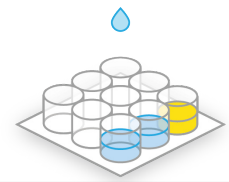


# Validation Report: ELISA

SRA 91500 • *Plantago asiatica mosaic virus* (PIAMV)



## Test Characteristics

|                |                                |                    |                     |
|----------------|--------------------------------|--------------------|---------------------|
| Test Name      | Plantago asiatica mosaic virus | Capture Antibody   | Polyclonal (Rabbit) |
| Catalog Number | 91500                          | Detection Antibody | Polyclonal (Rabbit) |
| Acronym        | PIAMV                          | Format             | DAS-ELISA           |
| Genus          | Potexvirus                     | Diluents           | GEB/ECI             |
|                |                                | Sample Dilution    | 1:10                |

## Summary

This ELISA test is a qualitative serological assay for the detection of *Plantago asiatica* mosaic virus (PIAMV) in ornamental bulb crop leaves. PIAMV is a member of the Potexvirus genus known for their non-enveloped, flexuous, filamentous-shaped virus particles.

## Diagnostic Sensitivity

|                   |      |
|-------------------|------|
| True Positives    | 11   |
| Correct Diagnoses | 11   |
| Percent           | 100% |

## Analytical Sensitivity

Limit of Detection: 1:405 dilution of infected tissue (pathogen titer unknown)

## Analytical Specificity

### Inclusivity:

#### Isolates and Geographic Regions Detected:

|                                      |                        |
|--------------------------------------|------------------------|
| PIAMV Asia isolate                   | PIAMV Europe isolate   |
| PIAMV-GSC (South Korea) <sup>1</sup> | PIAMV-Li1 (Japan)      |
| PIAMV-NJ (Japan)                     | PIAMV-OL (South Korea) |
| PIAMV-PL1 (Japan)                    | PIAMV USA isolate      |
| PIAMV-Vi (Japan)                     |                        |

<sup>1</sup>PIAMV-GSC has been externally [reported](#) to be detected.

### Exclusivity:

#### Cross-reacts With:

|            |  |
|------------|--|
| None known |  |
|------------|--|

#### Does Not Cross-react With:

|                                 |  |
|---------------------------------|--|
| Alfalfa mosaic virus (AMV)      | Alternanthera mosaic virus & Papaya mosaic virus (AltMV & PapMV) |
| Bean yellow mosaic virus (BYMV) | Cucumber mosaic virus (CMV)                                      |
| Hosta virus X (HVX)             | Impatiens necrotic spot virus (INSV)                             |
| Lily mottle virus (LMoV)        | Lily symptomless virus (LSV)                                     |



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**Does Not Cross-react With:**

|  |                               |
|--|-------------------------------|
| Groundnut ringspot virus & Tomato chlorotic spot virus (GRSV & TCSV) | Potato virus X (PVX)          |
| Tomato aspermy virus (TAV)   | Tulip breaking virus (TBV)    |
| Tobacco mosaic virus (TMV)   | Tobacco ringspot virus (TRSV) |
| Tomato spotted wilt virus (TSWV)                                     | Tobacco streak virus (TSV)    |
| Tobacco rattle virus (TRV)   |                               |

**Diagnostic Specificity**

True Negatives 56

Correct Diagnoses 56

Percent 100%

**Selectivity:****No Matrix Effect Observed With:**

|                            |                              |                                 |                    |
|----------------------------|------------------------------|---------------------------------|--------------------|
| Alternanthera leaves       | Angelonia leaves             | Antirrhinum Snapdragon leaves   | Asiatic Lily bulbs |
| Asiatic Lily leaves        | Asiatic Lily roots           | Chenopodium ambrosioides leaves | Coleus leaves      |
| Lilium longiflorum leaves  | Mimulus Monkey Flower leaves | Nandina Domestica leaves        | Nicotiana leaves   |
| New Zealand Spinach leaves | Oriental Lily leaves         | Oriental Lily roots             | Penstemon leaves   |
| Pepper leaves              | Plantago Asiatica leaves     | Primrose leaves                 | Primula leaves     |
| Tobacco leaves             | Verbena leaves               |                                 |                    |



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