

| Catalog Number | Kit Size   |
|----------------|------------|
| TBS42050-100   | 100 assays |
| TBS42050-200   | 200 assays |

### DESCRIPTION

The Staphylococcus - Pseudomonas Multiple qPCR Kit is designed for identifying staphylococcus and pseudomonas species in a one PCR amplification reaction using real-time quantitative polymerase chain reaction (qPCR) and probe label. This kit provides a fast, accurate, and simple approach to the detection of staphylococcus and pseudomonas contamination of food ingredients, cannabis products, water, environmental samples, or other bio-samples.

### PRINCIPLE

Authenticating ingredients using real-time PCR is based on the amplification of a specific region of the relevant target genome. The amplified product is detected using target-specific fluorescent probes that bind to the amplified product. As the PCR product accumulates, there is an increased fluorescent signal from the bound probes. Monitoring the fluorescence intensities during the PCR run allows the detection of the accumulating PCR product in real time.

The Staphylococcus and Pseudomonas Multiple qPCR Kit includes Positive and Negative controls, and PCR internal controls, qPCR Super Mix, Staphylococcus and Pseudomonas Multiple Prime-Probe Mix, in which the probes are labeled with Fam, and Hex is labeled for PCR internal control. These aids in the straightforward interpretation of the results.

### KEY FEATURES

- ❖ Highly sensitivity and specificity for staphylococcus and pseudomonas species.
- ❖ High efficiency: the optimal systemic conditions for PCR amplifications.
- ❖ Streamlined protocol: Just add DNA Template, and water.
- ❖ No cross reactivity with other species.

### APPLICATIONS

Detect aspergillus-derived DNA in plants, cannabis, cannabis ingredients, grain, food, herbals, and animal feed.

### KIT CONTENTS

| Name                 | 100RXN | 200RXN |
|----------------------|--------|--------|
| qPCP Super Mix       | 0.8 mL | 1.6 mL |
| Primer-probe Mix     | 0.6 mL | 1.2 mL |
| Positive Control DNA | 60 µL  | 100 µL |
| Negative Control DNA | 60 µL  | 100 µL |

staphylococcus and pseudomonas are labeled with **FAM**.  
PCR internal control is labeled with **Hex**.

### STORAGE CONDITION

The kit is shipped on ice and stored at -20°C for long-term storage. Shelf life of 12 months after receipt.

### PCR PROTOCOL

1. Set up PCR reaction for each sample in 20 µL

| Reaction Component  | Volume (µL)  |
|---------------------|--------------|
| qPCR Super Mix      | 7.0          |
| Primer-probe Mix    | 5.0          |
| Nuclease-free Water | 3.0          |
| DNA sample          | 5.0          |
| <b>Final Volume</b> | <b>20 µL</b> |

Internal control should be included as below: Positive Control (5 µL DNA /reaction) Negative Control (5 µL DNA/reaction)

2. Suggested PCR conditions

| Step               | Amplification | PCR               |                |
|--------------------|---------------|-------------------|----------------|
|                    | HOLD          | CYCLE (40 cycles) |                |
|                    |               | Denature          | Anneal/ Extend |
| <b>Temperature</b> | 95 °C         | 95 °C             | 60 °C          |
| <b>Time</b>        | 1 min         | 15 sec            | 60 sec         |

### DATA ANALYSIS

Positive Reaction: Sample Ct < or = 37, and Positive, Negative and Blank controls are normal.

Negative Reaction: Sample Ct ≥ 38, and Positive, Negative and Blank controls are normal.

PCR internal control is positive in all samples, positive and negative controls. The positive response indicates a normal PCR amplification. Otherwise, the PCR reaction may be inhibited.

Repeat Reaction: If one of the control reactions is not normal, PCR reaction is failed, and should be repeated.

### RELATIVE PRODUCTS

- TBS42020: Universal Aspergillus qPCR
- TBS42021: Aspergillus Flavus qPCR
- TBS42022: Aspergillus Fumigatus qPCR
- TBS42023: Aspergillus Niger qPCR
- TBS42024: Aspergillus Terreus qPCR
- TBS42025: 4-In-1 Aspergillus Species qPCR
- TBS6025: Microbial DNA Magnetic Extraction
- TBS42026: O157H7 E. Coli qPCR
- TBS42027: STEC qPCR
- TBS42028: Salmonella qPCR
- TBS42031: Listeria Monocytogen qPCR
- TBS42032: Listeria Species qPCR
- TBS42033: Bacillus Cereus qPCR
- TBS42034: Bacillus Species qPCR
- TBS42051: E. coli – Salmonella qPCR

**For research use only.**