

# Validation report

## DAS-ELISA LYSV

Article No.: 160377 (LYSV Complete kit 96) / 160375 (LYSV Complete kit 480) / 160372 (LYSV Complete kit 960)

### General information:

Target Pathogen	LYSV (Leek yellow stripe virus / Potyvirus ampeloprasii)
Genus	<i>Potyvirus</i>
Method	DAS-ELISA

### Technical information:

Antibodies	Polyclonal antibodies developed against a LYSV isolate in leek from Singapore.
Sampling	<i>Allium</i> species samples (bulbs and leaves): 1:20 (w/v) in extraction buffer "Bulbs & Tubers". All other samples: 1:20 (w/v) in extraction buffer "General".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized LYSV infected plant extracts
Working volume	200 µl / well

### Host matrix:

Tested plant material	Leaf, bulb Transmission by vectors (aphids) and sap-transmission via inoculation.
Tested species infected	<i>Allium ampeloprasum</i> (Wild garlic) <i>Allium cepa</i> (Onion) <i>Alliaria petiolata</i> (Garlic herb) <i>Allium sativum</i> (Garlic) <i>Chenopodium quinoa</i> (Quinoa)

### Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	31
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	45
Detected isolates / geographic regions (Inclusivity)	LYSV PV-0451 (Indonesia, Wild garlic) LYSV BI-001-25 (Spain, Garlic) LYSV 080217 (Switzerland, Quinoa) LYSV 200317 (Switzerland, Quinoa) LYSV 100417 (Switzerland, Quinoa) LYSV 291019 (Switzerland, Garlic herb) LYSV 210120 (Switzerland, Onion) LYSV 170220 (Switzerland, Garlic herb) LYSV ID5837 (Switzerland, Garlic herb) LYSV ID5837 (Switzerland, Quinoa)
Cross reaction with (Exclusivity)	-

No cross reaction tested with (Exclusivity)	ASPV (Apple stem pitting viurs) GCLV (Garlic common latent virus) OYDV (Onion yellow dwarf virus) PVM (Potato virus M) SLV (Shallot latent virus)
No matrix effect observed with (Selectivity)	<i>Allium ampeloprasum</i> (Leek) <i>Allium cepa</i> (Onion) <i>Alliaria petiolata</i> (Garlic herb) <i>Allium sativum</i> (Garlic) <i>Chenopodium quinoa</i> (Quinoa)

**Sensitivity:**

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 <sup>-3</sup> dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	LYSV on bulb of garlic: 1:1'250 dilution LYSV on leaves of garlic: 1:1'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

**Validation:**

Internal validation	2024-2025
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:  
May 28<sup>th</sup>, 2026

QC manager:



Version: 1 – 28.05.2026.