

Cladosporium cladosporioides Real-Time PCR Control (100)



Cat. No. CPD-574

Lot. No. (See product label)

Product Name

Cladosporium cladosporioides Real-Time PCR Control (100)

Product Overview

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

Description

Cladosporium cladosporioides Real-Time PCR Control (100) is designed for the detection of Cladosporium cladosporioides specific DNA based on the use of real-time PCR technology. The detection of Cladosporium cladosporioides specific DNA is providing a simple, reliable and rapid result for the detection of Cladosporium cladosporioides. Cladosporium cladosporioides 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 Cladosporium cladosporioides 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
Cladosporium cladosporioides Primer & Probe Mix 70 µL
Cladosporium cladosporioides 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

Cladosporium is one of the most widespread molds. It includes about 40 species naturally found in soil, on decaying plant material and as plant pathogens. Cladosporium rot (Cladosporium spp.) of grapevine (Vitis vinifera) is a common disease, particularly in Cabernet Sauvignon and other red wine grape cultivars. It is favored by delayed harvest to obtain the phenolic maturity necessary for high-quality red wine. Symptoms appear on mature grapes and are characterized by berry dehydration, a firm decay affecting a small portion of the berry and a superficial olivegreen mold. Rapid and accurate detection of Cladosporium infections is highly important to facilitate the monitoring of Cladosporium in plant samples.

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

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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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

PCR Components Quantity

Nuclease-Free Water 8 μ L

2X PCR Master Mix 10 μ L

Cladosporium cladosporioides Primer & Probe Mix 2 μ L

Total Volume 20 μ L

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 μ L

2X PCR Master Mix 10 μ L

Cladosporium cladosporioides Primer & Probe Mix 2 μ L

Sample DNA* 3 μ L

Total Volume 20 μ L

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 μ L

Cladosporium cladosporioides Primer & Probe Mix 2 μ L

Cladosporium cladosporioides Positive Control (PosC) 8 μ L

Total Volume 20 μ L

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.

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