Product Information: DAS-ELISA

Tobacco ringspot virus (TRSV)

Synonym: Nepovirus nicotianae

TRSV (4) is readily transmissible by sap inoculation and has a wide host range, including both woody and herbaceous plants. It is transmitted by the nematode *Xiphinema americanum* and other closely related *Xiphinema spp*. Reports of natural spread are largely confined to North America but the virus has been disseminated to many countries in infected planting material. The virus occurs in nature in both annual and perennial crops. It causes serious disease problems in those regions of North America where the nematode vectors also occur. For example the virus is widespread in the tobacco-growing areas of North America, causing ring and line patterns on the foliage, dwarfing of the plant, and small leaves of poor quality. The virus occurs in the major blueberry-growing region of the USA, causing blueberry necrotic ringspot disease. The virus causes a ringspot disease of cucurbits in Texas and Wisconsin. Infected plants are stunted and show a leaf mottle accompanied by leaf malformation and reduced fruit set.

Specificity and sampling instruction

These reagents were made against a grapevine isolate of TRSV (Coating IgG) or against a blueberry isolate of TRSV (Conjugate). They specifically react with TRSV (2) in different host plants (broad-spectrum reagent) in DAS-ELISA (1). The virus can be unevenly distributed in plants (2); thus, conscious sample collection is important. In grapevine, for example, young leaves in spring that have just emerged from bud, and phloem tissue of dormant cuttings (bark scrapings) are good tissue sources for testing. For testing grapevine, a special extraction buffer «Grapevine» (Art. No. 110123) (3, modified) is used at a ratio of 1:10 (w/v); for other plants, the extraction buffer «General» (Art. No. 110120) is used at a ratio of 1:20 (w/v).
The product was developed in cooperation with the Cornell University, New York State Agricultural Experiment Station, Geneva, NY, USA and the University of Arkansas System, Dept. of Plant Pathology, Fayetteville, AR, 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) Gonsalves, D. 1980. in Proc. 7th Meeting ICVG, Niagara Falls, September 8-12, 1980. Niagara Falls, Canada: Agriculture Canada.

(3) Gugerli, P. 1986. In H.U. Bergmeyer: Methods of Enz. Analysis. Vol XI, pp. 474-481.

(4) Stace-Smith, R.. 1985. Descriptions of plant viruses. No. 309. CMI/AAB. 6 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.

1/1
Version: 5 - 12.05.2025
Adaptations from last version: added revised taxonomy of ICTV and assays of individual ELISA reagents.

www.bioreba.com

BIOREBA AG — *Your Partner in Agro-Diagnostics*
Christoph Merian-Ring 7
CH-4153 Reinach
Switzerland
phone +41 61 712 11 25
fax +41 61 712 11 17
admin@bioreba.ch
www.bioreba.com