

Agdia's Diagnostic Tests for Ornamentals

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Nemesia Ring Necrosis Virus

- **Tymovirus**
- **Nemesia, Diascia, Verbena, Phlox, and Torenia**
- **Cross Reactivity**
 - ScrMV**
 - UCR Tymovirus**



NEW

Agdia ELISA Test for *Angelonia flower break virus*

Introduction

Angelonia flower break virus (AnFBV) is a new carmovirus recently described infecting *Angelonia angustifolia* in Germany (Winter et al., 2005) the U.S. and Israel (Adkins et al., 2005). Currently, naturally infected hosts include Angelonia, Phlox, and Verbena. The virus may also be found in Butterfly flower, Forget-me-not, and Foxglove.

Agdia's collaborative efforts with researchers in the US and Israel resulted in the description of the novel Angelonia flower break virus and the development of a serological test for diagnostic purposes.

Performance trials

Polyclonal antisera produced by Agdia and in Israel were used to develop a DAS-ELISA that detects the U.S., the Israeli and the European isolates. A serological study including 27 other virus species that infect ornamentals showed that the polyclonal antibodies prepared against AnFBV reacted only with AnFBV. No tissue reactions were observed with 128 healthy ornamental varieties tested.

Between Nov. 2005 and Mar. 2006, AnFBV was detected in 193 of 267 angelonia, 26 of 143 phlox, and 181 of 567 verbena samples submitted to Agdia Testing Services by commercial ornamental propagators.

The Agdia ELISA is offered as an alkaline phosphatase labeled Reagent Set that includes capture antibody, detection antibody, conjugate diluent, sample extraction buffer, and uncoated microtiter plates.



Products Available for AnFBV detection

DAS ELISA Reagent Set
Catalog no. SRA 36600
500, 1000, 5000 testwells

Carmovirus Group PCR primer set
Catalog no. 94000 – 25 reactions

For more information or to place an order
Contact Mike Tiffany miket@agdia.com
Phone: 1-800-622-4342 or 574-264-2014



Plum pox virus PPV ELISA

- Reagent Set
- Alkaline Phosphatase Label
- Coat Protein Positive SRA Control
- Test is very sensitive
- Test detects all known PPV isolates including the REC, M, D, EA, C, and W isolates



CITRUS TRISTEZA VIRUS (CTV) I

- **Citrus quick decline virus, podredumbre de las raicillas, lime die-back virus, grapefruit stem pitting virus, Hassaku dwarf virus.**
- **Aphid transmitted in a semi-persistent manner and is sap transmitted**
- **Detects all CTV strains including seedling yellows (CTV-SY), tristeza (CTV-T), stem pitting (CTV-SP)**



CITRUS TRISTEZA VIRUS (CTV) II

**Agdia developed 3
different test formats**

- **ELISA**
- **ImmunoPrint**
- **ImmunoStrip**

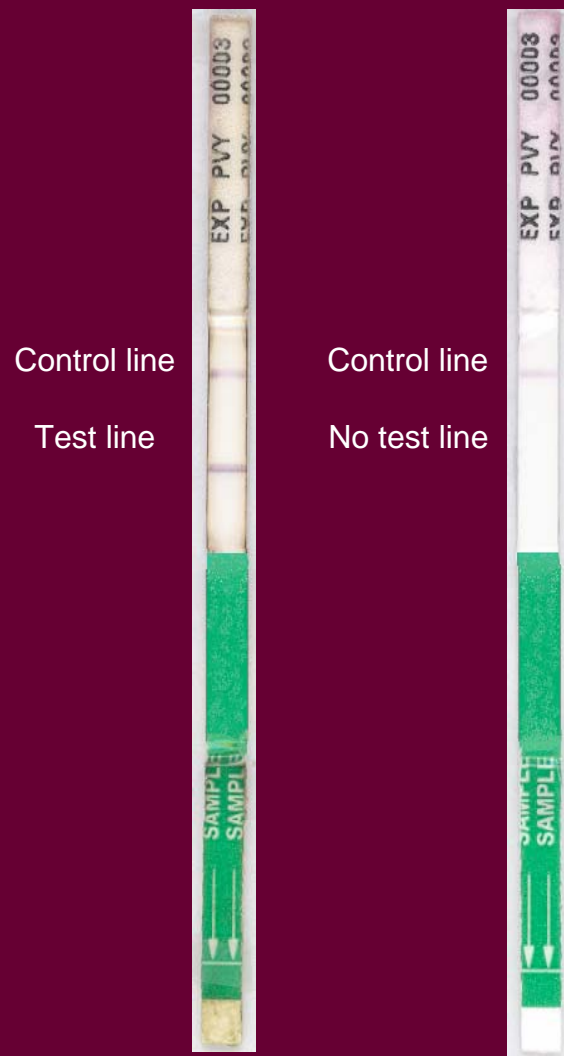


ImmunoStrip® Test for *Potato virus Y* detection in potato plants

Positive Result

Negative Result

- *Potato virus Y* (PVY) is an economically important virus that infects potato and other solanaceous crops.
- Detects all PVY strains in Potato including PVY-c, PVY-o, PVY-n, and PVY-ntn strains.
- This ImmunoStrip® has not shown cross-reactivity with other potato viruses.



NEW

Orchid ImmunoStrip® Test For

Cymbidium mosaic virus and *Odontoglossum ringspot virus*

Introduction

Cymbidium mosaic virus (CyMV) and *Odontoglossum ringspot virus* (ORSV) are important viruses that infect many hybrids and species of orchids. Agdia's newly developed ImmunoStrip® is a useful tool to detect and identify both CyMV and ORSV.

There are many advantages only minutes to complete, can be used anywhere, are simple to interpret, give a storable result, and are cost effective.

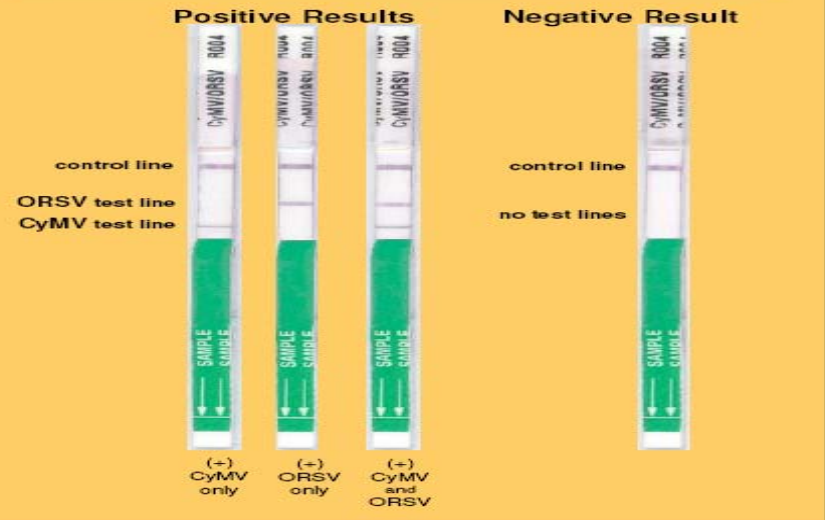
Detects All CyMV and ORSV in Orchid

- The CyMV/ORSV ImmunoStrip® can be used with all orchids and any part of the plant may be tested.

Performance Trials

- The CyMV/ORSV ImmunoStrip® is undergoing performance trials. A total of 140 orchids have been tested including varieties of Cattleya, Cymbidium, Dendrobium, Oncidium, and Phalaenopsis.
 - 15 tested positive for CyMV
 - 5 tested positive for ORSV
 - 2 tested positive for both viruses
 - 118 tested negative
- All results were confirmed by other diagnostic methods, including ELISA and PCR.
- This ImmunoStrip® has **not** shown cross-reactivity with other orchid viruses including, *Cucumber mosaic virus* (CMV) and *Cymbidium ringspot virus* (CyRSV).

Stability: the PVY ImmunoStrip® is stable for one year when stored at 4 °C.



New Tests

- *Xanthomonas campestris* pv. *dieffenbachiae*, ImmunoStrip
- *Xanthomonas axonopodis* pv. *citri* , ELISA and ImmunoStrip
- Canna yellow mottle virus, PCR
Badnavirus
- Soybean dwarf virus, ELISA, Luteovirus



Interesting New Tests In Development

➤ **Tospovirus Group Test**

➤ **Tobamovirus Group Test**



Re-Formatted Tests

- Alfalfa mosaic virus
- Arabis mosaic virus
- Broad bean wilt virus
- *Clavibacter michiganensis* subsp. *Sepedonicus*
- Tomato ringspot virus
- Tobacco rattle virus, Real-Time PCR

