

Product Information: AgriStrip Cucumber mosaic virus (CMV)

Intended use

This test is intended to detect CMV in suspicious plant samples. CMV is transmitted by aphids in a non-persistent manner, through the seed in some plant hosts and experimentally by mechanical inoculation of plant sap. It is distributed world-wide and of economic importance in a large variety of crop plants. CMV causes mosaic in cucumber, melon and other cucurbits; blight in spinach; mosaic, fern leaf and systemic necrosis in tomato; mosaic and ringspot in pepper; mosaic and stunting in clover, lupins and lucerne; stunting in soybean; mosaic, infectious chlorosis and heart rot in banana; and mosaic and dwarfing in many other species of dicotyledonous and monocotyledonous plants. CMV has the widest host range for any plant virus, including more than 1200 species in over 100 families of dicotyledonous and monocotyledonous angiosperms.

Specificity and Sensitivity

The antibodies used for this AgriStrip assay were made against a non characterized field isolate of CMV. CMV was successfully detected on tomato leaves and seeds, cucumber leaves, banana leaves and on diverse *Nicotiana* species (*N. occidentalis*, *N. clevelandii*, *N. mégalosiphon*, *N. Virginia*; *N. xanthii*). The CMV AgriStrip can detect isolates from both CMV subgroups, CMVI and CMVII. There was no unspecific-reactivity with healthy plant tissue such as cucumber, pumpkin, lettuce, tomato leaves and seeds, pepper, watermelon and banana.

Instructions for use

- 1) Place approx. 0.1 g of leaf (corresponds to the size of 1 Euro coin or $\approx 5 \text{ cm}^2$) 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 to 2 drops of extract into a cuvette** (Fig. 3*) **and dilute with 3 drops of extraction buffer**. 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
CMV AgriStrip Complete kit	160681	25
CMV AgriStrip Single strips*	160682	25
CMV AgriStrip Single strips*	160683	100
* including AgriStrip Extraction buffer A, ready-to-use		
Optional Products	Art. No.	Size
Cuvette rack, holds 12 cuvettes	2166	1
Cuvettes, disposable	2534	100
Pipettes, disposable	2292	500
Extraction bags «Universal»	430100a	100
Homogenizer hand model	400010	1

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