

*The Probe qPCR Master Mix Used for Target Gene Detection from samples*

Catalog	Kit Size (RXN)
<b>TBS4011-100</b>	100
<b>TBS4011-200</b>	200

**DESCRIPTION**

Probe qPCR Master Mix Kit contains core components for probe qPCR reaction including PCR reaction Buffer, decontaminated enzymes, qPCR Master Mix, and Nuclease-Free water. It only needs to add specific primers, probes, and DNA samples. This kit can be used for food safety detection, plant, and cannabis relative products.

**APPLICATIONS**

This kit is used for probe-based qPCR amplification.

**KEY FEATURES**

- Avoid contamination in qPCR reaction.
- Flexible and automation compatible.
- Accurate detection and quantification of target genes.
- 5xPCR mix makes it easier to adjust the sample size in a one-tube reaction.

**KIT CONTENTS**

Component	100RXN	200RXN
5X qPCR Master Mix	0.5 mL	1.0 mL
10x RT-PCR Buffer	0.25 mL	0.5 mL
Decontaminate Enzyme (10 U/uL)	0.1 mL	0.2 mL
DEPC Water	1.0 mL	2x 1.0 mL

**STORAGE CONDITIONS**

Store all components at -20°C in a non-frost-free freezer.

Shelf life is 12 months after recipient.

The kit is shipped on ice.

**PROTOCOL**

**Precautions:** PCR reaction should be assembled in a nuclease-free environment. DNA sample preparation, reaction mixture assembly, PCR and subsequent reaction analysis should be performed in separate areas. The use of “clean”, automatic pipettors designated for PCR and aerosol resistant barrier tips are recommended.

*Note: Nuclease Removal (TBS6013) is useful for removing RNase contamination in the working area and tools.*

1. DNA isolation is performed with a suitable approach. We recommend our microbial DNA Magnetic Extraction Kit (TBS6025) from plant samples.

2. Prepare the following reaction mixture on ice. The reaction volume is 20 µL.

Components	Volume (µL)
qPCR Masker Mix (5x)	4
qPCR Buffer (10x)	2
Decontaminated qPCR Enzymes	1
Primer-probe Mix*	1
DNA sample*	5
Nucleic-Free water	8
Final Volume	20 µL

**Note:**

- Gene specific primers, probe, and DNA sample is provided by end-user. The concentrations should be optimized before formal qPCR amplification.
- For PCR mix preparation, the additional volume should be included.

3. Gently mix and ensure all the components are at the bottom of the amplification tube. Centrifuge briefly if needed.

4. Program Real-time qPCR machine for qPCR amplification as below:

Step	Temperature	Duration	Cycle(s)
1	95°C	1 min	1
2	95°C	15 secs	40
	60°C	1 min	

**RELATED PRODUCTS**

TBS6025: Microbial DNA Magnetic Extraction  
 TBS42019: Fusarium Species qPCR Detection  
 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 qPCR  
 TBS42026: O157H7 E. Coli qPCR  
 TBS42027: STEC qPCR  
 TBS42028: Salmonella qPCR  
 TBS42029: STEC and Salmonella Multiple qPCR  
 TBS42030: Mycoplasma Detection qPCR  
 TBS42031: Listeria Monocytogenes qPCR  
 TBS42032: Listeria Genus qPCR  
 TBS42033: Bacillus Cereus qPCR  
 TBS42043: Bacillus Species qPCR

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