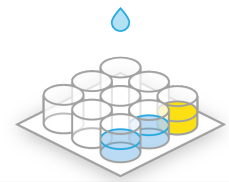


Validation Report: ELISA

SRA/PSA 45702 • *Cucumber green mottle mosaic virus (CGMMV)*



Test Characteristics

Test Name	Cucumber green mottle mosaic virus	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	45702	Detection Antibody	Monoclonal (Mouse)
Acronym	CGMMV	Format	Compound-ELISA
Genus	Tobamovirus	Diluents	GEB/ECI
		Sample Dilution	1:10

Summary

This ELISA test is a qualitative serological assay for the detection of Cucumber green mottle mosaic virus (CGMMV), the causal agent of Cucumber green mottle mosaic disease, in cucurbit crops including cucumber, melon, and watermelon leaves and seeds. CGMMV is a member of the Tobamovirus genus known for their rod-shaped virus particles.

Diagnostic Sensitivity

True Positives	51
Correct Diagnoses	51
Percent	100.0%

Analytical Sensitivity

Limit of Detection: 1:194,400 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

Isolates and Geographic Regions Detected:

CGMMV ATCC-391 (Japan)	CGMMV Bulgaria isolate
CGMMV Canada isolate	CGMMV France isolate
CGMMV Greece isolate	CGMMV Israel isolate
CGMMV Kuwait isolate	CGMMV Latvia isolate
CGMMV Netherlands isolate	CGMMV Russia isolate
CGMMV USA isolate	

Exclusivity:

Cross-reacts With:

None Known	
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Does Not Cross-react With:

Cucumber mosaic virus (CMV)	Ribgrass mosaic virus (RMV)
Groundnut ringspot virus (GRSV)	Squash mosaic virus (SqMV)
Impatiens necrotic spot virus (INSV)	Sunn-hemp mosaic virus (SHMV)
Kyuri green mottle mosaic virus (KGMMV)	Tobacco mosaic virus (TMV)



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Does Not Cross-react With:

Melon necrotic spot virus (MNSV)	Tomato chlorotic spot virus (TCSV)
Melon severe mosaic virus (MeSMV)	Tomato mosaic virus (ToMV)
Odontoglossum ringspot virus (ORSV)	Tomato ringspot virus (ToRSV)
Papaya ringspot virus (PRSV)	Tomato spotted wilt virus (TSWV)
Pepper mild mottle virus (PMMoV)	Zucchini yellow mosaic virus (ZYMV)

Diagnostic Specificity

True Negatives 40
 Correct Diagnoses 40
 Percent 100.0%

Selectivity:

No Matrix Effect Observed With:			
Bean leaves	Hosta leaves	Pumpkin leaves	Watermelon leaves
Begonia leaves	Impatiens leaves	Pumpkin seeds	Watermelon seeds
Blueberry leaves	Melon leaves	Soybean leaves	Zinnia leaves
Cucumber leaves	Melon seeds	Squash leaves	
Cucumber seeds	Pepper leaves	Squash seeds	
Dianthus leaves	Petunia leaves	Tomato leaves	



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