

One test – Two results: Duplex RNA PCR for BaMMV and BaYMV

With only **one** RNA PCR run, the two major cereal viruses **Barley Mild Mosaic Virus** (BaMMV) and **Barley Yellow Mosaic Virus** (BaYMV) can be detected and discriminated. Depending on the size of the resulting amplicon(s), single and double infections with BaYMV and BaMMV can be determined.

Test Principle

Our end-point PCR kits are a cost effective alternative to Realtime PCR assays, and allow specific and sensitive detection of plant pathogens, especially when serological reagents are not available or a second method is needed.

RNA PCR Complete Reaction Kits (ONE-Tube ONE-Step)

The reaction is carried out in one tube starting with the reverse transcription of plant virus RNA followed by cDNA amplification. The resulting amplicon is then visualized on an agarose gel.

The Kit contains:

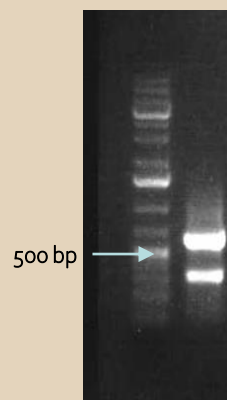
- Premix (Primers, dNTPs)
- DNA-Polymerase
- Reverse Transcriptase: M-MLV, RNase H-
- Reaction Buffer
- PCR-grade Water
- Dithiothreitol (DTT)
- Positive Control (DNA based)
- Negative Control (DNA based)

Test Performance

- Analytical LOD:
0.01-0.02 ng isolated RNA
- No cross reactions with other viruses observed.
- No matrix effects with healthy plant tissue observed.

Size of expected fragment:

BaMMV: 316 bp / BaYMV: 629 bp



Agarose gel of a Duplex RNA PCR run:

Bands at 316 bp and 629 bp indicate a double infection of BaMMV and BaYMV in the sample. Single infections would result in one band at the corresponding size.