

Product Information: DAS-ELISA

Grapevine leafroll associated virus 1 (GLRaV-1)

Synonym: Ampelovirus univitis

In cooperation with Dr. P. Gugerli of Agroscope, the Swiss centre of excellence for research in the agriculture and food sector, we developed a new full-spectrum reagent of high quality for detection of GLRaV-1 (1), consisting of a «cocktail» of different complementary monoclonal antibodies. We have tested this new reagent with isolates of GLRaV-1 from the virus collections at Agroscope and INRA, Colmar. All isolates were recognized, including the «serologically atypical» ones (e.g. from INRA collection, originally from the Champagne region) that can be missed by a single Mab. Furthermore, no background is noticed with healthy grapevine tissue.

Specificity and sampling instruction

The reagents contain complementary monoclonal antibodies to different isolates of the grapevine leafroll associated closterovirus (GLRaV) type 1 (1,4). All known isolates of GLRaV-1 tested so far are detected. The virus is one out of several closteroviruses associated with leafroll diseases occurring on grapevine cultivars grown in Europe, North- and South-America, Africa, Asia and Japan (1,2,4,5). The concentration of GLRaV-1 in grapevine tissue varies considerably; thus, conscious sample collection is very important: Mature leaves (esp. petioles) and bark (phloem) scrapings from dormant canes are good tissue sources (6). For testing grapevine, a special extraction buffer «Grapevine» (Art. No. 110123) (3, modified) is used at a ratio of 1:10 (w/v).

The product was developed in cooperation with Agroscope, the Swiss centre of excellence for research in the agriculture and food sector.

Information on the antibodies

Coating IgG: monoclonal; conjugate: monoclonal

References

- (1) Gugerli, P., Brugger, J.-J., and Bovey, R. 1984. Rev. suisse Vitic. Arboric. Hortic. 16:299-304.
- (2) Rosciglione, B., and Gugerli, P. 1986. Rev. suisse Vitic. Arboric. Hortic. 18:207-211.
- (3) Gugerli, P. 1986. In H.U. Bergmeyer: Methods of Enz. Analysis. Vol. XI, pp. 474-481.
- (4) Gugerli, P. Monoclonal antibodies to grapevine leafroll associated closterovirus (unpublished).
- (5) Hu, J.S., Gonsalves, D., and Teliz, D. 1990. J. Phytopathology 128:1-14.
- (6) Teliz, D., Tanne, E., Gonsalves, D., and Zee, F. 1987. Plant Dis. 71:704-709.

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.