# CUSABIO SARS-CoV-2 ELISA Kits For Research Use Only

The outbreak of SARS-CoV-2 has become a global pandemic and an unprecedented public health issue. There are several methods to detect the presence of SARS-CoV-2 in samples, including RT-qPCR, immunochromatography (rapid test) and ELISA. Among of these methods, ELISA is a less complex procedure that uses more affordable and available equipment. This technique makes it possible to measure either SARS-CoV-2 antigens or antibodies to these antigens. CUSABIO has developed 3 types of ELISA kits to help you in your research.

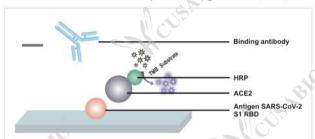
SARS-CoV-2 Ar	itigen Detection	n ELISA Kit						
Product Name	Code	Detected Antigen	Sample Types	Detection Range	Sensitivity	Assay Principle	Measurement	
SARS-CoV-2 N ELISA Kit	CSB- EL33251	N	serum, plasma, swabs	3.12-200ng/mL	0.78ng/mL	Quantitative	Sandwich	
SARS-CoV-2 S1 RBD ELISA Kit	CSB- EL33244	S1 RBD	serum, plasma, swabs	1.25-80ng/mL	0.31ng/mL	Quantitative	Sandwich	
SARS-CoV-2 An	tibody Detection	on ELISA Kit						
Product Name		Code	Detected Antibody	Antigen	Sample Types	Assay Principle	Measurement	
Human SARS-CoV-2 N IgG Antibody ELISA Kit		CSB- EL3325HU	N IgG	N	serum, plasma	Qualitative	Indirect	
Human SARS-CoV-2 N/S1 IgG Antibody ELISA Kit		CSB- EL3326HU	N/S1 IgG	N/S1	serum, plasma	Qualitative	Indirect	
Human SARS-CoV-2 S1 RBD IgG Antibody ELISA Kit		CSB- EL33241HU	S1 RBD IgG	S1 RBD	serum, plasma	Qualitative	Indirect	
Human SARS-CoV-2 S1 RBD IgM Antibody ELISA Kit		CSB- EL33242HU	S1 RBD IgM	S1 RBD	serum, plasma	Qualitative	Indirect	
SARS-CoV-2 No	eutralizing Anti	body ELISA Kit	BIO		All C			
Product Name		Code	Detected Antibody	Antigen	Sample Types	Assay Principle	Measurement	
SARS-CoV-2 Neutralizing Antibody ELISA Kit		CSB- EL33243HU	Neutralizing Antibody	S1 RBD	serum, plasma	Qualitative	Competitive	

# SARS-CoV-2 Neutralizing Antibody ELISA Kit

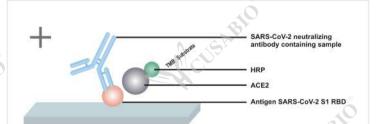
CUSABIO SARS-CoV-2 neutralizing antibody ELISA kit is used for the qualitative determination of SARS-CoV-2 neutralizing antibody in serum, plasma.

#### What is the principle of the SARS-CoV-2 Neutralizing Antibody ELISA Kit?

This assay is based on competitive method. The kit detects circulating neutralizing antibodies against SARS-CoV-2 that block the interaction between the receptor binding domain (RBD) of the viral spike glycoprotein with the ACE2 cell surface receptor.



If only binding antibodies are present in the sample, then the HRP-ACE2 still binds to the S1 RBD precoated on the plate and generates strong signal.

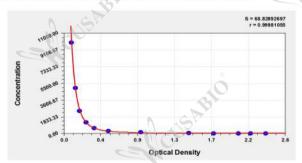


If also neutralizing antibodies are present in the sample, then they bind to the S1 RBD and prevent them from binding to the HRP-ACE2 on the plate. During the wash step, the blocked HRP-ACE2 is removed, therefore decreasing the signaling detected in the well.

## What quality control data is available?

Typical Data: The standard curve is provided for demonstration only. It should be generated for each set of samples assayed.

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ng/ml	OD1	OD2	Average	ng/ml	OD1	OD2	Average
10000	0.099	0.092	0.096	156	0,901	0.907	0.904
5000	0.145	0.136	0.141	78	1.509	1.412	1.461
2500	0.194	0.183	0.189	39	1.787	1.723	1.755
1250	0.274	0.263	0.269	19.5	2.121	1.958	2.040
625	0.344	0.371	0.358	9.75	2.233	2.138	2.186
312	0.519	0.528	0.524	0	2.394	2.328	2.361



Intra-assay Precision (Precision within an assay): CV%<15%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<15%

Three samples of known concentration were tested in twenty assays to assess.

### Which applications can I use the SARS-CoV-2 neutralizing antibody ELISA kit for?

- 1. Viral spike glycoprotein (RBD)/ACE2 receptor interaction studies;
- 2. Vaccine and Biologics development,
- 3. COVID-19 Epidemiology Studies.

#### • Why should I choose the SARS-CoV-2 neutralizing antibody ELISA kit from CUSABIO?

- 1. Simple, convenient and fast;
- 2. Operation can be completed in any laboratory setting,
- 3. High specificity, small inter-assay variation.





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