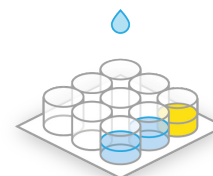


Validation Report: ELISA

SRA 31505 • Plum pox virus (PPV)



Test Characteristics

Test Name	Plum pox virus	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	31505	Detection Antibody	Polyclonal (Rabbit)
Acronym	PPV	Format	DAS-ELISA
Genus	Potyvirus	Diluents	GEB4/RUB3
		Sample Dilution	1:10

Summary

This ELISA test is a qualitative serological assay for the detection of Plum pox virus (PPV) in stone fruit leaves. PPV is a member of the Potyvirus genus known for their non-enveloped, flexuous, filamentous virus particles.

Diagnostic Sensitivity

True Positives	106
Correct Diagnoses	106
Percent	100%

Analytical Sensitivity

Limit of Detection: 1:72,900 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

Isolates and Geographic Regions Detected:

PPV-An (Marcus ancestor) (Albania)	PPV-C (Cherry) (Moldova)
PPV-CR (Cherry Russia) (Russia)	PPV-CV (Cherry Volga) (Russia) ⁴
PPV-D (Dideron)	PPV-EA (El Amar) (Egypt)
PPV-M (Marcus)	PPV-Rec (Recombinant) (Serbia)
PPV-SC (Sour Cherry) (Russia) ^{1,2}	PPV-T (Turkey)
PPV-TAT (Tatarstan) (Russia) ^{1,2}	PPV-Tat-26 (Russia) ^{1,3}
PPV-W (Winona) (Canada)	PPV-Y (Yekaterinburg) (Russia) ^{1,2}
¹ PPV-SC, PPV-TAT, PPV-Tat-26, and PPV-Y have been externally reported to be detected.	
² PPV-SC, PPV-TAT, and PPV-Y have been provisionally suggested as new PPV strains.	
³ The taxonomic position of PPV-Tat-26 is currently unknown.	
⁴ PPV-CV has been externally reported to be detected.	

Exclusivity:

Cross-reacts With:

Dasheen mosaic virus (DsMV)	
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Does Not Cross-react With:

Andean potato latent virus (APLV)	Apple mosaic virus (ApMV)
Asparagus virus 2 (AV-2)	Cherry leaf roll virus (CLRV)
Cucumber mosaic virus (CMV)	Lettuce mosaic virus (LMV)
Papaya ringspot virus (PRSV)	Pea seed-borne mosaic virus (PSbMV)
Peach rosette mosaic virus (PRMV)	Potato virus A (PVA)
Potato virus Y (PVY)	Prune dwarf virus (PDV)
Prunus necrotic ringspot virus (PNRSV)	Soybean mosaic virus (SMV)
Sugarcane mosaic virus (SCMV)	Tobacco etch virus (TEV)
Tobacco vein mottling virus (TVMV)	Tomato bushy stunt virus (TBSV)
Tomato ringspot virus (ToRSV)	Turnip mosaic virus (TuMV)
Watermelon mosaic virus (WMV)	Zucchini yellow mosaic virus (ZYMV)

Diagnostic Specificity

True Negatives 823
 Correct Diagnoses 823
 Percent 100%

Selectivity:

No Matrix Effect Observed With:			
Almond leaves	Apricot leaves	Cherry leaves	Nectarine leaves
Peach leaves	Plum leaves		

Repeatability

Number of Samples 777
 Replicates per Sample 2
 Average Percent Agreement 100%
 Between Replicates



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