

# Validation report

## DAS-ELISA ApMV

Article No.: 150777 (ApMV Complete kit 96) / 150775 (ApMV Complete kit 480) / 150772 (ApMV Complete kit 960)

### General information:

Target Pathogen	ApMV (Apple mosaic virus)
Genus	<i>Ilarvirus</i>
Method	DAS-ELISA

### Technical information:

Antibodies	Polyclonal antibodies developed against ApMV isolates from hop.
Sampling	1:20 (w/v) in extraction buffer "General". Plant extracts need to be processed in ELISA immediately after preparation. Sampling (season, material) is very important.
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized ApMV infected plant extracts
Working volume	200 µl / well

### Host matrix:

Tested plant material	Petals, forced buds, young leaves, wooden parts. Transmission via root grafts is possible.
Tested species infected	<i>Malus domestica</i> (Apple) <i>Prunus domestica</i> (Prune) <i>Prunus persica</i> (Peach)

### Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	22
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	ApMV 3790 (Switzerland, Apple) ApMV 37791 (Switzerland, Apple) ApMV 42778 (Switzerland, Apple) ApMV "18" (Germany, Plum) ApMV GF 305 (Switzerland, Peach) ApMV 23061-68 (Switzerland, Peach) ApMV 2091-13-5-1 (Switzerland, Apple)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ASPV (Apple stem pitting virus) PNRSV (Prunus necrotic ringspot virus) TBSV (Tomato bushy stunt virus)
No matrix effect observed with (Selectivity)	<i>Malus domestica</i> (Apple) <i>Prunus armeniaca</i> (Apricot) <i>Prunus avium</i> (Cherry) <i>Prunus persica</i> (Peach)

**Sensitivity:**

<b>Diagnostic Sensitivity</b>	100%
<b>Analytical Sensitivity / LoD</b>	10 <sup>-3</sup> dilution of infected tissue (pathogen titer unknown)
<b>Sensitivity on host matrix</b>	ApMV on leaves of peach: 1:1'250 dilution ApMV on petals of apple: 1:1'250 dilution Pathogen titer unknown
<b>Other sensitivity characteristics</b>	-

**Validation:**

<b>Internal validation</b>	1992, 2002 (last internal validation)
<b>External validation</b>	-
<b>Reproducibility</b>	100%
<b>Repeatability</b>	100%
<b>Validation information</b>	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, 12<sup>th</sup>, 2023

QC manager:



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