

Validation report

DAS-ELISA ASPV

Article No.: 151877 (ASPV Complete kit 96) / 151875 (ASPV Complete kit 480) / 151872 (ASPV Complete kit 960)

General information:

Target Pathogen	ASPV (Apple stem pitting virus / Foveavirus mali) Synonym: Pear vein yellows virus (PVYV)
Genus	<i>Foveavirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Monoclonal antibodies developed against ASPV isolate 953 in apple from Switzerland.
Sampling	Leave and wood samples: 1:20 (w/v) in extraction buffer "general". Scrapings from dormant wood in winter, mature wood or older leaves during summer are the best sources for testing.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized ASPV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, veins, wood, blossoms, pollen No transmission vector information available.
Tested species infected	<i>Malus domestica</i> (Apple) <i>Nicotiana Occidentalis</i> (Tobacco) <i>Physalis peruviana</i> (Physalis) <i>Pyrus communis</i> (Pear)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	>100
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	ASPV 5161 (Switzerland, Apple) ASPV 5164 (Switzerland, Apple) ASPV 5161 (Switzerland, Apple) ASPV 2901 (Switzerland, Apple) ASPV 2108 (Switzerland, Apple) ASPV 1063 (Switzerland, Tobacco) ASPV 1423 (Switzerland, Physalis) ASPV 1423 (Switzerland, Pear) ASPV 9153 (Switzerland, Pear) ASPV 2224 (Switzerland, Pear) ASPV 2125 (Switzerland, Apple) ASPV 953 (Switzerland, Tobacco) ASPV 1063 (Switzerland, Tobacco)

	APSV 210704 (Switzerland, Tobacco) ASPV BI-005-25 (Switzerland, Apple) ASPV 071008 (Switzerland, Apple) ASPV 080716 (France, Apple) ASPV 311016 (Switzerland, Pear) ASPV 301116 (Switzerland, Apple) ASPV 160818 (Switzerland, Pear) ASPV 270219 (Switzerland, Apple) ASPV 210621 (Switzerland, Apple) ASPV TS-027-25-24 (Switzerland, Apple) ASPV TS 050-25-08 (Switzerland, Apple) ASPV TS 050-25-13 (Switzerland, Apple) ASPV TS 050-25-25 (Switzerland, Apple) ASPV TS 050-25-33 (Switzerland, Apple) ASPSV TS 034-23-01 (Switzerland, Apple)
Cross reaction with (Exclusivity)	-
No cross reaction tested with (Exclusivity)	ACLSV (Apple chlorotic leaf spot virus) APLV (Andean potato latent virus) ApMV (Apple mosaic virus) ASGV (Apple stem grooving virus) BYDV (Barley yellow dwarf virus) CaMV (Cauliflower mosaic virus) CLRV (Cherry leaf roll virus) GCLV (Garlic common latent virus) GFLV (Grapevine fanleaf virus) OYDV (Onion yellow dwarf virus) PPV (Plum pox virus) PVA (Potato virus A) RpRSV (Raspberry ringspot virus) TMV (Tobacco mosaic virus) TNV (Tobacco necrosis virus) ToANV (Tomato apex necrosis virus) TRSV (Tobacco ringspot virus) ZYMV (Zucchini yellow mosaic virus)
No matrix effect observed with (Selectivity)	<i>Allium cepa</i> (Onion) <i>Malus domestica</i> (Apple) <i>Nicotiana benthamiana</i> (Tobacco) <i>Nicotiana clevelandii</i> (Tobacco) <i>Nicotiana occidentalis</i> (Tobacco) <i>Nicotiana tabacum</i> "Xanthi" (Tobacco) <i>Prunus armeniaca</i> (Apricot) <i>Prunus avium</i> (Cherry) <i>Pyrus communis</i> (Pear) <i>Vitis vinifera</i> (Grapevine)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻² dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	ASPV on leaves of apple: 1:250 dilution ASPV on wood of apple: 1:250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

Validation:

Internal validation	2004, 2007, 2021
External validation	-
Reproducibility	100%
Repeatability	100%
Validation information	Internally, the reagents have been validated with the BIOREBA isolate collection, composed of various samples with diverse plant host range, collected within the last 40 years.

Validation release Date:
February 5th, 2026

QC manager:



Version: 1 – 05.02.20265.