

Product Information: AgriStrip

Maize chlorotic mottle virus (MCMV)

Intended use

MCMV is the only member of the genus Machlomovirus (family Tombusviridae). The virus infects members of the family Gramineae (sugarcane, maize). MCMV can be transmitted by different insects such as beetles or thrips. Mechanical and seed transmission has also been demonstrated. On maize, symptoms are various and range from mild chlorotic mottle to severe stunting, leaf necrosis, and premature plant death. When MCMV co-infects maize with another virus from the family Potyviridae (such as SCMV-Sugarcane mosaic virus or MDMV-Maize dwarf mosaic virus), it causes a severe disease called Maize Lethal Necrosis (MLN) which leads to almost 100% field loss.

Specificity and Sensitivity

The antibodies used for this AgriStrip assay were made against an isolate purified from maize plants. The original host is a maize plant collected in Kenya in 2012. The product is based on antibodies developed by the Leibniz Institute DSMZ GmbH, Braunschweig, Germany. MCMV was successfully detected in maize leaf material. There was no unspecific-reactivity with healthy plant tissue or with plants infected with SCMV or MDMV. Please note that the test is not suitable for seed testing.

Instruction for use

- 1) Place approx. 0.1 g of leaf (corresponds to the size of 1 Euro coin or ≈ 5 cm²) into an extraction bag (Fig. 1*) and **add 4 ml of AgriStrip extraction buffer A** with a disposable pipette (1:40 w/v).
- 2) Homogenize the tissue with a handheld homogenizer with a few movements for not more than 2 seconds (Fig. 2*).
- 3) **Transfer 1 drop of extract into a cuvette** (Fig. 3*) and dilute with **3 drops of extraction buffer A**. The optimal dilution is 1:80 to 1:160 w/v.
- 4) Insert the end of the strip marked «sample» into the extract (Fig. 4*) and observe formation of colored bands.

* For figures, please refer to «AgriStrip General Information».

Maximal sample size



Ordering Information

Product	Art. No.	Assays
MCMV AgriStrip Complete kit 25	140781	25
MCMV AgriStrip Set 25	140782	25
MCMV AgriStrip Set 100	140783	100
Optional Products	Art. No.	Size
Cuvette rack, holds 12 cuvettes	2166	1
Cuvettes, disposable	2534	100
Pipettes, disposable	2292	500
Extraction bags Universal	430100	100
Homogenizer hand model	400010	1

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Adaptations from last version: new ordering information; minor modifications.