

Validation report

DAS-ELISA PMTV

Article No.: 113077 (PMTV Complete kit 96) / 113075 (PMTV Complete kit 480) / 113072 (PMTV Complete kit 960)

General information:

Target Pathogen	PMTV (Potato mop-top virus / Pomovirus solani)
Genus	<i>Pomovirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Monoclonal antibodies developed against PMTV isolate 22.12.98/2 from Scotland.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General". Tuber samples: 1:20 (w/v) in extraction buffer "Bulbs & Tubers". Combined sampling from both tuber ends (heel and rose ends) is recommended. Uneven virus distribution in single tubers or progenies from infected tubers is possible.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized PMTV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, tuber Transmission by the soilborne vector fungus <i>Spongospora subterranea</i> f. sp. <i>subterranea</i> (Sss).
Tested species infected	<i>Nicotiana benthamiana</i> (Tobacco) <i>Nicotiana tabacum</i> (Tobacco) <i>Solanum tuberosum</i> (Potato)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	25
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	56
Detected isolates / geographic regions (Inclusivity)	PMTV 1134 (Switzerland, Tobacco) PMTV 1362 (Switzerland, Tobacco) PMTV 1362 (Switzerland, Potato)
Cross reaction with (Exclusivity)	-
No cross reaction tested with (Exclusivity)	ACLSV (Apple chlorotic leaf spot virus) ApP (Apple proliferation phytoplasma) BCMN (Bean common mosaic necrosis virus) CLR (Cherry leaf roll virus) GLRaV-1 (Grapevine leafroll-associated virus 1) OYDV (Onion yellow dwarf virus) MDMV (Maize dwarf mosaic virus)

	PLRV (Potato leafroll virus) PVA (Potato virus A) PVV (Potato virus V) PVX (Potato virus X) PYBV (Potato yellow blotch virus)
No matrix effect observed with (Selectivity)	<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	PMTV on leaves of tobacco: 1:1'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

Validation:

Internal validation	2002
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:
June 16th, 2026

QC manager:



Version: 1 – 16.06.2026.