

Product Information: DAS-ELISA

Turnip mosaic virus (TuMV)

Synonym: Potyvirus rapae

TuMV (4) occurs world-wide and susceptible species occur in 20 dicotyledonous families. The virus is sap-transmissible and transmitted by many aphid species in a non-persistent manner. TuMV causes mottling and black necrotic spots and ringspots in cabbage, cauliflower and Brussels sprout; mosaic with leaf distortion and stunting in turnip, swede, radish, rape, mustard, Chinese cabbage, watercress and horseradish; mottles and ringspots in rhubarb; and flower-breaks in wallflower, stock, Zinnia, Tropaeolum, Petunia and Anemone.

Specificity and sampling instruction

The antibody used for coating was made against TuMV isolate C1 from turnip (3), the one used for the conjugate was developed against isolate CZE 1 (2). The broad-spectrum reagent reacts with TuMV from different host plants of different origins in DAS-ELISA (1). The best sampling season, e.g. for the crops radish, Chinese cabbage, cauliflower etc., is when plants are actively growing. Symptomatic leaves are the best tissue source for testing. Samples are homogenised 1:20 (w/v) in extraction buffer «General» (Art. No. 110120).

The product was developed in cooperation with the Cornell University, New York State Agricultural Experiment Station, Geneva, NY, USA; and Horticulture Research International (HRI), Wellesbourne, UK.

Information on the antibodies

Coating IgG: polyclonal; conjugate: monoclonal

References

- (1) Clark, M.F., and Adams, A. N. 1977. J. gen. Virol. 34:475-483.
- (2) Jenner, C.E., Keane, G.J., Jones, J.E., and Walsh, J.A. 1999 Plant Pathology 48: 101-108.
- (3) Ling, K. S., Provvidenti, R., and Gonsalves, D. 1995. Plant Dis. 79: 809-812.
- (4) Tomlinson, J.A. 1970. Descriptions of plant viruses. No. 8. 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.