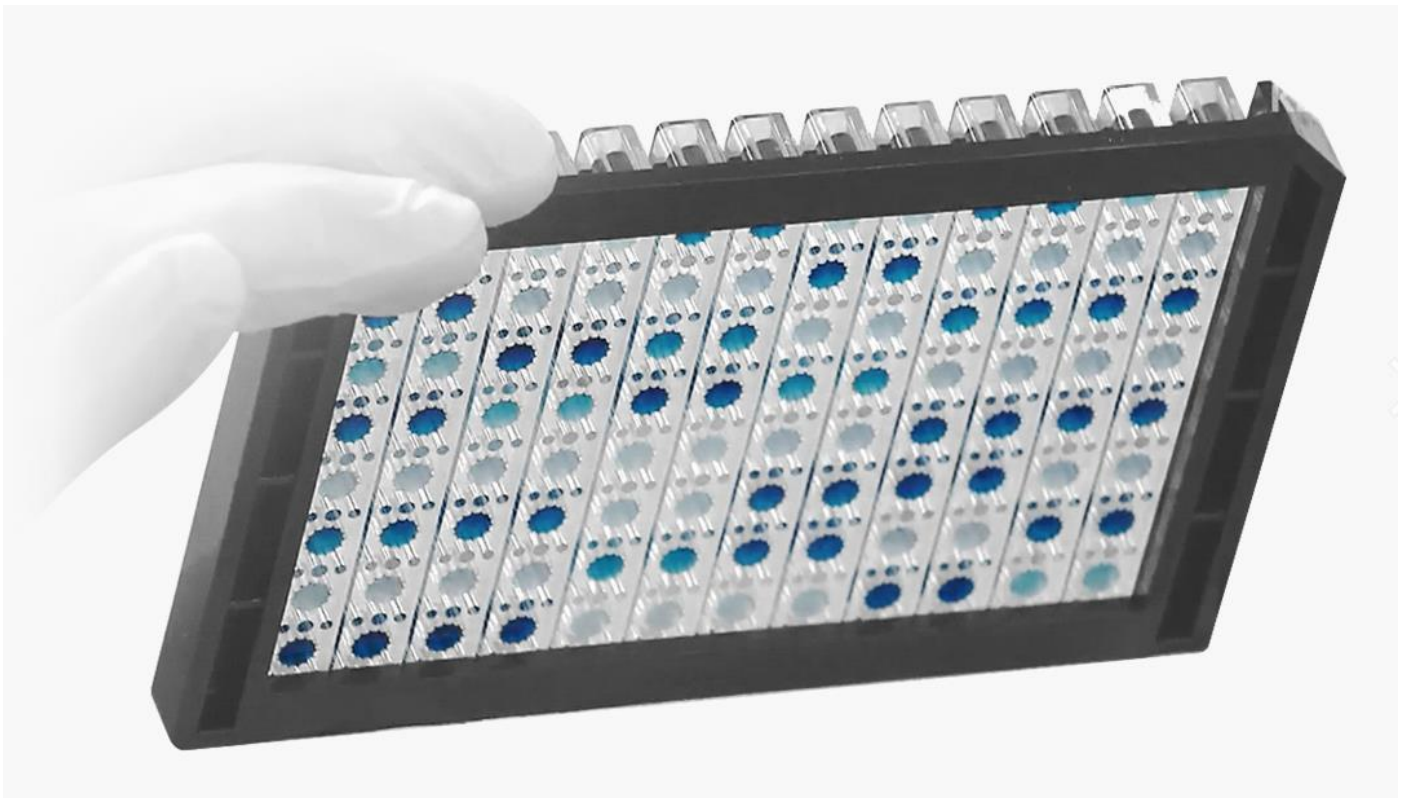


ACCEL ELISA[®]

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 the SARS-CoV-2 nucleocapsid protein (N-protein) 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 turnaround 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
- 96-well strip plate formatted
- Compatible with standard plate reader (OD read at 650nm)
- Sample type & volume required per well: 10 µL human blood serum
- **30 minutes** Assay time
- Validation of assay with 341 patient sera samples confirmed high accuracy results
– **Sensitivity 94.4%, Specificity 100%, Overall Agreement with RT-PCR 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%

Sensitivity & Specificity

100% 5 days following infection

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

Plexense data from BNHG testing

Experiment Results

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



PLEXENSE LOCATIONS

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About Plexense, Inc.

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

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

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