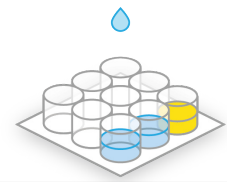


# Validation Report: ELISA

PSA/SRA 20001 • *Potato virus Y* (PVY)



## Test Characteristics

Test Name	Potato virus Y	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	20001	Detection Antibody	Monoclonal (Mouse)
Acronym	PVY	Format	Compound ELISA
Genus	Potyvirus	Diluents	GEB/ECM
		Sample Dilution	1:10

## Summary

This ELISA test is a qualitative serological assay for the detection of Potato virus Y (PVY) in potato leaf, sprouts, and tubers as well as other solanaceous crops. PVY is a member of the Potyvirus genus known for their non-enveloped, flexuous, filamentous virus particles.

## Diagnostic Sensitivity

True Positives	17
Correct Diagnoses	17
Percent	100%

## Analytical Sensitivity

Limit of Detection: 1:6,480 dilution of infected tissue (pathogen titer unknown)

## Analytical Specificity

### Inclusivity:

#### Strains and Geographic Regions Detected:

PVY-c	PVY-n
PVY-n:o	PVY-n:o+ntn
PVY-ntn	PVY-n-wi
PVY-o	PVY-o5
PVY-o+c	PVY German isolate

### 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)
Impatiens necrotic spot virus (INSV)	Pectobacterium atrosepticum (Patro)
Pectobacterium carotovorum (Pc)	Pepino mosaic virus (PepMV)
Pepper mild mottle virus (PMMoV)	Pepper mottle virus (PepMoV)
Phytophthora (Phyt)	Potato aucuba mosaic virus (PaMV)



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**Does Not Cross-react With:**

Potato leafroll virus (PLRV)	Potato latent virus (PotLV)
Potato mop-top virus (PMTV)	Potato virus A (PVA)
Potato virus M (PVM)	Potato virus S (PVS)
Potato virus X (PVX)	Potato virus T (PVT)
Potato virus Y (PVY)	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 81  
Correct Diagnoses 81  
Percent 100%

**Selectivity:**

No Matrix Effect Observed With:			
Chrysanthemum leaves	Dahlia leaves	Pepper leaves	Petunia leaves
Portulaca leaves	Potato leaves	Potato sprouts	Potato tubers
Tobacco leaves	Tabasco pepper leaves	Tomato leaves	



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