

## Bacillus Coagulans qPCR Kit (TBS42055)

*Probe qPCR Detecting Bacillus Coagulans Species in One Reaction Tube*

### Catalog Number

TBS42055-100

TBS42055-200

### Kit Size

100 assays

200 assays

### DESCRIPTION

*Bacillus coagulans* (*B. coagulans*) is a Gram-positive, spore-forming, lactic acid-producing bacterium that belongs to the genus *Bacillus*. It is recognized for its probiotic properties, which include the ability to prevent intestinal diseases, improve immunity, and maintain healthy gut microbiota. Given its beneficial properties and widespread use, accurately detecting *Bacillus coagulans* is essential, which is where the *Bacillus Coagulans* qPCR Kit proves invaluable.

Tribioscience's *Bacillus Coagulans* qPCR Kit has been designed specifically to identify *Bacillus coagulans* species in a single PCR reaction using real-time quantitative polymerase chain reaction (qPCR) and FAM labeled probe. The detection of target DNA confirms ingredient authenticity and prevents food fraud, ethical issues, environment, or health concerns.

Tribioscience's *Bacillus Coagulans* qPCR Kit includes all components for *Bacillus coagulans* amplification. The kit includes a qPCR super mix, the primer-probe mix labeled with FAM for the target gene, positive control, negative controls, and PCR internal controls labeled with Hex. This aid in a straightforward interpretation of the results.

Alternative name: *Weizmannia coagulans*, *Heyndrickxia coagulans*.

### KEY FEATURES

- ❖ High sensitivity and specificity for all *Bacillus coagulans* 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 *Bacillus*-derived DNA in plant, cannabis, cannabis ingredients, grain, food, herbals, and animal feed.

### KIT CONTENTS

Name	100x rxn	200x rxn
qPCR Super Mix (BL1)	0.8mL	1.6mL
Primer-probe Mix (BL2)	0.6mL	1.2mL
Positive Control DNA (BL <sup>+</sup> )	60µL	100µL
Negative Control DNA (BL <sup>-</sup> )	60µL	100µL

The *Bacillus coagulans* target probe has been labeled with **FAM** while the PCR internal control has been 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

DNA preparation is performed with suitable methods. We recommend our Microbial DNA Magnetic Extraction (TBS6025), and Dead Bacterial DNA Eraser (TBS6039).

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

Reaction Component	Volume (µL)
qPCR Super Mix (BL1)	7.0
Primer-probe Mix (BL2)	5.0
Nuclease-free Water	3.0
DNA sample	5.0
<b>Final Volume</b>	<b>20µL</b>

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

2. Suggested PCR conditions

Step	Amplification	PCR	
	HOLD	CYCLE (40x cycles)	
		Denature	Anneal/ Extend
Temperature	95°C	95°C	60°C
Time	1 min	15 sec	30 sec

### DATA ANALYSIS

Positive Reaction: Sample Ct ≤ 37 w/ Positive, Negative and Blank controls normal.

Negative Reaction: Sample Ct ≥ 38 w/ Positive, Negative and Blank controls 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

TBS6025: Microbial DNA Magnetic Extraction

TBS6039: Dead Bacterial DNA Eraser

TBS42024: *Aspergillus Terreus* qPCR

TBS42025: 4-In-1 *Aspergillus* qPCR

TBS42029: STEC and Salmonella Multiple qPCR

TBS42030: Mycoplasma Detection qPCR

TBS42033: *Bacillus Cereus* Species qPCR

TBS42034: *Bacillus* Species qPCR

TBS42050: *Staphylococcus-Pseudomonas* Multiple qPCR

TBS42053: *Bacillus Subtilis* qPCR

**For research use only.**