

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

Product Introduction

Respiratory infections are among the most common diseases, with adolescents and adults typically experiencing 2 to 4 infections per year, and children 6 to 8 times annually. These infections often involve acute inflammation of the nasal cavity, pharynx, or larynx. While a small number of cases are due to bacterial infections, the majority are caused by viruses.

Viruses such as SARS-CoV-2, Influenza A and B viruses, and Respiratory Syncytial Virus (RSV) are highly transmissible and pose significant health risks. Their epidemiological and clinical manifestations are very similar, and dual transmission increases the challenges of epidemic prevention and control. Therefore, conducting multi-pathogen testing, including SARS-CoV-2 and influenza viruses, ensuring accurate differential diagnosis, and taking timely, targeted preventive measures are crucial for public health.

This product is lyophilized and should be stored at -20 to 8°C. It can be transported at ambient temperature, reducing transportation costs. The lyophilized product is available in 8-strip tubes and requires only the addition of water and template, simplifying reagent preparation and aliquoting, making it easy to use.

Product Specifications

Parameters	Description
Sample Type	Nasopharyngeal swabs
Limit of Detection (LoD)	500 copies/mL
Target Pathogens	SARS-COV-2 (FAM), RSV (HEX), FluA (ROX), FluB (Cy5.5)
Precision	The variation coefficient (CV) of within-day, between-day, within-batch and between-batch were less than 5%
Compatible Platform	LineGene 9600 Plus (FQD-96A) , QuantGene 9600 (FQD-96C)
Recommended Extraction Kit	BSC86 MagaBio Plus Virus DNA/RNA Purification Kit III BSC71 MagaBio Plus Virus DNA/RNA Purification Kit II
Detection Time	35min
Storage Condition	-25 ~ 8°C away from light

Product Features

- **Multiplex Detection:** 4 in 1 test for SARS-CoV-2, Respiratory Syncytial Virus, Influenza A Virus, Influenza B Virus.
- **Strong Specificity:** The kit shows no cross-reactivity with various common pathogens, including 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, Streptococcus salivarius, Streptococcus pneumoniae, and Staphylococcus aureus.
- **Internal Control Included:** Incorporates an internal control to monitor the entire extraction and detection process, ensuring reliability and quality of the results.
- **Lyophilized Format:** Easy transportation at ambient temperature, and simplified preparation, making them ideal for stable, contamination-free, and convenient use in various applications.

Application Cases

Case 1

Accuracy: Positive reference samples P1-P10 and negative reference samples N1-N10, provided by Bioer Technology Co., Ltd., were reconstituted as required, extracted using Bioer extraction reagent BSC86S1E and tested.

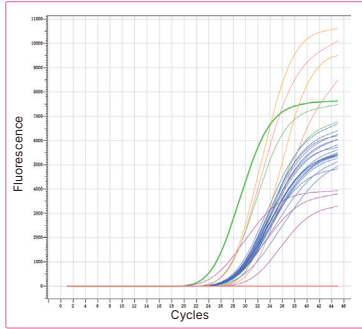


Figure 1: Detection of Positive and Negative Reference Samples

Results: The results indicate that the kit can accurately detect nucleic acids of SARS-CoV-2, Respiratory Syncytial Virus (RSV), Influenza A, and Influenza B viruses. The test results for the company's reference samples showed a 100% positive agreement rate and a 100% negative agreement rate.

Case 3

Linear Relationship:

Take 10-fold gradient specimens of the novel coronavirus and use Bioer's extraction reagent BSC86S1E for extraction and detection.

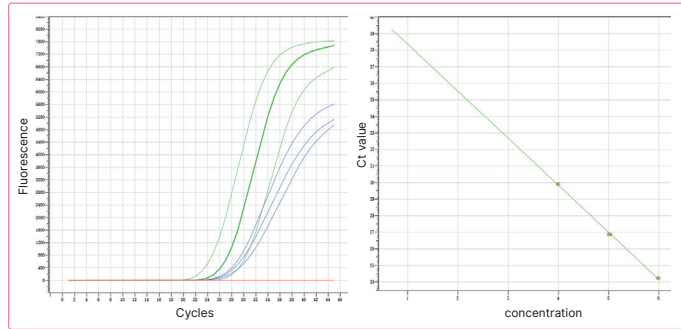


Figure 3: Amplification Curve and Standard Curve of SARS-CoV-2 Specimens

Take 10-fold gradient specimens of influenza A virus and use Bioer's extraction reagent BSC86S1E for extraction and detection.

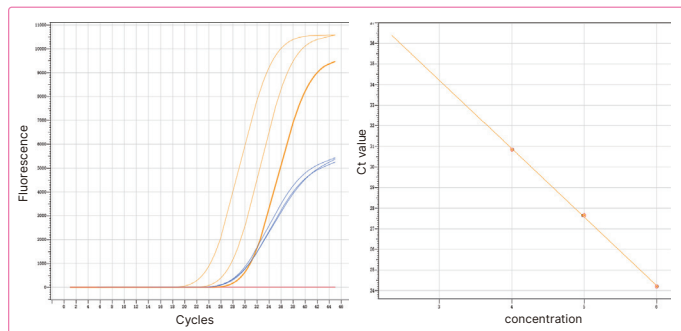


Figure 5: Amplification Curve and Standard Curve of Influenza A Virus Specimens

Results: The results indicate that after 10-fold gradient dilution, extraction, and detection, the amplification correlation coefficients for the SARS-CoV-2, respiratory syncytial virus, influenza A virus, and influenza B virus are all above 0.995, demonstrating a strong linear relationship.

Case 2

Precision: After reconstituting the precision reference materials J1-J2 according to the usage requirements for the SARS-CoV-2, respiratory syncytial virus, influenza A virus, and influenza B virus nucleic acid detection kits (Fluorescent PCR), they were extracted using Bioer's extraction reagent BSC86S1E and tested with a single batch of reagents, with 10 repeated tests.

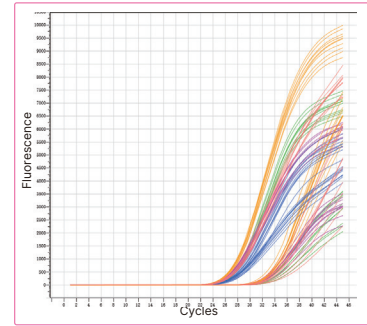


Figure 2: Intra-batch and Inter-batch Precision

Results: The results indicate that the coefficient of variation for both intra-batch and inter-batch precision across the three batches of reagents is less than 5%, demonstrating good precision of the reagents.

Take 10-fold gradient specimens of respiratory syncytial virus and use Bioer's extraction reagent BSC86S1E for extraction and detection.

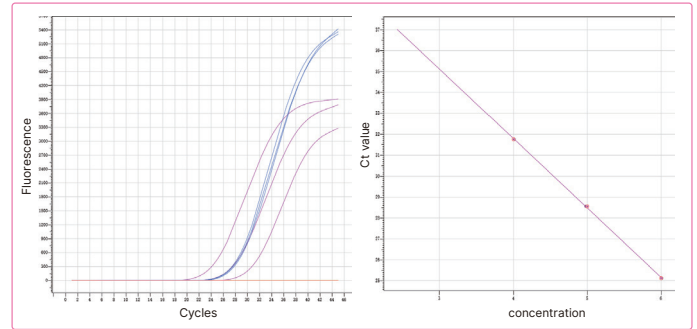


Figure 4: Amplification Curve and Standard Curve of Respiratory Syncytial Virus Specimens

Take 10-fold gradient specimens of influenza B virus and use Bioer's extraction reagent BSC86S1E for extraction and detection.

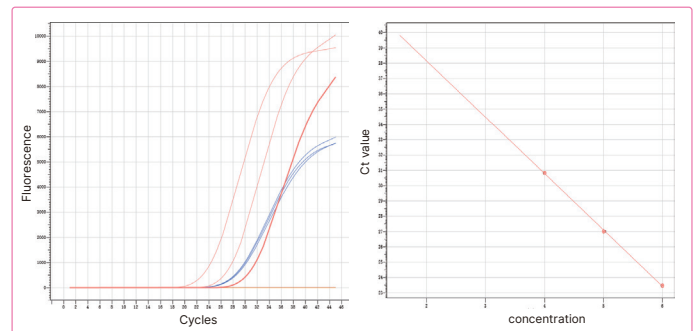


Figure 6: Amplification Curve and Standard Curve of Influenza B Virus Specimens

Ordering Information

Product Name	Cat. No.	Package
SARS-CoV-2 / Respiratory Syncytial Virus / Influenza A Virus / Influenza B Virus Lyophilized Nucleic Acid Detection Kit (Fluorescence PCR)	BSJ48S1/BSJ48M1	24T/48T



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