

Validation report

DAS-ELISA PLCV

Article No.: 170377 (PLCV Complete kit 96) / 170375 (PLCV Complete kit 480) / 170372 (PLCV Complete kit 960)

General information:

Target Pathogen	PLCV (Pelargonium leaf curl virus / Tombusvirus pelargonii)
Genus	<i>Tombusvirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against a PLCV isolate.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General". Symptomatic leaves during winter and early spring are the best tissue for testing
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized PLCV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf Transmission by mechanical inoculation.
Tested species infected	<i>Chenopodium amaranticolor</i> (Tree spinach/Giant Goosefoot) <i>Chenopodium quinoa</i> (Quinoa) <i>Pelargonium</i> (Pelargonium)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	12
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	PLCV 1178 (Switzerland, Quinoa) PLCV 1178 (Switzerland, <i>Ch. amaranticolor</i>)
Cross reaction with (Exclusivity)	Weak reactions with TBSV (Tomato bushy stunt virus) is possible.
No cross reaction tested with (Exclusivity)	CbMV (Calibrachoa mottle virus) OYDV (Onion yellow dwarf virus) PFBV (Pelargonium flower break virus) PLPV (Pelargonium line pattern virus) ToMV (Tomato mosaic virus)
No matrix effect observed with (Selectivity)	<i>Chenopodium quinoa</i> (Quinoa) <i>Pelargonium</i> (Pelargonium) <i>Petunia × hybrida</i> (Petunia)

Sensitivity:

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

Validation:

Internal validation	1994
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:
August 26th, 2026

QC manager:



Version: 1 – 26.08.2026.