ImmunoStrip® Validation Report

On-site Plant Pathogen Testing

Arabis mosaic virus (ArMV)

ISK/STX 23203

ImmunoStrip®

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Test Characteristics

Test Name	Arabis mosaic virus
Catalog Number	23203
Acronym	ArMV
Genus	Nepovirus
Capture Antibody	Polyclonal (Rabbit)
Detection Antibody	Polyclonal (Rabbit)
Format	Lateral Flow Device
Diluents	SEB1
Sample Dilution	1:20

Summary

The Arabis mosaic virus (ArMV) ImmunoStrip is used to detect the presence of ArMV, the causal agent of Raspberry yellow dwarf disease, in crops including grapevines, raspberry, and strawberry, as well as other fruit, vegetable, and ornamentals. ArMV is a member of the Nepovirus genus known for their transmission by nematodes. ImmunoStrips are the perfect screening tool for use in the field, greenhouse, and the lab.

Diagnostic Sensitivity

True Positives	56
Correct Diagnoses	56
Percent	100%

Analytical Sensitivity

Limit of Detection: 1:405 dilution of infected tissue (pathogen titer unknown)

Analytical Specificity

Inclusivity:

Isolates and Geographic Regions Detected:

ArMV PV-0045	ArMV PV-0046
ArMV PV-0215	ArMV PV-0216 (Denmark)

Exclusivity:

Cross-reacts With:

Grapevine fleck virus (GFkV)	

Does Not Cross-react With:

Alfalfa mosaic virus (AMV)	Alstroemeria mosaic virus (AlMV)
American plum line pattern virus (APLPV)	Angelonia flower break virus (AnFBV)
Asparagus virus 2 (AV-2)	Bean pod mottle virus (BPMV)
Bean yellow mosaic virus (BYMV)	Beet necrotic yellow vein virus (BNYVV)
Beet western yellows virus (BWYV)	Blueberry scorch virus (BlScV)
Blueberry shock virus (BlShV)	Blueberry shoestring virus (BSSV)
Broad bean wilt virus-1 (BBWV-1)	Broad bean wilt virus-2 (BBWV-2)
Calibrachoa mottle virus (CbMV)	Carnation mottle virus (CarMV)
Carnation necrotic fleck virus (CNFV)	Carnation ringspot virus (CRSV)
Chrysanthemum virus B (CVB)	Cucumber green mottle mosaic virus (CGMMV)

Does Not Cross-react With:

Cucumber mosaic virus (CMV)	Cymbidium mosaic virus (CymMV)
Cymbidium ringspot virus (CymRSV)	Dasheen mosaic virus (DsMV)
Grapevine fanleaf virus (GFLV)	Hibiscus chlorotic ringspot virus (HCRSV)
Impatiens necrotic spot virus (INSV)	Lettuce mosaic virus (LMV)
Melon necrotic spot virus (MNSV)	Nemesia ring necrosis virus (NeRNV)
Odontoglossum ringspot virus (ORSV)	Papaya mosaic virus (PapMV)
Pea seed-borne mosaic virus (PSbMV)	Pelargonium flower break virus (PFBV)
Pepino mosaic virus (PepMV)	Potato aucuba mosaic virus (PAMV)
Potato latent virus (PotLV)	Potato leafroll virus (PLRV)
Potato virus A (PVA)	Potato virus M (PVM)
Potato virus S (PVS)	Potato virus X (PVX)
Potato virus Y (PVY)	Prune dwarf virus (PDV)
Prunus necrotic ringspot virus (PNRSV)	Raspberry dwarf virus (RBDV)
Ribgrass mosaic virus (RMV)	Scrophularia mottle virus (ScrMV)
Southern bean mosaic virus (SBMV)	Soybean dwarf virus (SbDV)
Soybean mosaic virus (SMV)	Squash mosaic virus (SqMV)
Tobacco etch virus (TEV)	Tobacco mosaic virus (TMV)
Tobacco ringspot virus (TRSV)	Tobacco streak virus (TSV)
Tomato aspermy virus (TAV)	Tomato mosaic virus (ToMV)
Tomato ringspot virus (ToRSV	Tomato spotted wilt virus (TSWV)
Watermelon mosaic virus (WMV)	Zucchini yellow mosaic virus (ZYMV)

Diagnostic Specificity

True Negatives 310
Correct Diagnoses 307
Percent 99.0%

Selectivity:

No Matrix Effect Observed With:			
Abutilon leaves	Acalypha leaves	Achillea leaves	Agastache leaves
Ageratum leaves	Ajuga leaves	Alernanthera leaves	Aloysia leaves
Alpinia leaves	Anagallis leaves	Angelonia leaves	Anisodontea leaves
Anthemis leaves	Anthurium leaves	Arabidopsis leaves	Arctotis leaves
Argeranthemum leaves	Artemesia leaves	Asparagus leaves	Aster leaves
Asteriscus leaves	Astilbe leaves	Bacopa leaves	Bamboo leaves
Banana leaves	Basil leaves	Bean leaves	Beet leaves
Begonia leaves	Bidens leaves	Bides leaves	Blackberry leaves
Bleeding heart leaves	Blueberry leaves	Boysenberry leaves	Brachteantha leaves
Brachycome leaves	Broccoli leaves	Brugmansia leaves	Buddleia leaves
Cacathea leaves	Calathea leaves	Calendula leaves	Calibrachoa leaves
Calla lily leaves	Campenula leaves	Canna leaves	Cantaloupe leaves
Carnation leaves	Celery leaves	Cenothara leaves	Ceratostigma leaves
Cestrum leaves	Chenipodium quinoa leaves	Cherry leaves	Chinese pepper leaves
Chironia leaves	Chrysanthemum leaves	Chrysocephalum leaves	Cleome leaves
Coleus leaves	Convallaria majalis leaves	Convolvulus leaves	Coprosma leaves

Coreopsis leaves	Cosmos leaves	Crocus leaves	Croton leaves
Cucumber leaves	Cuphea leaves	Dahlia leaves	Daisy leaves
Delphinium leaves	Dianthus leaves	Diascia leaves	Dieffenbachia leaves
Diervilla leaves	Eccremocactus leaves	Echinacea leaves	Eggplant leaves
Emilia leaves	Euphorbia leaves	Felicia leaves	Ferilla leaves
Forsythia leaves	Freesia leaves	Fuchsia leaves	Gaillardia leaves
Galliardi leaves	Gaura leaves	Gazenia leaves	Geranium leaves
Gerbera leaves	Glechoma leaves	Gomphrena globosa leaves	Grass (ornamental) leaves
Gypsophilia leaves	Hedera leaves	Helenium leaves	Helichrysum leaves
Heliotropium leaves	Hemerocallis leaves	Heuchera leaves	Hibiscus leaves
Homalomena leaves	Hosta leaves	Hyacinth leaves	Hypoesthes leaves
Iberis leaves	Impatiens leaves	Ipomea leaves	Iris leaves
Jamesbrittenia leaves	Jimsonweed leaves	Kalanchoe leaves	Lamiastrom leaves
Lamium leaves	Lantana leaves	Laurentia leaves	Lavatera leaves
Lavendula leaves	Lemon Balm leaves	Leptinella leaves	Lettuce leaves
Leucanthemum leaves	Liatris leaves	Lilac leaves	Lily leaves
Lobelia leaves	Lobularia leaves	Loeselia leaves	Lotus leaves
Lychis leaves	Lysimachia leaves	Mandevilla leaves	Mentha leaves
Mercardonia leaves	Muehlenbeckia leaves	Mustard leaves	Myoperum leaves
Narcisus leaves	Nasturtium leaves	Nemesia leaves	Neorogelia leaves
Nepeta leaves	Nicotiana benthamiana leaves	Nicotiana clevelandii leaves	Nicotiana rustica leaves
Nicotiana tabacum leaves	Nierenbergia leaves	Ocimum leaves	Oenothera leaves
Olive leaves	Onion leaves	Orchid leaves	Osteospermum leaves
Otocanthus leaves	Oxalis[1] leaves	Papaya leaves	Penstemon leaves
Pentas leaves	Peony leaves	Pepper leaves	Perilla leaves
Petunia leaves	Philodendron leaves	Phlox leaves	Phygelius leaves
Plectranthus leaves	Plum fruit leaves	Polemonium leaves	Portulaca leaves
Potato leaves	Pseuderanthemum leaves	Pumpkin leaves	Raoulia leaves
Raspberry leaves	Rose leaves	Rudbeckia leaves	Ruella leaves
Ruselia leaves	Sage leaves	Salvia leaves	Sanchezia leaves
Sanvitalia leaves	Satureja leaves	Savitalia leaves	Scaevola leaves
Schefflera leaves	Scoparia leaves	Scutellaria leaves	Sedum leaves
Senecio leaves	Senetti leaves	Solenostemom leaves	Solierolia leaves
Soybean leaves	Spathiphyllum leaves	Spinach leaves	St. Augustine grass leaves
Stachys leaves	Stephanotis leaves	Strawberry leaves	Streptocarpella leaves
Strobilanthes leaves	Superbells leaves	Supertunia leaves	Surfinia leaves
Sutera leaves	Swedish ivy leaves	Syngonium leaves	Table grape leaves
Thymus leaves	Tomatillo leaves	Tomato leaves	Torenia leaves
Trapaoleum leaves	Trifolium leaves	Tulip leaves	Turnera leaves
Verbena leaves	Veronica leaves	Vinca leaves	Viola leaves
Watercress leaves	Watermelon leaves	Weigela leaves	Wine grape leaves
[1]Three varieties of Oxalis give false positive results			

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