

Product Information: DAS-ELISA

Potato mop-top virus (PMTV)

Synonym: Pomovirus solani

PMTV (3) causes a range of symptoms on haulms as well as on tubers of potatoes (e.g. internal brown arcs, also called spraing), depending on cultivars and/or environmental conditions. The virus is transmitted by the soilborne fungus *Spongospora subterranea* f. sp. *subterranea* (Sss), the causal agent of powdery scab of potato. Once established in a field, PMTV has the potential of persisting for many years, mainly due to the fungus Sss.

Specificity and sampling instruction

The reagents contain monoclonal antibodies. They were developed against an isolate of PMTV from Scotland (SASA case number 22.12.98/2; R. Burns, personal communication). All known isolates of PMTV tested so far are detected and no cross-reaction with any other known potato virus has been observed. The reagents are suitable for leaf and tuber testing. The concentration of PMTV in potato tissue varies considerably; thus, conscious sample collection is very important. Uneven virus distribution is observed in single tubers and in progenies from infected tubers (some tubers may remain virus-free). For a reliable detection in potato tubers, combined samples from both tuber ends (heel and rose ends) should be tested (1). Tuber samples are homogenized 1:20 in a special extraction buffer «Bulbs & Tubers» (Art. No. 110122); (2).

The product was developed in cooperation with the Scottish Agricultural Science Agency (SASA), Edinburgh, UK.

Information on the antibodies

Coating IgG: monoclonal; conjugate: monoclonal

References

- (1) Browning, I., Craigie, J., Darling, M., Darling, D., and Holmes, R. 2001. Proceedings of the 11th Virology EAPR Virology Section Meeting: Havlickuv Brod-Trest, Czech Republic, 7-13 October 2001 (Compiler: Petr Dedic); pp. 44-46.
- (2) Gugerli, P. 1986. In H.U. Bergmeyer: Methods of Enz. Analysis. Vol. XI, pp. 430-446.
- (3) Harrison, B.D. 1974. Descriptions of plant viruses. No. 138. CMI/AAB. 4 pp.

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.

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Adaptations from last version: added revised taxonomy of ICTV and assays of individual ELISA reagents.