



ImmunoStrip® Validation Report

On-site Plant Pathogen Testing

Potato virus X and Potato virus Y (PVX & PVY)

ISK/STX 41300

ImmunoStrip®

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Test Characteristics

Test Name	Potato virus X and Potato virus Y	Capture Antibody	PVX, PVY: Polyclonal (Rabbit)
Catalog Number	41300	Detection Antibody	PVX, PVY: Polyclonal (Rabbit)
Acronym	PVX & PVY	Format	Lateral Flow Device
Genus	Potexvirus (PVX) and Potyvirus (PVY)	Diluents	SEB1
		Sample Dilution	1:20

Summary

The Potato virus X and Potato virus Y (PVX & PVY) dual pathogen ImmunoStrip® is used to detect the presence of PVX and PVY in potato leaves. ImmunoStrips® are the perfect screening tool for use in the field, greenhouse, and the lab.

Diagnostic Sensitivity

True Positives	23
Correct Diagnoses	23
Percent	100%

Analytical Sensitivity

Limit of Detection (PVX):	1:48,600 dilution of infected tissue (pathogen titer unknown)
Limit of Detection (PVY):	1:2,160 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

Isolates and Geographic Regions Detected:

PVX-GUA II	PVX-HB (Bolivia)
PVY-c	PVY-n
PVY-ntn	PVY-o
PVY-o+c	

Exclusivity:

Cross-reacts With:

None known	
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Does Not Cross-react With:

Alfalfa mosaic virus (AMV)	Andean potato latent virus (APLV)
Andean potato mottle virus (APMoV)	Clavibacter michiganensis subsp. sepedonicus (Cms)
Cucumber mosaic virus (CMV)	Impatiens necrotic spot virus (INSV)
Pectobacterium atrosepticum (Patro)	Pectobacterium carotovorum (Pc)
Pepino mosaic virus (PepMV)	Pepper mild mottle virus (PMMoV)
Phytophthora hevae	Potato aucuba mosaic virus (PaMV)
Potato latent virus (PotLV)	Potato leafroll virus (PLRV)
Potato mop-top virus (PMTV)	Potato virus A (PVA)

Does Not Cross-react With:

Potato virus M (PVM)	Potato virus S (PVS)
Potato virus T (PVT)	Potato virus V (PVV)
Ralstonia solanacearum (Rs)	Tobacco etch virus (TEV)
Tobacco mosaic virus (TMV)	Tobacco rattle virus (TRV)
Tobacco streak virus (TSV)	Tomato mosaic virus (ToMV)
Tomato spotted wilt virus (TSWV)	

Diagnostic Specificity

True Negatives 14
Correct Diagnoses 14
Percent 100%

Selectivity:

No Matrix Effect Observed With:			
Potato leaves	Tobacco leaves	Tomato leaves	

Repeatability

Number of Samples 10
Replicates per Sample 3
Average Percent Agreement 100%
Between Replicates

Reproducibility

Number of Samples 10
Replicates per Sample 3
Number of Operators 5
Average Percent Agreement Between 100%
Replicates Between Operators

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