



# ImmunoStrip® Validation Report

## On-site Plant Pathogen Testing

### Potato virus S (PVS)

#### ISK/STX 40000

# ImmunoStrip®

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## Test Characteristics

Test Name	Potato virus S	Capture Antibody	Polyclonal (Sheep)
Catalog Number	40000	Detection Antibody	Polyclonal (Rabbit)
Acronym	PVS	Format	Lateral Flow Device
Genus	Carlavirus	Diluents	SEB4
		Sample Dilution	1:20

## Summary

The Potato virus S (PVS) ImmunoStrip is used to detect the presence of PVS in potato leaves. PVS is a member of the Carlavirus genus known for their flexuous rod-shaped virus particles. ImmunoStrips are the perfect screening tool for use in the field, greenhouse, and the lab.

## Diagnostic Sensitivity

True Positives	34
Correct Diagnoses	34
Percent	100%

## Analytical Sensitivity

Limit of Detection: 1:243 dilution of infected tissue (pathogen titer unknown)

## Analytical Specificity

### Inclusivity:

#### Isolates and Geographic Regions Detected:

PVS PV-0739 (Ecuador)	PVS PV-0740 (Netherlands)
PVS PV-0789 (Germany)	PVS PV-0838 (Chili)

### 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)	Cucumber mosaic virus (CMV)
Impatiens necrotic spot virus (INSV)	Pectobacterium atrosepticum (Patro)
Pectobacterium carotovorum (Pc)	Pepino mosaic virus (PepMV)
Pepper mild mottle virus (PMMoV)	Potato aucuba mosaic virus (PAMV)
Potato latent virus (PotLV)	Potato leafroll virus (PLRV)
Potato mop-top virus (PMTV)	Potato virus A (PVA)
Potato virus M (PVM)	Potato virus T (PVT)
Potato virus V (PVV)	Potato virus X (PVX)
Potato virus Y (PVY)	Ralstonia solanacearum (Rs)
Tobacco rattle virus (TRV)	Tobacco streak virus (TSV)
Tomato spotted wilt virus (TSWV)	

## Diagnostic Specificity

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True Negatives 29  
Correct Diagnoses 29  
Percent 100%

### Selectivity:

No Matrix Effect Observed With:			
Potato leaves			

## Repeatability

Number of Samples 22  
Replicates per Sample 2 - 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