

Validation Report: ELISA

SRA 43200 • Soybean vein necrosis virus (SVNV)



Test Characteristics

Test Name	Soybean vein necrosis virus	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	43200	Detection Antibody	Polyclonal (Rabbit)
Acronym	SVNV	Format	DAS-ELISA
Genus	Orthospovirus	Diluents	GEB/ECI
		Sample Dilution	1:10

Summary

This ELISA test is a qualitative serological assay for the detection of Soybean vein necrosis virus (SVNV) in soybean leaf and seed. SVNV is a member of the Orthospovirus genus known for their enveloped, spherical-shaped virus particles.

Diagnostic Sensitivity

True Positives	18
Correct Diagnoses	18
Percent	100%

Analytical Sensitivity

Limit of Detection: 1:2,700 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

This assay was designed to detect all strains and isolates of SVNV. Eighteen distinct samples of SVNV have been experimentally proven to be detected including samples of isolates from the KY, USA and TN, USA.

Exclusivity:

Cross-reacts With:

None known	
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Does Not Cross-react With:

Alfalfa mosaic virus (AMV)	Bean common mosaic virus (BCMV)
Bean pod mottle virus (BPMV)	Bean yellow mosaic virus (BYMV)
Cowpea mosaic virus (CPMV)	Cucumber mosaic virus (CMV)
Groundnut bud necrosis virus (GBNV)	Groundnut ringspot virus (GRSV)
Impatiens necrotic spot virus (INSV)	Melon necrotic spot virus (MNSV)
Melon yellow spot virus (MYSV)	Peanut stunt virus (PSV)
Potyvirus group (Poty)	Southern bean mosaic virus (SBMV)
Soybean dwarf virus (SbDV)	Soybean mosaic virus (SMV)
Tobacco mosaic virus (TMV)	Tobacco ringspot virus (TRSV)
Tobacco streak virus (TSV)	Tomato ringspot virus (ToRSV)



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Does Not Cross-react With:

Tomato spotted wilt virus (TSWV)	
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Diagnostic Specificity

True Negatives 33
Correct Diagnoses 33
Percent 100%

Selectivity:**No Matrix Effect Observed With:**

Soybean leaves	Soybean seeds		
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