Aspergillus niger End-Point PCR Control (100)

Cat. No. *CPD-573*

Lot. No. (See product label)

Product Name

Aspergillus niger End-Point PCR Control (100)

Product Overview

Aspergillus niger End-Point PCR Control (100) is designed for the detection of Aspergillus niger DNA based on the use of end-point PCR technology.

Description

Aspergillus niger End-Point PCR Control (100) is designed for the detection of A. niger specific DNA based on the use of end-point PCR technology. The kit includes Master Mix and primers for the specific amplification of a 363 nucleotide region of the A. niger genome, as well as a positive control and a negative control to confirm the integrity of the kit reagents. In addition, the kit contains loading dye and a DNA ladder to facilitate analysis of the results.

Kit Components

Component Product
2X PCR Master Mix 350 µL
A. niger Primer Mix 70 µL
A. niger Positive Control 50 µL
Nuclease-Free Water 1.25 mL
Loading Dye 100 µL
DNA Ladder 100 µL
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;
Agarose gel electrophoresis apparatus;
UV transilluminator with suitable gel documentation system;
PCR reaction preparation station (Optional).

Scientific Background

Aspergillus niger is a fungus and one of the most common species of the genus Aspergillus. It causes a disease called black mold on certain fruits and vegetables such as grapes, onions, and peanuts, and is a common contaminant of food. It causes stem rot of Dracaena, root stalk rot of Sansevieria and boll rot of cotton. It has also been implicated in the spoilage of cashew kernels, dates, figs, vanilla pods and dried prunes. It is ubiquitous in soil and is commonly reported from indoor environments, where it produces characteristic black colonies. Some strains of A. niger have also been reported to produce potent mycotoxins called ochratoxins. Methods for the rapid and sensitive detection of the pest would be valuable to ensure food quality and protection of individuals from the possibility of ingesting potentially hazardous myco- or ochratoxins.

Detection method

End-Point PCR

Preparation

Before use, suitable amounts of all End-Point PCR components should be completely thawed at room

Address: SUITE 209, 17 Ramsey Road, Shirley, NY 11967
Tel: 1-631-356-5138 Fax: 1-631-910-2166
E-mail: info@lifeasible.com
https://www.lifeasible.com

Aspergillus niger End-Point PCR Control (100)

Cat. No. *CPD-573*

Lot. No. (See product label)

temperature, mixed by gentle vortexing or by pipetting, and centrifuged briefly.

Assay Protocol

1. For each 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 µL
2X PCR Master Mix 10 µL
Aspergillus niger Primer 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
Aspergillus niger Primer 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
Aspergillus niger Primer Mix 2 µL
Aspergillus niger 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.

Address: SUITE 209, 17 Ramsey Road, Shirley, NY 11967
Tel: 1-631-356-5138 Fax: 1-631-910-2166
E-mail: info@lifeasible.com
https://www.lifeasible.com