

# Validation report

## DAS-ELISA SMYEPV

Article No.: 152177 (SMYEPV Complete kit 96) / 152175 (SMYEPV Complete kit 480) / 152172 (SMYEPV Complete kit 960)

### General information:

Target Pathogen	SMYEPV (Strawberry mild yellow edge potexvirus)
Genus	<i>Potexvirus</i>
Method	DAS-ELISA

### Technical information:

Antibodies	Polyclonal and monoclonal antibodies developed against the coat protein of a SMYEPV isolate expressed in bacteria and against the SMYEPV isolate My-18 (US).
Sampling	1:20 (w/v) in extraction buffer "General" Leaves in the summer season (northern hemisphere) is the best tissue source.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized SMYEPV infected plant extracts
Working volume	200 µl / well

### Host matrix:

Tested plant material	Leaf Transmission by aphids
Tested species infected	<i>Fragaria ananassa</i> (Strawberry) <i>Rubus rosifolius</i> (Wild raspberry)

### 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)	SMYEPV B01 (Strawberry, Switzerland) SMYEPV D01 (Strawberry, Switzerland) SMYEPV 0802 (Strawberry, Switzerland) SMYEPV 1002 (Strawberry, Switzerland) SMYEPV 0203 (Strawberry, Switzerland) SMYEPV 0411 (Strawberry, Switzerland) SMYEPV 0718 (Strawberry, Switzerland) SMYEPV Be-538 (Strawberry, Switzerland) SMYEPV Be-439 (Strawberry, Switzerland) SMYEPV Be-12 (Strawberry, Switzerland) SMYEPV Be-440 (Strawberry, Switzerland) SMYEPV Be-343 (Strawberry, Switzerland) SMYEPV Be-443 (Strawberry, Switzerland) SMYEPV Be-261 (Strawberry, Switzerland) SMYEPV W-6-9 (Strawberry, Switzerland) SMYEPV Be-342 (Strawberry, Switzerland)

	SMYEPV Be-244 (Strawberry, Switzerland) SMYEPV Be-319 (Strawberry, Switzerland) SMYEPV GA (Strawberry, Switzerland)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ArMV (Arabidopsis mosaic virus) CaMV (Cauliflower mosaic virus) GFLV (Grapevine fanleaf virus) INSV (Impatiens necrotic spot virus) PLRV (Potato leafroll virus) PNRSV (Prunus necrotic ringspot virus) RBDV (Raspberry bushy dwarf virus) RpRSV (Raspberry ringspot virus) SLRSV (Strawberry latent ringspot virus) TBRV (Tomato black ring virus) TBSV (Tomato bushy stunt virus)
No matrix effect observed with (Selectivity)	<i>Fragaria ananassa</i> (Strawberry) <i>Rubus idaeus</i> (Raspberry) <i>Rubus rosifolius</i> (Wild raspberry)

**Sensitivity:**

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 <sup>-3</sup> dilution of infected tissue (pathogen titer unknown)
Sensitivity on host matrix	SMYEPV on leaves of strawberry: 1:1'250 dilution SMYEPV on leaves of raspberry: 1:6'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

**Validation:**

Internal validation	2014 (last internal validation)
External validation	2006 (Germany), 2015 (US)
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:  
October, 10<sup>th</sup>, 2023

QC manager:



Version: 2 – 17.07.2024 - Information about sensitivity on host matrix and limit of detection (LoD) added.