



## Product Information: DAS-ELISA

# Apple stem grooving virus (ASGV)

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

### 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 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](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: new ordering information; minor modifications.