

Product Information: DAS-ELISA

Raspberry bushy dwarf virus (RBDV)

Synonym: *Idaeovirus rubi*

RBDV is readily transmissible by inoculation of plant sap and infects a wide range of plants, often symptomlessly. It is seed- and pollen-borne in *Rubus* species and spreads between plants in association with pollen. No vector is known. The virus is involved with others in inducing the disease known as 'bushy dwarf', or 'symptomless decline' in Lloyd George red raspberry. Affected plants are characterized by stunting and proliferation of canes and are prone to autumn fruiting. In sensitive *Rubus* species and cultivars, RBDV is the causal agent of yellows disease. Premature defoliation, decreased vigour, leaf curling, necrosis, death of lateral shoots and increased winter kill are associated with infection by some isolates of the virus in some red raspberry cultivars (2).

Specificity and sampling instruction

The polyclonal antibodies used for coating were made against an isolate from Oregon, USA; the monoclonals used for the «conjugate» from a resistant-breaking strain from Scotland, GB (3, and B. Martin, personal communication). Both, the polyclonal and monoclonal antibodies have been widely tested by ELISA (1) in different parts of the world, with little serological diversity encountered (4, and B. Martin, personal communication). The best tissue source is leaves collected any time from early spring until the end of August. It is best to collect at least 3 leaves per plant as uneven distribution can occur in some cultivars. Samples are homogenised 1:20 (w/v) in extraction buffer «General» (Art. No. 110120). The product was developed in cooperation with the USDA-ARS Horticultural Crops Research Laboratory, 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) Murrant, A.F. 1976. Descriptions of plant viruses. No. 165. CMI/AAB. 4 pp.
- (3) Martin, R.R. 1984. Can. J. Plant Pathol. 6:264.
- (4) Martin, R.R. 1998. Acta Hort. 471:71-74.

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.