

Botrytis cinerea PCR Detection Kit

Norgen's *Botrytis cinerea* PCR Detection Kit constitutes a ready-to-use system for the isolation and detection of *Botrytis cinerea* using end-point PCR. The kit first allows for the isolation of *B. cinerea* DNA from the fungi samples using spin-column chromatography. The *B. cinerea* DNA is isolated free from inhibitors, and can then be used as the template in a PCR reaction for *B. cinerea* detection using the provided *Botrytis cinerea* Master Mix. The *B. cinerea* Mastermix contains reagents and enzymes for the specific amplification of a 381 bp region of the genome. In addition, Norgen's *B. cinerea* PCR Detection Kit contains a second Mastermix, the PCR Control Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the PCR control (PCRC) or Isolation Control (IsoC), respectively. This kit is designed to allow for the testing of 24 samples.



Botrytis cinerea is a ubiquitous fungal pathogen, often present as a latent infection, which can in some cases later develop into damaging symptomatic infections in a wide range of plant species including economically important crops such as vegetables, ornamentals, bulbs and fruits. Consequently, an apparently healthy plant can deteriorate suddenly due to the development of latent or quiescent infection into visible disease. Sensitive and reliable methods to monitor the fungus in plant tissue are essential to enable the study of the factors affecting the progression from latent to aggressive disease, and to allow for early detection and diagnosis of the disease.

Botrytis cinerea PCR Detection Kit Benefits

A complete optimized kit for isolation and detection	The <i>Botrytis cinerea</i> PCR Detection Kit is a complete kit that contains: 1) all the required components to allow for optimized isolation of <i>B. cinerea</i> DNA, 2) <i>B. cinerea</i> Detection Master Mix to allow for the optimized amplification and detection of the DNA and 3) PCR Control Master Mix to control for possible PCR inhibition and/or inadequate isolations.
High Sensitivity and Specificity	The limit of detection is 50 genome copies/50 mg of plant tissue
Isolate high quality DNA	DNA is isolated free from inhibitors and can be used directly in the downstream PCR assay.
Isolate fungal DNA from a wide range of samples	Fungal DNA can be isolated from fungi growing on culture plates, from plant tissue and fruit
Rapid Procedure	Isolate, amplify and detect <i>B. cinerea</i> in under 3 hours.
Includes controls to identify PCR inhibition and problems with RNA isolation	Kit contains a second Mastermix, the PCR Control Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate RT-PCR reaction with the use of the provided PCR control and Isolation Control respectively.
Ideal for use in a number of different applications	Ideal for use in field surveillance of pathogens and surveys.

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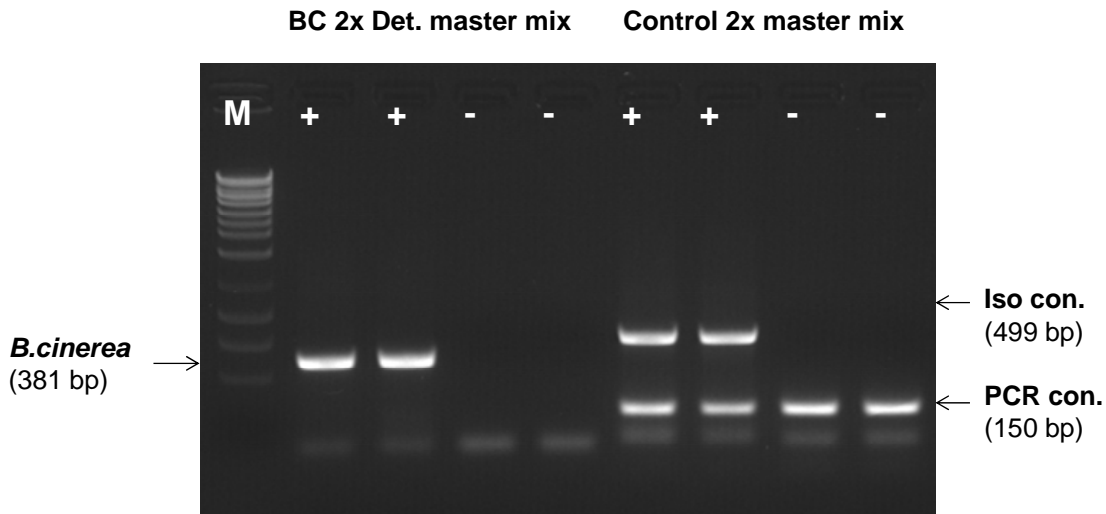


Figure 1. Sensitivity of Detection using the *Botrytis cinerea* PCR Detection Kit. A representative 1X TAE 1.5% agarose gel showing the amplification of *B.cinerea* and the amplification of Isolation Control and PCR Control under different conditions using the BC 2x Detection Master Mix and Control 2X PCR Mastermix. The size of the *B.cinerea* amplicon is 381 bp, the size of the Isolation Control amplicon is 499 bp, and the size of the PCR Control amplicon is 150 bp, as represented by the provided DNA Marker (M). Positive (+) samples showed an expected PCR amplicon with the BC 2x Detection Mastermix and Control 2x Master mix, suggesting that the specific *B. cinerea* detection, DNA isolation and the PCR reaction was successful. All negative (-) samples did not give any PCR amplification.

Botrytis cinerea PCR Detection Kit Contents:

1. Lysis Solution
2. Binding Buffer
3. Wash Solution
4. Elution Buffer
5. Bead Tubes
6. Spin Columns inserted into Collection Tubes
7. Elution tubes (1.7 mL)
8. *B. cinerea* 2x Detection PCR Master Mix
9. Control 2X PCR Master Mix
10. Isolation Control (IsoC)
11. *B. cinerea* Positive Control (PosC)
12. Nuclease-Free Water
13. Norgen's DNA Marker
14. Product Insert

Storage Conditions

All buffers should be kept tightly sealed and stored at room temperature (15-25°C). Buffers can be stored for up to 1 year without showing any reduction in performance. The *B. cinerea* 2x Detection PCR Master Mix, Control 2X PCR Master Mix, *B. cinerea* Positive Control (PosC) and the Isolation Control (IsoC) should be kept tightly sealed and stored at -20°C for up to 1 year without showing any reduction in performance. Repeated thawing and freezing (> 2 x) should be avoided, as this may reduce the sensitivity. If the reagents are to be used only intermittently, they should be frozen in aliquots.

Cat #	Description	Quantity
29400	<i>Botrytis cinerea</i> PCR Detection Kit	24 tests