

## Product Information: DAS-ELISA

# Apple stem grooving virus (ASGV)

Synonym: *Capillovirus mali*

ASGV (4) is a *Capillovirus* with flexuous filamentous particles. It probably occurs world-wide in Rosaceae fruit trees and citrus. Its natural mode of spread is unknown. It is symptomlessly in most Rosaceae fruit trees. Transmissible by mechanical inoculation to herbaceous plants. It causes stem grooving, brown line and graft union abnormalities in the *Malus* species Virginia Crab and topworking disease of apple trees grown on Mitsuba kaido (*Malus sieboldii*) in Japan. It is probably distributed wherever apples are cultivated.

ASGV was previously also known as citrus tatter leaf virus (CTLV) and is the causal agent of tatter leaf and graft incompatibility in trifoliate orange (*Poncirus trifoliata*). Natural spread in citrus plants is reported in many countries (e.g. China, Japan, South Africa and USA).

### Specificity and sampling instruction

The DAS-ELISA reagents were made against apple Isolate 899 (Agroscope) and apple Isolate ASGV-Nu28 (Prime Diagnostics-WUR). The concentration of ASGV in apple trees is generally low and a successful detection of the virus requests special attention to the sampling. Under European conditions, ASGV is most reliably detected in buds or leaves and petals forced in a greenhouse at 18 to 25°C in the period from October to April (2,3). Samples are homogenized 1:20 (w:v) in extraction buffer «General» (Art. No. 110120).

### 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) Lister, R.M. 1970. Descriptions of plant viruses. No. 31. CMI/AAB. 4pp.

### 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](http://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.