



# Mycoplasma Pneumoniae Nucleic Acid Detection Kit (Fluorescent PCR)

## ■ Product Introduction

Mycoplasma pneumoniae (MP) is an important pathogen of community-acquired pneumonia (CAP) in children and adults, which causes respiratory disease through droplet or aerosol transmission and direct contact. Therefore, it has important clinical significance to monitor it.

This kit is used for the qualitative detection of the Mycoplasma Pneumoniae (MP) in specimens of oropharyngeal swabs from suspected cases. The reaction system of this kit contains the dUTP-UDG enzyme anti-pollution system to avoid false positive results; at the same time, in order to control the entire extraction and detection process, human RNaseP gene was act as a non-competitive internal control during the extraction and detection process.

The kit can be applied to Bioer's Fluorescence Quantitative Detection System, LineGene 9600 Plus (FQD-96A) or QuantGene 9600 (FQD-96C). It has the features of good specificity and high sensitivity.

## ■ Product Features



- **Strong applicability:** Suitable for human pharyngeal swabs.

- **High sensitivity:** Three different batches of reagents were used to test and the sensitivity can reach to 200 copies/mL.

- **Good specificity:** No cross reactivity has been observed by testing the clinical positive specimens such as Ureaplasma Urealyticum, Influenza A (H1N1), Influenza B (Victoria), Respiratory Syncytial Virus A/B, Parainfluenza Type 3, etc.

- **Excellent anti-interference ability:** Endogenous inhibitors (such as blood, mucin, and nasal secretions) and exogenous inhibitors (such as common drugs for treating colds or other similar symptoms) showed no influence on the detection.

- **High Precision:** Positive controls and low positive controls reference were tested by 3 lots of kits with 10 replicates by 2 operators for 20 days. The results showed that the variation coefficient (CV) of within-day, between-day, within-batch and between-batch were less than 5%.

- **Simple operation:** The PCR test can be finished within 32 min.

## Product Information

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Parameters	Description
Sample Type	Pharyngeal swab
Sensitivity	200 copies/mL
Accuracy	CV≤5%
Detection Ability	Nucleic acid of Mycoplasma pneumoniae
Support Instrument	LineGene 9600 Plus or QuantGene 9600
Detection Time	32min
Storage Condition	-25°C ~ -15°C

## Application case

**Case1** Enterprise positive references P1-P10 and negative references N1-N10 were extracted with Bioer Technology's nucleic acid purification reagent and then tested by this product, the results are shown blow.

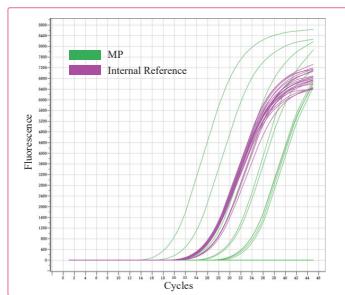


Figure 1 The results of enterprise references tested by this kit

※**Conclusion:** The results showed that the coincidence rate of this kit to positive references and negative references were 100%, indicating that this kit has excellent performance.

**Case3** The precision reference J1-J2 of this kit were redissolved according to the test. Nucleic acids were extracted using Bioer nucleic acid purification reagent and 3 batches of J1-J2 were tested by this kit. The whole tests were repeated 10 times to test the precision.

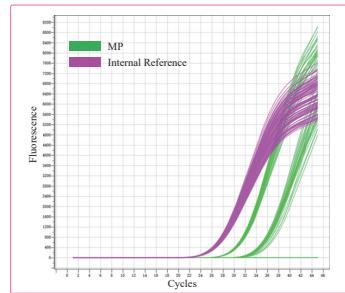


Figure 3 Amplification curve of precision test

※**Conclusion:** The results showed that the precision variation coefficients of the three batches of reagents were all less than 5%, indicating that the reagents had good precision.

**Case2** Nucleic acids were extracted using Bioer nucleic acid purification reagent after Mycoplasma pneumoniae samples were diluted by a gradient of 10 times. And the experiment was performed by this kit to test their amplification curves and standard curves.

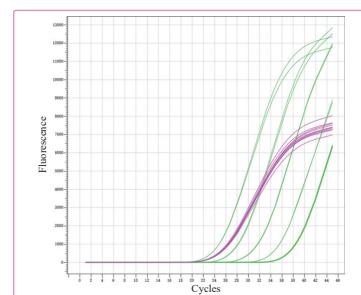


Figure 2 Amplification curve and standard curve of MP samples

※**Conclusion:** The results showed that the correlation coefficients of Mycoplasma pneumoniae samples were above 0.995 and the linear relationship was good.

**Case4** The extracted nucleic acid of Mycoplasma Pneumoniae clinical samples were tested with this reagent. At the same time, the competitive reagent in the market were compared to verify the coincidence rate.

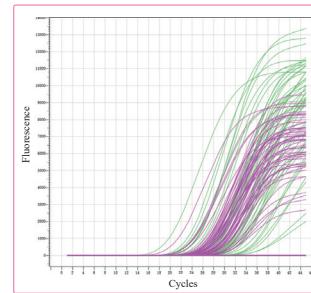


Figure 4 Clinical samples detected by Bioer's reagent

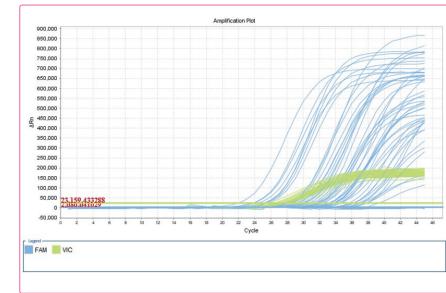


Figure 5 Clinical samples detected by competitive reagent

※**Conclusion:** The results showed that compared with the competitive reagent, the Bioer's reagent had higher detection coincidence rate and amplification efficiency.

## Ordering Information

Product Name	Cat#	Package	Notes
Mycoplasma Pneumoniae Nucleic Acid Detection Kit (Fluorescent PCR)	BSJ09S1	24T	The kit can be stored for 5 days at 2-8°C after opening.
	BSJ09M1	48T	



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