Tribioscience

Bifidobacterium Longum qPCR Kit (TBS42060)

Probe qPCR Detecting Bifidobacterium Longum Species in One Reaction Tube

Catalog Number	Kit Size
TBS42060-100	100 assays
TBS42060-200	200 assays

DESCRIPTION

Bifidobacterium longum is a gram-positive, anaerobic bacterium belonging to the genera Bifidobacterium. B. longum is used as a probiotic due to its beneficial effects on gastrointestinal, immunological, and infectious diseases. To ensure precise identification and monitoring of these beneficial bacteria, the B. longum qPCR Kit provides a reliable solution.

Tribioscience's B. longum qPCR Kit has been designed specifically to identify B. longum 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 B. longum qPCR Kit includes all components for B. longum amplification besides testing samples. The kit includes a qPCR super mix, the primer-probe mix labeled with FAM for the target gene, positive control, negative control, and PCR internal control labeled with Hex. This aids in a straightforward interpretation of the results.

Alternative name: B. longum; BB536

KEY FEATURES

- ❖ High sensitivity and specificity for all B. longum 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 bifidobacterium longum-derived DNA in ingredients, food, 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^+)	60µL	100µL
Negative Control DNA (BL^-)	60µL	100µL

The B. longum 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
Final Volume	20µL

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	94°C	94°C	60°C
Time	1 min	10 sec	60 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
TBS42025: 4-In-1 Aspergillus qPCR
TBS42029: STEC and Salmonella Multiple qPCR
TBS42031: Listeria Monocytogenes qPCR
TBS42032: Listeria Species qPCR
TBS42033: Bacillus Cereus Species qPCR
TBS42034: Bacillus Species qPCR
TBS42053: Bacillus Subtilis qPCR
TBS42054: Bacillus Licheniformis qPCR
TBS42055: Bacillus Coagulants qPCR
TBS42056: Lactobacillus qPCR
TBS42057: Lactobacillus Acidophilus qPCR
TBS42058: Lactobacillus Reuteri qPCR
TBS42059: Bifidobacterium qPCR
TBS42061: Bifidobacterium Infantis qPCR

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365 San Aleso Ave, Sunnyvale, CA 94085 USA Website: www.tribioscience.com
Tel: 408-498-0197 / 650-917-9269 Email: order@tribioscience.com