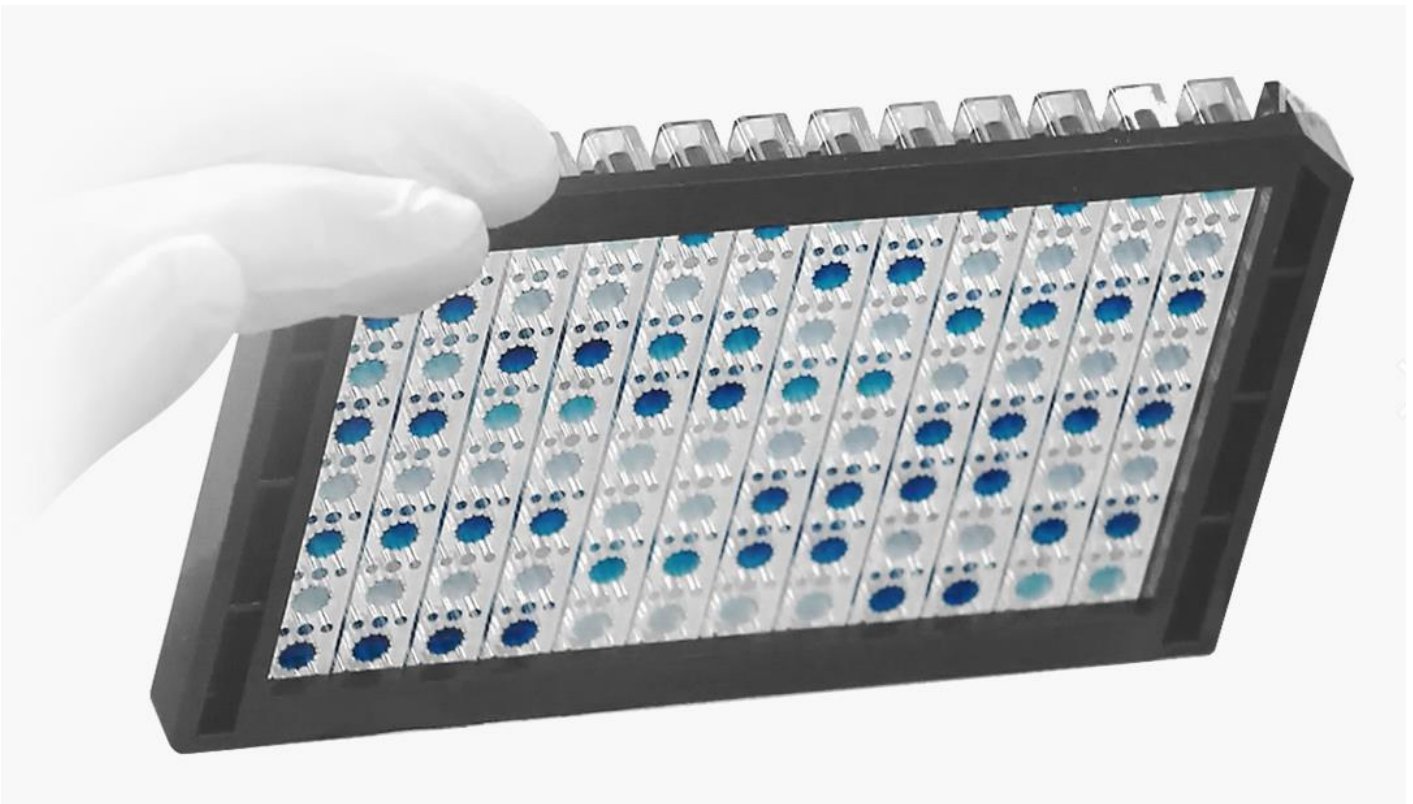


ACCEL ELISA®

COVID-19 Total Antibody Kit

For Detection of Total Antibody to SARS-CoV-2 in Human Serum



Simple – Fast – Reliable

This test kit is a serology-based SARS-CoV-2 total antibody detection assay which utilizes Plexense's proven and patented ACCEL ELISA® technology for sensitive, rapid and accurate results.

The ACCEL ELISA® can be used as a rapid and reliable tool to assess the immune response of the patient during and after the infection of COVID-19 virus.



**SIMPLE
FAST
RELIABLE**

ACCEL ELISA®

COVID-19 Total Antibody Kit

The ACCEL ELISA® COVID-19 assay uses SARS-CoV-2 nucleocapsid protein (N-protein) custom-developed by the BioNano Health Guard Research Center (a division of the Ministry of Science and ICT, Korea) in collaboration with Korea Research Institute of Bioscience and Biotechnology (KRIBB) for the sole use of COVID-19 antibody detection on ACCEL ELISA® platform.



Plexense Technology Advantage

ACCEL ELISA® combines a unique, proprietary plate design with advanced surface chemistry and reagent formulation to create an innovative immunoassay platform designed to maximize speed and sensitivity.

Why choose ACCEL ELISA® over other platforms?

- Quick testing time for the detection of total antibodies (IgA, IgM, IgG) against SARS-Cov-2 antigens
- Highly improved sensitivity over lateral flow (immunochromatography) method
- High-throughput testing available up to **94 patient samples** at a single run
- Two-reaction steps with a single wash (instead of 3-4 wash)
- 96-well ELISA microplate in an 8-well 12-strip plate format
- Compatible with standard plate reader at OD 650nm
- 10 µL of human blood serum required per well
- Assay time in **30 minutes**
- Validation with 341 patient samples confirms high accuracy with a **sensitivity of 94.4%, specificity of 100% and an overall agreement with RT-PCR of 98.5%**

Clinical Evaluation

Validation of 341 patient samples

Cutoff value of OD 650nm is 0.224. Positive and negative results were determined by taking the reaction value at OD 650 nm divided by the cutoff value.

Resultant values > 1.1 were positive, while values < 1.1 were negative.

Evaluation Parameters	Evaluation Criteria	Results
Sensitivity	Positive : ≥ 1.1 (ratio) Negative : < 1.1 (ratio)	94.4%
Specificity	Positive : ≥ 1.1 (ratio) Negative : < 1.1 (ratio)	100%
Overall percent agreement	Correlation to RT-PCR	98.5%

		RT-PCR Test Results		
		Positive	Negative	Total
ACCEL ELISA® COVID-19 Kit	Positive	85	0	85
	Negative	5	251	256
	Total	90	251	341

ACCEL ELISA® Sensitivity & Specificity

100% sensitivity and specificity for 5 days onwards following infection

Plexense ACCELELISA® COVID-19 Kit	Anti-SARS-CoV-2 ELISA (IgG and IgM)	Anti-SARS-CoV-2 ELISA (IgG and IgM)
Days following onset of infection	% Positive Agreement to RT-PCR	% Negative Agreement
under 5 days	66.7%	100.0%
5 to 10 days	100.0%	
≥ 11 days	100.0%	

* Plexense data from BNHG testing



PLEXENSE LOCATIONS

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About Plexense, Inc.

Since its foundation in 2012, Plexense, Inc. has been specialized in the development and production of rapid and cost-effective immunoassay for clinical, agricultural and biological testing.

Plexense, Inc. has been collaborating with Mayo Clinic, US Department of Agriculture (USDA) – ARS, Korea Centers for Disease Control (KCDC) and Korea Research Institute of Bioscience and Biotechnology (KRIBB) to develop advanced early diagnostic kits utilizing its proprietary ACCEL ELISA® technology.

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