

Product Information: DAS-ELISA

Maize dwarf mosaic virus (MDMV)

Synonym: Potyvirus zeaezanus

MDMV (2), a potyvirus, infects numerous species in the *Gramineae*. It is transmissible mechanically and by several aphid species in a non-persistent manner. Field and sweet corn, grain and fodder sorghum are important natural hosts, developing mosaic and occasional necrotic foliage symptoms. Genetic resistance in maize is available in several inbred lines. The virus possibly occurs wherever maize and sorghum are grown throughout the world except that it is not reported from Australia. Cultivated wheat, barley, oat, rye and rice are non-hosts.

Specificity and sampling instruction for the MDMV reagents

These DAS-ELISA reagents (1) were made against an isolate of MDMV from maize in Germany (3, and E. Fuchs, *personal communication*), and the USA (R. Hajimorad, *personal communication*). The reagents specifically detect MDMV, strains A, C, D, E and F. Cross-reaction with sugarcane mosaic virus (SCMV), formerly named MDMV strain B is almost negligible. There is no cross-reaction with Maize chlorotic mottle virus (MCMV). SCMV and MCMV are also available as DAS-ELISA reagents at BIOREBA. Leaf samples are homogenized 1:20 (w/v) in extraction buffer «General» (Art. No. 110120). 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 was developed in cooperation with the Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany, and the Institute of Agriculture, University of Tennessee, USA.

Information on the antibodies

Coating IgG: polyclonal; conjugate: polyclonal

References

- (1) Clark, M.F., and Adams, A. N. 1977. J. gen. Virol. 34:475-483.
- (2) Ford, R.E., Tosic, M., and Shukla, D.D. 1989. Descriptions of plant viruses. No. 341. CMI/AAB. 5pp.
- (3) Fuchs, E., Gruntzig, M., and Kozelska, S. 1987. Zentralbl. Mikrobiol. 142:41-47.

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

Version: 6 - 04.07.2025

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