

# Validation report

## DAS-ELISA PLRV

Article No.: 110677 (PLRV Complete kit 96) / 110675 (PLRV Complete kit 480) / 110672 (PLRV Complete kit 960) / 110680 (PLRV Complete kit 5000)

### General information:

Target Pathogen	PLRV (Potato leafroll virus)
Genus	<i>Polerovirus</i>
Method	DAS-ELISA

### Technical information:

Antibodies	Monoclonal and polyclonal antibody developed against an PLRV isolate.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General" Sprouts/tuber samples: 1:10-1:20 (w/v) in extraction buffer "Bulbs & Tubers"
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized PLRV infected plant extracts
Working volume	200 µl / well

### Host matrix:

Tested plant material	Leaf, sprouts, tubers
Tested species infected	<i>Physalis peruviana</i> (Cape Gooseberry) <i>Physalis floridana</i> (Bladder cherries) <i>Solanum tuberosum</i> (Potato) <i>Nicotiana tabacum</i> (Tobacco)

### Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	>100
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	08-1999 (Switzerland, Cape gooseberry) 04-2007 (Switzerland, Bladder cherries) Agria 128 (Switzerland, Potato) Marlen 164 (Switzerland, Potato) Agata 202 (Switzerland, Potato) Princess 1 (Germany, Potato) Bintje 1 (Switzerland, Potato) Désirée (Switzerland, Potato) DR2 Nr. 3 (Peru, Potato) Mondial 7 (South Africa, Potato) Mondial 13 (South Africa, Potato) Mondial 30 (South Africa, Potato) FV 3 1-5 (Australia, Potato) Valor 2 / Nr. 1 (Australia, Potato) Valor 2 / Nr. 2 (Australia, Potato) Valor 4 (Australia, Potato)

	Valor 5 / Nr. 2 (Australia, Potato) SDRM 4 (Europe, Potato) PV-0842 (Germany, Bladder cherries) W19-160 (Germany, Potato)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ACLSV (Apple chlorotic leaf spot virus) BYDV (Barley yellow dwarf virus) CaMV (Cauliflower mosaic virus) CLRV (Cherry leaf roll virus) GLRaV-1 (Grapevine leafroll-associated virus 1) GLRaV-3 (Grapevine leafroll-associated virus 3) INSV (Impatiens necrotic spot virus) PMTV (Potato mop-top virus) PVA (Potato virus A) PVM (Potato virus M) PVS (Potato virus S) PVX (Potato virus X) PVY (Potato virus Y) SLRSV (Strawberry latent ringspot virus) SMYEPV (Strawberry mild yellow potexvirus) TBSV (Tomato bushy stunt virus) TRSV (Tobacco ringspot virus)
No matrix effect observed with (Selectivity)	<i>Physalis peruviana</i> (Cape gooseberry) <i>Solanum tuberosum</i> (Potato Leaf, Tuber) <i>Nicotiana tabacum</i> (Tobacco)

**Sensitivity:**

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

**Validation:**

Internal validation	2000
External validation	2 proficiency tests (PT) every year (Germany, Ireland).
Reproducibility	100%
Repeatability	100%
Validation information	Every year BIOREBA participates with PLRV reagents on two external proficiency tests (PT).  In 2016 a larger validation was done with an external laboratory (South Africa)  Internally, the reagents have been continuously validated with the BIOREBA isolate collection.

Validation release Date:  
October, 07<sup>th</sup>, 2022

QC manager:



Version: 1 – 07.10.2022