

Validation report

DAS-ELISA PVV

Article No.: 110877 (PVV Complete kit 96) / 110875 (PVV Complete kit 480) / 110872 (PVV Complete kit 960)

General information:

Target Pathogen	PVV (Potato virus V / Potyvirus vetuberosi)
Genus	<i>Potyvirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against the PVV isolate 624.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General". Tuber or sprout samples: 1:10 to 1:20 (w/v) in extraction buffer "Bulbs & Tubers".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized PVV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, tuber, sprout Transmission by vectors (aphids).
Tested species infected	<i>Nicotiana tabacum</i> "Xanthi" (Tobacco) <i>Solanum tuberosum</i> (Potato)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	8
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	15
Detected isolates / geographic regions (Inclusivity)	PVV 624 (Switzerland, Potato) PVV 624 (Switzerland, Tobacco)
Cross reaction with (Exclusivity)	-
No cross reaction tested with (Exclusivity)	APMoV (Andean potato mottle virus) ApP (Apple proliferation phytoplasma) ArMV (Arabidopsis mosaic virus) CLRV (Cherry leaf roll virus) GFLV (Grapevine fanleaf virus) PMTV (Potato mop-top virus) ZYMV (Zucchini yellow mosaic virus)
No matrix effect observed with (Selectivity)	<i>Chenopodium quinoa</i> (Quinoa) <i>Nicotiana benthamiana</i> (Tobacco) <i>Solanum tuberosum</i> (Potato)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻³ dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	PVV on leaves of tobacco: 1:1'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

Validation:

Internal validation	2000
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:
July 10th, 2026

QC manager:



Version: 1 – 10.07.2026.