

Product Information: DAS-ELISA

Cherry leaf roll virus (CLRV)

Synonym: *Nepovirus avii*

CLRV (2) has a wide host range, is predominantly occurring in woody plants (fruit and forest trees) and has essentially world-wide distribution. Symptoms may vary seasonally. The virus is transmitted by grafting as well as by pollen and seed. Nematode transmission is controversial. Many biological strains and serological differences have been described.

BIOREBA's all-in-one cherry leaf roll virus reagent

Starting July 2023, BIOREBA is providing a new CLRV "broad-spectrum" DAS-ELISA (1) that recognizes all known isolates; e.g., isolates from birch, cherry, elderberry, grapevine, peach and walnut.

The "single" serologically complementary CLRV-ch and CLRV-e reagents are not supplied any more from June 30th, 2023 on.

Specificity and sampling instruction

The new reagent contains antibodies against birch and elderberry isolate from Germany (E. Fuchs, personal communication) as well as antibodies against a cherry isolate from the Pacific Northwest of the USA (W. Bitterlin, personal communication).

The CLRV (new "broad-spectrum") DAS-ELISA has been validated with 9 isolates of different hosts and origins (mainly from birch, cherry, elderberry, grapevine and walnut; mostly from France, Germany, Switzerland and USA). No (false) host reaction was observed with 11 potential host plants.

As with many viruses in woody plants, virus distribution is often not homogeneous. Because of uneven distribution and seasonal variation, sampling is important. Generally, dormant budwood in winter as well as young leaf tissue in spring and early summer is ideal for testing (4). Taking various samples per plant (e.g., 5 subsamples from various branches of a tree) will increase the chance of correct diagnosis (3). Samples are homogenized 1:20 (w/v) in extraction buffer «General» (Art. No. 110120).

These products were developed in cooperation with the Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany.

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) Jones, A.T. 1985. Descriptions of plant viruses. No. 306. CMI/AAB. 6pp
- (3) Rebenstorf, K. 2002. Diplomarbeit, Humboldt-Universität Berlin, Landwirtschaftlich-Gärtnerische Fakultät.
- (4) Rowhani, A., et al. 2005. Annu. Rev. Phytopathol. 43:261-278.

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 website 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.