Tribioscience

Aspergillus Terreus qPCR Kit

Probe qPCR Detecting A. Terreus with Probe qPCR

Catalog Number	Kit Size
TBS42024-100	100 assays
TBS42024-200	200 assays

DESCRIPTION

The Aspergillus Terreus qPCR Kit is designed for identifying aspergillus species of Terreus in a one PCR reaction using real-time quantitative polymerase chain reaction(qPCR) and probe fluorescence label. The detection of target DNA confirms ingredient authenticity or prevents food fraud, ethical issues, or health concerns.

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 Aspergillus Terreus qPCR Kit include aspergillus Terreus target positive and negative Controls, and PCR internal controls, qPCR super mix, prime-probe mix, in which the probe is labeled with FAM for aspergillus Terreus, and Hex is labeled for PCR internal control. These aids in the straightforward interpretation of the results.

KEY FEATURES

- ❖ Highly sensitivity and specificity for Terreus detection.
- ❖ 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 Terreus target DNA in plants, cannabis, cannabis ingredients, grain, food, herbals, and animal feed.

KIT CONTENTS

Name	100RXN	200RXN
qPCR 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

The Terreus probe is labeled with FAM, and 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.

SAMPLE DNA EXTRACTION

Microbial DNA Magnetic Extraction Kit (TBS6025) can be used for the DNA extraction from sample. The kit is validated for this qPCR assay.

PCR PROTOCOL

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

Reaction Component	Volume (µL)
qPCR Super Mix (T1)	7.0
Primer-probe Mix (T2)	5.0
Nuclease-free Water	3.0
DNA sample	5.0
Final Volume	20 µL

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
Temperature	95 °C	95 °C	60 °C
Time	2 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 fails, and should be repeated.

RELATIVE PRODUCTS

TBS6025: Microbial DNA Magnetic Extraction
TBS42020: Universal Aspergillus qPCR
TBS42021: Aspergillus Flavus qPCR
TBS42022: Aspergillus Fumigatus qPCR
TBS42023: Aspergillus Niger qPCR
TBS42025:4-In-1 Aspergillus qPCR
TBS42026: O157H7 E. Coli qPCR
TBS42027: STEC qPCR
TBS42028: Salmonella qPCR
TBS42029: STEC and Salmonella Multiple qPCR
TBS42030: Mycoplasma Detection qPCR
TBS42031: Listeria Monocytogen qPCR
TBS42032: Listeria Genus qPCR
TBS42033: Bacillus Cereus qPCR

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