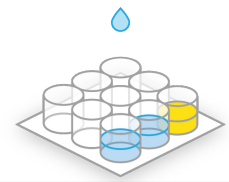


# Validation Report: ELISA

SRA 10100 • *Potato virus V (PVV)*



## Test Characteristics

|                       |                |                           |                     |
|-----------------------|----------------|---------------------------|---------------------|
| <b>Test Name</b>      | Potato virus V | <b>Capture Antibody</b>   | Polyclonal (Rabbit) |
| <b>Catalog Number</b> | 10100          | <b>Detection Antibody</b> | Polyclonal (Rabbit) |
| <b>Acronym</b>        | PVV            | <b>Format</b>             | DAS-ELISA           |
| <b>Genus</b>          | Potyvirus      | <b>Diluents</b>           | GEB/ECI             |
|                       |                | <b>Sample Dilution</b>    | 1:10                |

## Summary

This ELISA test is a qualitative serological assay for the detection of Potato virus V (PVV) in potato leaves, potato sprouts, other solanaceous leaves, particularly pepino (*Solanum muricatum*) in which the virus is common. PVV is a member of the Potyvirus genus known for their non-enveloped, flexuous, filamentous virus particles.

## Diagnostic Sensitivity

|                          |      |
|--------------------------|------|
| <b>True Positives</b>    | 15   |
| <b>Correct Diagnoses</b> | 15   |
| <b>Percent</b>           | 100% |

## Analytical Sensitivity

**Limit of Detection:** 1:1,094 dilution of synthetic control (viral protein concentration unknown)

## Analytical Specificity

### Inclusivity:

This assay was designed to detect all strains and isolates of PVV. Fifteen distinct samples of PVV have been experimentally proven to be detected including samples of PV-0319 (South America).

### Exclusivity:

#### Cross-reacts With:

|                          |  |
|--------------------------|--|
| Tobacco etch virus (TEV) |  |
|--------------------------|--|

#### Does Not Cross-react With:

|                               |                                     |
|-------------------------------|-------------------------------------|
| Dasheen mosaic virus (DsMV)   | Maize dwarf mosaic virus-A (MDMV-A) |
| Plum pox virus (PPV)          | Papaya ringspot virus (PRSV)        |
| Potato virus A (PVA)          | Potato virus Y (PVY)                |
| Soybean mosaic virus (SMV)    | Turnip mosaic virus (TuMV)          |
| Watermelon mosaic virus (WMV) | Sugarcane mosaic virus (SCMV)       |



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## Diagnostic Specificity

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True Negatives 29  
Correct Diagnoses 29  
Percent 100%

### Selectivity:

| No Matrix Effect Observed With: |                |              |                   |
|---------------------------------|----------------|--------------|-------------------|
| Potato leaves                   | Potato sprouts | Potato stems | Potato tuber eyes |
| Tobacco leaves                  | Tomato leaves  |              |                   |



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