Bordetella Pertussis Nucleic Acid Detection Kit (Fluorescent PCR)

Product Introduction

Pertussis is an acute respiratory infection caused by Bordetella pertussis, which was one of the major infectious agents leading to infant mortality worldwide. Adult patients and potential infected persons in the family are the main sources of pertussis infection in children. Compared with immunological methods, PCR detection has higher detection sensitivity and specificity, which is conducive to the early diagnosis of diseases.

This product selects the IS 481 region (FAM) of Bordetella Pertussis, and designs one set of primers and fluorescent probe. The one set of primers and probe can specifically bind to the target sequences. When the PCR amplification reaction is performed, the fluorescent signal can be detected by a full-automatic fluorescent PCR detector to realize real-time online monitoring of the PCR reaction. Greatly improve the detection efficiency and shorten the detection time.

BIOER TECHNOLOGY
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Product Features

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- **High sensitivity**
Three different batches of reagents were used to test and the sensitivity can reach to 2.5 CFU/mL.

- **Highly specific detection**
No cross reactivity has been observed by testing the clinical positive specimens such as Influenza A H1N1 virus, Respiratory syncytial virus A/B, Parainfluenza virus, Bordetella Parapertussis, Bordetella bronchiseptica, Influenza A virus, Influenza B virus, Adenoviridae 7, Staphylococcus aureus, TE buffer and Human genomic DNA.

- **CE IVD Certificate Diagnostic Test**

- **High Precision**
Amplification of the conserved sequences IS481 (specific for both Bordetella pertussis), the positive and negative coincidence rates were 100%.

- **Simple Operation**
Detect Bordetella pertussis in a single reaction tube.

- **Strong Applicability**
Suitable for human pharyngeal swabs

Product Information

Parameters	Description
Sample Type	Pharyngeal swabs
Sensitivity	2.5 CFU/mL
Accuracy	CV＜5%
Detection Ability	Qualitative detection of Bordetella Pertussis nucleic acid
Support Instrument	LineGene 9600 Plus (FQD-96A) & QuantGene 9600 (FQD-96C)
Detection Time	60min
Storage Condition	-25℃～-15℃

Application case

Case 1

The plasmid containing the IS481 gene fragment of Bordetella pertussis were diluted according to a 10-fold gradient and use this kit to detect.

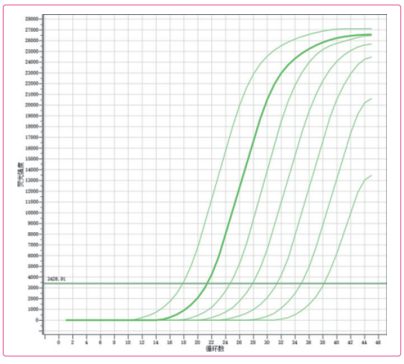

Figure 1 Plasmid amplification curve of IS481 gene in Bordetella pertussis

※**Conclusion**: The results showed that the target gene amplification coefficient of Bordetella pertussis plasmid is high and the linear relationship is good, which proves that the product has excellent performance.

Case 2

Bacterial cultures of Bordetella pertussis were extracted with Bioer MagaBio plus Virus DNA/RNA Purification Kit III and diluted according to a 10-fold gradient to detect.

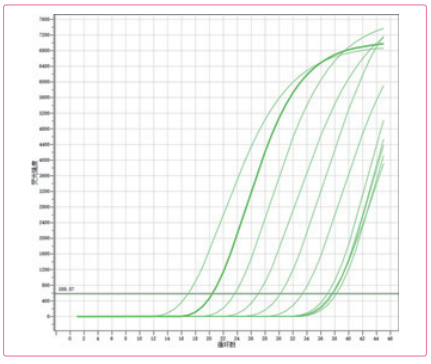

Figure 2 Amplification curve of Bordetella pertussis bacterial cultures

※**Conclusion**: The results show that the PCR amplification curve of extracted bacterial culture of Bordetella pertussis is typical "S" shape, and the fluorescence increment is high.

Case 3

Bordetella Pertussis bacterial culture was diluted to the minimum concentration and extracted using Bioer MagaBio plus Virus DNA/RNA Purification Kit III, each concentration was tested with 20 replicates by this kit.

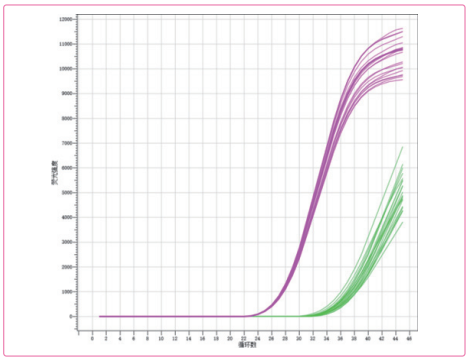

Figure 3 Amplification curve of Bordetella pertussis bacterial culture diluted to a minimum concentration (20 replicates)

※**Conclusion**: The testing data demonstrated that the kit can detect Bordetella Pertussis with detection rate equal or higher than 95% at the concentration equal or higher than 2.5CFU/mL.

Ordering Information

Product Name	Cat#	Package	Notes
Bordetella Pertussis Nucleic Acid Detection Kit (Fluorescent PCR)	BSJ10S1	24T	The kit can be stored for 5 days at 2-8℃ after opening.
	BSJ10M1	48T	