

# !!SARSPLEX!!

SARS-CoV-2 antibodies

ELISA IgG / IgM / IgA

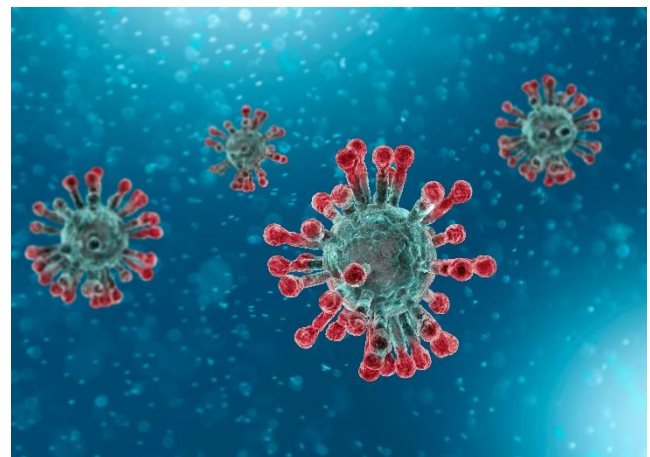
Now available at ArminLabs



Dear Colleagues,

As an international diagnostic laboratory, ArminLabs is keen to support efforts to contain the further spread of COVID-19 via substantiated, comprehensive diagnostics. The antibody tests provide information on possible immune reactions and possible immunity in individual cases.<sup>1, 2, 3</sup>

SARSPLEX is an **innovative multiplex ELISA** diagnostic kit for the novel SARS-CoV-2 coronavirus. SARSPLEX incorporates both the spike (S1 subunit) antigen, and the nucleocapsid protein (N) for **better sensitivity, specificity and robustness** in diagnosis. In addition, SARSPLEX test for immune responses of **IgM, IgG and IgA** against this novel virus. The importance of using all three antibodies is seen in demonstrating seroconversion and immunity to SARS-CoV-2 (Amanat et al 2020, Dewatripont et al 2020).



SARSPLEX	Sensitivity	Specificity
IgM	77 %	~100 %
IgA	75 %	~100 %
IgG	~100 %	99.19 %
IgM / IgA / IgG	~100 %	~100 %

Most serological tests only test for the S1 antigen, as well as just IgG and IgA antibodies. SARSPLEX tests for **two antigens per antibody reaction** against SARS-CoV-2.

## Serological decision support\*

IgM	+	+	-	-	-	-
IgG	-	+	+	+	-	-
IgA	-	-	-	+	+	-
	Suspected acute infection; possible primary infection	Suspected current, recent infection	Suspected previous infection (florid or past)	Possible immunity in individual cases; possible current infection	Possible immunity in individual cases; possible current infection	No acute or past infection
IgM	Adaptive immune response and first antibody produced upon infection					
IgG	Adaptive immune response and seroconversion after IgM					
IgA	Adaptive immune reaction of the mucous membranes and seroconversion after IgM					

\* Must always be evaluated by a treating physician in relation to the clinical symptoms; if there are signs of an acute infection / symptoms, direct detection by PCR must be conducted

According to current literature on SARS-CoV-2, the immune system requires a certain amount of time (usually around 2 - 3 weeks after onset of symptoms and 4 - 5 weeks after exposure) after the onset of symptoms to produce antibodies. 20 days after the onset of symptoms, the seroconversion rate is almost 100%. This test:

- **Differentiates SARS-CoV-2 from other acute pulmonary infections** such as the influenza virus
- **Provides diagnostic assistance in the event of fresh infections** (in individual cases)
- Can document a current or previous infection approx. 2 - 3 weeks after the onset of symptoms
- **Documentation of an immune reaction and possible immunity**

Sample required:

**1 x serum for SARSPLEX**

Test kits that you/the lab already have can be used. Arminlabs also offers an overnight transport service. Our laboratory team organizes collection of the blood samples. Please let us know one day in advance, and at least 2 hours before the pickup.

Please call Arminlabs on the following telephone number or send us an e-mail:  
**+49 821 - 780 931 50 / [corona@arminlabs.com](mailto:corona@arminlabs.com)**

The elderly and patients with underlying medical conditions may be subject to a more severe course of COVID-19. Self-isolation, limited exercise and a suboptimal diet during this period may lead to further deficiencies. ArminLabs therefore recommends checking additional parameters, including:

- CD3+/CD56+/CD57+ cell count (heparin & EDTA blood tubes additionally required)
- Zonulin
- Vitamin D3

Current information can be found on our website at [www.arminlabs.com/corona](http://www.arminlabs.com/corona).

Please contact us at any time if you have any queries.

Very best wishes,

Dr. Armin Schwarzbach and team

## References

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