Product Information: DAS-ELISA

Apple chlorotic leaf spot virus (ACLSV)

ACLSV occurs in woody plants of the family *Rosaceae* including apple, peach, pear, plum, cherry, apricot and prune. The virus is transmitted by grafting and is transmissible by mechanical inoculation to herbaceous plants. Though ACLSV infection is symptomless in most commercial apple varieties, the virus causes topworking disease of apple trees grown on Maruba kaido rootstocks in Japan, plum bark split, plum pseudopox, pear ring pattern mosaic and apricot pseudopox diseases.

Specificity and sampling instruction

The DAS-ELISA reagents (1) contain different antibodies. One was made against an apple isolate (isolate 10/15, Halle) of ACLSV (5). The other was made against another apple isolate from the DSMZ collection (PV-0998). The reagents recognize isolates of ACLSV in apple (apple chlorotic leaf spot, apple russet ring), pear (pear ring pattern mosaic), cherry (cherry fruit necrosis), and plum (plum narrow striped variegation, plum bark split) (4). The concentration of ACLSV in tissue of woody plants varies considerably, thus, conscious sample collection is very important. Under European conditions, the «time window» for optimal detection of ACLSV in plum trees by ELISA is very narrow: Petals are the only reliable tissue (3). In apple trees, petals as well as forced buds and young leaves in spring and early summer are the most favorable tissue source (2,3,5). Samples are homogenized 1:20(w/v) in extraction buffer «General» (Art. No. 110120).

The product was 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) Fuchs, E. 1980. Acto Phytopathologica Academiae Scientiarum Hungaricae 15 (1-4):69-73.

(3) Fuchs, E., Grüntzig, M., and Al Kai, B. 1988. Nachrichtenblatt für den Pflanzenschutz in der DDR. Heft 10. pp. 208-211.

(4) Fuchs, E., Grüntzig, M., and Merker, D. 1985. Arch. Phytopathol. Pflanzenschutz. 21 (6):427-435.

(5) Grüntzig, M., and Fuchs, E. 1987. Arch. Phytopathol. Pflanzenschutz 23 (1):21-30.

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 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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Version: 5 - 02.06.2017
Adaptions from last version: new conjugate, unchanged sensitivity and specificity

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