Product Information: DAS-ELISA

Strawberry mild yellow edge potexvirus (SMYEPV)

Synonym: Potexvirus fragariae

Stawberry mild yellow edge disease (2,4) is one of the major diseases of strawberries in most parts of the world. Due to the interaction of cultivars, viruses and virus strains, crop management and environment, it is difficult to assess the economic importance of the disease. SMYEPV alone is not particularly damaging to most cultivars, but it seldom occurs alone. SMYEPV in combination with other pathogens, for example, strawberry mottle agent, strawberry crinkle rhabdovirus, strawberry veinbanding caulimovirus or strawberry pallidosis agent, can cause severe loss of plant vigour, yield and fruit quality.

Specificity and sampling instruction

The antibodies used for coating were made against the coat protein of SMYEPV expressed in bacteria (3). The «conjugate» consists of a mix of monoclonal antibodies prepared against the SMYEPV isolate My-18 (from Oregon) from *Rubus rosifolius* (5). The DAS-ELISA reagents (1) have been extensively tested against a wide range of virus isolates from North America, Europe, the Near East and Australia. In the Northern hemisphere, May through September is the best time for sampling of strawberry plants, giving better distinctions between infected and healthy samples (5). Samples are homogenised 1:20 (w/v) in extraction buffer «General» (Art. No. 110120).

The product is based on antibodies developed by Julius Kühn-Institut (JKI) Braunschweig, Germany (Bundesforschungsinstitut für Kulturpflanzen; Institut für Epidemiologie & Pathogendiagnostik); and USDA-ARS Northwest Center for Small Fruit Research, Corvallis, OR, USA.

Information on the antibodies

Coating IgG: polyclonal; conjugate: monoclonal

References

(1) Clark, M.F., and Adams, A. N. 1977. J. gen. Virol. 34:475-483.

(2) Jelkmann, W. 1996. In A.A. Brunt, K Crabtree, M.J. Dallwitz, A.J. Gibbs and L. Watson: Viruses of Plants. Descriptions and Lists from the VIDE Database. pp. 1186-1188.

(3) Kaden-Kreuziger, Lamprecht, S. Martin, R.R., and Jelkmann, W. 1995. Acta Hort. 385:33-40.

(4) Lamprecht, S., and Jelkmann, W. 1997. J. gen. Virol. 78:2347-2353.

(5) Quail, A.M., Martin, R.R., Spiegel, S., and Jelkmann, W. 1995. Acta Hort. 385:39-45.

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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Version: 4 - 09.05.2025
Adaptations from last version: added revised taxonomy of ICTV and assays of individual ELISA reagents.

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