

Validation report

DAS-ELISA ACLSV

Article No.: 151077 (ACLSV Complete kit 96) / 151075 (ACLSV Complete kit 480) / 151072 (ACLSV Complete kit 960)

General information:

Target Pathogen	ACLSV (Apple chlorotic leaf spot virus)
Genus	<i>Trichovirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against two different ACLSV isolates from apple.
Sampling	1:20 (w/v) in extraction buffer "General". Sampling (season, material) is very important.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized ACLSV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Petals, forced buds, young leaves, wooden parts
Tested species infected	<i>Chenopodium quinoa</i> (Quinoa) <i>Malus domestica</i> (Apple) <i>Nicotiana occidentalis</i> (Tobacco) <i>Prunus avium</i> (Cherry) <i>Prunus persica</i> (Peach) <i>Pyrus communis</i> (Pear)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	42
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	ACLSV 1138 (Switzerland, Apple) ACLSV 1138 (Switzerland, Tobacco) ACLSV 1115 (Switzerland, Cherry) ACLSV 1115 (Switzerland, Quinoa) ACLSV 1379 (Switzerland, Quinoa) ACLSV 317 (Switzerland, Peach) ACLSV 2104 13-3-5 (Switzerland, Apple) ACLSV (France, Apple) ACLSV 37843 (Switzerland, Apple) ACLSV 41411-14 (Switzerland, Peach) ACLSV 40826 (Switzerland, Apple) ACLSV 40806 (Switzerland, Pear) ACLSV 40827 (Switzerland, Cherry) ACLSV 41414 (Switzerland, Peach) ACLSV 37813 (Switzerland, Apple)

	ACLSV 27+28 (Switzerland, Apple)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ASPV (Apple stem pitting virus) BYDV (Barley yellow dwarf virus) CaMV (Cauliflower mosaic virus) GLRaV-1 (Grapevine leafroll-associated virus 1) LMV (Lettuce mosaic virus) PLRV (Potato leafroll virus) PMTV (Potato mop-top virus) PVA (Potato virus A) PVS (Potato virus S) TBRV (Tomato black ring virus) ToANV (Tomato apex necrosis virus)
No matrix effect observed with (Selectivity)	<i>Chenopodium quinoa</i> (Quinoa) <i>Malus domestica</i> (Apple) <i>Nicotiana occidentalis</i> (Tobacco) <i>Prunus armeniaca</i> (Apricot) <i>Prunus avium</i> (Cherry) <i>Prunus domestica</i> (Plum) <i>Prunus persica</i> (Peach) <i>Pyrus communis</i> (Pear)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	-
Sensitivity on host matrix	100%
Other sensitivity characteristics	-

Validation:

Internal validation	2001, 2017 (last internal validation)
External validation	-
Reproducibility	100%
Repeatability	100%
Validation information	Internally, the reagents have been validated with the BIOREBA isolate collection composed of various samples collected within the last 40 years.

Validation release Date:
June, 12th, 2023

QC manager:



Version: 1 – 12.06.2023