

Validation report

DAS-ELISA AMV

Article No.: 140577 (AMV Complete kit 96) / 140575 (AMV Complete kit 480) / 140572 (AMV Complete kit 960)

General information:

Target Pathogen	AMV (Alfalfa mosaic virus / Alfamovirus AMV)
Genus	<i>Alfamovirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against an AMV isolate from Italy (Coat) and an AMV isolate from alfalfa collected in Canada (Conjugate).
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 AMV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, tuber, sprout Seed transmission is possible. Transmission by vectors (aphid species).
Tested species infected	<i>Nicotiana clevelandii</i> (Tobacco) <i>Nicotiana glutinosa</i> (Tobacco) <i>Nicotiana tabacum</i> "Xanthi" (Tobacco) <i>Nicotiana tabacum</i> (Tobacco)

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)	AMV 1024 (Switzerland, Tobacco) AMV 1034 (Switzerland, Tobacco) AMV 120820 (Switzerland, Tobacco)
Cross reaction with (Exclusivity)	-
No cross reaction tested with (Exclusivity)	BCMN (Bean common mosaic necrosis virus) BCMV (Bean common mosaic virus) CMV (Cucumber mosaic virus) HLVd (Hop latent virus) PVY (Potato virus Y) SMV (Soybean mosaic virus) TMV (Tobacco mosaic virus)

No matrix effect observed with (Selectivity)	<i>Cannabis sativa</i> (Hemp) <i>Nicotiana clevelandii</i> (Tobacco) <i>Ocimum basilicum</i> (Basil) <i>Phaseolus vulgaris</i> (Bean) <i>Pisum sativum</i> (Pea) <i>Solanum tuberosum</i> (Potato) <i>Valerianella locusta</i> (Field salad)
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Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻⁵ dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	AMV on leaves of tobacco: 1:781'250 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.