

Catalog Number	Kit Size
TBS42051-100	100 assays
TBS42051-200	200 assays

## DESCRIPTION

The Escherichia Coli (E. Coli)-Salmonella Multiple qPCR Kit is designed for identifying generic E. coli and Salmonella 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 detecting E. coli and salmonella contamination of food ingredients, cannabis products, water, environmental samples, or other biosamples.

## 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 E. coli - Salmonella qPCR Kit include E. coli and Salmonella Positive and Negative controls, and PCR internal controls, qPCR Super Mix, E. coli - Salmonella Multiple Prime-Probe Mix, in which the probe is labeled with Texas Red for salmonella, Fam is labeled for E. coli, and Hex is labeled for PCR internal control. These aids in the straightforward interpretation of the results.

## KEY FEATURES

- ❖ Highly sensitivity and specificity for Salmonella and E. Coli 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	1.2mL
Positive Control DNA	60 µL	100 µL
Negative Control DNA	60 µL	100 µL

Salmonella probe is labeled with **Texas Red**;  
E. coli is 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
- TBS42050: Staphylococcus- Pseudomonas qPCR

**For research use only.**