IgG3 Spike Protein Binding Assay

The innovation offers a fast, inexpensive single-tier assay that offers clinical utility as a screening method to identify patients who have SARS-CoV-2 immunity based on the presence of spike-binding, neutralizing IgG3 antibodies against SARS-CoV-2

What is the Problem?

Spike-binding IgG3 antibody is statistically linked to the presence of neutralizing antibodies against SARS-CoV-2 such that spike protein-specific IgG3 levels are the best predictor that a patient or specimen will have neutralizing antibodies and hence will have immune protection against SARS-CoV-2. There is currently a lack of a fast, inexpensive, and reliable method to identify patients who have SARS-CoV-2 immunity based on the presence of spike-binding, neutralizing IgG3 antibodies against the virus.

What is the Solution?

The solution is an innovative antibody assay that measures SARS-CoV-2 spike protein-specific IgG3 levels present in blood, serum, plasma, and other sample types. This single-tier assay provides clinical utility as a screening method to identify patients who have SARS-CoV-2 immunity based on the presence of a spike-binding, neutralizing IgG3 antibodies.

What is the Competitive Advantage?

The competitive advantage of this innovation lies in its ability to quickly and inexpensively identify patients with SARS-CoV-2 immunity based on the presence of spike-binding, neutralizing IgG3 antibodies. The assay can be applied to various applications, including development of outcome prediction tools, assessment of immunity for clinical trial entry criteria, and point-of-care tests for immunocompromised patients to determine their immunity levels. With COVID-19 diagnostics market size projected to reach USD 8.04 billion by 2027, this innovation holds significant potential in contributing to the market's growth and addressing the ongoing need for efficient SARS-CoV-2 immunity testing.

Technology ID

BDP 8384

Category

Therapeutics/Infection
Selection of Available Technologies

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Patent Information:

US20220196658A1

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