Novel Coronavirus (2019-nCoV) Nucleic Acid Detection Kit (Fluorescence PCR)

Introduction:

This product selects the ORF1ab and N gene regions of 2019-novel coronavirus, and designs two sets of specific primers and fluorescent probes that cover two sites of the gene at the same time. In order to control the entire extraction and detection process, human β-Globin gene was act as a non-competitive internal control during the extraction and detection process. The RT-PCR reaction solution is pre-mixed, which is convenient, efficient and easy to operate. It utilizes high-efficiency Taq DNA Polymerase and has strong stability. The kit could be used for auxiliary diagnosis and epidemiological surveillance of 2019-novel coronavirus infection.

Application:

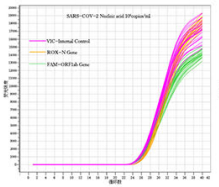
Medical and health industry, food industry, biological industry, scientific research, etc.

Advantage:

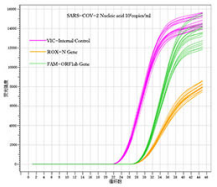
* Internal control: Human β-Globin gene as the internal control is included into the reagent to verify the validity of the experiment.
* High sensitivity: The lowest detection limit is 250 copies/ml.
* High specificity: Primers and probes are designed for specific fragments of two gene regions, which confirm each other to make the results more accurate. No cross-reactivity with other pathogens with the same site of infection or similar infection characteristics.
* Strong stability: CV of each channel is all <3%.
* Multiple Real-time RT-PCR detection: Each channel does not interfere with each other, and the amplification curve is S-shaped.
* Simple operation: one-step method to complete RT-PCR, The whole procedure can be detected within 80min.
* Fast speed: The PCR amplification time is less than 80 minutes.

Experimental Data:

1.Stability experiment:
2019-nCoV nucleic acid samples at the concentration of 5*106copies/mL and 5*105copies/mL were tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the detection kit. The results are as follows:

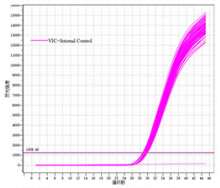


5*10^{6}copies/mL



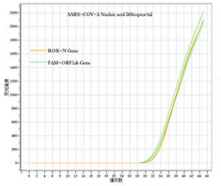
5*10^{5}copies/mL

2.Stability experiment of internal control:
Repeat 96 times for the same negative sample on the BNP96 nucleic acid extraction system, and tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the internal control, The results are as follows:

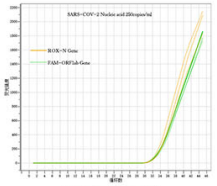


Stability experiment of internal control

3. Stability experiment of lower limit:
2019-nCoV nucleic acid samples at the concentration of 500 and 250 copies/mL were tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the lower limit. The results are as follows:



500 copies/mL



250 copies/mL

Technical Parameters:

Product Name	Novel Coronavirus (2019-nCoV) Nucleic Acid Detection Kit (Fluorescence PCR)
Detection Principle	Fluorescence PCR
Detection Target	Novel coronavirus (2019-Ncov) ORF1ab and N gene
Applicable Instrument	Fluorescence quantitative PCR instrument
Storage Conditions	-20±5℃, keep away from light
Valid Period	Unopened ≥6 months; Opened≥90 days
Sample Volume	7ul
Reaction Volume	20ul
Detection Limit	250 copies/ml
Stability	CV <3%
Interpretation of Positive Results	CT≤38
Packing Specification	48T/box; 60 boxes/carton
Packet Size	500*500*500mm
Gross Weight	23kg