



ImmunoStrip® Validation Report

On-site Plant Pathogen Testing

Maize dwarf mosaic virus (MDMV)

ISK/STX 18000

ImmunoStrip®

Phone: 800-622-4342
Sales Email: info@agdia.com
Technical Email: techsupport@agdia.com

Test Characteristics

Test Name	Maize dwarf mosaic virus	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	18000	Detection Antibody	Polyclonal (Rabbit)
Acronym	MDMV	Format	Lateral Flow Device
Genus	Potyvirus	Diluents	SEB1
		Sample Dilution	1:20

Summary

The Maize dwarf mosaic virus (MDMV) ImmunoStrip is used to detect the presence of MDMV in corn and other gramineous crops. Maize dwarf mosaic virus is a potyvirus that naturally infects members of the Poaceae (grass) family, such as corn, sorghum and Johnsongrass. It is transmitted by corn seed and by a broad range of aphids in a non-persistent manner. Visual symptoms include mosaic or mottle, commonly near the base of young leaves, which under hot weather may turn into chlorosis. Severe infection may induce stunting and poor seed. ImmunoStrips are the perfect screening tool for use in the field, greenhouse, and the lab.

Diagnostic Sensitivity

True Positives	10
Correct Diagnoses	10
Percent	100%

Analytical Sensitivity

Limit of Detection: 1:32,400 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

This assay was designed to detect all strains and isolates of MDMV. Ten distinct samples of MDMV have been experimentally proven to be detected including samples of MDMV-A and MDMV-Ohio.

Exclusivity:

Cross-reacts With:

None Known

Does Not Cross-react With:

Alphanucleorhabdovirus maydis (Maize mosaic virus) (MMV)	Barley stripe mosaic virus (BSMV)
Barley yellow dwarf virus PAV (BYDV-PAV)	Barley yellow dwarf virus SGV (BYDV-SGV)
Brome mosaic virus (BMV)	Cereal yellow dwarf virus RPV (CYDV-RPV)
Corn stunt Spiroplasma (Css)	Cucumber mosaic virus (CMV)
Emaravirus tritici (High Plains wheat mosaic virus) (HPWMoV)	Johnsongrass mosaic virus (JGMV)
Maize chlorotic mottle virus (MCMV)	Maize stripe virus (MSpV)
Maize white line mosaic virus (MWLMV)	Maize yellow dwarf virus RMV (MYDV-RMV)
Pantoea stewartii (Pstew)	Sugarcane mosaic virus (SCMV)
Ustilago maydis (corn smut)	Wheat spindle streak mosaic virus (WSSMV)
Wheat streak mosaic virus (WSMV)	

Diagnostic Specificity

True Negatives 21
Correct Diagnoses 21
Percent 100%

Selectivity:

No Matrix Effect Observed With:			
Corn leaves	Johnsongrass leaves	Johnsongrass seeds	Sorghum leaves
Sorghum seeds			

Repeatability

Number of Samples 25
Replicates per Sample 2 - 3
Average Percent Agreement 100%
Between Replicates