Tribioscience

Universal Aspergillus qPCR Kit

Probe qPCR Detecting Aspergillus Genus Species with Probe qPCR in Single Reaction Tube

Catalog Number	Kit Size
TBS42020-100	100 assays
TBS42020-200	200 assays

DESCRIPTION

The Universal Aspergillus qPCR Kit is designed for identifying aspergillus genus species is 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 Universal Aspergillus qPCR Kit include aspergillus 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 species, and Hex is labeled for PCR internal control. These aids in the straightforward interpretation of the results.

KEY FEATURES

- ❖ Highly sensitivity and specificity for aspergillus 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-derived DNA in plant, cannabis, cannabis ingredients, grain, food, herbals, and animal feed.

KIT CONTENTS

Name	100RXN	200RXN
qPCP Super Mix (AG1)	0.8 mL	1.6 mL
Primer-probe Mix (AG2)	0.6 mL	1.2mL
Positive Control DNA (AG^+)	60 µL	100 µL
Negative Control DNA (AG^-)	60 µL	100 µL

The Aspergillus 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.

PCR PROTOCOL

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

Reaction Component	Volume (µL)
qPCR Super Mix (AG1)	7.0
Primer-probe Mix (AG2)	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 is failed, and should be repeated.

RELATIVE PRODUCTS

TBS6025: Microbial DNA Magnetic Extraction
TBS42021: Aspergillus Flavus qPCR
TBS42022: Aspergillus Fumigatus qPCR
TBS42023: Aspergillus Niger qPCR
TBS42024: Aspergillus Terreus 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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