

Detection of *Pantoea stewartii* subsp. *stewartii* by LOEWE®REALTIME

The quarantine pathogen causes Stewart's wilt and leaf blight disease, primarily on maize plants. We are offering dye-based complete LOEWE®REALTIME reaction kit for the specific and sensitive detection of *Pantoea stewartii* subsp. *stewartii* (Cat. No. 06129C/100) for fast and convenient detection of the pathogen in realtime.

Test Principle

Realtime PCR is a highly sensitive and fast diagnostic method using specific primers for the detection of RNA-or DNA containing pathogens. The detection is followed by fluorescence measurements in real time during the amplification reaction with a Realtime PCR Cycler.

LOEWE®REALTIME reaction kits for Plant Bacteria (ONE-Tube ONE-Step)

Our complete LOEWE®REALTIME reaction kits for the detection plant bacteria utilize pathogen-specific primers in combination with DNA-binding dyes. The kits includes all components to perform the Realtime assay after DNA-extraction:

- Primer Mix (pathogen specific)
- 5 x Mastermix
- Positive control (Synthesized DNA)
- Negative control (DNA from healthy plants)
- PCR-grade water
- Internal Control DNA/RNA Assay (LOEWE® Cat. No. 06001C/100, available separately)

! Technical requirement: SYBR®/FAM Channel

Shipping at room temperature!

Test Performance

- **Inclusivity: 100 %**
(3 target strains tested positive)
- **Exclusivity: 100 %**
(17 non-target strains tested; all negative)
- **Analytical LOD: 0.1 pg of genomic DNA**
- **Specific for *Pantoea stewartii* subsp. *stewartii* !**
Pantoea stewartii subsp. *indologenes*, which often yields false positive results in other diagnostic tests** - is NOT detected (Fig. 1B). ** (2016), PM 7/60 (2) *Pantoea stewartii* subsp. *stewartii*. EPPO Bull, 46: 226-236.

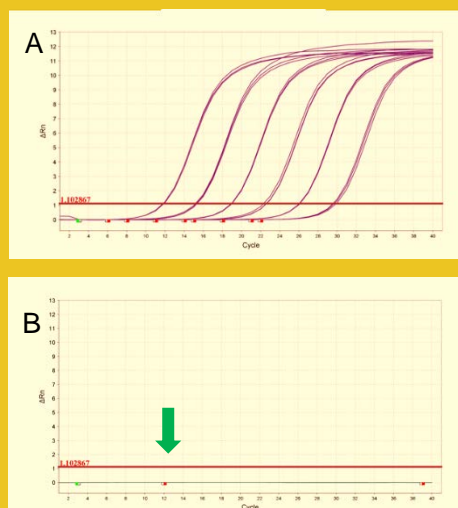


Figure 1: **A)** Amplification plot of the sensitive detection of *Pantoea stewartii* subsp. *stewartii* (dilution series of genomic DNA) **B)** Amplification plot of *Pantoea stewartii* subsp. *indologenes* giving NO amplification signal