Product Information: DAS-ELISA

Impatiens necrotic spot virus (INSV)

Synonym: Orthotospovirus impatiensnecromaculae

Impatiens necrotic spot virus (INSV) (6), once called the I-strain of tomato spotted wilt virus (see Tab. 1), has been widespread and devastating in the greenhouse industry. INSV is transmitted by thrips (6). This virus causes a wide variety of symptoms including wilting, stem death, stunting, yellowing, poor flowering, „chicken pox-like" sunken spots on leaves, etches or ring spots on leaves and many others. Virus symptoms depend upon what time of year the plant is infected, its age when infected, its physiological state when infected, growing conditions in the greenhouse and the strain of virus present. Synonyms: TSWV-I, NL-07.

Tab. 1. Viruses in the genus *Tospovirus* are classified as follows:

Species		Serogroup*	Serotype
TSWV	Tomato spotted wilt virus	I Synonyms: BR-01, $CNPH_1$, TSWV-L3	
TCSV	Tomato chlorotic spot virus	II Synonym: BR-03	Type I
GRSV	Groundnut ringspot virus	II Synonyms: TSWV-peanut, SA-05	Type II
INSV	Impatiens necrotic spot virus	III Synonyms: TSWV-I, NL-07	

* For detection of Tospoviruses of other serogroups, please refer to the product information of the reagents TSWV (detects isolates of the serogroups I and II), or the full-spectrum reagent Tospo I,II,III.

Specificity and sampling instruction

These reagents were made against an isolate of INSV from *Hippeastrum* (G. Adam, personal communication). The reagents react in DAS-ELISA (1) with all isolates of INSV (serogroup III within the genus Tospovirus) (3,5), including isolates that have previously been named TSWV-*Impatiens* strain (7), or NL-07 (4). INSV predominantly infects ornamentals, but also vegetables. ELISA has been used to detect Tospoviruses in over 40 plant species (2). For increased test security, different plant tissue dilutions (1:50 and 1:250), applied in duplicate wells, are suggested. Samples are homogenised 1:50 (w/v) in extraction buffer «General» (Art. No. 110120).

The product is based on antibodies developed by the Leibniz Institute DSMZ GmbH, Braunschweig, Germany.

Information on the antibodies

Coating IgG: polyclonal; conjugate: monoclonal

References

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(3) De Àvila, A.C: 1992. Diversity of Tospoviruses. Thesis Agricultural University of Wageningen. 136 pp.
(4) De Àvila, A.C., de Haan, P., Kitajima, E.W., Kormelink, R., Resende, R. de O., Goldbach, R.W., and Peters, D. 1992. Journal of Phytopathology 134:133-151.
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(6) Francki, R.I.B., Fauquet, C.M., Knudson, D.L., and Brown, F. 1991. Pages 281-283 in Archives of Virology, Supplement 2, 1-450.
(7) Law, M.D., and Moyer, J.W. 1990. J. gen. Virol. 71:933-938.

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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.