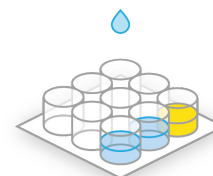


# Validation Report: ELISA

PSA/SRA 66800 • *Tomato brown rugose fruit virus (ToBRFV)*



## Test Characteristics

<b>Test Name</b>	Tomato brown rugose fruit virus	<b>Capture Antibody</b>	Polyclonal (Rabbit)
<b>Catalog Number</b>	66800	<b>Detection Antibody</b>	Monoclonal (Mouse)
<b>Acronym</b>	ToBRFV	<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 brown rugose fruit virus (ToBRFV) in tomato and pepper leaf and seed.

## Diagnostic Sensitivity

<b>True Positives</b>	28
<b>Correct Diagnoses</b>	28
<b>Percent</b>	100%

## Analytical Sensitivity

**Limit of Detection:** 1:259,200 dilution of infected tissue (pathogen titer unknown)

## Analytical Specificity

### Inclusivity:

#### Isolates and Geographic Regions Detected:

ToBRFV PV-1236 (Germany)	ToBRFV PV-1241 (Israel)
ToBRFV PV-1278 (Netherlands)	ToBRFV Italy isolate (1)
ToBRFV Italy isolate (2)	ToBRV Mexico isolate

### Exclusivity:

#### Cross-reacts With:

None Known <sup>1</sup>	
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#### Does Not Cross-react With:

Cucumber green mottle mosaic virus (CGMMV)	Kyuri green mottle mosaic virus (KGMMV)
Pepper mild mottle virus (PMMoV)	Tobacco mild green mosaic virus (TMGMV)
Tobacco mosaic virus (TMV) <sup>1</sup>	Tomato mosaic virus (ToMV) <sup>1</sup>
Zucchini green mottle mosaic virus (ZGMMV)	

<sup>1</sup>Very low cross-reactivity was observed with a limited number of high titer TMV and ToMV samples.



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## Diagnostic Specificity

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True Negatives 125  
Correct Diagnoses 125  
Percent 100%

## Selectivity:

No Matrix Effect Observed With:			
Pepper leaves	Pepper seeds	Tomato leaves	Tomato seeds

## Repeatability

Number of Samples 40  
Replicates per Sample 3  
Average Percent Agreement 100%  
Between Replicates

## Reproducibility

Number of Samples 40  
Replicates per Sample 3  
Number of Operators 3  
Average Percent Agreement Between 100%  
Replicates Between Operators



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