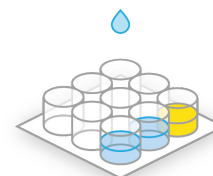


# Validation Report: ELISA

PSA/SRA 35400 • *Tomato mosaic virus (ToMV)*



## Test Characteristics

<b>Test Name</b>	Tomato mosaic virus	<b>Capture Antibody</b>	Polyclonal (Rabbit)
<b>Catalog Number</b>	35400	<b>Detection Antibody</b>	Polyclonal (Rabbit)
<b>Acronym</b>	ToMV	<b>Format</b>	DAS-ELISA
<b>Genus</b>	Tobamovirus	<b>Diluents</b>	GEB/ECI
		<b>Sample Dilution</b>	1:10

## Summary

This ELISA test is a qualitative serological assay for the detection of Tomato mosaic virus (ToMV) in ornamental and vegetable leaves. ToMV is a member of the Tobamovirus genus known for their rod-shaped virus particles.

## Diagnostic Sensitivity

<b>True Positives</b>	31
<b>Correct Diagnoses</b>	31
<b>Percent</b>	100%

## Analytical Sensitivity

**Limit of Detection:** 1:109,350 dilution of infected tissue (pathogen titer unknown)

## Analytical Specificity

### Inclusivity:

#### Isolates and Geographic Regions Detected:

ToMV North Carolina strain	ToMV PC-0135 (Germany)
ToMV PV-0135 (Germany)	ToMV PV-0141 (France)
ToMV PV-0846 (Iran)	ToMV PV-1180 (India)

### Exclusivity:

#### Cross-reacts With:

Odontoglossum ringspot virus (ORSV)	Pepper mild mottle virus (PMMoV) <sup>1</sup>
Ribgrass mosaic virus (RMV)	Tobacco mild green mosaic virus (TMGMV)
Tobacco mosaic virus (TMV)	Tomato brown rugose fruit virus (ToBRFV)

<sup>1</sup>Some isolates not detected.

#### Does Not Cross-react With:

Cucumber green mild mottle virus (CGMMV)	Kyuri green mottle mosaic virus (KGMMV)
Piper chlorosis virus (PChV) <sup>1,2</sup>	Sunn hemp mosaic virus (SHMV)

<sup>1</sup>Confirmed experimentally at Agdia, Inc.

<sup>2</sup>Reported to not detect Piper chlorosis virus (PChV), a possible novel Tobamovirus.



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## Diagnostic Specificity

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True Negatives 51  
Correct Diagnoses 51  
Percent 100%

### Selectivity:

No Matrix Effect Observed With:			
Alstroemeria leaves	Calibrachoa leaves	Cannabis (Hemp) leaves	Cucumber leaves
Dianthus leaves	Diascia leaves	Eggplant leaves	Hosta leaves
Lavender leaves	Lobelia leaves	Nemesia leaves	Pepper leaves
Petunia leaves	Phlox leaves	Portulaca leaves	Potato leaves
Salvia leaves	Tomatillo leaves	Tomato leaves	Verbena leaves
Watermelon leaves			

### Repeatability

Number of Samples 16  
Replicates per Sample 3  
Average Percent Agreement 100%  
Between Replicates

### Reproducibility

Number of Samples 16  
Replicates per Sample 3  
Number of Operators 3  
Average Percent Agreement Between 100%  
Replicates Between Operators



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