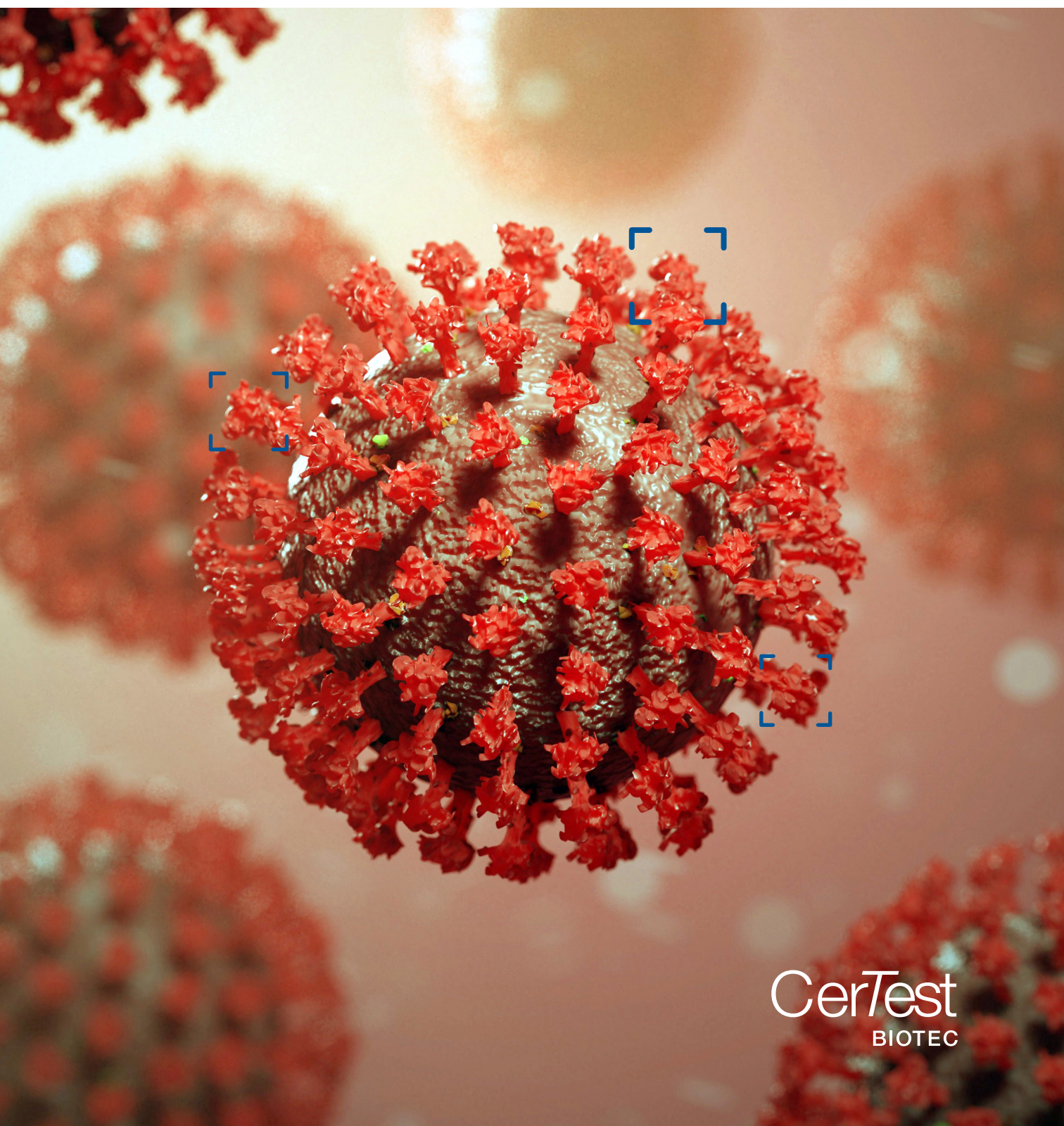


# SARS-CoV-2

Solutions for the COVID-19 diagnosis



CerTest  
BIOTEC



# About the virus

In December 2019, certain individuals working or living in the vicinity of the Huanan seafood market in Wuhan, in the province of Hubei, China, developed pneumonia of unknown cause.

Massive sequencing analysis of the respiratory samples revealed a new coronavirus, initially known as 2019 new coronavirus (2019-nCoV) and subsequently renamed as SARS-CoV-2.

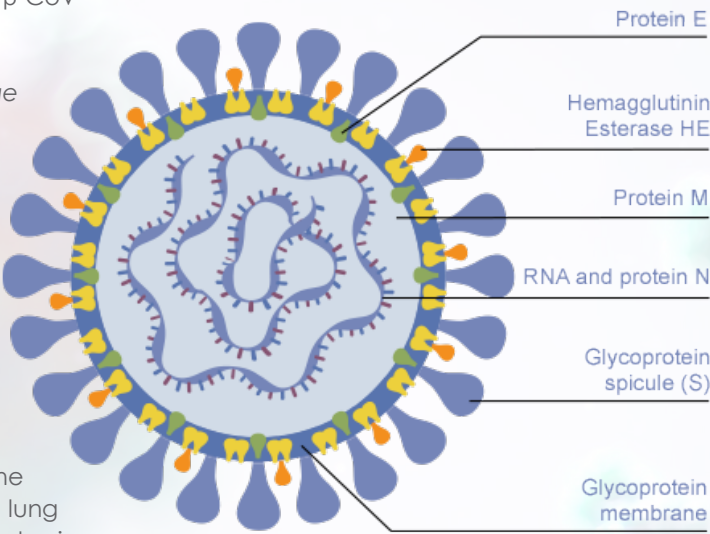
**CerTest has been working urgently and determinedly since the start of the spread of the virus to collaborate in the global response to this serious disease.**

The coronaviruses (CoV) are RNA, enveloped viruses, with a large genome (29.9 kb), of which the  $\beta$ -CoV and  $\alpha$ -CoV are able to infect mammals.

The viruses belonging to the *Coronaviridae* family contain a higher abundance of the membrane protein (M) abundant among other proteins, that is, the peak glycoprotein (S), the nucleocapsid protein (N) and an envelope protein (E).

The spike glycoprotein (S) is one of the targets of the T-cell response in the immune system. The S protein also facilitates the fusion of the viral envelope to the receptor ACE2 and the entrance of the virus in the target cell. The ACE2 receptors are present in the cells of the arteries, veins, smooth muscles, small intestine, lung alveoli, hair follicles, cardiac myofibroblasts, skin, brain and kidney.

Consequently, the SARS-CoV-2 can potentially infect these tissues.





## Symptoms

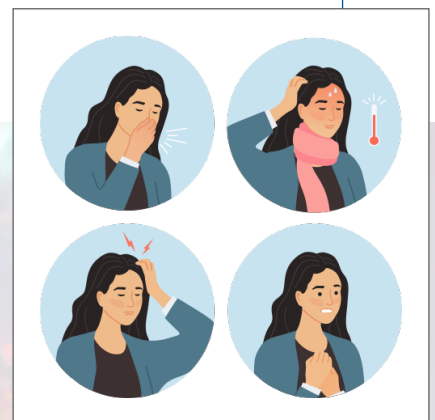
The clinical forms of this disease range from mild to very severe symptoms: **pneumonia, a temperature and respiratory symptoms are the most common.** Other symptoms of the viral infection include a sore throat, aches and pains, or difficulty breathing. In some cases there may be nasal secretion, nausea and diarrhea.

The recently discovered outbreak of coronavirus starts mainly with nasal secretions or drops of saliva, once an infected individual sneezes or coughs. The estimated incubation time is 2 weeks. Due to the high rate of SARS-CoV-2 infection, the detection of asymptomatic positive patients is probably one of the key factors for controlling the outbreak.

## Did you know?

**Human-to-human transmission of the SARS-CoV-2 has been confirmed, even in the incubation period without symptoms,** and the virus could cause severe respiratory illness like those SARS-CoV produced.

CDC -Centers of Disease Control and Prevention- recommends **upper respiratory tract specimens** (nasopharyngeal (NP) swab, oropharyngeal (OP) swabs, nasal mid-turbinate swab, nasal swab, nasopharyngeal wash/aspirate or nasal wash/aspirate (NW) specimens collected mainly by a healthcare provider) **and/or lower respiratory specimens** (sputum, endotracheal aspirate, or bronchoalveolar lavage in patients with more severe respiratory disease) for the identification of SARS-CoV-2 and other respiratory viruses, such as Influenza and RSV.



“ On March 11, the WHO declared the disease a pandemic, due to the high number of individuals infected and the rapid spread of the disease around the world.

# CerTest bioSCIENCE

## Raw materials

Highly sensitive and specific high quality recombinant proteins and monoclonal antibodies for the development of diagnosis assays for SARS-CoV-2 and other coronaviruses.



Suitable for Lateral Flow, CLIA and ELISA assay!

### Monoclonal antibodies for SARS-CoV-2 detection (Nucleoprotein detection)

|  |           |                                                                                        |
|--|-----------|----------------------------------------------------------------------------------------|
|  | MT-16CV01 | Anti SARS-CoV-2 mAb (clone CV01) (x1mg) / Paired with MT-16CV15, MT-16CV40 & MT-16CV74 |
|  | MT-16CV10 | Anti SARS-CoV-2 mAb (clone CV10) (x1mg) / Paired with MT-16CV15, MT-16CV40 & MT-16CV74 |
|  | MT-16CV15 | Anti SARS-CoV-2 mAb (clone CV15) (x1mg) / Paired with MT-16CV01 & MT-16CV10            |
|  | MT-16CV40 | Anti SARS-CoV-2 mAb (clone CV40) (x1mg) / Paired with MT-16CV01 & MT-16CV10            |
|  | MT-16CV74 | Anti SARS-CoV-2 mAb (clone CV74) (x1mg) / Paired with MT-16CV01 & MT-16CV10            |

### Antigens. Mammalian expression

|  |                     |                                                                                    |
|--|---------------------|------------------------------------------------------------------------------------|
|  | MT-25C19NPm         | SARS-CoV-2 recombinant Nucleoprotein (N) (full sequence) (x1mg)                    |
|  | MT-25C19S           | SARS-CoV-2 recombinant Spike Glycoprotein (S) (full sequence) (x1mg)               |
|  | MT-25C19S.b.1.1.7   | SARS-CoV-2 recombinant Spike Glycoprotein (S) <b>UK variant</b> (x1mg)             |
|  | MT-25C19S.1.351     | SARS-CoV-2 recombinant Spike Glycoprotein (S) <b>South Africa variant</b> (x1mg)   |
|  | MT-25C19S.p.1       | SARS-CoV-2 recombinant Spike Glycoprotein (S) <b>Brazilian variant</b> (x1mg)      |
|  | MT-25C19S.b.1.617.2 | SARS-CoV-2 recombinant Spike Glycoprotein (S) <b>Indian variant</b> (x1mg)         |
|  | MT-25RBD            | SARS-CoV-2 recombinant Receptor Binding Domain (BRD) (mammalian expression) (x1mg) |

### Bacterial expression

|  |                      |                                                                              |
|--|----------------------|------------------------------------------------------------------------------|
|  | MT-25C19NP           | SARS-CoV-2 recombinant Nucleoprotein (N) (full sequence) (x1mg)              |
|  | MT-25C19NP.b.1.1.7   | SARS-CoV-2 recombinant Nucleoprotein (N) <b>UK variant</b> (x1mg)            |
|  | MT-25C19NP.1.351     | SARS-CoV-2 recombinant Nucleoprotein (N) <b>South African variant</b> (x1mg) |
|  | MT-25C19NP.p.1       | SARS-CoV-2 recombinant Nucleoprotein (N) <b>Brazilian variant</b> (x1mg)     |
|  | MT-25C19NP.b.1.617.2 | SARS-CoV-2 recombinant Nucleoprotein (N) <b>Indian variant</b> (x1mg)        |

### Antigens from other Coronavirus

|  |            |                                                                        |
|--|------------|------------------------------------------------------------------------|
|  | MT-25SANP  | SARS Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |
|  | MT-25MENP  | MERS Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |
|  | MT-25229NP | 229E Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |
|  | MT-25OCNP  | OC43 Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |
|  | MT-25HKNP  | HKU1 Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |
|  | MT-25NLNP  | NL63 Coronavirus recombinant Nucleoprotein (NP) (full sequence) (x1mg) |



\_Recombinant Proteins



\_Monoclonal Antibodies



\_Paired with...



bioscience@certest.es

# Rapid Test

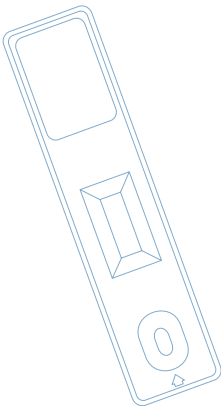
## For antigen detection

CerTest one-step immunochromatographic tests allow the **simultaneous qualitative detection** of SARS-CoV-2, Influenza type A, Influenza type B, and Respiratory Syncytial Virus (RSV) **antigens** in respiratory specimens from patients suspected of infection.

Symptoms related to COVID-19 infections can be confused with those of Influenza or even a common cold. A rapid test with differentiated detection of the multiple pathogens will reduce times and uncertainty on the initial screening of patients.



Results in  
**10**  
minutes



### Available products.

|  |                                                              |
|--|--------------------------------------------------------------|
|  | <b>SARS-CoV-2</b><br>(20 test per kit)                       |
|  | <b>SARS-CoV-2 + Flu A</b><br>(20 test per kit)               |
|  | <b>SARS-CoV-2 + Flu A + Flu B</b><br>(20 test per kit)       |
|  | <b>SARS-CoV-2 + Flu A + Flu B + RSV</b><br>(20 test per kit) |

(\*) All tests include a Positive Control to verify the correct operation of the assay.

### Advantages:

-  **Non-invasive diagnosis.**  
Nasopharyngeal swab sample.
-  **No need for additional equipment.**  
All components included in the kit.
-  **Low cost throughout the process.**
-  **Very simple use and interpretation.**  
More amount of analysis in the same time.

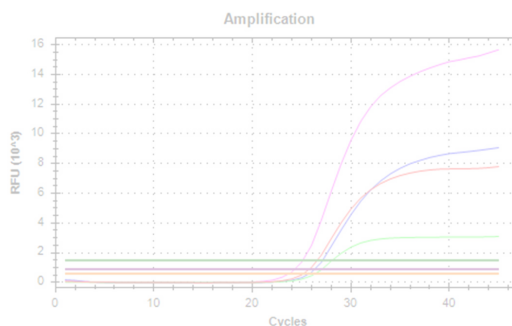






## Real Time PCR Detection Kits

Real Time PCR tests designed for the identification of SARS-CoV-2 in respiratory samples from patients with signs and symptoms of COVID-19 infection.



### Available Kits

- |           |                                                                                                                                                                                                                                                                             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ref. NCO2 | <b>SARS-CoV-2 (ORF1ab and N genes)</b><br>The diagnosis is performed by the amplification of a conserved region of <i>ORF1ab</i> and <i>N</i> genes for SARS-CoV-2 using specific primers and a fluorescent-labeled probe.                                                  |
| Ref. NCO3 | <b>SARS-CoV-2 (N1+N2)</b><br>The diagnosis is performed by the amplification of a conserved region of two conserved regions of <i>N</i> gene ( <i>N1</i> and <i>N2</i> ) for SARS-CoV-2 using specific primers and a fluorescent-labeled probe.                             |
| Ref. CFR  | <b>SARS-CoV-2, FLU &amp; RSV</b><br>Qualitative detection of RNA from the SARS-CoV-2, Influenza A/B (Flu A/B) and/or Human Respiratory Syncytial Virus A/B (RSV A/B) in respiratory specimens.                                                                              |
| Ref. ABC  | <b>Flu A, Flu B &amp; SARS-CoV-2</b><br>Qualitative detection of RNA from the Influenza A (Flu A), Influenza B (Flu B) and/or SARS-CoV-2 from individuals suspected of respiratory infections.                                                                              |
| Ref. SUK1 | <b>SARS-CoV-2 &amp; UK Variant (S UK, S wt &amp; N gene)</b><br>Detección cualitativa de RNA de SARS-COV-2 y de la delección HV 69/70 del gen S para el SARS-CoV-2 asociada a la variante SARS-CoV-2 VOC-202012/01 (linaje B.1.1.7) en individuos con sospecha de COVID-19. |
| Ref. SUK2 | <b>SARS-CoV-2 del 69/70, ORF1ab &amp; N genes</b><br>This test is intended for use as an aid in the diagnosis of SARS-CoV-2 as well as variants that carry the HV 69/70 deletion in combination with clinical and epidemiological risk factors.                             |
| Ref. VAR  | <b>SARS-CoV-2 Variant I</b><br>Qualitative RNA detection of genetic mutations in the S gene (E484K, K417N, K417T and N501Y) from SARS-CoV-2 positive nasopharyngeal samples.                                                                                                |
| Ref. VAI  | <b>SARS-CoV-2 Variant II</b><br>Qualitative detection of SARS-COV-2 RNA and the HV 69/70 deletion of the S gene for SARS-CoV-2 associated with the SARS-CoV-2 variant VOC-202012/01 (lineage B.1.1.7) in individuals with suspected COVID-19.                               |



"Ready & Easy-to-use" kits.  
**Lyophilised product.**



**Transport and storage  
at room temperature.**



**Shelf-life: 24 months.**



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Receive the latest news directly to your inbox!

# About CerTest Biotec, S.L.



**CerTest Biotec** is a European company **established in 2002** for the development and manufacturing of products for *in vitro* diagnosis of infectious diseases.

**Today, CerTest** is a global company structured around 5 business units offering one of the widest portfolios for human *in vitro* Diagnostic:

We base **the future** on a strong technical knowledge and expertise in the detection of human diseases.

Our last generation laboratories, state of the art technical equipment and skilled professionals are the keys for providing reliable solutions for the medical diagnostic professional.



**CerTest bioSCIENCE**



**BioSynProbes**



**CerTest Rapid Test**



**CerTest Turbilatex**



**VIASURE**



**CerTest CLIA**



**CerTest Vaccines**



Our products are available worldwide covering **more than 130 countries**.



**CerTest** offers a complete panel of reliable and highly sensitive diagnostic assays for the diagnosis of SARS-CoV-2 and other respiratory diseases.

We have more than 15 years of experience and dedication to the development of diagnostic assays for infectious diseases behind us.

**CerTest**  
BIOTEC

*One step ahead*

**CerTest Biotec, S.L.**

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CerTest SARS-CoV-2 Catalogue/GEN-1021EN

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