

[www.creative-biogene.com](http://www.creative-biogene.com)

# Research Solutions 2019-nCoV

Diagnostic Kits | Humanized Cell Lines |  
Animal Models | Aptamers



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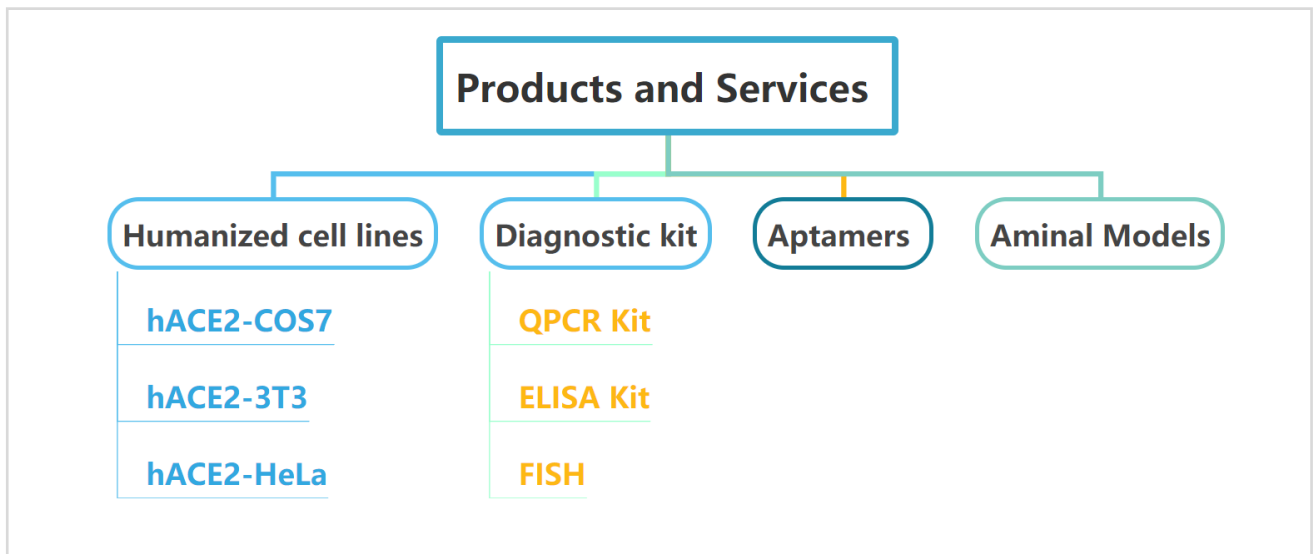
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2019-nCoV is a novel pathogen emerged at the end of 2019.

On February 11, 2020, the World Health Organization (WHO) officially named the disease caused by the 2019-nCoV as Coronavirus Disease 2019 (COVID-19). Patients with COVID-19 pneumonia presented with the symptoms of fever, chest tightness, and fatigue. A small number of the patients have severe acute respiratory syndrome, renal failure and even death. At present, there is still no effective treatment to combat this infection.

**Creative Biogene** has developed ELISA and qPCR kits for the diagnosis of COVID-19.

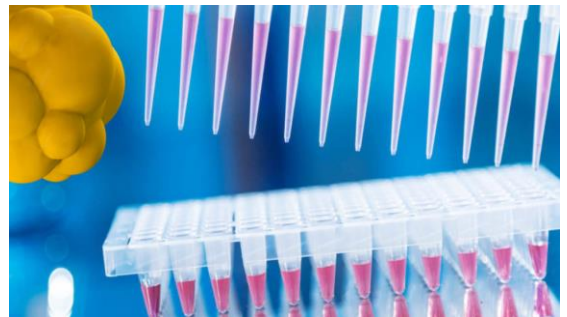
Simultaneously, **Creative Biogene** provides related recombinantly expressed proteins and aptamers of 2019-n-CoV, humanized cell lines and animal models for the study of the pathogenesis and therapeutic drugs targeting COVID-19.



## QPCR Kit

Diagnostic qualitative PCR is applied to rapidly detect nucleic acids that are diagnostic of, for example, infectious diseases, cancer and genetic abnormalities. At present, it has become the most widely used tool to detect Coronavirus disease.

**Creative Biogene** has developed a series of kits with high sensitivity, which can detect multiple targets at the same time, effectively avoiding false-positive in the detection process.



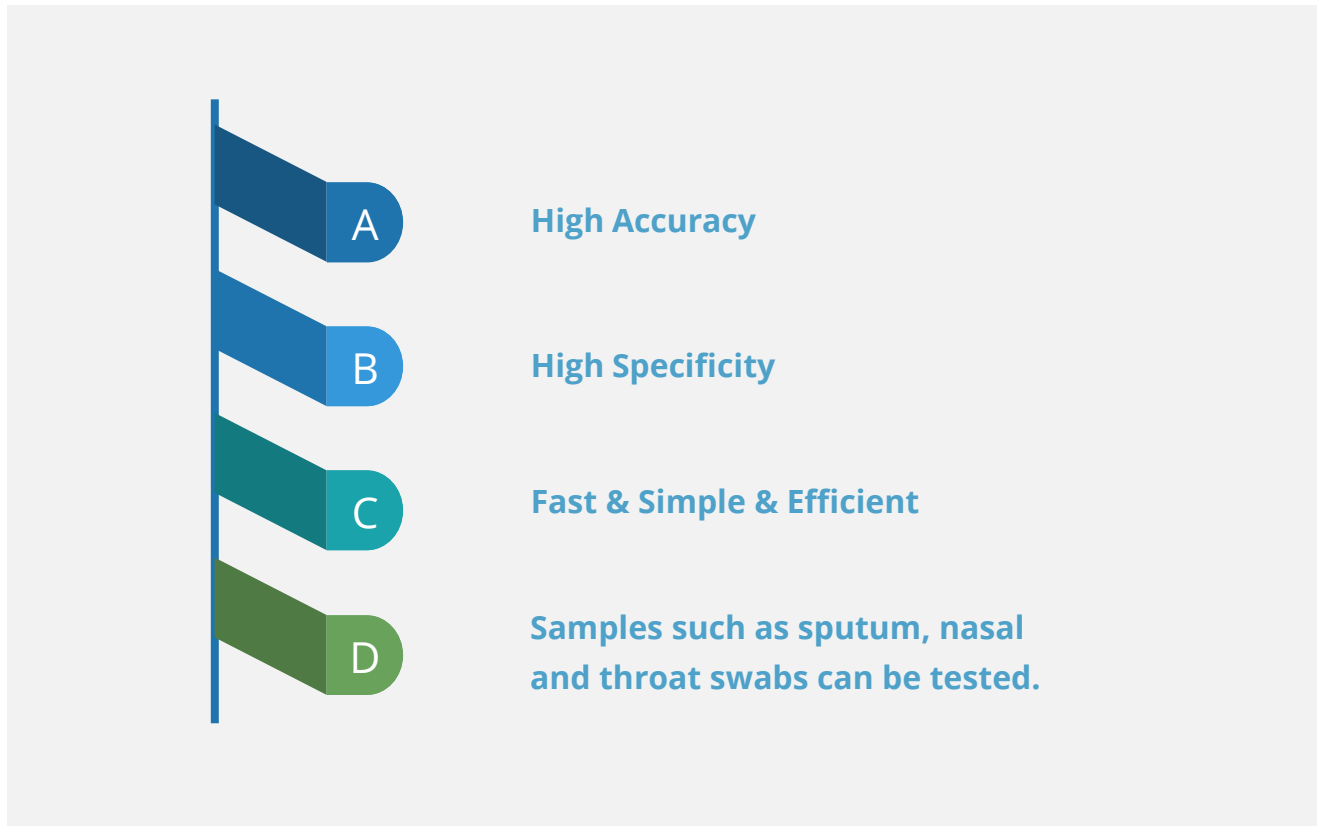
## Products

Cat.No.	Product Name	Storage	Application
SC-03	SARS-CoV-2/2019-nCoV ORF1ab/N gene Real Time PCR Kit	- 20°C	For <i>in vitro</i> diagnostic use only
SC-04	SARS-CoV-2/2019-nCoV N/E gene Real Time PCR Kit		
SC-05	SARS-CoV-2/2019-nCoV ORF1ab/N/E gene Real Time PCR Kit		
SC-06	SARS-CoV-2/2019-nCoV/Influenza A virus/Influenza B virus Real Time PCR Kit		

## Advantages

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These kits developed by **Creative Biogene** have the following advantages.



Experts from **Creative Biogene** are trying to fill the knowledge gaps about this new virus and help pneumonia patients to fight against the 2019-nCoV.

## Fluorescence *In Situ* Hybridization (FISH)

Fluorescence *in situ* hybridization (FISH) is a molecular cytogenetic technique that uses fluorescent probes that bind to only those parts of a nucleic acid sequence with a high degree of sequence complementarity. Therefore, FISH can be used to detect the presence of the 2019-nCoV from patient's tissue or fluids and identify the organs where the virus replicates in the body.

**Creative Biogene** has developed a series of FISH kits to help academia as well as industrial researchers and clinical institutes study the pathogenic mechanisms of 2019-nCoV and screen effective drugs targeting it.

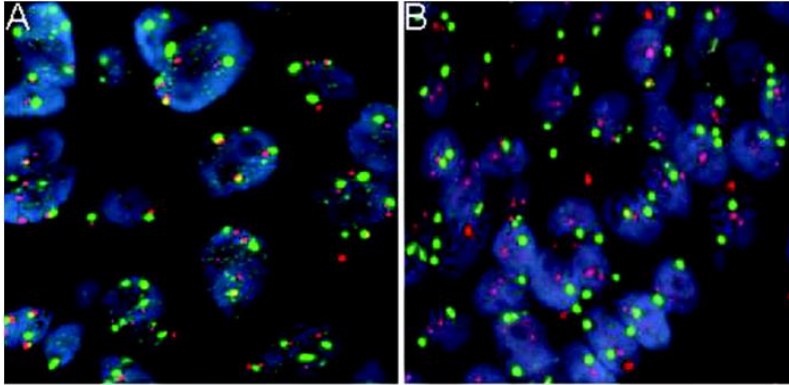


## Products

Cat.No.	Size	Label	Storage
FNCO-001	50 Tests	Red/Green/Aqua/Dig/Biotin	- 20°C

## Study example

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Lung tissue section for the epidermal growth factor receptor fluorescence in situ hybridisation assay

## Advantages

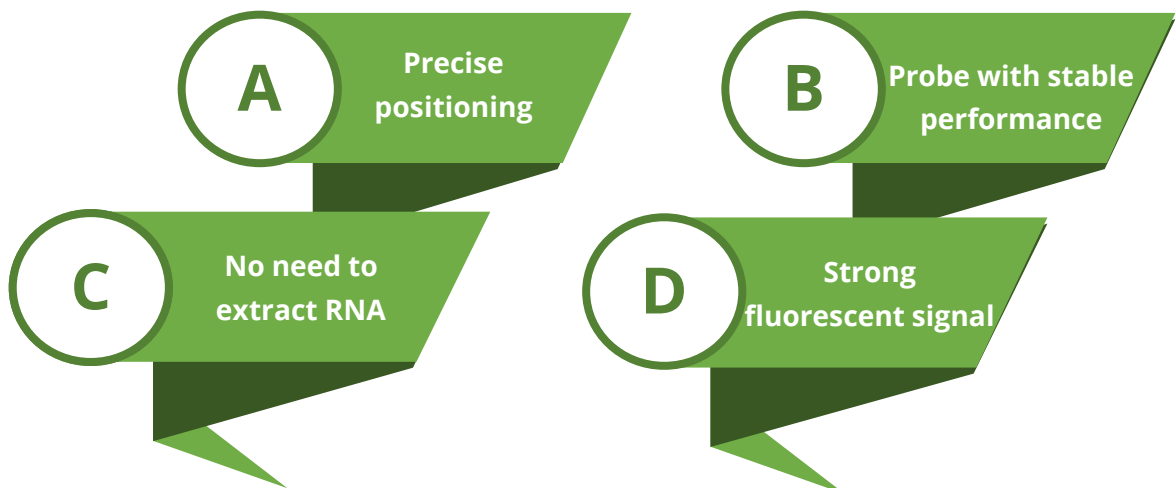
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Drawing on many years of experience and in-depth knowledge,

**Creative Biogene** guarantees the speed, quality and cost of our service.

**Creative Biogene** is your first and most reliable choice in the field of FISH.

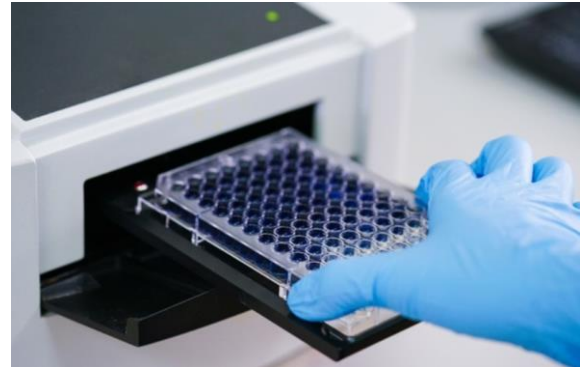
Using FISH kits to detect 2019-nCoV has the following advantages.



## ELISA Kit

ELISA assay uses a solid-phase enzyme immunoassay (EIA) to detect the presence of a ligand (commonly a protein) in a liquid sample using antibodies directed against the protein to be measured.

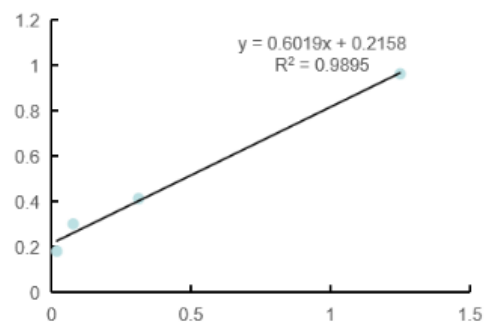
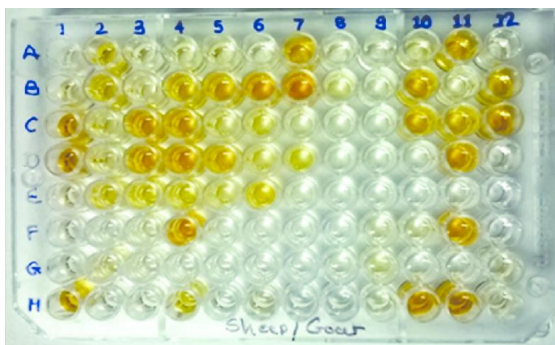
**Creative Biogene** has developed various ELISA kits for the diagnosis of COVID-19.



## Products

Cat.No.	Product Name	Category
DAGC094	Recombinant SARS-CoV-2 Nucleocapsid Protein [His]	Antibody
CABT-CS024	Rabbit Anti-SARS-CoV-2 NP Polyclonal antibody	Antibody

## Study example



Results of ELISA assay

## Advantages

High sensitivity

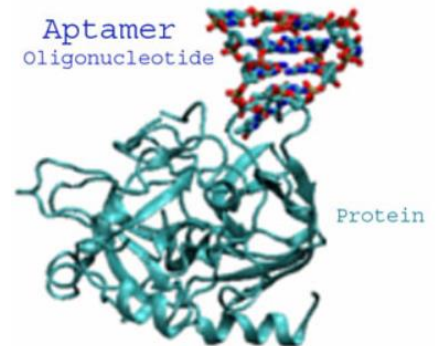
High specificity

Low cost

Convenient operation

## Recombinantly Expressed Spike Proteins and N Protein of 2019 Corona Virus as well as Related Aptamers

Aptamers are RNA or DNA oligonucleotides (or peptides) that, through their 3-dimensional structures, bind to specific target molecules with high affinity and specificity. Aptamers have a broad range of applications, serving as drugs, diagnostic and therapeutic tools, etc.



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## Products

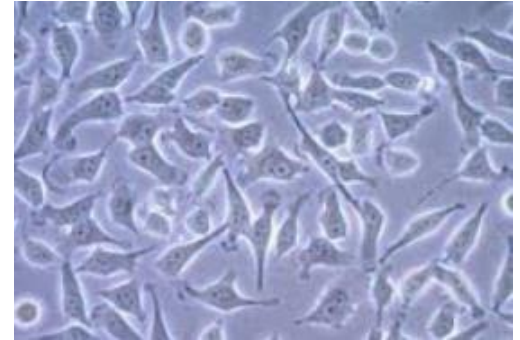
**Creative Biogene** offers aptamers of SARS-CoV-2 N protein to speed up your drug development process.

Cat.No.	Product Name	Kd	Target
ATP00780	SARS-CoV-2 N protein/SARS-CoV N protein	4.93 nM	SARS-CoV-2 N protein/SARS-CoV N protein
ATP00781	SARS-CoV-2 N protein-15	1.91 nm	SARS-CoV-2 N protein
ATP00782	SARS-CoV-2 N protein-48	3.28 nm	SARS-CoV-2 N protein
ATP00783	SARS-CoV-2 N protein-58	5.86 nm	SARS-CoV-2 N protein
ATP00784	SARS-CoV-2 N protein-61	7.71 nm	SARS-CoV-2 N protein



## In vitro model

COS7, NIH 3T3 and HeLa cells were transfected with pMX retroviral vector containing human ACE2 gene to obtain hACE2-COS7, hACE2-3T3 and hACE2- HeLa cell. These cell lines are susceptible to novel coronavirus (2019-nCoV) and SARS-CoV due to the expression of human ACE2 receptor protein.

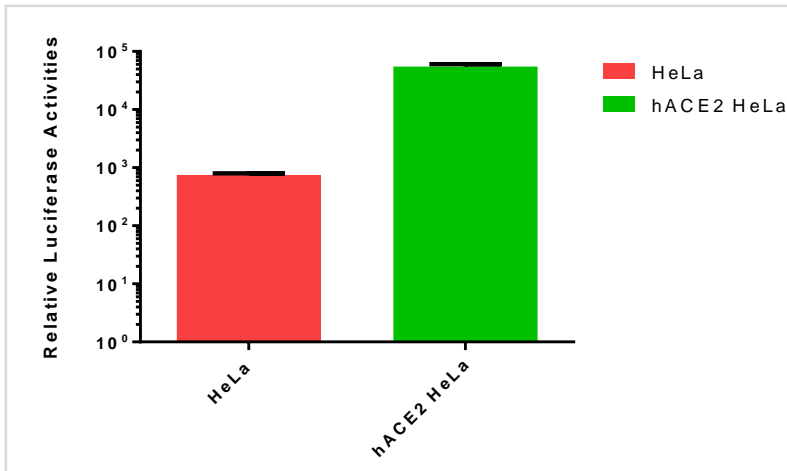


HeLa cell line

## Products

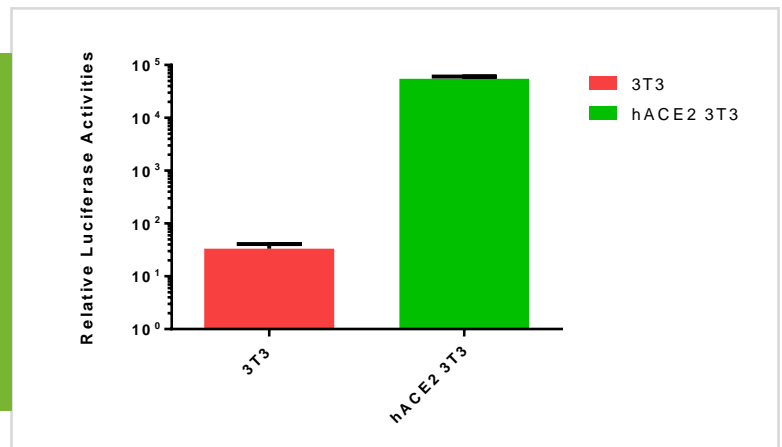
Cat.No.	Product Name	Organism	Storage and Shipping	Cell type
CSC-RO0290	Human ACE2 Stable Cell Line - COS7	Chlorocephus sabaeus	Store in liquid nitrogen and ship in dry ice	Renal fibroblast
CSC-RO0291	Human ACE2 Stable Cell Line - 3T3	Mouse		Fibroblast
CSC-RO0289	Human ACE2 Stable Cell Line - HeLa	Human		Cervical cancer cell
CSC-RO0292	Human ACE2 Stable Cell Line - HEK293	Human		Embryonic kidney cell
CSC-RO0293	Human ACE2 Stable Cell Line - CHO-K1	Circetidae		Ovarian cell

## Study example



The hACE2-HeLa cells and non-transduced HeLa cells were infected with HIV-luc/SARS pseudovirus. Luciferase activity was measured after two days. The experiment was repeated for three times.

The ACE2 expressing NIH3T3 cells could be infected with HIV/SARS pseudovirus. NIH3T3 cells transduced with pMX vector were used as control.



## Advantages

**Creative Biogene** offers humanized cell lines to help you with various applications including

- *in vitro* drug screening,
- vaccine development,
- study on the pathogenesis of coronavirus, etc.

## In vivo model

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Studies have shown that SARS-CoV enters the human body by binding to human angiotensin-converting enzyme 2 (ACE2). However, due to structural differences in mouse ACE2 compared to human ACE2 proteins, the SARS coronaviruses exhibit poor tropism characteristics for mouse tissues and are inefficient at infecting mice. Similarly, commonly used wild-type mouse strains are not optimal for studying infections of the 2019-nCoV.



## Advantages

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With well skills and experience *in vivo* model service, you can rely on **Creative Biogene**'s expertise to evaluate your preclinical drug candidates such as nature compounds, small molecules, biologics and RNA therapeutics in acute and chronic efficacy studies. In addition, **Creative Biogene** offers **hACE2 transgenic mouse** to help you speed up the development of vaccines and drugs against 2019-nCoV.

## Contact Us



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