BIOREBA

Validation report

DAS-ELISA Allium-Virus (Allium)

Article No.: 162777 (Allium Complete kit 96) /
162775 (Allium Complete kit 480) /
162772 (Allium Complete kit 960)

General information:

Target Pathogen	OYDV (Onion yellow dwarf virus) GCLV (Garlic common latent virus) LYSV (Leek yellow stripe virus)
Genus	*Potyvirus* (OYDV / LYSV) and *Carlavirus* (GCLV)
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against isolates from a mixed infection in garlic.
Sampling	Leaf samples: 1/20 /w/v) in extraction buffer "Bulbs & Tubers" Bulb samples: 1/20 /w/v) in extraction buffer "Bulbs & Tubers"
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized OYDV-infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaves, bulbs
Tested species infected	*Allium cepa* (Onion) Alllium sativum (Garlic) *Chenopodium quinoa* (Quinoa)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organisms (True Positives)	19
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	20
Detected isolates / geographic regions (Inclusivity)	OYDV 1185 (Switzerland, Garlic) OYDV 150812 (Switzerland, Onion) OYDV 210721-1 (Netherlands, Garlic) OYDV 151121 (Switzerland, Garlic) OYDV 130323 (Switzerland, Garlic) OYDV 020724-11 (France, Garlic) OYDV 020724-10 (France Garlic) + GCLV OYDV BI-002-25 (Spain, Garlic) GCLV 1154 (Switzerland, Garlic) GCLV 180309 (Switzerland, Quinoa) GCLV 051211 (Switzerland, Garlic) GCLV 121211 (Switzerland, Garlic) GCLV 210624-11 (France, Garlic) GCLV BI-003-25 (Spain, Garlic)

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	LYSV 200317 (Switzerland, Quinoa) LYSV 291019 (Swizterland, Garlic) LYSV 210120 (Switzerlan, Garlic) LYSV 061123-7 (Switzerland, Garlic) LYSV BI-001-25 (Switzerland, Garlic)
Cross reaction with (Exclusivity)	PVA (Potato virus A) – very weak cross-reactivity possible BCMV (Bean common mosaic virus) – very weak cross-reactivity possible ZYMV (Zucchini yellow mosaic virus) – weak cross-reactivity possible
No cross reaction tested with (Exclusivity)	SLV (Shallot latent virus) MDMV (Maize dwarf mosaic virus) SCMV (Sugarcane mosaic virus) INSV (Impatiens necrotic spot virus) PepMV (Pepino mosaic virus) TBRV (Tomato black ring virus) BCMNV (Bean common mosaic necrosis virus) SMV (Soybean mosaic virus) IYSV (Iris yellow spot virus) PVY (Potato virus Y) TSV (Tobacco streak virus) CMV (Cucumber mosaic virus) LMV (Lettuce mosaic virus) TSWV (Tomato spotted wilt virus) TuMV (Turnip mosaic virus) WMV-2 (Watermelon mosaic virus 2)
No matrix effect observed with (Selectivity)	*Allium porrum* (Leek) –leaves *Allium cepa* (Onion) – bulbs and leaves Alllium sativum (Garlic) – bulbs and leaves *Chenopodium quinoa* (Quinoa) - leaves

Sensitivity:

Analytical Sensitivity / LoD	100% (10^{-3})
Sensitivity on host matrix	Onion leaves: $1.25*10^{-3}$ Garlic leaves: $6.25*10^{-3}$
Other sensitivity characteristics	-

Validation:

Internal validation	2026
External validation	-
Reproducibility	100% (BIOREBA)
Repeatability	100% (BIOREBA)
Validation information	The internal validation was done with the internal collection of BIOREBA strains and species.

Validation release Date:
February 27th, 2026

QC manager:

Version: 1 – 27.02.2026

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