Phomopsis viticola Real-Time PCR Control (100)

Cat. No. *CPD-578*

Lot. No. (See product label)

Product Name

Phomopsis viticola Real-Time PCR Control (100)

Product Overview

Phomopsis viticola Real-Time PCR Control (100) is designed for the detection of Phomopsis viticola DNA based on the use of real-time PCR technology.

Description

Phomopsis viticola Real-Time PCR Control (100) is designed for the detection of Phomopsis viticola specific DNA based on the use of real-time PCR technology. The detection of Phomopsis viticola specific DNA is providing a simple, reliable and rapid result for the detection of Phomopsis viticola infection. Phomopsis viticola Real-Time PCR Control (100) includes a PCR control to monitor for PCR inhibition, and to validate the quality of the sample and the detection result. The Phomopsis viticola Real-Time PCR Control (100) comprises Master Mix for the target and PCR control detection, Primer & Probe Mix, as well as a positive control and a negative control (nuclease-free water) to confirm the integrity of the kit reagents.

Kit Components

Component Product
2X PCR Master Mix 350 µL
Phomopsis viticola Primer & Probe Mix 70 µL
Phomopsis viticola Positive Control 50 µL
Nuclease-Free Water (Negative control) 1.25 mL
Product Insert 1

Materials Required but Not Supplied

Appropriate Real-Time PCR Instrument with FAM and HEX filter channel;
DNA Purification Kit: The kit is compatible with all DNA purification kits that yield high quality, inhibitor-free DNA;
Disposable powder-free gloves;
Benchtop microcentrifuge;
Micropipettors;
Sterile pipette tips with filters;
PCR tubes;
Vortex mixer;
PCR reaction preparation station (Optional).

Scientific Background

Phomopsis cane and leaf spot, caused by Phomopsis viticola, occurs in most grape-growing regions and is an important disease of grapes worldwide. The fungus attacks all green parts of the vine, including canes, leaves, flowers, rachises, and berries. However, most economic damage is caused by rachis and berry infection. Infected leaves have small, yellowish spots with dark brown centers and may be puckered. With successive cool, wet springs, the inoculum will build up and infections will become more severe over time. Since symptoms appear 21 to 30 days after infection, early detection of the pathogen in the vineyard is therefore crucial for its control.

Detection method

Real-Time PCR

Preparation

Before use, suitable amounts of all Real-Time PCR components should be completely thawed at room temperature, mixed by gentle vortexing or by pipetting, and centrifuged briefly.

Assay Protocol

1. For each Real-Time PCR set, prepare one no template control PCR as shown in Table 1 below:
Table 1. PCR Negative Control Preparation

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PCR Components Quantity
Nuclease-Free Water 8 µL
2X PCR Master Mix 10 µL
Phomopsis viticola Primer & Probe Mix 2 µL
Total Volume 20 µL

2. Prepare the PCR reaction for sample detection as shown in Table 2 below.
Table 2. PCR Aspergillus niger Assay Preparation
PCR Components Quantity
Nuclease-Free Water 5 µL
2X PCR Master Mix 10 µL
Phomopsis viticola Primer & Probe Mix 2 µL
Sample DNA* 3 µL
Total Volume 20 µL

3. For each PCR set, prepare one positive control PCR as shown in Table 3 below:
Table 3. PCR Positive Control Preparation
PCR Components Quantity
2X PCR Master Mix 10 µL
Phomopsis viticola Primer & Probe Mix 2 µL
Phomopsis viticola Positive Control (PosC) 8 µL
Total Volume 20 µL

Sample Type

Plant tissues

Storage

All kit components should be stored at -20°C upon arrival;
Repeated thawing and freezing (> 2 x) of the Master Mix and Positive Control should be avoided, as this may affect the performance of the assay. If the reagents are to be used only intermittently, they should be frozen in aliquots;
All reagents can be stored for 1 year at -20°C without showing any reduction in performance.

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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