

Product Information: DAS-ELISA

Grapevine leafroll-associated virus generic 4 strains (GLRaV-4 strains)

Synonym: Ampelovirus tetravitis

Grapevine leafroll disease (GLD) is considered as one of the most damaging virus disease of grapevine. GLD occurs essentially worldwide in all grape-growing regions. So far, several viruses named Grapevine leafroll-associated viruses (GLRaV-1, GLRaV-2, GLRaV-3, GLRaV-4 strains, and GLRaV-7) belonging to the family *Closteroviridae* were shown to be associated with the disease. GLRaV-1 through -3 are probably the most frequently found types on a worldwide scale, less information is available about GLRaV-4 strains and GLRaV-7. These reagents allow the detection of members of the genus *Ampelovirus* (GLRaV-4 strains) in a single test (DAS-ELISA format).

Specificity and sampling instruction

The reagents contain a mixture of complementary monoclonal antibodies developed against GLRaV-4 strains (1,2, and P. Gugerli-personal communication). These «generic reagents» recognize GLRaV-4, GLRaV-4 strain 5, GLRaV-4 strain 6, GLRaV-4 strain 9, and the newly described GLRaV-4 strain Ob (2) (no data is available for the other GLRaV-4 strains). The concentration of GLRaV in grapevine tissue varies considerably; thus, conscious sample collection is very important: bark (phloem) scrapings from mature canes and mature leaves (especially petioles) are good tissue sources. For testing grapevine, a special extraction buffer «Grapevine» (Art. No. 110123) 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) Besse, S. and Gugerli, P. 2009. Development and characterization of monoclonal antibodies to Grapevine leafroll-associated virus 4 and 5. Abstract RVV Aussois, 18-22 January 2009, p. 48.
- (2) Reynard JS, Schneeberger PH, Frey JE, and Schaerer S. Biological, Serological, and Molecular Characterization of a Highly Divergent Strain of Grapevine leafroll-associated virus 4 Causing Grapevine Leafroll Disease. *Phytopathology*. 2015 Sep;105(9):1262-1269.

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.