Validation report

DAS-ELISA CYSDV

Article No.: 162377 (CYSDV Complete kit 96) / 162375 (CYSDV Complete kit 480) / 162372 (CYSDV Complete kit 960)

General information:

Target Pathogen	CYSDV (Cucurbit yellow stunting disorder virus / Crinivirus cucurbitae)
Genus	*Crinivirus*
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against a recombinant coat protein of CYSDV.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General". Detection is best in leaves throughout the growing season showing early symptoms of interveinal chlorosis. Best results with sampling leaf mid veins for extraction.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized CYSDV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf Transmission by vectors (whitefly) and infected propagation material.
Tested species infected	*Cucumis sativus* (Cucumber) *Cucurbita maxima* (Pumpkin) *Cucurbita pepo* (Zucchini)

Specificity:

Analytical Specificity	97.06%
Number of tested samples from target organism (True Positives)	27
Diagnostic Specificity	97.06%
Number of tested samples non-target organism (True Negatives)	33
Detected isolates / geographic regions (Inclusivity)	CYSDV BI-003-24 (US, Cucumber) CYSDV 250804 (Switzerland, Pumpkin) CYSDV 290110 (Lebanon, Cucumber) CYSDV 210111 (Lebanon, Cucumber) CYSDV 240611 (Lebanon, Cucumber) CYSDV 220313 (Lebanon, Cucumber) CYSDV 031114 (Switzerland, Cucumber) CYSDV 011214 (Switzerland, Cucumber) CYSDV 170220 (Lebanon, Switzerland)
Cross reaction with (Exclusivity)	WmCSV (Watermelon chlorotic stunt virus)

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No cross reaction tested with (Exclusivity)	ApP (Apple proliferation phytoplasma) CCYV (Cucurbit chlorotic yellows virus) CGMMV (Cucumber green mottle mosaic virus) PVV (Potato virus V) PVX (Potato virus X) SqMV (Squash mosaic virus) TMV (Tobacco mosaic virus) ToRSV (Tomato ringspot virus) WMV-2 (Watermelon mosaic virus-2) ZYMV (Zucchini yellow mosaic virus)
No matrix effect observed with (Selectivity)	*Cucumis melo* (Melon) *Cucumis sativus* (Cucumber) *Cucurbita maxima* (Pumpkin) *Cucurbita pepo* (Zucchini)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10^{-3} dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	CYSDV on leaves of cucumber: 1:6'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

Validation:

Internal validation	2010, 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 15 years.

Validation release Date:
July 27th, 2026

QC manager:

Version: 1 – 28.07.2026.

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