

Validation report

DAS-ELISA APMoV

Article No.: 111077 (APMoV Complete kit 96) / 111075 (APMoV Complete kit 480) / 111072 (APMoV Complete kit 960)

General information:

Target Pathogen	APMoV (Andean potato mottle virus / Comovirus andesense)
Genus	Comovirus
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against a APMoV isolate from Peru.
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 APMoV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, tubers Transmission within the field by foliage contact
Tested species infected	<i>Nicotiana clevelandii</i> (Tobacco) <i>Solanum tuberosum</i> (Potato)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	15
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	23
Detected isolates / geographic regions (Inclusivity)	APMoV 20082002 (Switzerland, Tobacco) APMoV 1056 (Switzerland, Tobacco) APMoV 430 (Peru, Potato) APMoV 432 (Peru, Potato) APMoV 473 (Peru, Potato) APMoV 530 (Peru, Potato)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ApP (Apple proliferation phytoplasma) ArMV (Arabis mosaic virus) BYDV (Barley yellow dwarf virus) CLRV (Cherry leaf roll virus) GFLV (Grapevine fanleaf virus) PLRV (Potato leafroll virus) PVV (Potato virus V) PVX (Potato virus X) SLRSV (Strawberry latent ringspot virus) ZYMV (Zucchini yellow mosaic virus)

No matrix effect observed with (Selectivity)	<i>Cucumis sativus</i> (Cucumber) <i>Solanum tuberosum</i> (Potato)
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Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻⁴ dilution of infected tissue (pathogen titer unknown)
Sensitivity on host matrix	APMoV on leaves of tobacco: 1: 31'250 dilution Pathogen titer unknown
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, 12th, 2023

QC manager:



Version: 2 – 28.04.2025 – Additional validation information on analytical sensitivity and sensitivity on host matrix.