



**Product Information: DAS-ELISA**

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

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 96, 480 or 960 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](http://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: new ordering information; minor modifications.