

## 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:**

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

**Technical information:**

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

**Host matrix:**

<b>Tested plant material</b>	Leaves, bulbs
<b>Tested species infected</b>	<i>Allium cepa</i> (Onion) <i>Allium sativum</i> (Garlic) <i>Chenopodium quinoa</i> (Quinoa)

**Specificity:**

<b>Analytical Specificity</b>	100%
<b>Number of tested samples from target organisms (True Positives)</b>	19
<b>Diagnostic Specificity</b>	100%
<b>Number of tested samples non-target organism (True Negatives)</b>	20
<b>Detected isolates / geographic regions (Inclusivity)</b>	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)

	LYSV 200317 (Switzerland, Quinoa) LYSV 291019 (Switzerland, Garlic) LYSV 210120 (Switzerland, Garlic) LYSV 061123-7 (Switzerland, Garlic) LYSV BI-001-25 (Switzerland, Garlic)
<b>Cross reaction with (Exclusivity)</b>	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
<b>No cross reaction tested with (Exclusivity)</b>	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)
<b>No matrix effect observed with (Selectivity)</b>	<i>Allium porrum</i> (Leek) –leaves <i>Allium cepa</i> (Onion) – bulbs and leaves <i>Allium sativum</i> (Garlic) – bulbs and leaves <i>Chenopodium quinoa</i> (Quinoa) - leaves

**Sensitivity:**

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

**Validation:**

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

Validation release Date:  
February 27<sup>th</sup>, 2026

QC manager:



Version: 1 – 27.02.2026

