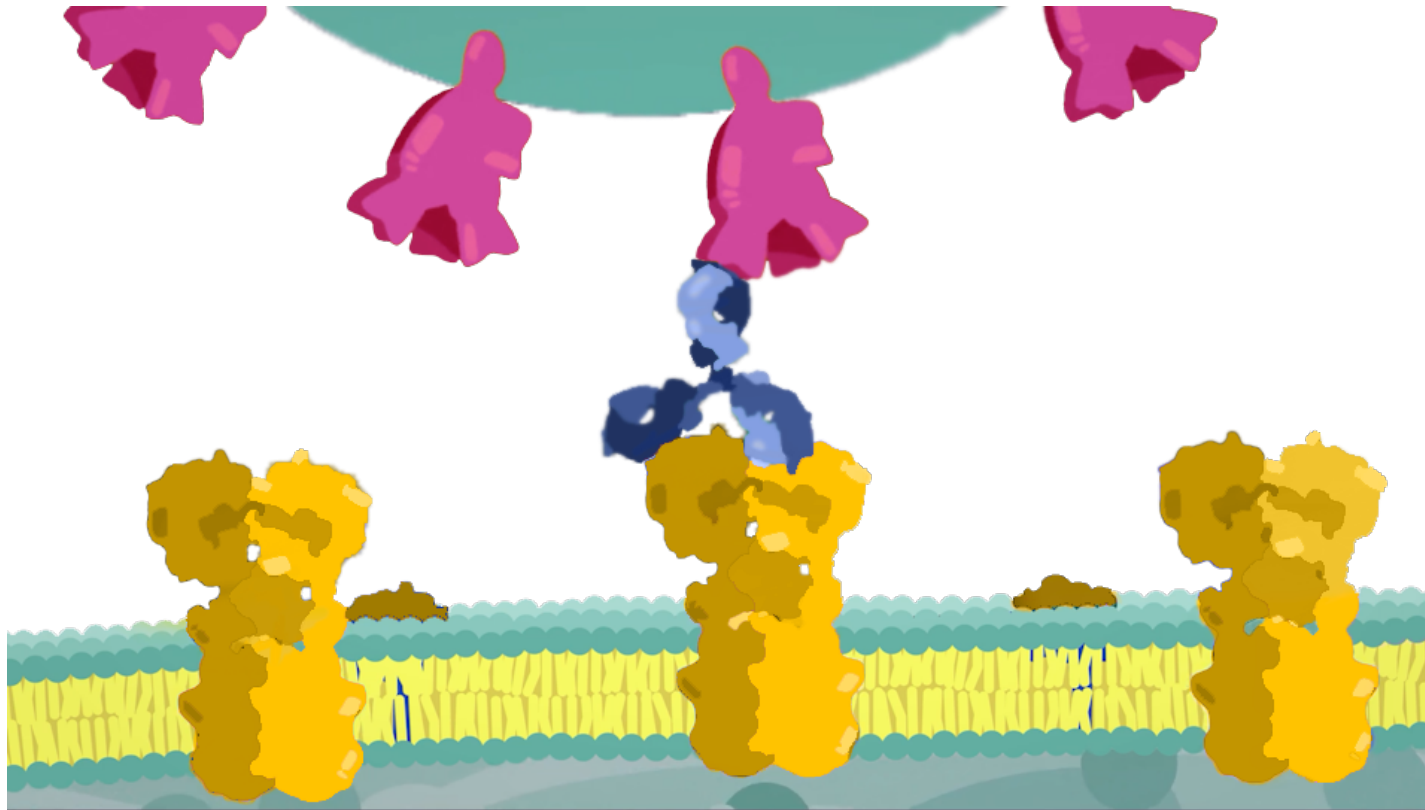
ACE
receptors





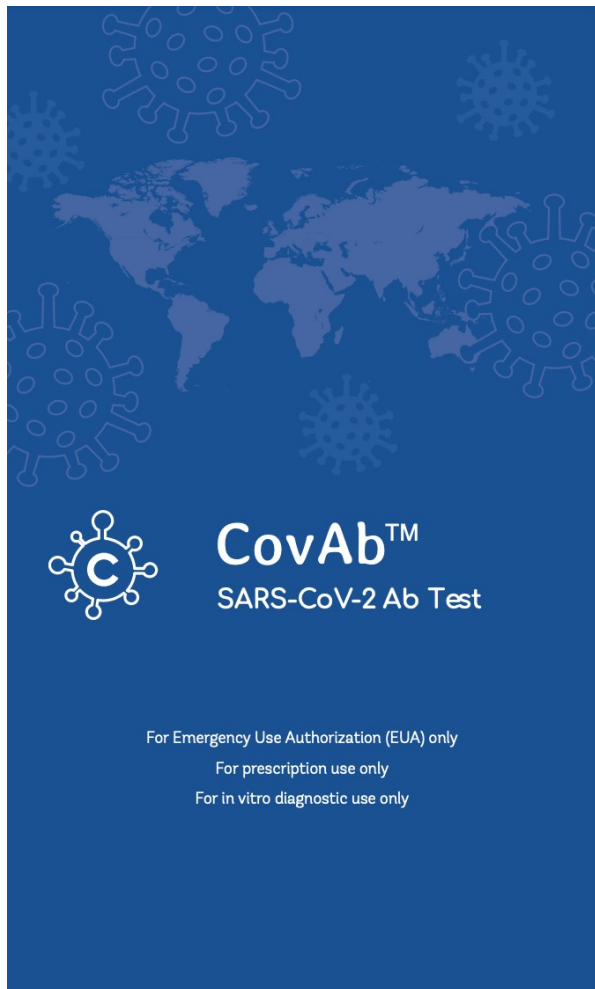
How do neutralizing antibodies help fight infection?

Neutralizing antibodies prevent the spike proteins of the Covid-19 virus from entering the human cells. Neutralizing antibodies thus reduce and prevent viral infection.





CovAb™ measures neutralizing antibodies that surround the spike protein (S1)



PRINCIPLES OF THE PROCEDURE

The CovAbScreen™ SARS-CoV-2 Antibody Test is a lateral-flow chromatographic immunoassay that can detect antibodies against the SARS-CoV-2 virus. The test uses a SARS-CoV-2-specific protein **(spike protein S1 domain)** bound to a detector and a cocktail of anti-human IgA, IgM, and IgG antibodies for capture.



IgA is an important neutralizing antibody

- Reported serology tests focus on IgM, IgG and total immunoglobulins although IgA is playing an important role in mucosal immunity. **It is in fact the most important immunoglobulin** to fight infectious pathogen in respiratory system and digestive system at the point of pathogen entry.

Yin Xia Chao^{a,b}, Olaf Röttschke^c, Eng-King Tana^b,

The role of IgA in COVID-19, Brain, Behavior, and Immunity 87 (2020) 182–183



IgA is an important neutralizing antibody

IgA antibodies dominated the early SARS-CoV-2-specific antibody response compared with IgG and IgM concentrations in these fluids and was associated with expansion of IgA plasma blasts with mucosal homing characteristics. IgA serum concentrations peaked 3 weeks after symptom onset but persisted for several more weeks in saliva, and serum IgA was more potent than IgG in neutralizing SARS-CoV-2. These findings highlight the potential role of IgA during early SARS-CoV-2 infection.

IgA dominates the early neutralizing antibody response to SARS-CoV-2

Delphine Sterlin et al

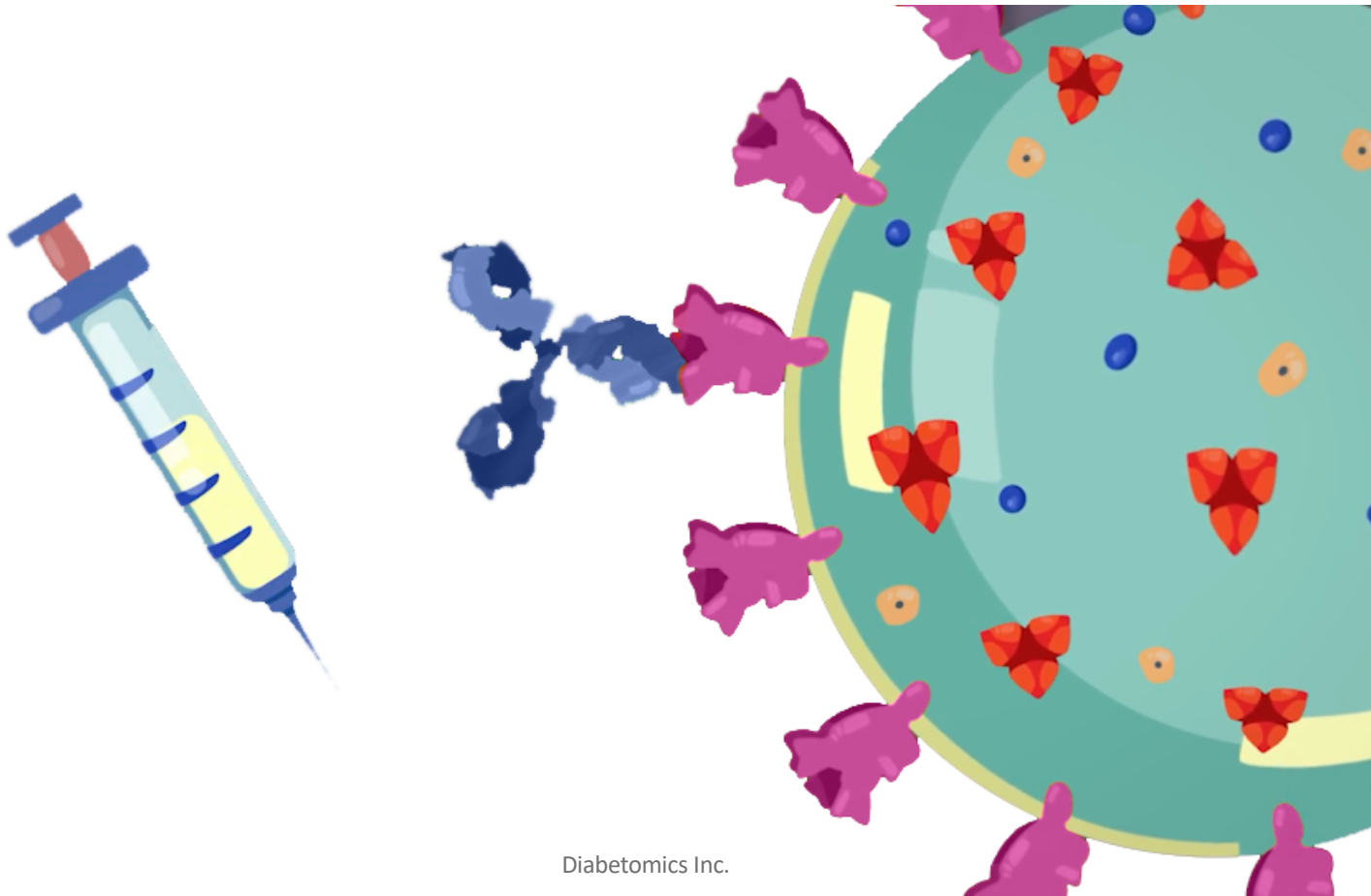
Science Translational Medicine 20 Jan 2021: Vol. 13, Issue 577, eabd2223



Vaccines create neutralizing antibodies that CovAb™ detects

Vaccines mimic the Covid-19 virus and trick our B cells into creating the same neutralizing antibodies that surround the spike protein

CovAbScreen™ measures antibodies that are created after vaccination





CovAb™

SARS-CoV-2 Ab Test



- **Unique Oral Fluid sample – easy and painless**
- **Detects neutralizing antibodies IgA, G and M**
- Easy 4 step test procedure
- Quick result in 15 minutes
- Room Temperature storage
- No instrument required
- Developed and manufactured in America