



**foodproof®**

## ***Alicyclobacillus* Detection LyoKit**

The genus *Alicyclobacillus* consists of Gram-positive, acidophilic and thermophilic, spore-forming bacteria typically found in soils. *Alicyclobacillus* spores, often brought into food manufacturing facilities on contaminated fruit, are able to survive standard pasteurization procedures. The non-pathogenic bacteria can cause disinfectant-like off-flavors (guaiacol, halophenols) in the final product, especially affecting fruit juices, concentrates and preparations, including tomato-based products. *Alicyclobacillus acidoterrestris* is the most common contaminating species of this genus but others have been identified in recent years.

The **foodproof *Alicyclobacillus* Detection LyoKit** is based on real-time PCR technology, which is well-established in the food industry. The kit enables *Alicyclobacillus* genus detection and identification of all guaiacol-producing species in a single assay.

**Sensitive:** High sensitivity procedure compared to the International Fruit and Vegetable Juice Association (IFU) method no. 12 (BAT medium).

**Safe:** Prevention of false-negative results by internal control and prevention of carry-over contamination using Uracil-N-Glycosylase.

**Fast:** Short 4-hour time-to-results with a direct sample protocol, requiring minimal hands-on time. Presence/absence confirmation after 24 to 48 hours of enrichment, saving up to 5 days compared to IFU Method 12 guidelines.

**Easy:** Convenient, complete solution including DNA extraction and real-time PCR analysis.

### **Best Specificity**

#### **100% Inclusivity**

63 *Alicyclobacillus* strains of 20 *Alicyclobacillus* species tested (including all six guaiacol-producing species).

#### **100% Exclusivity**

46 strains tested including closely related organisms and microorganisms typically found in juice and fruit products.

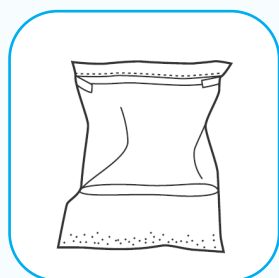
### **Matrices**

All relevant food matrices tested, e.g., fruit juice, fruits, concentrates, syrups, tomato paste, fruit-based spread.

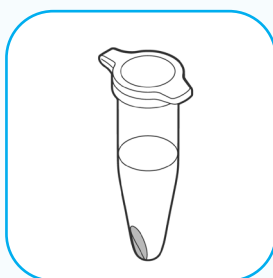
### **Identification of Species**

Identification of all guaiacol-producing *Alicyclobacillus* species, including *A. acidoterrestris* and *A. suci* in a single assay. Easy and convenient direct sample protocol for juices, concentrates and other products.

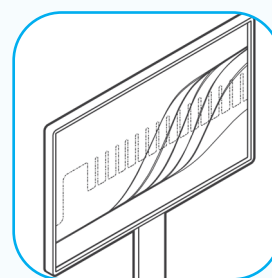
## Workflow



**Direct Sample or Enrichment**  
24 to 72 hours



**DNA Extraction**  
approx. 30 min



**Real-Time PCR**  
approx. 90 min

## DNA Extraction Kits

**foodproof StarPrep Two Kit**  
KIT230177

## Real-Time PCR Kits

**foodproof Alicyclobacillus Detection LyoKit**  
(identification of all guaiacol producers)  
KIT230151 (LP), KIT230152 (RP)

## Additional Reagents

**Color Compensation Set 5**  
(calibration tool for assays on LightCycler 480 System)  
KIT230011

## Tests

96

## Tests

96

## DNA Extraction

**foodproof StarPrep Two Kit**  
Enables the fast and easy extraction of *Alicyclobacillus* DNA from food and beverage matrices.

## Instrument Compatibility

**Low Profile (LP):**  
e.g., LightCycler® 480,  
LightCycler® 96, AriaMx,  
Bio-Rad CFX96™, Applied  
Biosystems™ 7500 Fast,  
QuantStudio™

**Regular Profile (RP):**  
e.g., Mx3005P

## Reactions

96

## Calibration Use

**LightCycler 480 System**



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