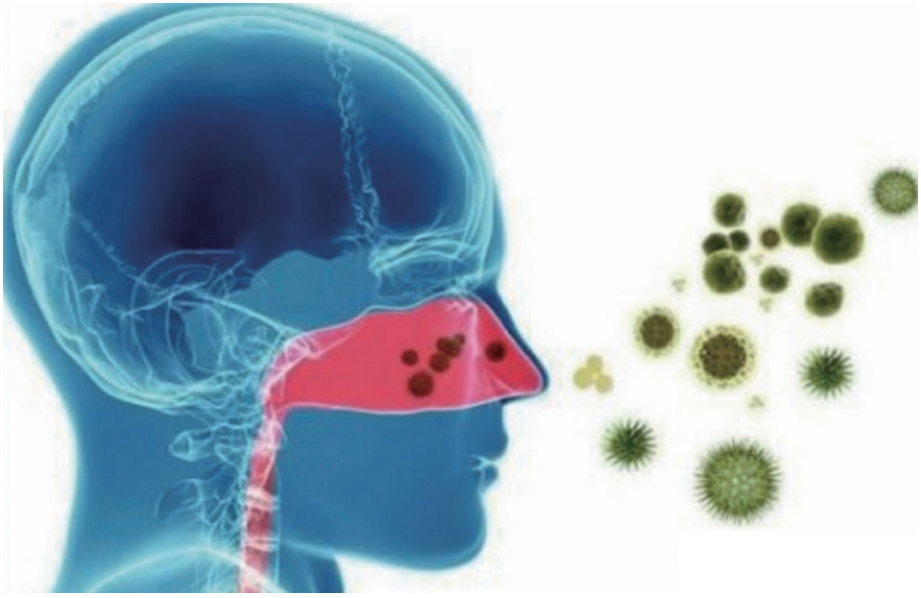

SARS-CoV-2 / Respiratory Syncytial Virus / Influenza A Virus / Influenza B Virus Nucleic Acid Multiple Detection Kit (Fluorescence PCR)

Product Introduction

Respiratory infection is one of the most common diseases, with adolescents and adults being infected about 2-4 times a year, and children being infected about 6-8 times a year. It is usually accompanied by acute inflammation of the nasal cavity, pharynx, or throat, with most infections being viral, except for a few bacterial infections. SARS-CoV-2 Virus, Respiratory Syncytial Virus, Influenza A Virus and Influenza B Virus have strong transmission power. Epidemiological and clinical symptoms are very similar. Double transmission increases the difficulty of epidemic prevention and control. Therefore, it is an important guarantee for people's health to carry out the detection of COVID-19, influenza virus and other pathogens, do a good job in differential diagnosis, and take targeted prevention and control measures in time. This kit uses fluorescence PCR method to detect the virus. It has the characteristics of fast detection speed, good specificity, and high sensitivity.

This kit uses highly conserved regions of SARS-CoV-2 Virus, Respiratory Syncytial Virus, Influenza A Virus and Influenza B Virus, and designs specific primer probes. The primers and probes can specifically bind to the target sequence. Under the action of reverse transcriptase and hot start Taq DNA polymerase, this segment is specifically amplified, and the fluorescent probe is hydrolyzed during amplification to generate fluorescence. The detection system contains dUTP-UDG enzyme to fully degrade potential product contamination and avoid false positive results; In addition, internal standards are set up to monitor the entire process of sample collection, transportation, nucleic acid extraction, and PCR amplification for highly conserved regions on the human genome, avoiding false negative results and ensuring the effectiveness of the entire process.

Product Features

- **Advantages:** This kit can qualitatively detect the nucleic acids of SARS-CoV-2, Respiratory Syncytial Virus, Influenza A Virus, Influenza B Virus, providing information for clinical diagnosis; the detection system contains dUTP-UDG enzyme anti-contamination measures, which can avoid false positive results; At the same time, human-derived internal references are introduced to monitor the entire process of specimen collection, transportation, nucleic acid extraction, and PCR amplification to avoid false negative results; it takes only 35 minutes to complete detection and issue report.
- **Applicability:** Suitable for nasopharyngeal swab sample.
- **High sensitivity:** Three different batches of reagents were used to test, and the detection sensitivity was 500 copies/mL.
- **High specificity:** There was no cross reaction with many common pathogens, such as Parainfluenza virus type 1, Parainfluenza virus type 3, Mycoplasma pneumoniae, Adenovirus type 7, Legionella pneumophila, Klebsiella pneumoniae, Bordetella pertussis, Measles virus, Haemophilus influenzae, Coxsackie A24, Coxsackie B1, Aspergillus flavus, Enterovirus 71, Enterovirus 70, Moraxella catarrhalis, Oral streptococcus, Streptococcus pneumoniae and Staphylococcus aureus.
- **Strong tolerance to inhibitors:** The samples contain endogenous inhibitors (such as blood and mucin) and exogenous inhibitors (such as drugs commonly used to treat colds or other similar symptoms: oxymetazoline, sodium chloride, dexamethasone, triamcinolone acetonide, budesonide, mometasone, fluticasone, ribavirin, oseltamivir, azithromycin, tobramycin, beclomethasone, flunisolide, histamine hydrochloride, zanamivir, and palamivir), No significant impact was observed on the test results.
- **High accuracy:** It can quickly detect SARS-CoV-2, Respiratory Syncytial Virus, Influenza A Virus, Influenza B Virus. Reference material testing results: positive coincidence rate of 100%, negative coincidence rate of 100%.
- **Easy to operate:** PCR amplification and detection done in completely closed tube to prevent aerosol contamination.

Product Information

Parameters	Description
Sample Type	Nasopharyngeal swab
Sensitivity	500 copies/mL
Precision	Inter-assay, intra-assay, inter-day and intra-day precision CV less than 5%
Accuracy	Be able to detect SARS-CoV-2, Respiratory Syncytial Virus, Influenza A Virus, Influenza B Virus Nucleic Acid simultaneously
Compatible Instruments	Bioer QuantGene9600 (FQD-96C) and LineGene9600 Plus (FQD-96A)
Detection Time	35 min
Storage Condition	Stored at -20 ± 5 °C avoid light

Application case

Case 1 Accuracy: after the positive reference products P1-P10 and negative reference products N1-N10 of Hangzhou Bioer Technology Co., Ltd. are reconstituted as required, they are extracted with Bioer extraction kit BSC86S1E and tested.

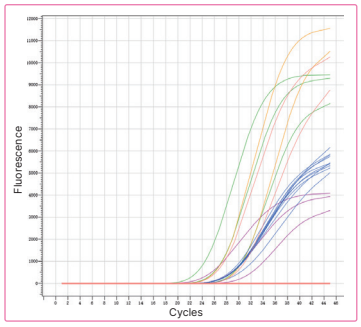

Figure 1 Negative/Positive Reference in the Test Reference Materials

❄**Results:** The results showed that the nucleic acid of SARS-CoV-2, Respiratory Syncytial Virus, Influenza A Virus, Influenza B Virus could be accurately detected. the positive coincidence rate is 100%, and the negative coincidence rate is 100%.

Case 2 Precision: The precision reference J1-J2 of the nucleic acid detection kit for SARS-CoV-2 Virus, Respiratory Syncytial Virus, Influenza A Virus and Influenza B Virus (fluorescent PCR method) was redissolved according to the use requirements. After being extracted by the Bioer extraction reagent BSC86S1E, three batches of reagents were used for detection and repeated for 10 times.

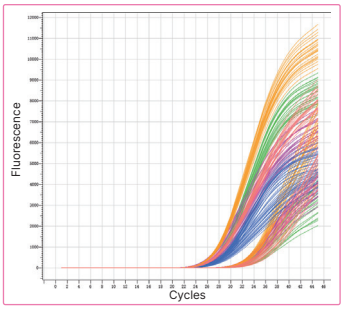

Figure 2 Intra-assay and inter-assay precision

❄**Results:** The results show that the inter-assay and intra-assay precision variation coefficients of the three batches were all less than 5%, and the reagent precision is great.

Case 3

Linear relationship: Take 10-fold gradient samples of SARS-CoV-2 and use Bioer extraction kit BSC86S1E to extract and detect respectively.

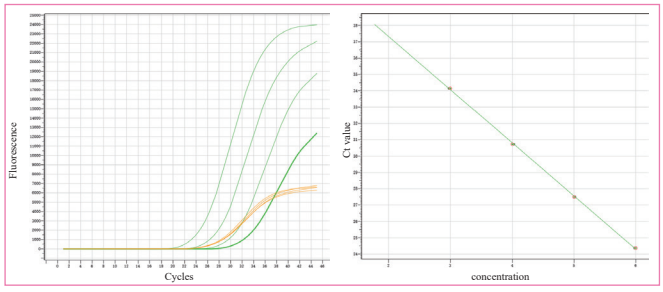

Figure 3 Amplification curve and standard curve of SARS-CoV-2 Virus

Linear relationship: Take 10-fold gradient samples of Respiratory Syncytial Virus and use Bioer extraction kit BSC86S1E to extract and detect respectively.

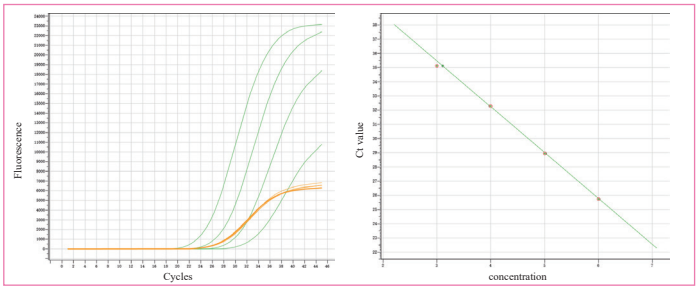

Figure 4 Amplification curve and standard curve of Respiratory Syncytial Virus

Linear relationship: Take 10-fold gradient samples of Influenza A Virus and use Bioer extraction kit BSC86S1E to extract and detect respectively.

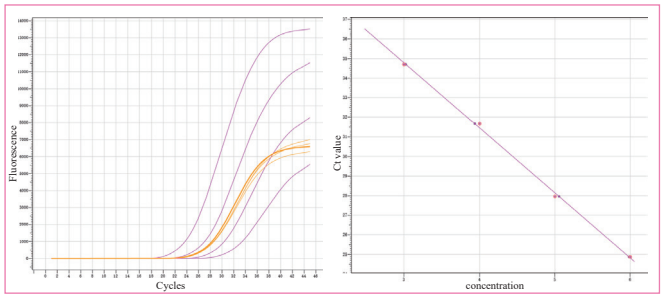

Figure 5 Amplification curve and standard curve of Influenza A Virus sample

Linear relationship: Take 10-fold gradient samples of Influenza B Virus and use Bioer extraction kit BSC86S1E to extract and detect respectively.

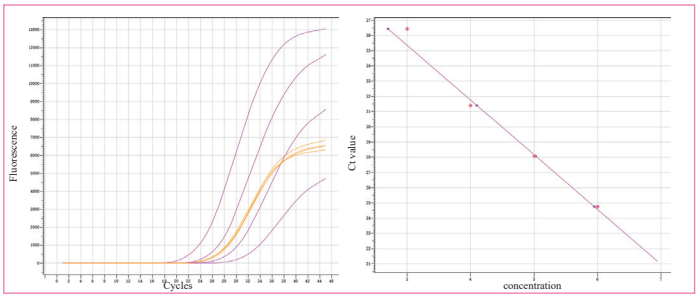

Figure 6 Amplification curve and standard curve of Influenza B Virus sample

❄**Results:** The results showed that the amplification correlation coefficient of the kit was above 0.995, and the linear relationship was good.

Ordering Information

Product Name	Cat#	Package
SARS-CoV-2 / Respiratory Syncytial Virus / Influenza A Virus / Influenza B Virus Nucleic Acid Multiple Detection Kit (Fluorescence PCR)	BSJ37M1	48T
	BSJ37L1	96T

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