

Product Information: DAS-ELISA

Maize chlorotic mottle virus (MCMV)

Synonym: *Machlomovirus zeae*

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 (1;2). 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. SCMV (Art. No. 140475) and MDMV (Art. No. 140375) are also available as DAS-ELISA reagents at BIOREBA.

Specificity and sampling instruction

This reagent was made against an isolate purified from maize plants. The original host is a maize plant collected in Kenya in 2012 (Dr. W. Menzel, personal communication). For testing corn seed samples, seeds are homogenized 1:20 (w/v) ratio in extraction buffer „General“. For seed lot testing, 100 corn seeds are dry-grinded followed by the addition of 100 ml extraction buffer „General“.

The product is based on antibodies developed by the Leibniz Institute DSMZ GmbH, Braunschweig, Germany. The validation was done in collaboration with a reference laboratory (Dr. M. Mezzalama, CIMMYT, Mexico).

Information on the antibodies

Coating IgG: polyclonal; conjugate: polyclonal

References

- (1) Cabanas D., Watanabe S., Higashi CH., Bressan A. 2013. J. Econ. Entomol. 106 (1): 16-24.
- (2) Uyemoto JK. 1983. Plant Disease. 67 (1): 7-10.

Ordering Information

BIOREBA offers the following formats:

Individual ELISA reagents for 100, 500 or 1000 assays: IgG and/or conjugate for the working volume of 200 µl/test/well.

Reagent sets for 480 or 960 assays: IgG and conjugate, positive and negative controls, and microtiter plates (F-96) for a working volume of 200 µl/test/well.

Complete kits for 96, 480 or 960 assays: All reagents, controls, microtiter plates (F-96), buffers, and substrate necessary for a working volume of 200 µl/test/well.

ELISA buffers, equipment for sample preparation and disposables are also available.

For all Art. No. please refer to our product catalogue or our homepage www.bioreba.com and for prices and further information on any other product from BIOREBA, please contact your local distributor or our office in Switzerland.

1/1

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Adaptations from last version: added revised information about specificity and sampling instructions.