Validation report

DAS-ELISA APLV

Article No.: 110977 (APLV Complete kit 96) / 110975 (APLV Complete kit 480) / 110972 (APLV Complete kit 960)

General information:

Target Pathogen	APLV (Andean potato latent virus) APMMV (Andean potato mild mosaic virus) → split in two different viruses
Genus	*Tymovirus*
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against a APLV hu strain isolate from Peru (re-classified as APMMV).
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General". Sprouts/tuber 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 APLV / APMMV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, tubers Mechanical transmission, transmission by potato flea beetle (*Epitrix cucumeris*)
Tested species infected	*Chenopodium quinoa* (Quinoa) *Nicotiana clevelandii* (Tobacco) *Nicotiana glutinosa* (Tobacco) *Solanum tuberosum* (Potato) *Ullucus tuberosus* (Ulluco)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	34
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	27
Detected isolates / geographic regions (Inclusivity)	APLV 664 (Switzerland, Tobacco) APLV 120420 (Switzerland, Quinoa) APMMV HU 1259 (Peru, Tobacco) APLV 531 (Peru, Potato) APLV 474 (Peru, Potato) APLV 433 (Peru, Potato)
Cross reaction with (Exclusivity)	APMMV (Andean potato mild mosaic virus)
No cross reaction tested with (Exclusivity)	AMV (Alfalfa mosaic virus) ASPV (Apple stem pitting virus) GVA (Grapevine virus A)

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	PVM (Potato virus M) RpRSV (Raspberry ringspot virus) TMV (Tobacco mosaic virus)
No matrix effect observed with (Selectivity)	*Nicotiana clevelandii* (Tobacco) *Pyrus communis* (Pear) *Solanum tuberosum* (Potato) *Ullucus tuberosus* (Ulluco)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	-
Sensitivity on host matrix	100%
Other sensitivity characteristics	-

Validation:

Internal validation	1988-1989 (last internal validation)
External validation	1988-1989 (Peru)
Reproducibility	100%
Repeatability	100%
Validation information	Internally, the reagents have been tested with the BIOREBA isolate collection.

Validation release Date:
July, 11th, 2023

QC manager:

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