

# COVID-19 Kit ACCEL ELISA®

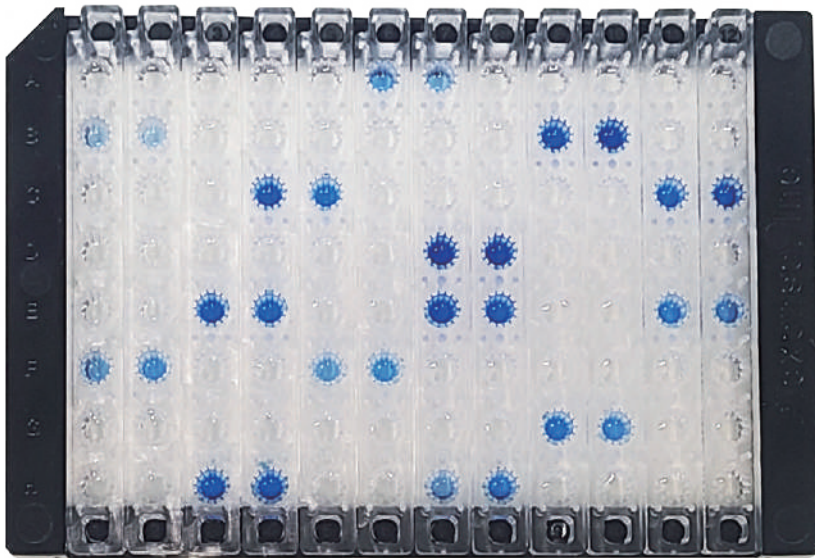
This test kit is a simplified ELISA (Enzyme-Linked Immunosorbent Assay) designed for the sensitive, rapid, and qualitative presumptive tests for COVID-19 antibodies.



# COVID-19 Kit

# ACCEL ELISA®

This test kit is a simplified **ELISA (Enzyme-Linked Immunosorbent Assay)** designed for the sensitive, rapid, and qualitative presumptive tests for COVID-19 antibodies.



- Rapid testing for COVID-19 IgG and IgM antibodies
- Improved sensitivity over lateral flow (immunochromatography) method
- High throughput testing available processing up to 94 patients' samples at a time
- 96-well strip plate formatted ELISA requiring only one wash
- Compatible with standard plate readers (650nm)
- Sample type & volume required per well: 10  $\mu$ L human blood serum
- Assay time : 30 minutes
- **Sensitivity 94.4%, Specificity 100%**

Total reaction time for up to **94 patients'**  
samples in **30 minutes.**

## Rapid

Assay time : 30 minutes

## Cost - effective

## Accurate

Accuracy of PCR level

## High - throughput

94 patients' samples in 30 minutes

## Simplified Protocol

Two-step, one wash process

## Plexense's Superior ACCEL ELISA® Technology

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

ACCEL ELISA® provides up to 50 times increased sensitivity when compared to traditional ELISA plates. Reproducible results can be achieved in 30 minutes with a single wash.



# Clinical Evaluation

Qualitative results were determined using an optical density (OD) cutoff value of "0.26". To determine "positive" and "negative" results from the assay, reaction values obtained from the plate reader (set at OD 650nm) were divided by the cutoff value. Resultant values > 1.1 were positive, while values < 1.1 were negative.

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

## 100% Sensitivity & Specificity

Over 5 days after infection

Plexense ACCEL ELISA COVID-19 Kit	Anti-SARS-CoV-2 ELISA (IgG and IgM)	Anti-SARS-CoV-2 ELISA (IgG and IgM)
Days post RT-PCR Confirmation	% Positive Agreement to RT-PCR	% Negative Agreement to RT-PCR
<5	66.7%	100.0%
5-10	100.0%	
$\geq 11$	100.0%	

Plexense data from BNHG testing

## Experiment Results

		Reference method		
		Positive	Negative	Total
ACCEL ELISA COVID-19 Kit	Positive	85	0	85
	Negative	5	251	256
Total		90	251	341

# COVID - 19 Antibody Test Procedure



- 1 Add 50 $\mu$ L of diluted serum sample to a well followed by the addition of 50  $\mu$ L of the anti -human IgG-HRP and allow to react for 10 minutes at room temperature.
- 2 Wash the well 3 times with wash buffer.
- 3 Add 100 $\mu$ L of TMB to the well and incubate at room temperature for 10 minutes to allow for color development.
- 4 Read the results using a plate reader at 650nm.



## Automation of ACCEL ELISA<sup>®</sup> COVID-19 Kit (Optional)

Automation provides high throughput testing capable of processing up to 94 patients' samples at once, allowing for up to 1,000 patients' tests per day.

- Fully automated analyzer
- Optimized for ACCEL ELISA<sup>®</sup>
- User-friendly interface

## About Plexense

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

**Plexense, Inc. is located in**

4136E Commerce Way, Suite 300,  
Sacramento, CA 95834 USA

**Homepage** [www.plexense.com](http://www.plexense.com)

**E-mail** [info@plexense.com](mailto:info@plexense.com)

**Korea** + 82 070 8244 4312

**USA** +1 530 564 4692

+1 530 231 0118

