

Validation Report: ELISA

SRA 18000 • *Maize dwarf mosaic virus* (MDMV)



Test Characteristics

Test Name	Maize dwarf mosaic virus	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	18000	Detection Antibody	Polyclonal (Rabbit)
Acronym	MDMV	Format	DAS-ELISA
Genus	Potyvirus	Diluents	GEB/ECI
		Sample Dilution	1:10

Summary

This ELISA test is a qualitative serological assay for the detection of Maize dwarf mosaic virus (MDMV) in Corn and Johnsongrass leaf and Corn seed. MDMV is a member of the Potyvirus genus known for their non-enveloped, flexuous, filamentous virus particles.

Diagnostic Sensitivity

True Positives	19
Correct Diagnoses	19
Percent	100%

Analytical Sensitivity

Limit of Detection: 1:24,300 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

Isolates and Geographic Regions Detected:

MDMV PV-55 (strain A) (Ohio)	MDMV PV-452 (strain D)
MDMV PV-182 (strain E)	MDMV PV-185 (strain F)
MDMV PV-0802 (Germany)	MDMV PV-0944 (Germany)

Exclusivity:

Cross-reacts With:

Sugarcane mosaic virus (SCMV)	
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Does Not Cross-react With:

Barley stripe mosaic virus (BSMV)	Barley yellow dwarf virus-MAV (BYDV-MAV)
Barley yellow dwarf virus-PAV (BYDV-PAV)	Barley yellow dwarf virus-RMV (BYDV-RMV)
Barley yellow dwarf virus-SGV (BYDV-SGV)	Brome mosaic virus (BMV)
Cocksfoot mottle virus (CfMV)	Corn stunt spiroplasma (Css)
Cucumber mosaic virus (CMV)	Cereal yellow dwarf virus-RPV (CYDV-RPV)
High Plains wheat mosaic virus (HPWMoV)	Johnsongrass mosaic virus (JGMV)
Maize chlorotic dwarf virus (MCDV)	Maize chlorotic mosaic virus (MCMV)
Maize mosaic virus (MMV)	Maize stripe virus (MSpV)



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Does Not Cross-react With:

Maize white line mosaic virus (MWLMV)	Pantoea stewartii (Pstew)
Wheat spindle streak mosaic virus (WSSMV)	Wheat streak mosaic virus (WSMV)

Diagnostic Specificity

True Negatives 134
Correct Diagnoses 134
Percent 100%

Selectivity:

No Matrix Effect Observed With:			
Corn leaves	Corn seed	Johnsongrass	



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