

# Group B Streptococcus Nucleic Acid Detection Kit (Fluorescent PCR)

## Product Introduction

Group B Streptococcus (GBS), also known as *Streptococcus agalactiae*, is a pathogen causing perinatal and neonatal infection. It can cause chorioamnitis of pregnant women, lead to abortion, premature rupture of membranes and intra-uterine infection, can also lead to newborn pneumonia, meningitis, sepsis and so on.

This kit contains human internal reference to ensure the effectiveness of the whole process from sample collection, transportation, nucleic acid extraction to PCR amplification, and the sample contains endogenous inhibitors and exogenous inhibitors such as blood (containing 130-185 g/L hemoglobin and  $4.0-10.0 \times 10^9$  /L white blood cells), cervical mucus, etc. It has no obvious influence on the detection result.

## Product Features



- **Fast and stable**

One-step PCR can be used for rapid qualitative detection of 96 samples within 1h.

- **Strong applicability**

Suitable for anal swab specimens or vaginal swab specimens.

- **High sensitivity**

Three different batches of reagents were used for testing, with the detection sensitivity up to 200 copies/mL.

- **Strong specificity**

There is no cross reaction with many common pathogens with the same infection site or similar infection symptoms, such as *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Staphylococcus aureus*, cytomegalovirus, etc.

- **High accuracy**

Reference test results: positive coincidence rate is 100%, negative coincidence rate is 100%.

| Name               | Parameters                                                                                                                                                                                                     |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Type        | Anal swab specimens or vaginal swab specimens                                                                                                                                                                  |
| Sensitivity        | 200 copies/mL                                                                                                                                                                                                  |
| Precision          | CV < 5%                                                                                                                                                                                                        |
| Accuracy           | The common serotypes GBS-iii, GBS-IA, GBS-IB, and GBS-V of GBS could be detected, and other serotypes (GBS-IC, GBS-II, GBS-III, GBS-IV, GBS-VI, GBS-VII, GBS-VIII, GBS-IX, and GBS-ND) could also be detected. |
| Support Instrument | Bioer QuantGene 9600& LineGene 9600plus                                                                                                                                                                        |
| Time               | 96 tests ≤ 1 h                                                                                                                                                                                                 |
| Storage Condition  | -25°C ~ -15°C away from light                                                                                                                                                                                  |

## Application case

**Case 1** The precision reference GBS1 and GBS5 of Group B Streptococcus were redissolved according to the experimental requirements, and extracted with MagaBio Plus Virus DNA /RNA Purification Kit III (BSC86S1E). Three batches of reagents were used for testing, and repeated testing was performed for 10 times.

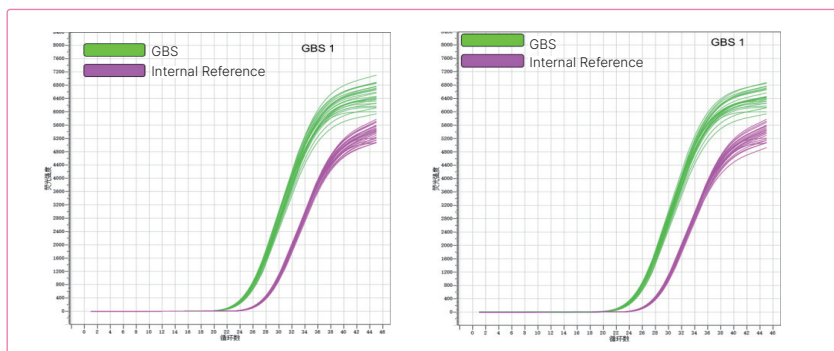


Figure 1 Precision between batches of GBS

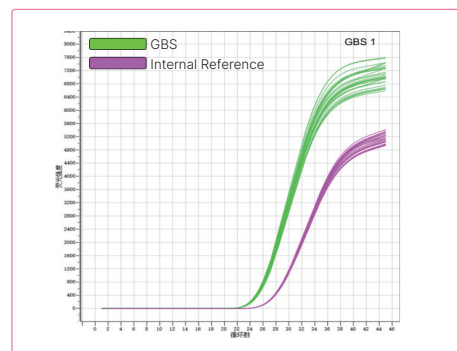


Figure 2 Precision within batches of GBS

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

**Case 2** Redissolve the national reference GBS1, GBS2, GBS5 and negative reference N01-N10 according to the experimental requirements, extract them with MagaBio Plus Virus DNA /RNA Purification Kit III (BSC86S1E), and then test with this kit.

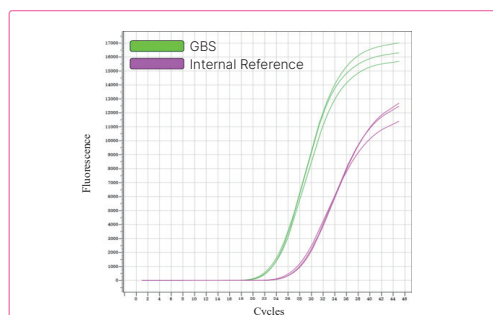


Figure 3 Negative/positive reference of GBS

※**Conclusion**: 1. The results showed that different serotypes of group B streptococcus could be detected accurately.  
2. National reference test results: positive coincidence rate of 100%, negative coincidence rate of 100%.

**Case 3** Clinical samples of Group B Streptococcus were extracted using MagaBio Plus Virus DNA /RNA Purification Kit III (BSC86S1E) and tested with this Kit. At the same time, the test results were compared with those of competing kits to verify the coincidence rate.

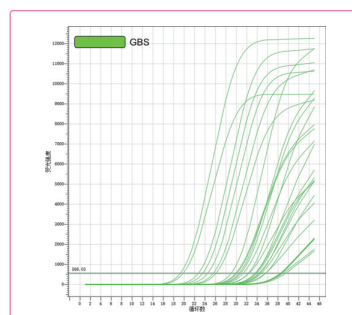


Figure 4 Clinical samples tested by Bioer Group B Streptococcus Nucleic Acid Detection Kit

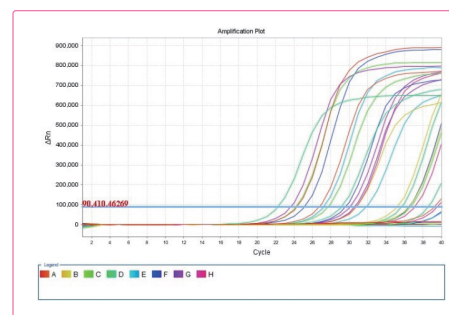


Figure 5 Clinical samples tested by competing kits

※**Conclusion**: The results showed that the Bioer Group B Streptococcus Nucleic Acid Detection Kit had higher detection coincidence rate, higher amplification efficiency and better performance compared with the competing kits.

## Ordering Information

| Product Name                                                       | Cat#    | Package | Notes                                                         |
|--------------------------------------------------------------------|---------|---------|---------------------------------------------------------------|
| Group B Streptococcus Nucleic Acid Detection Kit (Fluorescent PCR) | BSJ07M1 | 48T     | The kit can be stored for 3 days at 2°C ~ 8 °C after opening. |



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