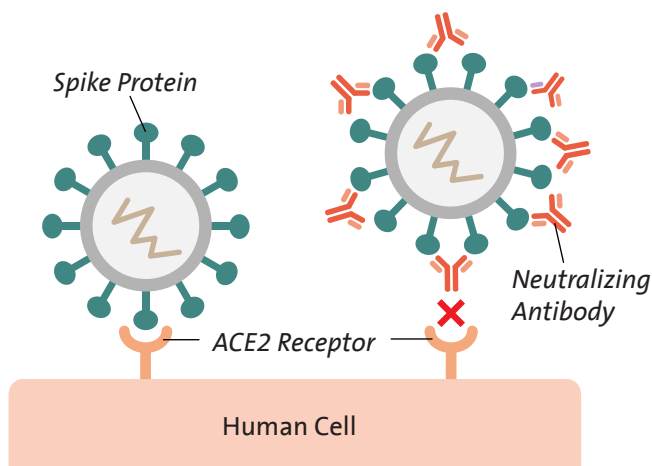
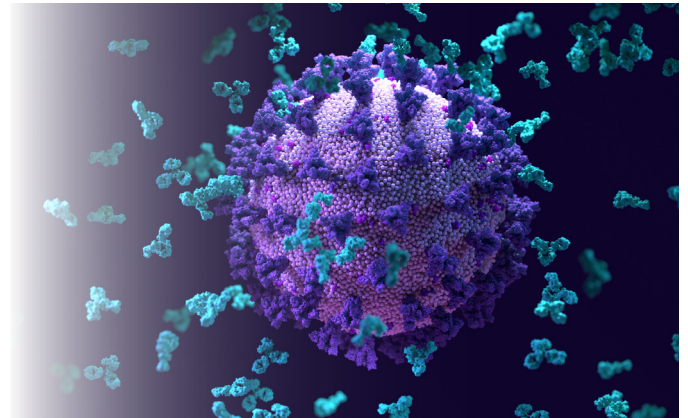


SARS-CoV-2 NABs ELISA

Quantification of neutralizing antibodies to SARS-CoV-2

Within 2-4 weeks of infection, >90% of individuals vaccinated or infected with SARS-CoV-2 virus develop detectable levels of polyclonal antibodies.

Among these are neutralizing antibodies (NAB), which impede the virus from entering host cells, thus reducing the infectivity of the virus. While neutralizing antibodies are primarily directed against the spike protein of the virus, the cellular immunity triggered by the infection is mainly directed against cells infected with the virus.¹ The presence of neutralizing antibodies to SARS-CoV-2 is the best current indication of immunoprotection against infection in previously infected or vaccinated individuals.



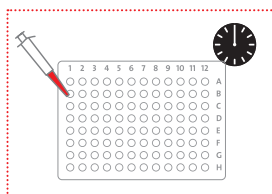
The S1 domain of the SARS-CoV-2 spike protein comprises the receptor-binding domain (RBD) which binds to ACE2, an enzyme on the outer surface of host cells. The binding of RBD to ACE2 is the first step of cell infection.

Antibodies targeting the RBD critically interfere with virus entry into the cells. Several studies have shown that the neutralizing ability of polyclonal antibodies in serum positively correlates with anti-spike IgG or anti-RBD IgG.²

The SARS-CoV-2 Neutralizing Antibody ELISA detects these RBD-specific antibodies.

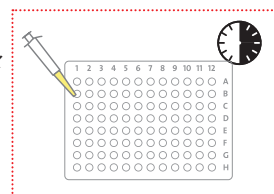
Test procedure

Use this overview only as a reference and always follow the detailed method sheet when performing the assay.



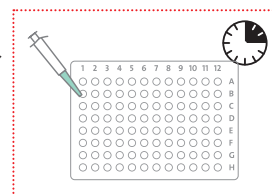
Pipette specimen & standard and incubate for 60 minutes

Wash 5x

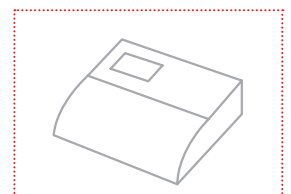


Pipette HPR-Conjugate and incubate for 30 minutes

Wash 5x



Pipette Chromogen A + B and incubate for 15 minutes



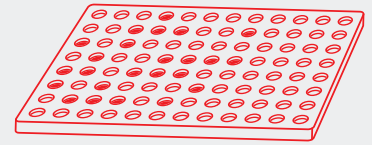
Add Stop Solution and measure the absorbance

Human

Diagnostics Worldwide

Your advantages at a glance

- › High sensitivity and specificity
- › Use of single strips possible
- › Fully automated processing and result reading possible
- › Product from a renowned manufacturer of COVID-19 solutions



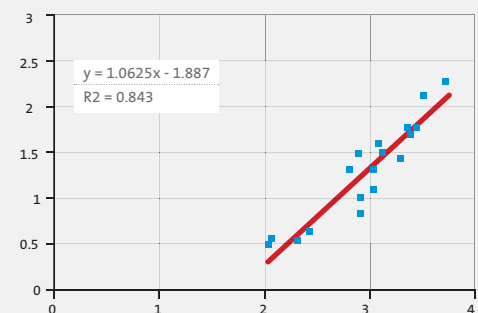
Performance data³

The positive detection rate of immune blood at different time points after vaccination was in accordance with the results of the pseudovirus microneutralization test

Post-immunization of the vaccine for the first time (weeks)	No. of positive cases for pseudovirus microneutralization test	Neutralizing antibodies (ELISA)	
		No. of positive cases	Detection rate
6	6	6	100%
8	6	6	100%
12	6	6	100%

Correlation between NAbS ELISA and pseudovirus microneutralization test on samples from vaccinated individuals

Pseudovirus microneutralization test	Neutralizing antibodies (ELISA)	
	Positive	Negative
Positive	42	0
Negative	1	274
Total	42	275
Sensitivity	100%	–
Specificity	–	99.6%



SARS-CoV-2 NAbS ELISA REF: WS-1596

Enzyme-linked immunosorbent assay for the quantitative detection of neutralizing antibodies to SARS-CoV-2 virus

- › Kit size: 96 tests (up to 91 specimen)
- › Sample material: serum, plasma
- › Storage: 2...8°C
- › Shelf life: 12 months
- › CE-IVD marked in accordance with Directive 98/79/EC

For professional use only

More information about COVID-19 at
www.human.de/covid-19/

1. WHO COVID-19 natural immunity (2021), WHO-2019-nCoV-Sci-Brief-Natural-immunity-2021.1-eng.pdf
 2. ECDC Immune responses and immunity to SARS-CoV-2 <https://www.ecdc.europa.eu/en/covid-19/latest-evidence/immune-responses>. State: May 2021
 3. SARS-CoV-2 NAbS ELISA. Package insert; article number WS-1596

Human

Diagnostics Worldwide