



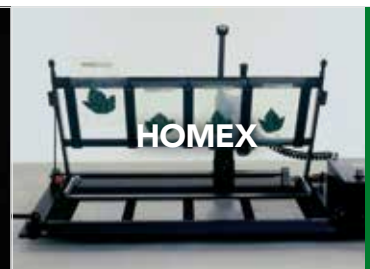
# Products and Services



PRODUCTS



EXTRACTION BAGS



HOMEX



POTATO DNA/RNA RAPID EXTRACTION



ELISA



SWISS ACCREDITATION TESTING SERVICE  
sas-admin.ch STS 0541



PCR



PLANT PATHOGENS



CROPS



AGRISTRIP

SWISS TESTING LABS  
Association of Swiss Laboratories  
Verband Schweizer Laboratorien  
Association des Laboratoires Suisses  
Associazione dei Laboratori Svizzeri



# The Company



**We have a certified Quality-Management System.**

BIOREBA AG was the first company worldwide to produce and commercialize ELISA reagents for plant virus diagnostics in 1980. It is an independent company that was started in close collaboration with Agroscope, the Swiss centre of excellence for research in the agriculture and food sector. Since then, BIORREBA has established cooperation with numerous other research institutes and universities in many countries. Since its foundation almost four decades ago, the company has steadily grown and built a reputation for high quality diagnostics. Today, the research community and diagnostic laboratories around the world rely on our products for testing potatoes, grapevines, fruit trees, small fruits, vegetables, ornamentals and field crops.

Our philosophy is to provide our customers with high quality products and services to address their special diagnostic questions. Customers benefit from our expert knowledge and long-standing experience in developing and introducing complete assays for the detection of plant pathogens. BIORREBA has well-equipped facilities for R & D activities and production of these test systems as well as an accredited testing laboratory for serving customers with serological and molecular analyses of plant pathogens. The company also provides special equipment and disposables for the preparation of plant samples and liquid handling.

BIOREBA products are available worldwide. The sales and marketing department and an extensive distributor-network ensure a quick response to customer inquiries and prompt product delivery. Our well-trained staff is committed maintaining high quality standards.

BIOREBA has been awarded the internationally recognized certificate of Quality Management System ISO 9001. Furthermore, our testing service laboratory has been accredited according to ISO/IEC 17025 for analyses of plant pathogens. Both certificates shall give us the incentive to continue serving you with best quality products and helping you growing healthy crops.

## **BIOREBA AG**

Christoph Merian-Ring 7  
CH-4153 Reinach BL1 / Switzerland  
Phone: +41 61 712 11 25  
Fax: +41 61 712 11 17  
E-mail: [admin@bioreba.ch](mailto:admin@bioreba.ch)  
Web: [www.bioreba.com](http://www.bioreba.com)

## Sample Preparation

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### ELISA



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### PCR



## Additional Products

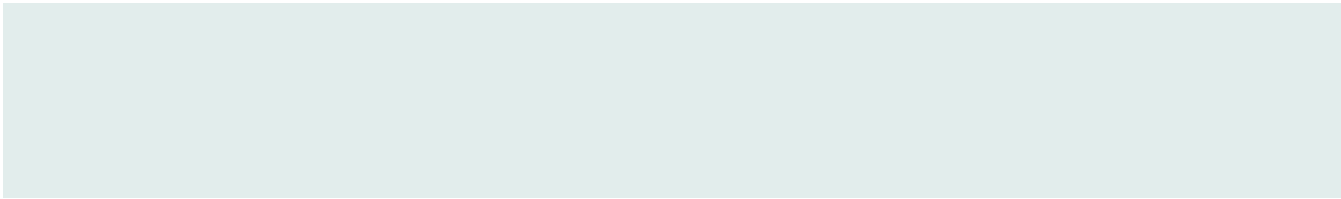
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### Buffers, Substrates, Chemicals



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### Consumables, Pipettes



## Services

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### Testing Service



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### Quality Management



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### Distribution Worldwide



# Extraction Bags



Our homogenizing system includes four different extraction bags in different sizes, with or without a synthetic intermediate layer. All extraction bags are ideal for tissue extraction to be used in ELISA and PCR. Standard packaging size is 10 x 100 units.

**The characteristics of our extraction bags are:**

- optimal sampling and sample preparation (samples can be labeled and stored)
- optimal homogenization
- optimal filtration of the plant extracts (bags with synthetic intermediate layer)
- optimal recovery of the plant sap
- no cross-contamination between test samples
- optimal for homogenizing with our HOMEX 6
- suitable for homogenizing leaves, sprouts, roots, seeds, woody samples, sieved soil

Art. No.	Product	Size
430100	<p><b>Extraction bags Universal 12 x 15 cm</b> for our standard rack</p> <ul style="list-style-type: none"> <li>• with synthetic intermediate layer for optimal filtration, heavy duty plastic for testing all kind of samples</li> <li>• max. filling volume for use with HOMEX 6: 10 ml</li> </ul>	100
480100	<p><b>Extraction bags Universal-U-form 12 x 12 cm</b> for our standard rack</p> <ul style="list-style-type: none"> <li>• heavy duty plastic with U-formed compartment with synthetic intermediate layer for testing seeds</li> <li>• max. filling volume for use with HOMEX 6: 4 ml</li> </ul>	100
470100	<p><b>Extraction bags Universal-Long 15 x 28 cm</b> for our rack 4/25</p> <ul style="list-style-type: none"> <li>• heavy duty plastic with 15 mm wide sealing borders on bottom and sides with synthetic intermediate layer</li> <li>• max. filling volume for use with HOMEX 6: 50 ml</li> </ul>	100
420100	<p><b>Extraction bags Long 15 x 40 cm</b></p> <ul style="list-style-type: none"> <li>• heavy duty plastic without intermediate layer for testing long leaves</li> <li>• max. filling volume for use with HOMEX 6: 200 ml</li> </ul>	100



# Extraction Devices



## HOMEX 6

The semi-automated HOMEX 6 is ideal for tissue extraction for samples to be used in ELISA and PCR. Samples are contained within our extraction bags throughout the sample processing, thereby eliminating cross-contamination and the need of washing between samples. Tissue samples of different thickness weighing up to several grams may be homogenized. About 250 samples per hour can be processed. Changing racks is just a matter of a few seconds. The HOMEX 6 is available with 230 V or 115 V external power supply. Our HOMEX 6 can be equipped with two different racks to hold different sizes of extraction bags (see page 6).

## Standard rack

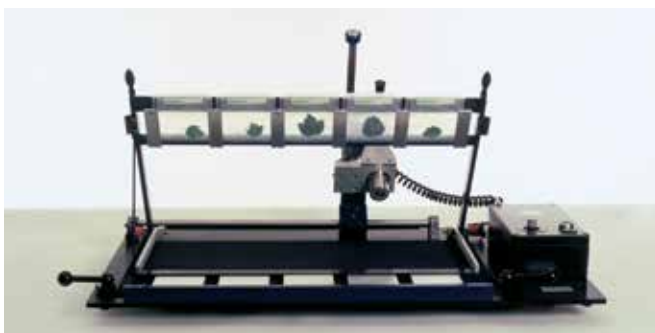
Our HOMEX 6 is equipped with the standard rack. It holds 1–5 extraction bags Universal and/or Universal-U-form.

## Rack 4/25

The rack 4/25 holds 1 - 4 extraction bags Universal-Long and is additionally available.

## Homogenizer hand model

The hand model is suitable for small sample numbers and for samples of softer tissue such as leaves, sprouts, flowers etc. The hand model can be used with all our extraction bags. For optimal grinding it is recommended to work on a hard surface.



Art. No.	Product	Size
400004	HOMEX 6 with one rack of your choice (115 V)	1
400005	HOMEX 6 with one rack of your choice (230 V)	1
400010	Homogenizer hand model	1
400014	Standard rack for HOMEX 6	1
400016	Rack 4/25 for HOMEX 6	1

### Replacement parts

400001	Complete replacement head for HOMEX 6	1
409999	Aluminium bars for standard rack	6
409998	Handle with base plate for HOMEX 6	1

# Potato DNA/RNA rapid extraction set



## Nucleic acid extraction for potato samples

The potato DNA/RNA rapid extraction set is designed for phytodiagnostic use. It enables rapid and easy extraction of DNA and RNA from potato tuber and leaf samples. The extraction requires the use of two buffers only. Time consuming processing steps are eliminated. An especially cost efficient advantage is that the Potato DNA/RNA rapid extraction set requires no expensive machines.

### The characteristics of our Potato DNA/RNA rapid extraction set are:

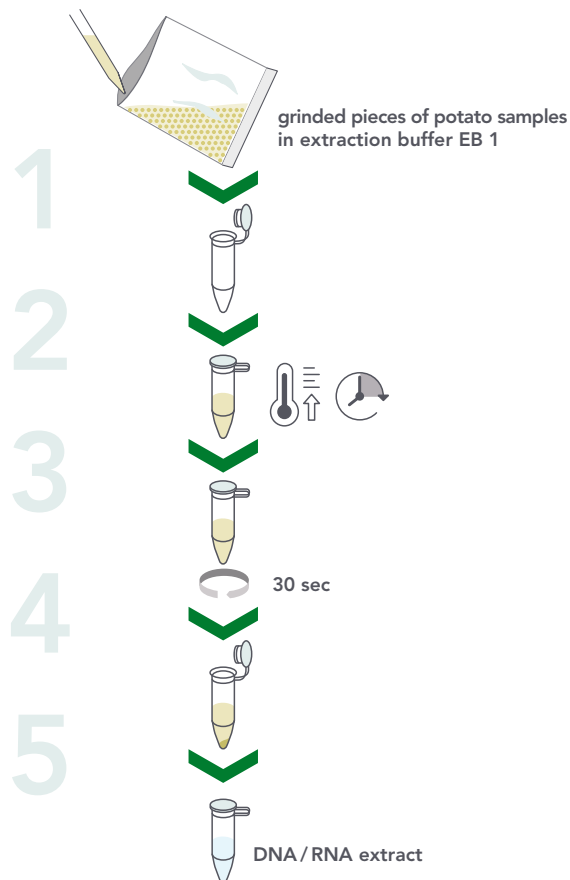
- Fast extraction in 30 minutes only
- Easy to use: only 5 steps
- Optimized for potato samples
- No specialised machines are needed
- Room temperature storage and shipment
- Total nucleic acids – extracts DNA and RNA in one procedure
- Validated and accredited method according to ISO/IEC 17025
- Extracted nucleic acids can be used for diagnostic tests such as real time PCR and PCR macroarray
- For pools of up to 25 potato samples
- Assays for viruses, bacteria and fungi

Storage and shipment of the sets are at room temperature for convenient handling.

The set includes all reagents and extraction bags needed for DNA/RNA extraction. Separate samples for DNA and RNA extraction are not required as the set extracts total nucleic acids. Downstream applications such as real-time PCR or PCR macroarray can be performed for the detection of viruses, bacteria or fungi using one extract.

The extraction method with Potato DNA/RNA rapid extraction set has been validated and accredited according to ISO/IEC 17025. The method has been approved for seed potato certification.

Four set sizes are available for pools of 10 or up to 25 potato samples and for 96 or 192 extractions respectively (see next page).





Art. No.	Product	No. of reactions	Amount of samples (potatoes)
810003	Potato DNA/RNA rapid extraction set 96 / 10x for 96 extractions (Pool size: up to 10 tuber samples) set includes: <ul style="list-style-type: none"> <li>• Rapid extraction buffer EB 1 (p) 100ml</li> <li>• Rapid extraction buffer EB 2 (p) 50 ml</li> <li>• Extraction bags Standard 12x15 cm 100 pcs</li> </ul>	96	up to 10
810004	Potato DNA/RNA rapid extraction set 96 / 25x for 96 extractions (Pool size: up to 25 tuber samples) set includes: <ul style="list-style-type: none"> <li>• Rapid extraction buffer EB 1 (p) 200ml</li> <li>• Rapid extraction buffer EB 2 (p) 50 ml</li> <li>• Extraction bags Standard 12x15 cm 100 pcs</li> </ul>	96	up to 25
810005	Potato DNA/RNA rapid extraction set 192 / 10x for 192 extractions (Pool size: up to 10 tuber samples) set includes: <ul style="list-style-type: none"> <li>• Rapid extraction buffer EB 1 (p) 200ml</li> <li>• Rapid extraction buffer EB 2 (p) 100 ml</li> <li>• Extraction bags Standard 12x15 cm 2 x 100 pcs</li> </ul>	192	up to 10
810006	Potato DNA/RNA rapid extraction set 192 / 25x for 192 extractions (Pool size: up to 25 tuber samples) set includes: <ul style="list-style-type: none"> <li>• Rapid extraction buffer EB 1 (p) 2 x 200ml</li> <li>• Rapid extraction buffer EB 2 (p) 100 ml</li> <li>• Extraction bags Standard 12x15 cm 2 x 100 pcs</li> </ul>	192	up to 25

## Extraction buffers for ELISA

Art. No.	Product	Size	sufficient for
110120	Extraction buffer «General» (10x)	500 ml	1000 samples**
110123	Extraction buffer «Grapevine» (5x)	2 x 500 ml	1000 samples**
110122	Extraction buffer «Bulbs & Tubers» ***	500 ml	1000 samples**
110124	Extraction buffer «Caulimo» ****	500 ml	1000 samples
110224	Extraction buffer «Caulimo» ****	250 ml	500 samples

\*\* Calculated with 5 ml extraction buffer per sample of 0.25 g

\*\*\* Composed of 500 ml extraction buffer «General» (10x) and 50 g egg albumin

\*\*\*\* Includes extraction buffer «Caulimo» (10x), urea, and egg albumin

# Plant Pathogen Diagnostic Tests

Our AgriStrip products are listed in alphabetical order on page 14. Our ELISA reagents, reagent sets and complete kits are listed in alphabetical order on page 16–41. Our PCR products are listed on page 42–45. The table below illustrates the prevalence of the pathogens as related to different crop groups.

Pathogen name	Abbreviation	AgriStrip	ELISA	qPCR	PCR macroarray
<b>Potatoes</b>					
Alfalfa mosaic virus	AMV		•		
Andean potato latent virus	APLV		•		
Andean potato mottle virus	APMoV		•		
Potato leafroll virus	PLRV		•	•	•
Potato mop-top virus	PMTV		•		•
Poty group	Poty group		•		
Potato virus A	PVA	•	•	•	•
Potato virus M	PVM	•	•	•	•
Potato virus S	PVS	•	•		•
Potato virus V	PVV		•		
Potato virus X	PVX	•	•		•
Potato virus Y (monoclonal cocktail)	PVY-mono cock	•	•	•	•
Potato virus Y (monoclonal)	PVY-mono	•	•	•	•
Potato virus Y (polyclonal)	PVY-poly	•	•	•	•
Potato virus Y-necrotic	PVY-necrotic	•	•	•	•
<i>Ralstonia solanacearum</i>	Rs	•	•		
<i>Spongospora subterranea f.sp. subterranea</i>	Sss	•	•		
Tomato black ring virus	TBRV		•		
Tobacco necrosis virus	TNV		•		
Tomato spotted wilt virus	TSWV	•	•		
<i>Verticillium spp.</i>	Verticillium		•		
<b>Grapevines</b>					
Arabis mosaic virus	ArMV		•		
ArMV+GFLV	ArMV+GFLV		•		
Grapevine fanleaf virus	GFLV		•		
Grapevine fleck virus	GFkV		•		
Grapevine leafroll assoc. virus 1	GLRaV-1		•		
Grapevine leafroll assoc. virus 1+3	GLRaV-1+3		•		
Grapevine leafroll assoc. virus 2	GLRaV-2		•		
Grapevine leafroll assoc. virus 3	GLRaV-3		•		
Grapevine leafroll assoc. virus generic 4 strains	GLRaV-4 strains		•		
Grapevine leafroll assoc. virus 4 strain 6	GLRaV-4 strain 6		•		
Grapevine pinot gris virus	GPGV		•		
Grapevine virus A	GVA		•		
Grapevine red blotch virus	GRBV			•	
Raspberry ringspot virus-ch	RpRSV-ch		•		
Raspberry ringspot virus-g	RpRSV-g		•		
Strawberry latent ringspot virus	SLRSV		•		
Tomato black ring virus	TBRV		•		
Tomato ringspot virus	ToRSV		•		
Tomato ringspot virus-Ch	ToRSV-Ch		•		
Tobacco ringspot virus	TRSV		•		
<b>Vegetables</b>					
<i>Acidovorax avenae subsp. citrulli</i>	Aac	•	•		
African cassava mosaic virus	ACMV (TYLCV)		•		
Bean common mosaic virus	BCMV		•		
Bean common mosaic necrosis virus	BCMNV		•		
Bean golden mosaic virus	BGMV (TYLCV)		•		
Beet necrotic yellow vein virus	BNYVV		•		
Cauliflower mosaic virus	CaMV		•		
Cucumber green mottle mosaic virus	CGMMV		•		
Cucumber mosaic virus	CMV	•	•		

Pathogen name	Abbreviation	AgriStrip	ELISA	qPCR	PCR macroarray
<b>Vegetables</b>					
Cucurbit yellow stunting disorder virus	CYSDV		•		
Erysimum latent virus	ErLV		•		
Garlic common latent virus	GCLV		•		
Lettuce mosaic virus	LMV	•	•		
Leek yellow stripe virus	LYSV		•		
Mirafiori lettuce big-vein virus	MiLBVV		•		
Onion yellow dwarf virus	OYDV		•		
Pepino mosaic virus	PepMV	•	•		
Pepper mild mottle virus	PMMoV	•	•		
Poty group	Poty group		•		
Papaya ringspot virus	PRSV (=WMV-1)		•		
Potato virus X	PVX	•	•		
Potato virus Y	PVY	•	•		
Radish mosaic virus	RaMV		•		
Soybean mosaic virus	SMV		•		
Squash leaf curl virus	SLCV		•		
Squash mosaic virus	SqMV		•		
Tomato bushy stunt virus	TBSV		•		
Tomato chlorotic spot virus	TCSV (TSWV)		•		
Tobacco mosaic virus	TMV	•	•		
Tobacco necrosis virus	TNV		•		
Tomato apex necrosis virus	ToANV		•		
Tomato mosaic virus	ToMV	•	•		
Tomato mottle virus	ToMoV (TYLCV)		•		
Tomato ringspot virus	ToRSV		•		
Tomato ringspot virus-Ch	ToRSV-Ch		•		
Tospovirus broad-spectrum (I,II,III)	Tospo (I,II,III)		•		
Tobacco streak virus	TSV		•		
Tomato spotted wilt virus	TSWV	•	•		
Turnip mosaic virus	TuMV		•		
Tomato yellow leaf curl virus	TYLCV		•		
Turnip yellow mosaic virus	TYMV		•		
<i>Verticillium spp.</i>	Verticillium		•		
Watermelon mosaic virus 1	WMV-1 (=PRSV)		•		
Watermelon mosaic virus 2	WMV-2		•		
Zucchini yellow mosaic virus	ZYMV		•		
<b>Field crops</b>					
Alfalfa mosaic virus	AMV		•		
Barley yellow dwarf virus-B	BYDV-B		•		
Barley yellow dwarf virus-F	BYDV-F		•		
Barley yellow dwarf virus-RPV	BYDV-RPV		•		
Beet necrotic yellow vein virus	BNYVV		•		
Cauliflower mosaic virus	CaMV		•		
Cucumber mosaic virus	CMV	•	•		
Cereal yellow dwarf virus-RPV	CYDV-RPV (BYDV-RPV)		•		
Groundnut ringspot virus	GRSV (TSWV)		•		
Maize chlorotic mottle virus	MCMV	•	•		
Maize dwarf mosaic virus	MDMV		•		
Petunia asteroid mosaic virus	PeAMV		•		
Poty group	Poty group		•		
Potato virus X	PVX	•	•		
Potato virus Y	PVY	•	•		
Radish mosaic virus	RaMV		•		
Sugarcane mosaic virus	SCMV		•		
Tobacco mosaic virus	TMV	•	•		
Tobacco necrosis virus	TNV		•		
Tobacco streak virus	TSV		•		
Tomato spotted wilt virus	TSWV	•	•		
Turnip yellow mosaic virus	TYMV		•		

Pathogen name	Abbreviation	AgriStrip	ELISA	qPCR	PCR macroarray
<b>Ornamentales</b>					
<i>Acidovorax avenae subsp. cattleyae</i>	Aacat		•		
Alfalfa mosaic virus	AMV		•		
Apple mosaic virus	ApMV		•		
Arabis mosaic virus	ArMV		•		
Calibrachoa mottle virus	CbMV		•		
Cucumber mosaic virus	CMV	•	•		
Erysimum latent virus	ErLV		•		
Impatiens necrotic spot virus	INSV	•	•		
Petunia asteroid mosaic virus	PeAMV		•		
Pelargonium flower-break virus	PFBV		•		
Pelargonium leaf curl virus	PLCV		•		
Pelargonium line pattern virus	PLPV		•		
Prunus necrotic ringspot virus	PNRSV		•		
Poty group	Poty group		•		
Potato virus A	PVA	•	•		
Potato virus X	PVX	•	•		
Potato virus Y	PVY	•	•		
<i>Ralstonia solanacearum</i>	Rs	•	•		
Strawberry latent ringspot virus	SLRSV		•		
Tobacco mosaic virus	TMV	•	•		
Tobacco necrosis virus	TNV		•		
Tomato mosaic virus	ToMV		•		
Tomato ringspot virus	ToRSV		•		
Tomato ringspot virus-Ch	ToRSV-Ch		•		
Tospovirus broad-spectrum (I,II,III)	Tospo (I,II,III)		•		
Tobacco ringspot virus	TRSV		•		
Tobacco streak virus	TSV		•		
Tomato spotted wilt virus	TSWV	•	•		
<i>Verticillium spp.</i>	Verticillium		•		
<i>Xanthom. campestris pv. pelargonii</i>	Xcp (Xh)		•		
<b>Fruit trees &amp; Small Fruits</b>					
Apple chlorotic leaf spot virus	ACLSV		•		
Apple mosaic virus	ApMV		•		
Apple proliferation phytoplasma	ApP		•		
Arabis mosaic virus	ArMV		•		
Apple stem grooving virus	ASGV		•		
Apple stem pitting virus	ASPV		•		
Cherry leaf roll virus-ch	CLRV-ch		•		
Cherry leaf roll virus-e	CLRV-e		•		
Citrus tristeza virus	CTV		•		
<i>Erwinia amylovora</i>	Ea	•			
Petunia asteroid mosaic virus	PeAMV		•		
Papaya ringspot virus	PRSV (=WMV-1)		•		
Plum pox virus (Sharka)	PPV	•	•		
Prune dwarf virus	PDV		•		
Prunus necrotic ringspot virus	PNRSV		•		
Poty group	Poty group		•		
Raspberry bushy dwarf virus	RBDV		•		
Raspberry ringspot virus-ch	RpRSV-ch		•		
Soybean mosaic virus	SMV		•		
Strawberry latent ringspot virus	SLRSV		•		
Strawberry mild yellow edge PV	SMYEPV		•		
Tomato ringspot virus-ch	ToRSV-ch		•		
Tomato ringspot virus	ToRSV		•		
Tobacco ringspot virus	TRSV		•		
Tobacco streak virus	TSV		•		
<i>Verticillium spp.</i>	Verticillium		•		
<i>Xanthomonas fragariae</i>	Xfr		•		

# AgriStrip – Lateral flow test

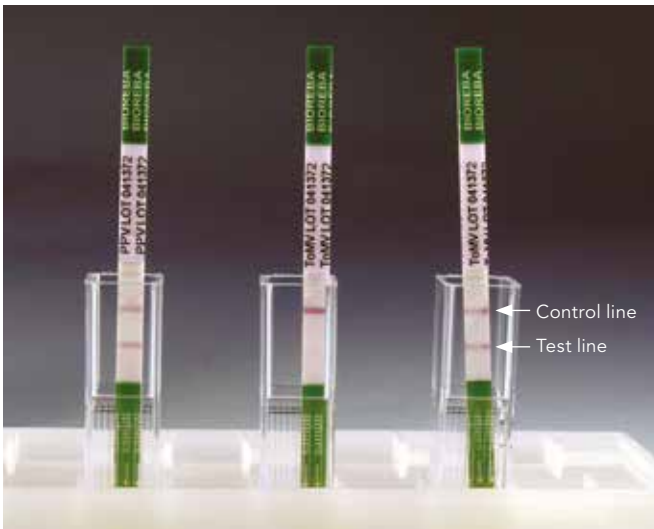


## The rapid one-step assay for detection of plant pathogens

The rapid one-step assay AgriStrip, developed and manufactured by BIOREBA, is based on lateral flow immunochromatography and is very fast. The test has been developed to confirm the presence of a plant pathogen in samples with suspicious symptoms. Such a sample is homogenized and a few drops of the homogenate are transferred to a cuvette. The strip is dipped into the extract and the result can be read within a few minutes. A positive result is seen as a colored band at the test line, whereas the colored band at the control line should always appear. Test strips can be kept as permanent records.

The performance of the test is very easy and there is no need for special laboratory equipment. Therefore, the AgriStrip is especially suitable when testing is required on-site, such as in greenhouses or fields.

The AgriStrip is available in three different ordering options: as AgriStrip Complete kit 25 for 25 tests and AgriStrip Set for 25 or 100 tests, respectively. Please visit [www.bioreba.com](http://www.bioreba.com) for an updated list of tests available in the AgriStrip format.



## AgriStrip Complete Kit 25

Component	Assays	
	25	
AgriStrips	25 pcs	
AgriStrip Extraction buffer ready-to-use	100 ml	
Pipettes, disposable	25 pcs	
Extraction bags Universal	25 pcs	
Cuvettes, disposable	25 pcs	
Cuvette rack	1 pc	

## AgriStrip Set

Component	Assays	
	25	100
AgriStrips	25 pcs	100 pcs
AgriStrip Extraction buffer ready-to-use	100 ml	500 ml

## Optional Products

Art. No.		Size
2166	Cuvette rack, holds 12 cuvettes	1
2534	Cuvettes, disposable	100
2292	Pipettes, disposable	500
430100	Extraction bags Universal	100
400010	Homogenizer hand model	1





Pathogen	Abbr.	Art. No.	Format	Assays
<i>Acidovorax avenae</i> subsp. <i>citrulli</i>	Aac	161981	AgriStrip Complete kit 25	25
		161982	AgriStrip Set 25	25
		161983	AgriStrip Set 100	100
Cucumber mosaic virus	CMV	160681	AgriStrip Complete kit 25	25
		160682	AgriStrip Set 25	25
		160683	AgriStrip Set 100	100
<i>Erwinia amylovora</i> (Fire blight)	Ea	153081	AgriStrip Complete kit 25	25
		153082	AgriStrip Set 25	25
		153083	AgriStrip Set 100	100
Impatiens necrotic spot virus	INSV	190281	AgriStrip Complete kit 25	25
		190282	AgriStrip Set 25	25
		190283	AgriStrip Set 100	100
Lettuce mosaic virus	LMV	160581	AgriStrip Complete kit 25	25
		160582	AgriStrip Set 25	25
		160583	AgriStrip Set 100	100
Maize chlorotic mottle virus	MCMV	140781	AgriStrip Complete kit 25	25
		140782	AgriStrip Set 25	25
		140783	AgriStrip Set 100	100
Pepino mosaic virus	PepMV	161581	AgriStrip Complete kit 25	25
		161582	AgriStrip Set 25	25
		161583	AgriStrip Set 100	100
Pepper mild mottle virus	PMMoV	161781	AgriStrip Complete kit 25	25
		161782	AgriStrip Set 25	25
		161783	AgriStrip Set 100	100
Plum pox virus (Sharka)	PPV	150581	AgriStrip Complete kit 25	25
		150582	AgriStrip Set 25	25
		150583	AgriStrip Set 100	100
Potato virus AgriStrip Varsity kit 5x5 assays		114081	AgriStrip Complete kit 25	25
Potato virus A	PVA	112181	AgriStrip Complete kit 25	25
		112182	AgriStrip Set 25	25
		112183	AgriStrip Set 100	100
Potato virus M	PVM	112281	AgriStrip Complete kit 25	25
		112282	AgriStrip Set 25	25
		112283	AgriStrip Set 100	100
Potato virus S	PVS	110381	AgriStrip Complete kit 25	25
		110382	AgriStrip Set 25	25
		110383	AgriStrip Set 100	100
Potato virus X	PVX	110481	AgriStrip Complete kit 25	25
		110482	AgriStrip Set 25	25
		110483	AgriStrip Set 100	100
Potato virus Y	PVY	112981	AgriStrip Complete kit 25	25
		112982	AgriStrip Set 25	25
		112983	AgriStrip Set 100	100
<i>Ralstonia solanacearum</i>	Rs	170581	AgriStrip Complete kit 25	25
		170582	AgriStrip Set 25	25
		170583	AgriStrip Set 100	100
<i>Spongospora subterranea</i> f.sp. <i>subterranea</i> (Powdery scab of potato)	Sss	111181	AgriStrip Complete kit 25	25
		111182	AgriStrip Set 25	25
		111183	AgriStrip Set 100	100
Tobacco mosaic virus	TMV	190481	AgriStrip Complete kit 25	25
		190482	AgriStrip Set 25	25
		190483	AgriStrip Set 100	100
Tomato mosaic virus	ToMV	152681	AgriStrip Complete kit 25	25
		152682	AgriStrip Set 25	25
		152683	AgriStrip Set 100	100
Tomato spotted wilt virus	TSWV	190181	AgriStrip Complete kit 25	25
		190182	AgriStrip Set 25	25
		190183	AgriStrip Set 100	100

# ELISA Reagents, Sets and Kits



## Individual ELISA Reagents

IgG and conjugate are available for 100, 500 and for 1000 assays.

For the six main potato viruses (PLRV, PVA, PVM, PVS, PVX and PVY), reagents are also available for 5000 assays.



## ELISA Reagent Sets

contain IgG and conjugate, controls and microtiter plates. For the six main potato viruses (PLRV, PVA, PVM, PVS, PVX and PVY), Reagent sets are also available for 5000 assays.

### Content of ELISA Reagent Sets

Component	Assays		
	480	960	5000
IgG	0.1 ml	0.2 ml	1 ml
Conjugate	0.1 ml	0.2 ml	1 ml
Positive control	2.5 ml	2.5 ml	5 x 2.5 ml
Negative control	2.5 ml	2.5 ml	5 x 2.5 ml
Microtiter plates	5	10	60



## ELISA Complete Kits

contain all reagents, controls, microtiter plates, buffers and substrate necessary to perform the tests. For the six main potato viruses (PLRV, PVA, PVM, PVS, PVX and PVY), Complete kits are also available for 5000 assays.

### Content of ELISA Complete Kits

Component	Assays			
	96	480	960	5000
IgG	0.025 ml	0.1 ml	0.2 ml	1 ml
Conjugate	0.025 ml	0.1 ml	0.2 ml	1 ml
Positive control	2.5 ml	2.5 ml	2.5 ml	5 x 2.5 ml
Negative control	2.5 ml	2.5 ml	2.5 ml	5 x 2.5 ml
Extraction buffer (10x)*	50 ml	250 ml	500 ml	5 x 500 ml
Coating buffer	1 tablet	1 tablet	2 tablets	10 tablets
Conjugate buffer (10x)	2 ml	10 ml	20 ml	100 ml
Substrate buffer (5x)	4 ml	20 ml	2 x 20 ml	200 ml
Washing buffer	1 tablet	1 pouch	2 pouches	2 containers
Substrate (pNPP)**	4 tablets (5 mg)	5 tablets (20 mg)	10 tablets (20 mg)	bulk powder (5 g)
Egg Albumin**	5 g	25 g	50 g	250 g
Microtiter plates	1	5	10	60

\* For grapevine testing, twice as much buffer is included since the concentration is 5x

\*\* Is included only with the extraction buffer «Bulbs & Tubers»

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Acidovorax avenae subsp. citrulli</b> polyclonal - polyclonal*	Aac	161912	IgG	0.2 ml	1000
		161915	IgG	0.1 ml	500
		161919	IgG	0.025 ml	100
		161922	Conjugate	0.2 ml	1000
		161925	Conjugate	0.1 ml	500
		161929	Conjugate	0.025 ml	100
		161953	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161962	Reagent set 960		960
		161965	Reagent set 480		480
		161972	Complete kit 960		960
		161975	Complete kit 480		480
		161977	Complete kit 96		96
		<b>Acidovorax avenae subsp. cattleyaet</b> polyclonal - polyclonal	Aacat	170612	IgG
170615	IgG			0.1 ml	500
170619	IgG			0.025 ml	100
170622	Conjugate			0.2 ml	1000
170625	Conjugate			0.1 ml	500
170629	Conjugate			0.025 ml	100
170653	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
170662	Reagent set 960				960
170665	Reagent set 480				480
170672	Complete kit 960				960
170675	Complete kit 480				480
170677	Complete kit 96				96
<b>African cassava mosaic virus</b>	ACMV			see Tomato yellow leaf curl virus	
<b>Alfalfa mosaic virus</b> polyclonal - polyclonal	AMV	140512	IgG	0.2 ml	1000
		140515	IgG	0.1 ml	500
		140519	IgG	0.025 ml	100
		140522	Conjugate	0.2 ml	1000
		140525	Conjugate	0.1 ml	500
		140529	Conjugate	0.025 ml	100
		140553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		140562	Reagent set 960		960
		140565	Reagent set 480		480
		140572	Complete kit 960		960
		140575	Complete kit 480		480
		140577	Complete kit 96		96
		<b>Andean potato latent virus</b> polyclonal - polyclonal	APLV	110912	IgG
110915	IgG			0.1 ml	500
110919	IgG			0.025 ml	100
110922	Conjugate			0.2 ml	1000
110925	Conjugate			0.1 ml	500
110929	Conjugate			0.025 ml	100
110953	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
110962	Reagent set 960				960
110965	Reagent set 480				480
110972	Complete kit 960				960
110975	Complete kit 480				480
110977	Complete kit 96				96

\*refers to coating IgG and conjugate, respectively.  
Product Information on [www.bioreba.com](http://www.bioreba.com)

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Andean potato mottle virus</b> polyclonal - polyclonal	APMoV	111012	IgG	0.2 ml	1000
		111015	IgG	0.1 ml	500
		111019	IgG	0.025 ml	100
		111022	Conjugate	0.2 ml	1000
		111025	Conjugate	0.1 ml	500
		111029	Conjugate	0.025 ml	100
		111053	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		111062	Reagent set 960		960
		111065	Reagent set 480		480
		111072	Complete kit 960		960
		111075	Complete kit 480		480
		111077	Complete kit 96		96
<b>Apple chlorotic leaf spot virus</b> polyclonal - polyclonal	ACLSV	151012	IgG	0.2 ml	1000
		151015	IgG	0.1 ml	500
		151019	IgG	0.025 ml	100
		151022	Conjugate	0.2 ml	1000
		151025	Conjugate	0.1 ml	500
		151029	Conjugate	0.025 ml	100
		151053	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		151062	Reagent set 960		960
		151065	Reagent set 480		480
		151072	Complete kit 960		960
		151075	Complete kit 480		480
		151077	Complete kit 96		96
<b>Apple mosaic virus</b> polyclonal - polyclonal	ApMV	150712	IgG	0.2 ml	1000
		150715	IgG	0.1 ml	500
		150719	IgG	0.025 ml	100
		150722	Conjugate	0.2 ml	1000
		150725	Conjugate	0.1 ml	500
		150729	Conjugate	0.025 ml	100
		150753	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150762	Reagent set 960		960
		150765	Reagent set 480		480
		150772	Complete kit 960		960
		150775	Complete kit 480		480
		150777	Complete kit 96		96
<b>Apple proliferation phytoplasma</b> monoclonal - monoclonal	ApP	151712	IgG	0.2 ml	1000
		151715	IgG	0.1 ml	500
		151719	IgG	0.025 ml	100
		151722	Conjugate	0.2 ml	1000
		151725	Conjugate	0.1 ml	500
		151729	Conjugate	0.025 ml	100
		151753	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		151762	Reagent set 960		960
		151765	Reagent set 480		480
		151772	Complete kit 960		960
		151775	Complete kit 480		480
		151777	Complete kit 96		96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Apple stem grooving virus</b> polyclonal - polyclonal	ASGV	150812	IgG	0.2 ml	1000
		150815	IgG	0.1 ml	500
		150819	IgG	0.025 ml	100
		150822	Conjugate	0.2 ml	1000
		150825	Conjugate	0.1 ml	500
		150829	Conjugate	0.025 ml	100
		150853	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150862	Reagent set 960		960
		150865	Reagent set 480		480
		150872	Complete kit 960		960
		150875	Complete kit 480		480
		150877	Complete kit 96		96
		<b>Apple stem pitting virus</b> monoclonal - monoclonal	ASPV	151812	IgG
151815	IgG			0.1 ml	500
151819	IgG			0.025 ml	100
151822	Conjugate			0.2 ml	1000
151825	Conjugate			0.1 ml	500
151829	Conjugate			0.025 ml	100
151853	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
151862	Reagent set 960				960
151865	Reagent set 480				480
151872	Complete kit 960				960
151875	Complete kit 480				480
151877	Complete kit 96				96
<b>Arabidopsis mosaic virus</b> polyclonal - polyclonal	ArMV			120312	IgG
		120315	IgG	0.1 ml	500
		120319	IgG	0.025 ml	100
		120322	Conjugate	0.2 ml	1000
		120325	Conjugate	0.1 ml	500
		120329	Conjugate	0.025 ml	100
		120353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120362	Reagent set 960		960
		120365	Reagent set 480		480
		120372	Complete kit 960		960
		120373	Grapevine Complete kit 960		960
		120375	Complete kit 480		480
		120376	Grapevine Complete kit 480		480
		120377	Complete kit 96		96
		<b>Arabidopsis mosaic virus + Grapevine fanleaf virus</b> polyclonal / monoclonal - monoclonal	ArMV + GFLV	120212	IgG
120215	IgG			0.1 ml	500
120219	IgG			0.025 ml	100
120222	Conjugate			0.2 ml	1000
120225	Conjugate			0.1 ml	500
120229	Conjugate			0.025 ml	100
120253	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
120262	Reagent set 960				960
120265	Reagent set 480				480
120273	Complete kit 960				960
120276	Complete kit 480				480
120278	Complete kit 96		96		



Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Barley yellow dwarf virus - B (PAV-like)</b> polyclonal - polyclonal	BYDV-B	140112	IgG	0.2 ml	1000
		140115	IgG	0.1 ml	500
		140119	IgG	0.025 ml	100
		140122	Conjugate	0.2 ml	1000
		140125	Conjugate	0.1 ml	500
		140129	Conjugate	0.025 ml	100
		140153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		140162	Reagent set 960		960
		140165	Reagent set 480		480
		140172	Complete kit 960		960
		140175	Complete kit 480		480
		140177	Complete kit 96		96
		<b>Barley yellow dwarf virus - F (MAV-like)</b> polyclonal - polyclonal	BYDV - F	140212	IgG
140215	IgG			0.1 ml	500
140219	IgG			0.025 ml	100
140222	Conjugate			0.2 ml	1000
140225	Conjugate			0.1 ml	500
140229	Conjugate			0.025 ml	100
140253	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
140262	Reagent set 960				960
140265	Reagent set 480				480
140272	Complete kit 960				960
140275	Complete kit 480				480
140277	Complete kit 96				96
<b>Barley yellow dwarf virus - RPV</b> polyclonal - polyclonal  Synonym: Cereal yellow dwarf virus - RPV (CYDV - RPV)	BYDV - RPV			140612	IgG
		140615	IgG	0.1 ml	500
		140619	IgG	0.025 ml	100
		140622	Conjugate	0.2 ml	1000
		140625	Conjugate	0.1 ml	500
		140629	Conjugate	0.025 ml	100
		140653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		140662	Reagent set 960		960
		140665	Reagent set 480		480
		140672	Complete kit 960		960
		140675	Complete kit 480		480
		140677	Complete kit 96		96
		<b>Bean common mosaic virus</b> polyclonal - polyclonal	BCMV	162012	IgG
162015	IgG			0.1 ml	500
162019	IgG			0.025 ml	100
162022	Conjugate			0.2 ml	1000
162025	Conjugate			0.1 ml	500
162029	Conjugate			0.025 ml	100
162053	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
162062	Reagent set 960				960
162065	Reagent set 480				480
162072	Complete kit 960				960
162075	Complete kit 480				480
162077	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Bean common mosaic necrosis virus</b> polyclonal - polyclonal	BCMNV	162112	IgG	0.2 ml	1000
		162115	IgG	0.1 ml	500
		162119	IgG	0.025 ml	100
		162122	Conjugate	0.2 ml	1000
		162125	Conjugate	0.1 ml	500
		162129	Conjugate	0.025 ml	100
		162153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		162162	Reagent set 960		960
		162165	Reagent set 480		480
		162172	Complete kit 960		960
		162175	Complete kit 480		480
		162177	Complete kit 96		96
<b>Bean golden mosaic virus</b>	BGMV	see Tomato yellow leaf curl virus			
<b>Beet necrotic yellow vein virus (Rhizomania)</b> polyclonal - polyclonal	BNYVV	160112	IgG	0.2 ml	1000
		160115	IgG	0.1 ml	500
		160119	IgG	0.025 ml	100
		160122	Conjugate	0.2 ml	1000
		160125	Conjugate	0.1 ml	500
		160129	Conjugate	0.025 ml	100
		160153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		160162	Reagent set 960		960
		160165	Reagent set 480		480
		160172	Complete kit 960		960
		160175	Complete kit 480		480
		160177	Complete kit 96		96
<b>Calibrachoa mottle virus</b> polyclonal - polyclonal	CbMV	170712	IgG	0.2 ml	1000
		170715	IgG	0.1 ml	500
		170719	IgG	0.025 ml	100
		170722	Conjugate	0.2 ml	1000
		170725	Conjugate	0.1 ml	500
		170729	Conjugate	0.025 ml	100
		170753	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		170762	Reagent set 960		960
		170765	Reagent set 480		480
		170772	Complete kit 960		960
		170775	Complete kit 480		480
		170777	Complete kit 96		96
<b>Cauliflower mosaic virus</b> polyclonal - polyclonal  Needs special extraction buffer «Caulimo»	CaMV	162212	IgG	0.2 ml	1000
		162215	IgG	0.1 ml	500
		162219	IgG	0.025 ml	100
		162222	Conjugate	0.2 ml	1000
		162225	Conjugate	0.1 ml	500
		162229	Conjugate	0.025 ml	100
		162253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		162262	Reagent set 960		960
		162265	Reagent set 480		480
		162272	Complete kit 960		960
		162275	Complete kit 480		480
		162277	Complete kit 96		96
<b>Cereal yellow dwarf virus - RPV</b>	CYDV - RPV	see Barley yellow dwarf virus - RPV			

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Cherry leaf roll virus - ch</b> polyclonal - polyclonal  Suitable for cherry, peach, walnut and birch isolates. Complementary to CLRV-e	CLRV - ch	150912	IgG	0.2 ml	1000
		150915	IgG	0.1 ml	500
		150919	IgG	0.025 ml	100
		150922	Conjugate	0.2 ml	1000
		150925	Conjugate	0.1 ml	500
		150929	Conjugate	0.025 ml	100
		150953	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150962	Reagent set 960		960
		150965	Reagent set 480		480
		150972	Complete kit 960		960
		150975	Complete kit 480		480
		150977	Complete kit 96		96
		<b>Cherry leaf roll virus - e</b> polyclonal - polyclonal  Suitable for elderberry and walnut isolates. Complementary to CLRV-ch.	CLRV - e	151212	IgG
151215	IgG			0.1 ml	500
151219	IgG			0.025 ml	100
151222	Conjugate			0.2 ml	1000
151225	Conjugate			0.1 ml	500
151229	Conjugate			0.025 ml	100
151253	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
151262	Reagent set 960				960
151265	Reagent set 480				480
151272	Complete kit 960				960
151275	Complete kit 480				480
151277	Complete kit 96				96
<b>Citrus tristeza virus</b> polyclonal / monoclonal - polyclonal / monoclonal	CTV			151512	IgG
		151515	IgG	0.1 ml	500
		151519	IgG	0.025 ml	100
		151522	Conjugate	0.2 ml	1000
		151525	Conjugate	0.1 ml	500
		151529	Conjugate	0.025 ml	100
		151553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		151562	Reagent set 960		960
		151565	Reagent set 480		480
		151572	Complete kit 960		960
		151575	Complete kit 480		480
		151577	Complete kit 96		96
		<b>Cucumber green mottle mosaic virus</b> polyclonal - polyclonal	CGMMV	160712	IgG
160715	IgG			0.1 ml	500
160719	IgG			0.025 ml	100
160722	Conjugate			0.2 ml	1000
160725	Conjugate			0.1 ml	500
160729	Conjugate			0.025 ml	100
160753	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
160762	Reagent set 960				960
160765	Reagent set 480				480
160772	Complete kit 960				960
160775	Complete kit 480				480
160777	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Cucumber mosaic virus</b> polyclonal - polyclonal / monoclonal	CMV	160612	IgG	0.2 ml	1000
		160615	IgG	0.1 ml	500
		160619	IgG	0.025 ml	100
		160622	Conjugate	0.2 ml	1000
		160625	Conjugate	0.1 ml	500
		160629	Conjugate	0.025 ml	100
		160653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		160662	Reagent set 960		960
		160665	Reagent set 480		480
		160672	Complete kit 960		960
		160675	Complete kit 480		480
		160677	Complete kit 96		96
		<b>Cucurbit yellow stunting disorder virus</b> polyclonal - polyclonal	CYSDV	162312	IgG
162315	IgG			0.1 ml	500
162319	IgG			0.025 ml	100
162322	Conjugate			0.2 ml	1000
162325	Conjugate			0.1 ml	500
162329	Conjugate			0.025 ml	100
162353	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
162362	Reagent set 960				960
162365	Reagent set 480				480
162372	Complete kit 960				960
162375	Complete kit 480				480
162377	Complete kit 96				96
<b>Erysimum latent virus</b> polyclonal - polyclonal	ErLV			170912	IgG
		170915	IgG	0.1 ml	500
		170919	IgG	0.025 ml	100
		170922	Conjugate	0.2 ml	1000
		170925	Conjugate	0.1 ml	500
		170929	Conjugate	0.025 ml	100
		170953	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		170962	Reagent set 960		960
		170965	Reagent set 480		480
		170972	Complete kit 960		960
		170975	Complete kit 480		480
		170977	Complete kit 96		96
		<b>Garlic common latent virus</b> polyclonal - polyclonal	GCLV	160412	IgG
160415	IgG			0.1 ml	500
160419	IgG			0.025 ml	100
160422	Conjugate			0.2 ml	1000
160425	Conjugate			0.1 ml	500
160429	Conjugate			0.025 ml	100
160453	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
160462	Reagent set 960				960
160465	Reagent set 480				480
160472	Complete kit 960				960
160475	Complete kit 480				480
160477	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Grapevine fanleaf virus</b> polyclonal - monoclonal	GFLV	120412	IgG	0.2 ml	1000
		120415	IgG	0.1 ml	500
		120419	IgG	0.025 ml	100
		120422	Conjugate	0.2 ml	1000
		120425	Conjugate	0.1 ml	500
		120429	Conjugate	0.025 ml	100
		120453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120462	Reagent set 960		960
		120465	Reagent set 480		480
		120473	Complete kit 960		960
		120476	Complete kit 480		480
		120478	Complete kit 96		96
<b>Grapevine fleck virus</b> polyclonal - monoclonal	GFkV	120612	IgG	0.2 ml	1000
		120615	IgG	0.1 ml	500
		120619	IgG	0.025 ml	100
		120622	Conjugate	0.2 ml	1000
		120625	Conjugate	0.1 ml	500
		120629	Conjugate	0.025 ml	100
		120653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120662	Reagent set 960		960
		120665	Reagent set 480		480
		120673	Complete kit 960		960
		120676	Complete kit 480		480
		120678	Complete kit 96		96
<b>Grapevine leafroll - assoc. virus 1</b> monoclonal - monoclonal	GLRaV-1	120112	IgG	0.2 ml	1000
		120115	IgG	0.1 ml	500
		120119	IgG	0.025 ml	100
		120122	Conjugate	0.2 ml	1000
		120125	Conjugate	0.1 ml	500
		120129	Conjugate	0.025 ml	100
		120153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120162	Reagent set 960		960
		120165	Reagent set 480		480
		120173	Complete kit 960		960
		120176	Complete kit 480		480
		120178	Complete kit 96		96
<b>Grapevine leafroll - assoc. virus 1+3</b> polyclonal / monoclonal - monoclonal	GLRaV-1+3	120912	IgG	0.2 ml	1000
		120915	IgG	0.1 ml	500
		120919	IgG	0.025 ml	100
		120922	Conjugate	0.2 ml	1000
		120925	Conjugate	0.1 ml	500
		120929	Conjugate	0.025 ml	100
		120953	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120962	Reagent set 960		960
		120965	Reagent set 480		480
		120973	Complete kit 960		960
		120976	Complete kit 480		480
		120978	Complete kit 96		96



Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Grapevine leafroll - assoc. virus 2</b> monoclonal - polyclonal	GLRaV-2	120812	IgG	0.2 ml	1000
		120815	IgG	0.1 ml	500
		120819	IgG	0.025 ml	100
		120822	Conjugate	0.2 ml	1000
		120825	Conjugate	0.1 ml	500
		120829	Conjugate	0.025 ml	100
		120853	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120862	Reagent set 960		960
		120865	Reagent set 480		480
		120873	Complete kit 960		960
		120876	Complete kit 480		480
		120878	Complete kit 96		96
<b>Grapevine leafroll - assoc. virus 3</b> polyclonal / monoclonal - monoclonal	GLRaV-3	122312	IgG	0.2 ml	1000
		122315	IgG	0.1 ml	500
		122319	IgG	0.025 ml	100
		122322	Conjugate	0.2 ml	1000
		122325	Conjugate	0.1 ml	500
		122329	Conjugate	0.025 ml	100
		122353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		122362	Reagent set 960		960
		122365	Reagent set 480		480
		122373	Complete kit 960		960
		122376	Complete kit 480		480
		122378	Complete kit 96		96
<b>Grapevine leafroll-assoc. virus generic 4 strains (former GLRaV-4-9)</b> monoclonal - monoclonal  Recognizes GLRaV-4, GLRaV-4 strain 5, GLRaV-4 strain 6, GLRaV-4 strain 9 and GLRaV-4 strain Ob	GLRaV-4 strains	122512	IgG	0.2 ml	1000
		122515	IgG	0.1 ml	500
		122519	IgG	0.025 ml	100
		122522	Conjugate	0.2 ml	1000
		122525	Conjugate	0.1 ml	500
		122529	Conjugate	0.025 ml	100
		122553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		122562	Reagent set 960		960
		122565	Reagent set 480		480
		122573	Complete kit 960		960
		122576	Complete kit 480		480
		122578	Complete kit 96		96
<b>Grapevine leafroll - assoc. virus 4 strain 6 (former GLRaV-6)</b> polyclonal - monoclonal	GLRaV-4 strain 6	122412	IgG	0.2 ml	1000
		122415	IgG	0.1 ml	500
		122419	IgG	0.025 ml	100
		122422	Conjugate	0.2 ml	1000
		122425	Conjugate	0.1 ml	500
		122429	Conjugate	0.025 ml	100
		122453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		122462	Reagent set 960		960
		122465	Reagent set 480		480
		122473	Complete kit 960		960
122476	Complete kit 480		480		
122478	Complete kit 96		96		

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Grapevine pinot gris virus</b> polyclonal - polyclonal	GPGV	120712	IgG	0.2 ml	1000
		120715	IgG	0.1 ml	500
		120719	IgG	0.025 ml	100
		120722	Conjugate	0.2 ml	1000
		120725	Conjugate	0.1 ml	500
		120729	Conjugate	0.025 ml	100
		120753	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120762	Reagent set 960		960
		120765	Reagent set 480		480
		120773	Complete kit 960		960
		120776	Complete kit 480		480
		120778	Complete kit 96		96
		<b>Grapevine virus A</b> polyclonal - polyclonal / monoclonal	GVA	122212	IgG
122215	IgG			0.1 ml	500
122219	IgG			0.025 ml	100
122222	Conjugate			0.2 ml	1000
122225	Conjugate			0.1 ml	500
122229	Conjugate			0.025 ml	100
122253	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
122262	Reagent set 960				960
122265	Reagent set 480				480
122273	Complete kit 960				960
122276	Complete kit 480				480
122278	Complete kit 96				96
<b>Groundnut ringspot virus</b>	GRSV			see Tomato spotted wilt virus	
<b>Impatiens necrotic spot virus</b> polyclonal - monoclonal	INSV	190212	IgG	0.2 ml	1000
		190215	IgG	0.1 ml	500
		190219	IgG	0.025 ml	100
		190222	Conjugate	0.2 ml	1000
		190225	Conjugate	0.1 ml	500
		190229	Conjugate	0.025 ml	100
		190253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		190262	Reagent set 960		960
		190265	Reagent set 480		480
		190272	Complete kit 960		960
		190275	Complete kit 480		480
		190277	Complete kit 96		96
		<b>Leek yellow stripe virus</b> polyclonal - polyclonal	LYSV	160312	IgG
160315	IgG			0.1 ml	500
160319	IgG			0.025 ml	100
160322	Conjugate			0.2 ml	1000
160325	Conjugate			0.1 ml	500
160329	Conjugate			0.025 ml	100
160353	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
160362	Reagent set 960				960
160365	Reagent set 480				480
160372	Complete kit 960				960
160375	Complete kit 480				480
160377	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Lettuce mosaic virus</b> polyclonal - monoclonal  For leaves and seeds	LMV	160512	IgG	0.2 ml	1000
		160515	IgG	0.1 ml	500
		160519	IgG	0.025 ml	100
		160522	Conjugate	0.2 ml	1000
		160525	Conjugate	0.1 ml	500
		160529	Conjugate	0.025 ml	100
		160553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		160562	Reagent set 960		960
		160565	Reagent set 480		480
		160572	Complete kit 960		960
		160575	Complete kit 480		480
		160577	Complete kit 96		96
		<b>Maize chlorotic mottle virus</b> polyclonal - polyclonal	MCMV	140712	IgG
140715	IgG			0.1 ml	500
140719	IgG			0.025 ml	100
140722	Conjugate			0.2 ml	1000
140725	Conjugate			0.1 ml	500
140729	Conjugate			0.025 ml	100
140753	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
140762	Reagent set 960				960
140765	Reagent set 480				480
140772	Complete kit 960				960
140775	Complete kit 480				480
140777	Complete kit 96				96
<b>Maize dwarf mosaic virus</b> polyclonal - polyclonal	MDMV			140312	IgG
		140315	IgG	0.1 ml	500
		140319	IgG	0.025 ml	100
		140322	Conjugate	0.2 ml	1000
		140325	Conjugate	0.1 ml	500
		140329	Conjugate	0.025 ml	100
		140353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		140362	Reagent set 960		960
		140365	Reagent set 480		480
		140372	Complete kit 960		960
		140375	Complete kit 480		480
		140377	Complete kit 96		96
		<b>Mirafiori lettuce big-vein virus</b> polyclonal - polyclonal	MiLBVV	161612	IgG
161615	IgG			0.1 ml	500
161619	IgG			0.025 ml	100
161622	Conjugate			0.2 ml	1000
161625	Conjugate			0.1 ml	500
161629	Conjugate			0.025 ml	100
161653	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
161662	Reagent set 960				960
161665	Reagent set 480				480
161672	Complete kit 960				960
161675	Complete kit 480				480
161677	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Onion yellow dwarf virus</b> polyclonal - polyclonal	OYDV	160212	IgG	0.2 ml	1000
		160215	IgG	0.1 ml	500
		160219	IgG	0.025 ml	100
		160222	Conjugate	0.2 ml	1000
		160225	Conjugate	0.1 ml	500
		160229	Conjugate	0.025 ml	100
		160253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		160262	Reagent set 960		960
		160265	Reagent set 480		480
		160272	Complete kit 960		960
		160275	Complete kit 480		480
		160277	Complete kit 96		96
		<b>Papaya ringspot virus (= Watermelon mosaic virus 1)</b> polyclonal - polyclonal	PRSV	151912	IgG
151915	IgG			0.1 ml	500
151919	IgG			0.025 ml	100
151922	Conjugate			0.2 ml	1000
151925	Conjugate			0.1 ml	500
151929	Conjugate			0.025 ml	100
151953	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
151962	Reagent set 960				960
151965	Reagent set 480				480
151972	Complete kit 960				960
151975	Complete kit 480				480
151977	Complete kit 96				96
<b>Pelargonium flower break virus</b> polyclonal - polyclonal	PFBV			170212	IgG
		170215	IgG	0.1 ml	500
		170219	IgG	0.025 ml	100
		170222	Conjugate	0.2 ml	1000
		170225	Conjugate	0.1 ml	500
		170229	Conjugate	0.025 ml	100
		170253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		170262	Reagent set 960		960
		170265	Reagent set 480		480
		170272	Complete kit 960		960
		170275	Complete kit 480		480
		170277	Complete kit 96		96
		<b>Pelargonium leaf curl virus</b> polyclonal - polyclonal	PLCV	170312	IgG
170315	IgG			0.1 ml	500
170319	IgG			0.025 ml	100
170322	Conjugate			0.2 ml	1000
170325	Conjugate			0.1 ml	500
170329	Conjugate			0.025 ml	100
170353	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
170362	Reagent set 960				960
170365	Reagent set 480				480
170372	Complete kit 960				960
170375	Complete kit 480				480
170377	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Pelargonium line pattern virus</b> polyclonal - polyclonal	PLPV	170412	IgG	0.2 ml	1000
		170415	IgG	0.1 ml	500
		170419	IgG	0.025 ml	100
		170422	Conjugate	0.2 ml	1000
		170425	Conjugate	0.1 ml	500
		170429	Conjugate	0.025 ml	100
		170453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		170462	Reagent set 960		960
		170465	Reagent set 480		480
		170472	Complete kit 960		960
		170475	Complete kit 480		480
		170477	Complete kit 96		96
		<b>Pepino mosaic virus</b> polyclonal - polyclonal	PepMV	161512	IgG
161515	IgG			0.1 ml	500
161519	IgG			0.025 ml	100
161522	Conjugate			0.2 ml	1000
161525	Conjugate			0.1 ml	500
161529	Conjugate			0.025 ml	100
161553	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
161562	Reagent set 960				960
161565	Reagent set 480				480
161572	Complete kit 960				960
161575	Complete kit 480				480
161577	Complete kit 96				96
<b>Pepper mild mottle virus</b> polyclonal - polyclonal	PMMoV			161712	IgG
		161715	IgG	0.1 ml	500
		161719	IgG	0.025 ml	100
		161722	Conjugate	0.2 ml	1000
		161725	Conjugate	0.1 ml	500
		161729	Conjugate	0.025 ml	100
		161753	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161762	Reagent set 960		960
		161765	Reagent set 480		480
		161772	Complete kit 960		960
		161775	Complete kit 480		480
		161777	Complete kit 96		96
		<b>Petunia asteroid mosaic virus</b> polyclonal - polyclonal	PeAMV	170812	IgG
170815	IgG			0.1 ml	500
170819	IgG			0.025 ml	100
170822	Conjugate			0.2 ml	1000
170825	Conjugate			0.1 ml	500
170829	Conjugate			0.025 ml	100
170853	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
170862	Reagent set 960				960
170865	Reagent set 480				480
170872	Complete kit 960				960
170875	Complete kit 480				480
170877	Complete kit 96				96



Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Plum pox virus (Sharka)</b> polyclonal - polyclonal / monoclonal	PPV	150512	IgG	0.2 ml	1000
		150515	IgG	0.1 ml	500
		150519	IgG	0.025 ml	100
		150522	Conjugate	0.2 ml	1000
		150525	Conjugate	0.1 ml	500
		150529	Conjugate	0.025 ml	100
		150553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150562	Reagent set 960		960
		150565	Reagent set 480		480
		150572	Complete kit 960		960
		150575	Complete kit 480		480
		150577	Complete kit 96		96
		<b>Potato leafroll virus</b> polyclonal - monoclonal	PLRV	110611	IgG
110612	IgG			0.2 ml	1000
110615	IgG			0.1 ml	500
110619	IgG			0.025 ml	100
110621	Conjugate			1.0 ml	5000
110622	Conjugate			0.2 ml	1000
110625	Conjugate			0.1 ml	500
110629	Conjugate			0.025 ml	100
110653	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
110670	Reagent set 5000				5000
110662	Reagent set 960				960
110665	Reagent set 480				480
110680	Complete kit 5000				5000
110672	Complete kit 960				960
110675	Complete kit 480				480
110677	Complete kit 96		96		
<b>Potato mop-top virus</b> monoclonal - monoclonal	PMTV	113012	IgG	0.2 ml	1000
		113015	IgG	0.1 ml	500
		113019	IgG	0.025 ml	100
		113022	Conjugate	0.2 ml	1000
		113025	Conjugate	0.1 ml	500
		113029	Conjugate	0.025 ml	100
		113053	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		113062	Reagent set 960		960
		113065	Reagent set 480		480
		113072	Complete kit 960		960
		113075	Complete kit 480		480
		113077	Complete kit 96		96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Potato virus A</b> monoclonal - monoclonal	PVA	112111	IgG	1.0 ml	5000
		112112	IgG	0.2 ml	1000
		112115	IgG	0.1 ml	500
		112119	IgG	0.025 ml	100
		112121	Conjugate	1.0 ml	5000
		112122	Conjugate	0.2 ml	1000
		112125	Conjugate	0.1 ml	500
		112129	Conjugate	0.025 ml	100
		112153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		112170	Reagent set 5000		5000
		112162	Reagent set 960		960
		112165	Reagent set 480		480
		112180	Complete kit 5000		5000
		112172	Complete kit 960		960
		112175	Complete kit 480		480
		112177	Complete kit 96		96
<b>Potato virus M</b> polyclonal - polyclonal	PVM	110211	IgG	1.0 ml	5000
		110212	IgG	0.2 ml	1000
		110215	IgG	0.1 ml	500
		110219	IgG	0.025 ml	100
		110221	Conjugate	1.0 ml	5000
		110222	Conjugate	0.2 ml	1000
		110225	Conjugate	0.1 ml	500
		110229	Conjugate	0.025 ml	100
		110253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		110270	Reagent set 5000		5000
		110262	Reagent set 960		960
		110265	Reagent set 480		480
		110280	Complete kit 5000		5000
		110272	Complete kit 960		960
		110275	Complete kit 480		480
		110277	Complete kit 96		96
<b>Potato virus S</b> polyclonal - polyclonal	PVS	110311	IgG	1.0 ml	5000
		110312	IgG	0.2 ml	1000
		110315	IgG	0.1 ml	500
		110319	IgG	0.025 ml	100
		110321	Conjugate	1.0 ml	5000
		110322	Conjugate	0.2 ml	1000
		110325	Conjugate	0.1 ml	500
		110329	Conjugate	0.025 ml	100
		110353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		110370	Reagent set 5000		5000
		110362	Reagent set 960		960
		110365	Reagent set 480		480
		110380	Complete kit 5000		5000
		110372	Complete kit 960		960
		110375	Complete kit 480		480
		110377	Complete kit 96		96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Potato virus V (PVY<sup>c</sup> 624)</b> polyclonal - polyclonal	PVV	110812	IgG	0.2 ml	1000
		110815	IgG	0.1 ml	500
		110819	IgG	0.025 ml	100
		110822	Conjugate	0.2 ml	1000
		110825	Conjugate	0.1 ml	500
		110829	Conjugate	0.025 ml	100
		110853	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		110862	Reagent set 960		960
		110865	Reagent set 480		480
		110872	Complete kit 960		960
		110875	Complete kit 480		480
		110877	Complete kit 96		96
		<b>Potato virus X</b> polyclonal - polyclonal	PVX	110411	IgG
110412	IgG			0.2 ml	1000
110415	IgG			0.1 ml	500
110419	IgG			0.025 ml	100
110421	Conjugate			1.0 ml	5000
110422	Conjugate			0.2 ml	1000
110425	Conjugate			0.1 ml	500
110429	Conjugate			0.025 ml	100
110453	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
110470	Reagent set 5000				5000
110462	Reagent set 960				960
110465	Reagent set 480				480
110480	Complete kit 5000				5000
110472	Complete kit 960				960
110475	Complete kit 480				480
110477	Complete kit 96		96		
<b>Potato virus Y - monoclonal</b> monoclonal - monoclonal  Traditional broad-spectrum reagent. Recognizes all isolates except atypical isolates of PVY <sup>bb</sup> subgroup	PVY-mono	112511	IgG	1.0 ml	5000
		112512	IgG	0.2 ml	1000
		112515	IgG	0.1 ml	500
		112519	IgG	0.025 ml	100
		112521	Conjugate	1.0 ml	5000
		112522	Conjugate	0.2 ml	1000
		112525	Conjugate	0.1 ml	500
		112529	Conjugate	0.025 ml	100
		112553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		112570	Reagent set 5000		5000
		112562	Reagent set 960		960
		112565	Reagent set 480		480
		112580	Complete kit 5000		5000
		112572	Complete kit 960		960
		112575	Complete kit 480		480
112577	Complete kit 96		96		

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Potato virus Y - monoclonal cocktail</b> monoclonal - monoclonal  Full-spectrum reagent. Contains complementary monoclonal antibodies to isolates from different strain groups. Recognizes all known isolates of all groups/subgroups of PVY."	PVY- monocock	112911	IgG	1.0 ml	5000
		112912	IgG	0.2 ml	1000
		112915	IgG	0.1 ml	500
		112919	IgG	0.025 ml	100
		112921	Conjugate	1.0 ml	5000
		112922	Conjugate	0.2 ml	1000
		112925	Conjugate	0.1 ml	500
		112929	Conjugate	0.025 ml	100
		112553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		112970	Reagent Set 5000		5000
		112962	Reagent set 960		960
		112965	Reagent set 480		480
		112980	Complete kit 5000		5000
		112972	Complete kit 960		960
		112975	Complete kit 480		480
		112977	Complete kit 96		96
<b>Potato virus Y - necrotic</b> monoclonal - monoclonal  Specifically recognizes PVY necrotic strain group, except Wilga type (PVY <sup>N</sup> W). DAS-ELISA format is essential to ensure described N-specificity.	PVY <sup>N</sup>	112712	IgG	0.2 ml	1000
		112715	IgG	0.1 ml	500
		112719	IgG	0.025 ml	100
		112722	Conjugate	0.2 ml	1000
		112725	Conjugate	0.1 ml	500
		112729	Conjugate	0.025 ml	100
		112553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		112762	Reagent set 960		960
		112765	Reagent set 480		480
		112772	Complete kit 960		960
		112775	Complete kit 480		480
112777	Complete kit 96		96		
<b>Potato virus Y - polyclonal</b> polyclonal - polyclonal  Serological spectrum is similar to PVY monoclonal cocktail.	PVY - poly	110511	IgG	1.0 ml	5000
		110512	IgG	0.2 ml	1000
		110515	IgG	0.1 ml	500
		110519	IgG	0.025 ml	100
		110521	Conjugate	1.0 ml	5000
		110522	Conjugate	0.2 ml	1000
		110525	Conjugate	0.1 ml	500
		110529	Conjugate	0.025 ml	100
		112553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		110570	Reagent set 5000		5000
		110562	Reagent set 960		960
		110565	Reagent set 480		480
		110580	Complete kit 5000		5000
		110572	Complete kit 960		960
		110575	Complete kit 480		480
110577	Complete kit 96		96		
<b>Poty group test</b> monoclonal  Only available as kit in indirect PTA-ELISA format.	Poty group	163072	Complete kit 960		960
		163075	Complete kit 480		480

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Prune dwarf virus</b> polyclonal - polyclonal	PDV	150612	IgG	0.2 ml	1000
		150615	IgG	0.1 ml	500
		150619	IgG	0.025 ml	100
		150622	Conjugate	0.2 ml	1000
		150625	Conjugate	0.1 ml	500
		150629	Conjugate	0.025 ml	100
		150653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150662	Reagent set 960		960
		150665	Reagent set 480		480
		150672	Complete kit 960		960
		150675	Complete kit 480		480
		150677	Complete kit 96		96
		<b>Prunus necrotic ringspot virus</b> polyclonal - polyclonal	PNRSV	151112	IgG
151115	IgG			0.1 ml	500
151119	IgG			0.025 ml	100
151122	Conjugate			0.2 ml	1000
151125	Conjugate			0.1 ml	500
151129	Conjugate			0.025 ml	100
151153	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
151162	Reagent set 960				960
151165	Reagent set 480				480
151172	Complete kit 960				960
151175	Complete kit 480				480
151177	Complete kit 96				96
<b>Radish mosaic virus</b> polyclonal - polyclonal	RaMV			162412	IgG
		162415	IgG	0.1 ml	500
		162419	IgG	0.025 ml	100
		162422	Conjugate	0.2 ml	1000
		162425	Conjugate	0.1 ml	500
		162429	Conjugate	0.025 ml	100
		162453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		162462	Reagent set 960		960
		162465	Reagent set 480		480
		162472	Complete kit 960		960
		162475	Complete kit 480		480
		162477	Complete kit 96		96
		<b>Ralstonia solanacearum</b> polyclonal - polyclonal	Rs	170512	IgG
170515	IgG			0.1 ml	500
170519	IgG			0.025 ml	100
170522	Conjugate			0.2 ml	1000
170525	Conjugate			0.1 ml	500
170529	Conjugate			0.025 ml	100
170553	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
170562	Reagent set 960				960
170565	Reagent set 480				480
170572	Complete kit 960				960
170575	Complete kit 480				480
170577	Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Raspberry bushy dwarf virus</b> polyclonal - monoclonal	RBDV	152012	IgG	0.2 ml	1000
		152015	IgG	0.1 ml	500
		152019	IgG	0.025 ml	100
		152022	Conjugate	0.2 ml	1000
		152025	Conjugate	0.1 ml	500
		152029	Conjugate	0.025 ml	100
		152053	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		152062	Reagent set 960		960
		152065	Reagent set 480		480
		152072	Complete kit 960		960
		152075	Complete kit 480		480
		152077	Complete kit 96		96
<b>Raspberry ringspot virus - ch</b> polyclonal - polyclonal  Broad-spectrum reagent recognizes most common isolates from fruit tree, small fruit and grapevine.	RpRSV - ch	150412	IgG	0.2 ml	1000
		150415	IgG	0.1 ml	500
		150419	IgG	0.025 ml	100
		150422	Conjugate	0.2 ml	1000
		150425	Conjugate	0.1 ml	500
		150429	Conjugate	0.025 ml	100
		150453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		150462	Reagent set 960		960
		150465	Reagent set 480		480
		150472	Complete kit 960		960
		150473	Grapevine Complete kit 960		960
		150475	Complete kit 480		480
		150476	Grapevine Complete kit 480		480
		150477	Complete kit 96		96
150478	Grapevine Complete kit 96		96		
<b>Raspberry ringspot virus - g</b> polyclonal - polyclonal  Specific reagent for certain grapevine isolates from limited geographic locations. Complementary to RpRSV-ch.	RpRSV - g	120512	IgG	0.2 ml	1000
		120515	IgG	0.1 ml	500
		120519	IgG	0.025 ml	100
		120522	Conjugate	0.2 ml	1000
		120525	Conjugate	0.1 ml	500
		120529	Conjugate	0.025 ml	100
		120553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		120562	Reagent set 960		960
		120565	Reagent set 480		480
		120573	Complete kit 960		960
		120576	Complete kit 480		480
		120578	Complete kit 96		96
<b>Soybean mosaic virus</b> polyclonal - polyclonal	SMV	162612	IgG	0.2 ml	1000
		162615	IgG	0.1 ml	500
		162619	IgG	0.025 ml	100
		162622	Conjugate	0.2 ml	1000
		162625	Conjugate	0.1 ml	500
		162629	Conjugate	0.025 ml	100
		162653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		162662	Reagent set 960		960
		162665	Reagent set 480		480
		162672	Complete kit 960		960
		162675	Complete kit 480		480
		162677	Complete kit 96		96



Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Spongospora subterranea f. sp. subterranea</b> (Powdery scab of potato)	Sss	111112	IgG	0.2 ml	1000
		111115	IgG	0.1 ml	500
		111119	IgG	0.025 ml	100
		111122	Conjugate	0.2 ml	1000
		111125	Conjugate	0.1 ml	500
		111129	Conjugate	0.025 ml	100
		111153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		111162	Reagent set 960		960
		111165	Reagent set 480		480
		111172	Complete kit 960		960
		111175	Complete kit 480		480
		111177	Complete kit 96		96
		<b>Squash leaf curl virus</b>	SLCV	see Tomato yellow leaf curl virus	
<b>Squash mosaic virus</b>	SqMV	160912	IgG	0.2 ml	1000
		160915	IgG	0.1 ml	500
		160919	IgG	0.025 ml	100
		160922	Conjugate	0.2 ml	1000
		160925	Conjugate	0.1 ml	500
		160929	Conjugate	0.025 ml	100
		160953	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		160962	Reagent set 960		960
		160965	Reagent set 480		480
		160972	Complete kit 960		960
		160975	Complete kit 480		480
		160977	Complete kit 96		96
		<b>Strawberry latent ringspot virus</b>	SLRSV	151612	IgG
151615	IgG			0.1 ml	500
151619	IgG			0.025 ml	100
151622	Conjugate			0.2 ml	1000
151625	Conjugate			0.1 ml	500
151629	Conjugate			0.025 ml	100
151653	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
151662	Reagent set 960				960
151665	Reagent set 480				480
151672	Complete kit 960				960
151673	Grapevine Complete kit 960				960
151675	Complete kit 480				480
151676	Grapevine Complete kit 480				480
151677	Complete kit 96				96
151678	Grapevine Complete kit 96				96
<b>Strawberry mild yellow edge potexvirus</b>	SMYEPV	152112	IgG	0.2 ml	1000
		152115	IgG	0.1 ml	500
		152119	IgG	0.025 ml	100
		152122	Conjugate	0.2 ml	1000
		152125	Conjugate	0.1 ml	500
		152129	Conjugate	0.025 ml	100
		152153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		152162	Reagent set 960		960
		152165	Reagent set 480		480
		152172	Complete kit 960		960
		152175	Complete kit 480		480
		152177	Complete kit 96		96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Sugarcane mosaic virus</b> polyclonal - polyclonal	SCMV	140412	IgG	0.2 ml	1000
		140415	IgG	0.1 ml	500
		140419	IgG	0.025 ml	100
		140422	Conjugate	0.2 ml	1000
		140425	Conjugate	0.1 ml	500
		140429	Conjugate	0.025 ml	100
		140453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		140462	Reagent set 960		960
		140465	Reagent set 480		480
		140472	Complete kit 960		960
		140475	Complete kit 480		480
		140477	Complete kit 96		96
		<b>Tobacco mosaic virus</b> polyclonal - polyclonal	TMV	190412	IgG
190415	IgG			0.1 ml	500
190419	IgG			0.025 ml	100
190422	Conjugate			0.2 ml	1000
190425	Conjugate			0.1 ml	500
190429	Conjugate			0.025 ml	100
190453	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
190462	Reagent set 960				960
190465	Reagent set 480				480
190472	Complete kit 960				960
190475	Complete kit 480				480
190477	Complete kit 96				96
<b>Tobacco necrosis virus</b> polyclonal - polyclonal	TNV			152412	IgG
		152415	IgG	0.1 ml	500
		152419	IgG	0.025 ml	100
		152422	Conjugate	0.2 ml	1000
		152425	Conjugate	0.1 ml	500
		152429	Conjugate	0.025 ml	100
		152453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		152462	Reagent set 960		960
		152465	Reagent set 480		480
		152472	Complete kit 960		960
		152475	Complete kit 480		480
		152477	Complete kit 96		96
		<b>Tobacco ringspot virus</b> polyclonal - polyclonal	TRSV	152212	IgG
152215	IgG			0.1 ml	500
152219	IgG			0.025 ml	100
152222	Conjugate			0.2 ml	1000
152225	Conjugate			0.1 ml	500
152229	Conjugate			0.025 ml	100
152253	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
152262	Reagent set 960				960
152265	Reagent set 480				480
152272	Complete kit 960				960
152273	Grapevine Complete kit 960				960
152275	Complete kit 480				480
152276	Grapevine Complete kit 480				480
152277	Complete kit 96				96
152278	Grapevine Complete kit 96				96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays		
<b>Tobacco streak virus</b> polyclonal - monoclonal	TSV	152312	IgG	0.2 ml	1000		
		152315	IgG	0.1 ml	500		
		152319	IgG	0.025 ml	100		
		152322	Conjugate	0.2 ml	1000		
		152325	Conjugate	0.1 ml	500		
		152329	Conjugate	0.025 ml	100		
		152353	Positive control	2.5 ml	12		
		180043	Negative control	2.5 ml	12		
		152362	Reagent set 960		960		
		152365	Reagent set 480		480		
		152372	Complete kit 960		960		
		152375	Complete kit 480		480		
		152377	Complete kit 96		96		
		<b>Tomato apex necrosis virus</b> <b>Synonym: Tomato marchitez virus (ToMarV)</b> polyclonal - polyclonal	ToANV	152712	IgG	0.2 ml	1000
152715	IgG			0.1 ml	500		
152719	IgG			0.025 ml	100		
152722	Conjugate			0.2 ml	1000		
152725	Conjugate			0.1 ml	500		
152729	Conjugate			0.025 ml	100		
152753	Positive control			2.5 ml	12		
180043	Negative control			2.5 ml	12		
152762	Reagent set 960				960		
152765	Reagent set 480				480		
152772	Complete kit 960				960		
152775	Complete kit 480				480		
152777	Complete kit 96				96		
<b>Tomato black ring virus</b> polyclonal / monoclonal - polyclonal / monoclonal  Broad-spectrum reagent	TBRV			113112	IgG	0.2 ml	1000
		113115	IgG	0.1 ml	500		
		113119	IgG	0.025 ml	100		
		113122	Conjugate	0.2 ml	1000		
		113125	Conjugate	0.1 ml	500		
		113129	Conjugate	0.025 ml	100		
		113153	Positive control	2.5 ml	12		
		180043	Negative control	2.5 ml	12		
		113162	Reagent set 960		960		
		113165	Reagent set 480		480		
		113172	Complete kit 960		960		
		113173	Grapevine Complete kit 960		960		
		113175	Complete kit 480		480		
		113176	Grapevine Complete kit 480		480		
		113177	Complete kit 96		96		
		113178	Grapevine Complete kit 96		96		
		<b>Tomato bushy stunt virus</b> polyclonal - polyclonal	TBSV	161812	IgG	0.2 ml	1000
				161815	IgG	0.1 ml	500
161819	IgG			0.025 ml	100		
161822	Conjugate			0.2 ml	1000		
161825	Conjugate			0.1 ml	500		
161829	Conjugate			0.025 ml	100		
161853	Positive control			2.5 ml	12		
180043	Negative control			2.5 ml	12		
161862	Reagent set 960				960		
161865	Reagent set 480				480		
161872	Complete kit 960				960		
161875	Complete kit 480				480		
161877	Complete kit 96				96		
<b>Tomato chlorotic spot virus</b>	TCSV	see Tomato spotted wilt virus					

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Tomato mosaic virus</b> polyclonal - polyclonal	ToMV	152612	IgG	0.2 ml	1000
		152615	IgG	0.1 ml	500
		152619	IgG	0.025 ml	100
		152622	Conjugate	0.2 ml	1000
		152625	Conjugate	0.1 ml	500
		152629	Conjugate	0.025 ml	100
		152653	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		152662	Reagent set 960		960
		152665	Reagent set 480		480
		152672	Complete kit 960		960
		152675	Complete kit 480		480
		152677	Complete kit 96		96
<b>Tomato mottle virus</b>	ToMoV	see Tomato yellow leaf curl virus			
<b>Tomato ringspot virus</b> polyclonal - polyclonal  Broad-spectrum reagent, recognizes most common isolates from many host plants (fruit trees, small fruits, grapevines, ornamentals).	ToRSV	151412	IgG	0.2 ml	1000
		151415	IgG	0.1 ml	500
		151419	IgG	0.025 ml	100
		151422	Conjugate	0.2 ml	1000
		151425	Conjugate	0.1 ml	500
		151429	Conjugate	0.025 ml	100
		151453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		151462	Reagent set 960		960
		151465	Reagent set 480		480
		151472	Complete kit 960		960
		151473	Grapevine Complete kit 960		960
		151475	Complete kit 480		480
		151476	Grapevine Complete kit 480		480
		151477	Complete kit 96		96
		151478	Grapevine Complete kit 96		96
<b>Tomato ringspot virus-Ch</b> polyclonal - polyclonal  Specific for Chickadee (originally from apple) and grape yellow vein (GYV) strains. Complementary to ToRSV-PYBM.	ToRSV-Ch	151312	IgG	0.2 ml	1000
		151315	IgG	0.1 ml	500
		151319	IgG	0.025 ml	100
		151322	Conjugate	0.2 ml	1000
		151325	Conjugate	0.1 ml	500
		151329	Conjugate	0.025 ml	100
		151353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		151362	Reagent set 960		960
		151365	Reagent set 480		480
		151372	Complete kit 960		960
		151373	Grapevine Complete kit 960		960
		151375	Complete kit 480		480
		151376	Grapevine Complete kit 480		480
		151377	Complete kit 96		96
		151378	Grapevine Complete kit 96		96

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Tomato spotted wilt virus</b>	TSWV	190112	IgG	0.2 ml	1000
		190115	IgG	0.1 ml	500
		190119	IgG	0.025 ml	100
		190122	Conjugate	0.2 ml	1000
		190125	Conjugate	0.1 ml	500
		190129	Conjugate	0.025 ml	100
		190153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		190162	Reagent set 960		960
		190165	Reagent set 480		480
		190172	Complete kit 960		960
		190175	Complete kit 480		480
		190177	Complete kit 96		96
		polyclonal - monoclonal			
Recognizes serogroups I, II of Tospoviruses (TSWV, TCSV, GRSV).					
<b>Tomato yellow leaf curl virus</b>	TYLCV	161412	IgG	0.2 ml	1000
		161415	IgG	0.1 ml	500
		161419	IgG	0.025 ml	100
		161422	Conjugate	0.2 ml	1000
		161425	Conjugate	0.1 ml	500
		161429	Conjugate	0.025 ml	100
		161453	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161462	Reagent set 960		960
		161465	Reagent set 480		480
		161472	Complete kit 960		960
		161475	Complete kit 480		480
		161477	Complete kit 96		96
		polyclonal - monoclonal			
Broad-spectrum, recognizes TYLCV (different isolates), African cassava mosaic virus (ACMV), Bean golden mosaic virus (BGMV), East African cassava mosaic virus EACMV), Indian cassava mosaic virus (ICMV), Squash leaf curl virus (SLCV) and Tomato mottle virus (ToMoV).					
<b>Tospovirus broad-spectrum (serogroups I,II,III)</b>	Tospo (I, II, III)	190312	IgG	0.2 ml	1000
		190315	IgG	0.1 ml	500
		190319	IgG	0.025 ml	100
		190322	Conjugate	0.2 ml	1000
		190325	Conjugate	0.1 ml	500
		190329	Conjugate	0.025 ml	100
		190353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		190362	Reagent set 960		960
		190365	Reagent set 480		480
		190372	Complete kit 960		960
		190375	Complete kit 480		480
		190377	Complete kit 96		96
		polyclonal - monoclonal			
Recognizes serogroups I, II,III of Tospoviruses (TSWV, TCSV, GRSV and INSV).					

Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b>Turnip mosaic virus</b> polyclonal - monoclonal	TuMV	161012	IgG	0.2 ml	1000
		161015	IgG	0.1 ml	500
		161019	IgG	0.025 ml	100
		161022	Conjugate	0.2 ml	1000
		161025	Conjugate	0.1 ml	500
		161029	Conjugate	0.025 ml	100
		161053	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161062	Reagent set 960		960
		161065	Reagent set 480		480
		161072	Complete kit 960		960
		161075	Complete kit 480		480
		161077	Complete kit 96		96
<b>Turnip yellow mosaic virus</b> polyclonal - polyclonal	TYMV	162512	IgG	0.2 ml	1000
		162522	Conjugate	0.2 ml	1000
		162512	IgG	0.1 ml	500
		162525	Conjugate	0.1 ml	500
		162553	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		162562	Reagent set 960		960
		162565	Reagent set 480		480
		162572	Complete kit 960		960
		162575	Complete kit 480		480
		162577	Complete kit 96		96
<b>Verticillium spp.</b> monoclonal - monoclonal	Verticillium	161312	IgG	0.2 ml	1000
		161315	IgG	0.1 ml	500
		161319	IgG	0.025 ml	100
		161322	Conjugate	0.2 ml	1000
		161325	Conjugate	0.1 ml	500
		161329	Conjugate	0.025 ml	100
		161353	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161362	Reagent set 960		960
		161365	Reagent set 480		480
		161372	Complete kit 960		960
		161375	Complete kit 480		480
		161377	Complete kit 96		96
<b>Watermelon mosaic virus 1</b>	WMV - 1	see Papaya ringspot virus			
<b>Watermelon mosaic virus 2</b> polyclonal - polyclonal	WMV - 2	161112	IgG	0.2 ml	1000
		161115	IgG	0.1 ml	500
		161119	IgG	0.025 ml	100
		161122	Conjugate	0.2 ml	1000
		161125	Conjugate	0.1 ml	500
		161129	Conjugate	0.025 ml	100
		161153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161162	Reagent set 960		960
		161165	Reagent set 480		480
		161172	Complete kit 960		960
161175	Complete kit 480		480		
161177	Complete kit 96		96		



Pathogen	Abbr.	Art. No.	Reagent form	Size	Assays
<b><i>Xanthomonas campestris</i></b> <b>pv. <i>pelargonii</i></b> Synonym: <i>Xanthomonas hortorum</i> (Xh) polyclonal - polyclonal	Xcp	170112	IgG	0.2 ml	1000
		170115	IgG	0.1 ml	500
		170119	IgG	0.025 ml	100
		170122	Conjugate	0.2 ml	1000
		170125	Conjugate	0.1 ml	500
		170129	Conjugate	0.025 ml	100
		170153	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		170162	Reagent set 960		960
		170165	Reagent set 480		480
		170172	Complete kit 960		960
		170175	Complete kit 480		480
		170177	Complete kit 96		96
		<b><i>Xanthomonas fragariae</i></b> polyclonal - polyclonal	Xfr	150312	IgG
150315	IgG			0.1 ml	500
150319	IgG			0.025 ml	100
150322	Conjugate			0.2 ml	1000
150325	Conjugate			0.1 ml	500
150329	Conjugate			0.025 ml	100
150353	Positive control			2.5 ml	12
180043	Negative control			2.5 ml	12
150362	Reagent set 960				960
150365	Reagent set 480				480
150372	Complete kit 960				960
150375	Complete kit 480				480
150377	Complete kit 96				96
<b><i>Xanthomonas hortorum</i></b>	Xh			see <i>Xanthomonas campestris</i> pv. <i>pelargonii</i>	
<b>Zucchini yellow mosaic virus</b> polyclonal - polyclonal	ZYMV	161212	IgG	0.2 ml	1000
		161215	IgG	0.1 ml	500
		161219	IgG	0.025 ml	100
		161222	Conjugate	0.2 ml	1000
		161225	Conjugate	0.1 ml	500
		161229	Conjugate	0.025 ml	100
		161253	Positive control	2.5 ml	12
		180043	Negative control	2.5 ml	12
		161262	Reagent set 960		960
		161265	Reagent set 480		480
		161272	Complete kit 960		960
		161275	Complete kit 480		480
		161277	Complete kit 96		96

# PCR macroarray



## Diagnostic kit for multiplex detection of eight potato pathogens (7 viruses and 1 viroid in one single reaction)

The PCR macroarray potato virus kit is a diagnostic method for the detection of eight potato viral pathogens: PVA, PVM, PVS, PVX, PVY (O- and N-type), PLRV, PMTV and PSTVd in one single reaction. The complete kit includes macroarray strips, all reagents needed to extract RNA and to perform the test. It is optimized for pools of up to 10 dormant tuber samples. Due to multiplexing, it is cost effective and easy to use. The clearly visible color change of the hybridization positions enables convenient result evaluation by eye. To perform a test, less than 5 hours are required.

The PCR macroarray potato virus kits are validated for potato leaf and tuber samples (peel, stolon and sprouts). Dormant tubers can be pooled for rapid extractions.

There are two kit sizes available for 96 and 192 tests (See next page). Both can be used for single samples and for pooled samples of up to 10 tubers .

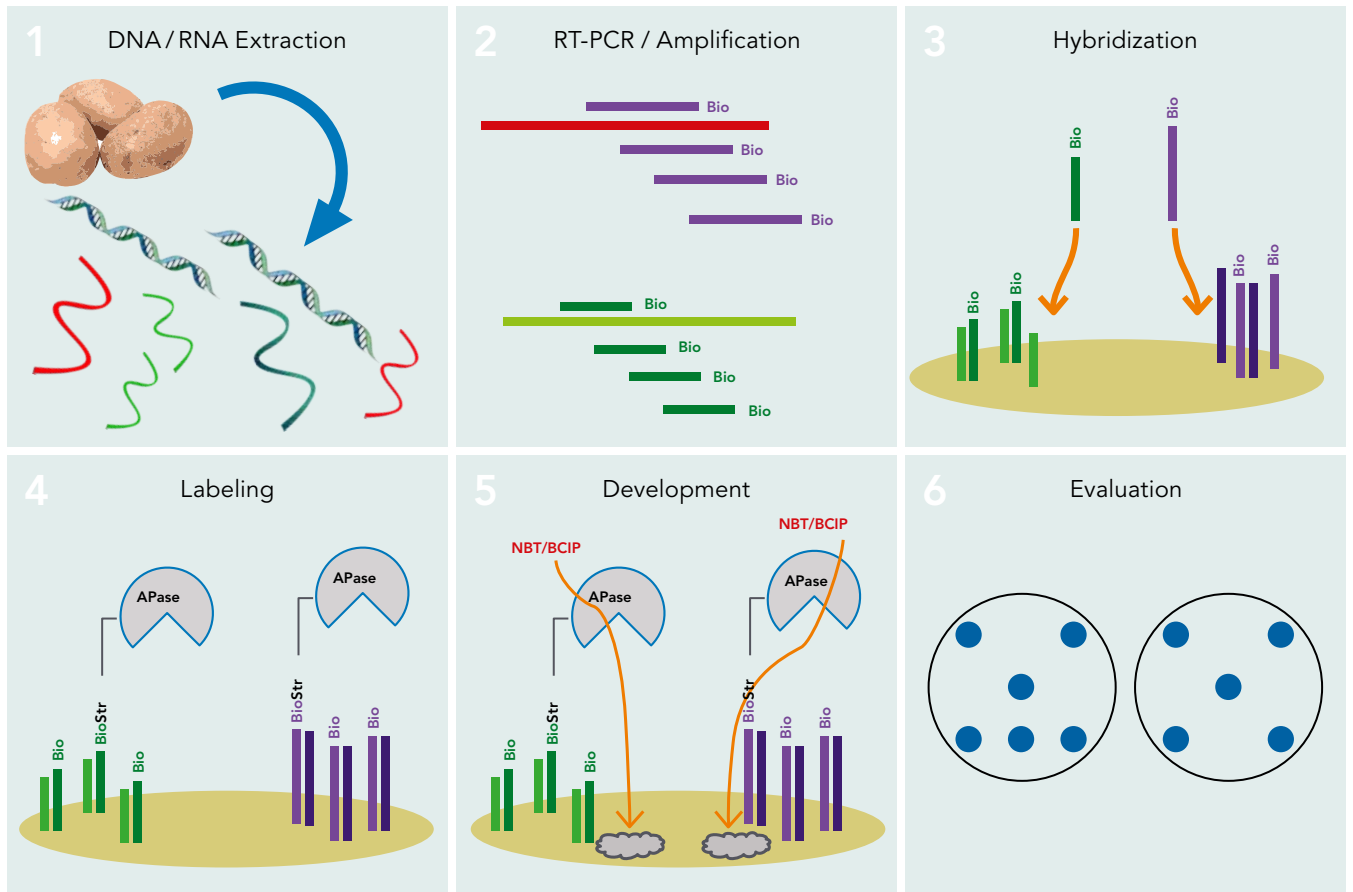
### The characteristics of the PCR macroarray kit are:

- Contains all reagents needed including RNA extraction set
- Optimized for pools of up to 10 potato samples
- Suitable for dormant tubers and leaves
- Validated and accredited method according to ISO/IEC 17025
- Cost effective
- Easy to use
- Convenient evaluation of results



**The six main working steps of the potato PCR macroarray**

Nucleic acid extraction (1), amplification of pathogen RNAs with specific primers (labeled with biotin) (2), hybridization of the amplified cDNAs on the macroarray (3), labeling of the positive samples with alkaline phosphatase (conjugated with streptavidin) (4), colorimetric reaction with NBT/BCIP as substrate (5) and evaluation of the results (6).



Art. No.	Product	No. of reactions
820032	PCR macroarray potato virus kit 96 / 10x	96
820026	PCR macroarray potato virus kit 192 / 10x	192
910030	GT100-2A Thermo Shaker	2 x 96

# qPCR PLRV/PVY and qPCR PVA/PVM



## qPCR set and kit for the detection of potato viruses

The qPCR sets enable the simultaneous detection (multiplex) of potato virus Y (PVY; all strains) and potato leafroll virus (PLRV) or PVA (potato virus A) and PVM (potato virus M) respectively with real time PCR.

Suitable tissues for the source of viral RNA are potato leaves and tubers (peel, stolon, sprouts). It is highly recommended to use the BIOREBA "Potato DNA/RNA rapid extraction" (included in the qPCR kits) for the extraction of RNA. The qPCR for the detection of PLRV/PVY/IC and PVA/PVM/IC was developed and validated in collaboration with Agroscope, the Swiss centre of excellence for research in the agriculture and food sector.

There are two set sizes available for 96 and for 192 samples and there are four kit sizes available for pools of 10 or up to 25 potato samples and for 96 or 192 extractions respectively.

# qPCR GRBV



## qPCR set for the detection of grapevine red blotch virus (GRBV)

The qPCR set enables the simultaneous detection (multiplex) of Grapevine red blotch virus (GRBV) and a *Vitis vinifera* host gene control (IC) with real-time PCR.

Suitable tissue sources of viral DNA are grapevine leaves or wood scrapings (phloem). BIOREBA recommends to homogenize samples using the BIOREBA homogenizer system HOMEX and BIOREBA extraction bags Universal, and to follow a CTAB buffer-based method for DNA extraction.

The qPCR for the detection of GRBV was developed in collaboration with Agroscope, the Swiss center of excellence for research in the agriculture and food sectors.

There are two set sizes available for 96 and 192 samples.

Art. No.	Product	No. of reactions	Amount of samples (potatoes)
839600	qPCR PLRV/PVY set 96 includes: <ul style="list-style-type: none"> <li>• Taq Master Mix</li> <li>• RT Master Mix</li> <li>• Primers/Probes/IC Mix_PLRV/PVY</li> <li>• Nuclease free water</li> </ul>	96	
839200	qPCR PLRV/PVY set 192 includes: <ul style="list-style-type: none"> <li>• Taq Master Mix</li> <li>• RT Master Mix</li> <li>• Primers/Probes/IC Mix_PLRV/PVY</li> <li>• Nuclease free water</li> </ul>	192	
839610	qPCR PLRV/PVY kit 96/10 includes: <ul style="list-style-type: none"> <li>• qPCR PLRV/PVY set 96</li> <li>• Potato DNA/RNA rapid extraction set 10x for 96 extractions and a pool of 10 potatoes</li> </ul>	96	10
839625	qPCR PLRV/PVY kit 96/25 includes: <ul style="list-style-type: none"> <li>• qPCR PLRV/PVY set 96</li> <li>• Potato DNA/RNA rapid extraction set 25x for 96 extractions and a pool of 25 potatoes</li> </ul>	96	25

Art. No.	Product	No. of reactions	Amount of samples (potatoes)
839210	qPCR PLRV/PVY kit 192/10 includes: <ul style="list-style-type: none"> <li>• qPCR PLRV/PVY set 192</li> <li>• Potato DNA/RNA rapid extraction set 10x for 192 extractions and a pool of 10 potatoes</li> </ul>	192	10
839225	qPCR PLRV/PVY kit 192/25 includes: <ul style="list-style-type: none"> <li>• qPCR PLRV/PVY set 192</li> <li>• Potato DNA/RNA rapid extraction set 25x for 192 extractions and a pool of 25 potatoes</li> </ul>	192	25
849600	qPCR PVA/PVM set 96 includes: <ul style="list-style-type: none"> <li>• Taq Master Mix</li> <li>• RT Master Mix</li> <li>• Primers/Probes/IC Mix_PVA/PVM/IC</li> <li>• Nuclease free water</li> </ul>	96	
849200	qPCR PVA/PVM set 192 includes: <ul style="list-style-type: none"> <li>• Taq Master Mix</li> <li>• RT Master Mix</li> <li>• Primers/Probes/IC Mix_PVA/PVM/IC</li> <li>• Nuclease free water</li> </ul>	192	
849610	qPCR PVA/PVM kit 96/10 includes: <ul style="list-style-type: none"> <li>• qPCR PVA/PVM set 96</li> <li>• Potato DNA/RNA rapid extraction set 10x for 96 extractions and a pool of 10 potatoes</li> </ul>	96	10
849625	qPCR PVA/PVM kit 96/25 includes: <ul style="list-style-type: none"> <li>• qPCR PVA/PVM set 96</li> <li>• Potato DNA/RNA rapid extraction set 25x for 96 extractions and a pool of 25 potatoes</li> </ul>	96	25
849210	qPCR PVA/PVM kit 192/10 includes: <ul style="list-style-type: none"> <li>• qPCR PVA/PVM set 192</li> <li>• Potato DNA/RNA rapid extraction set 10x for 192 extractions and a pool of 10 potatoes</li> </ul>	192	10
849225	qPCR PVA/PVM kit 192/25 includes: <ul style="list-style-type: none"> <li>• qPCR PVA/PVM set 192</li> <li>• Potato DNA/RNA rapid extraction set 25x for 192 extractions and a pool of 25 potatoes</li> </ul>	192	25
879600	qPCR GRBV set 96 includes: <ul style="list-style-type: none"> <li>• Taq Probe Master Mix</li> <li>• Primers/Probes Mix GRBV/IC</li> <li>• Nuclease free water</li> </ul>	96	
879200	qPCR GRBV set 192 includes: <ul style="list-style-type: none"> <li>• Taq Probe Master Mix</li> <li>• Primers/Probes Mix GRBV/IC</li> <li>• Nuclease free water</li> </ul>	192	

# ELISA Buffers

The ELISA buffers are supplied either in tablets or as concentrated liquids (5x or 10x concentrate). The handling of these formats is easier and more accurate than powder concentrates. No time-consuming dissolving of PVP and other chemicals nor pH adjustment are necessary. Extraction, coating and conjugate buffers are in different colors to help prevent mistakes. ELISA buffers are available either individually or as part of the complete kits (see page 15). Chemicals for preparing the buffers are available as bulk (see page 47).

Art. No.	Product	Size	sufficient for
110110	Coating buffer	50 tablets	25000 assays
110111	Coating buffer	10 tablets	5000 assays
110112	Coating buffer	2 tablets	1000 assays
110140	Conjugate buffer (10x)	100 ml	5000 assays
110142	Conjugate buffer (10x )	20 ml	1000 assays
110130	Substrate buffer* (5x)	200 ml	5000 assays
110132	Substrate buffer* (5x)	40 ml	1000 assays
110150	Washing buffer (PBST)	10 tablets	10 x 1 liter
110152	Washing buffer (PBST) powder	50 g	5 liters
110153	Washing buffer (PBST) powder	250 g	25 liters
110154	Washing buffer (PBST) powder	1250 g	125 liters
110120	Extraction buffer «General» (10x)	500 ml	1000 samples**
110123	Extraction buffer «Grapevine» (5x)	2 x 500 ml	1000 samples**
110122	Extraction buffer «Bulbs & Tubers» ***	500 ml	1000 samples**
110124	Extraction buffer «Caulimo» ****	500 ml	1000 samples
110224	Extraction buffer «Caulimo» ****	250 ml	500 samples

\* For use with pNPP (see below)

\*\* Calculated with 5 ml extraction buffer per sample of 0.25 g

\*\*\* Composed of 500 ml extraction buffer «General» (10x) and 50 g egg albumin

\*\*\*\* Includes extraction buffer «Caulimo» (10x), urea, and egg albumin

## Substrates

Art. No.	Product	Size	sufficient for
110180	pNPP blister-packed tablets (20 mg)*	10 tablets	1000 assays
110080	pNPP blister-packed tablets (20 mg)*	50 tablets	5000 assays
110185	pNPP blister-packed tablets (5 mg)*	10 tablets	250 assays
110085	pNPP blister-packed tablets (5 mg)*	50 tablets	1250 assays
50-80-01	pNPP bulk tablets (5 mg)**	100 tablets	2500 assays
4165.8	pNPP bulk powder***	1 x 5 g	25000 assays
4165.9	pNPP bulk powder***	1 x 25 g	125000 assays

\* Single packed, providing optimal protection and long-term stability (shelf life: 3 years at -20°C)

\*\* Bulk reagent with limited shelf life (shelf life: 1 year, at 4 -6°C)

\*\*\* Excellent quality bulk substrate; needs a balance with 0.1 mg accuracy (shelf life: 2 years at 4 -6°C)



# Chemicals

Art. No.	Product	Size
<b>Bulk chemicals for coating buffer</b>		
A135.2	Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> )	1 kg
6885.1	Sodium hydrogen carbonate (NaHCO <sub>3</sub> )	1 kg
<b>Bulk chemicals for PBST (washing buffer)</b>		
3957.1	Sodium chloride (NaCl)	1 kg
3957.2	Sodium (NaCl)	5 kg
3904.1	Potassium-di-hydrogen phosphate (KH <sub>2</sub> PO <sub>4</sub> )	1 kg
P030.2	di-Sodium hydrogen phosphate (Na <sub>2</sub> HPO <sub>4</sub> )	1kg
6781.1	Potassium chloride (KCl)	1 kg
93773	Tween 20	250 g
<b>Bulk chemicals for different use</b>		
700110	BSA standard grade	75 g
700100	BSA standard grade	1 kg
4606.1	Polyvinylpyrrolidone PVP K 25 (MW 24000)	100 g
4606.2	Polyvinylpyrrolidone PVP K 25 (MW 24000)	500 g
31590	Diethanolamine	1 kg
5461.1	Egg albumin	100 g
5461.5	Egg albumin	500 g
4855.2	Tris-(hydroxymethyl)aminomethane (TRIS)	1 kg
2189.2	Magnesium chloride (MgCl <sub>2</sub> • 6H <sub>2</sub> O)	250 g
3957.1	Sodium chloride (NaCl)	1 kg
3957.2	Sodium chloride (NaCl)	5 kg
X999.1	Urea	500 g

# Consumables and Pipettes



## ELISA Plates

Product	Art. No.	Size
Nunc-Immuno Plates MaxiSorp F96, certified	520000	10 plates
Standard packaging: 6 x 10 plates	520000	60 plates
ELISA plate covers (for multiple use)*	520001	10 covers
Rubber sheets for ELISA plates (for multiple use)*	520003	10 sheets

\* ELISA plates are covered during incubations with a sheet of Parafilm which is firmly pressed down by a rubber sheet inside a plate cover. The plate cover is fixed to the plate with rubber bands. This prevents evaporation during incubation.



## Digital micro pipettes Acura® and Qualitips

Product	Art. No.	Size
Single channel pipette 0.5-10 µl	825.0010	1
Microtips (natural) 10 µl, bulk	309.0010B	1000 / bag
Microtips (natural) 10 µl	309.0010R	10 x 96 / rack
Single channel pipette 20-200 µl	825.0200	1
Pipette tips (natural) 350 µl, bulk	308.0350B	1000 / bag
Pipette tips (natural) 350 µl	308.0350R	10 x 96 / rack
Single channel pipette 100-1000 µl	825.1000	1
Pipette tips (blue) 1000 µl, bulk	319.1000B	4 x 250 / bag
Pipette tips (blue) 1000 µl	319.1000R	8 x 60 / rack



## Digital multichannel pipettes Acura®

Product	Art. No.	Size
8-channel pipette 40-350 µl	855.08.350	1
12-channel pipette 40-350 µl	855.12.350	1



## Reservoirs

Product	Art. No.	Size
Single reservoir 70 ml (polypropylene)	330.01	20
8-channel reservoir 40 ml (polystyrene)	330.08.9	10
12-channel reservoir 40 ml (polystyrene)	330.12.9	10

# BIOREBA Testing Service Lab for plant pathogen diagnostics



Association of Swiss Laboratories  
Verband Schweizer Laboratorien  
Association des Laboratoires Suisses  
Associazione dei Laboratori Svizzeri

BIOREBA Testing Service provides you its expertise in diagnostic assays for the detection of plant pathogens (viruses, bacteria, fungi and phytoplasma).

More than 30 years of experience with analysis of samples of most agricultural sectors and employment of different state-of-the-art methods and technologies guarantee the highest possible accuracy of test results.

Each case is treated in close communication with the customer to determine the optimal sampling and transport of the samples, as well as the arrangement of the most appropriate testing method and terms. This to make sure each customer gets the right service for its needs in the most cost effective and rapid way.

Our testing service is in accordance to the strict rules and quality standards according to ISO/IEC 17025 and confidentiality is maintained throughout communications and data processing.

For more information visit our website [www.bioreba.com](http://www.bioreba.com) or contact us by phone or email.



# Quality Management

It is our vision to deliver products and services of outstanding quality to our customers around the world. Our quality management system is a fixed element of all our action-taking processes. Our value-added processes are continuously improved. Within the scope of our quality management system, we constantly seek possibilities to further develop our company.

BIOREBA AG has been ISO certified for many years. Our quality management system, in compliance with ISO 9001:2015, applies not only to production, reserach and development stages but also to the worldwide distribution of our products as well as testing service for customers.

In addition, we pass on our own experience gained in our ISO/IEC 17025 accredited testing laboratory to our customers and support them in process validation or other quality-related questions. BIOREBA is an official testing laboratory for phyto-diagnostics. As such, we take part in numerous test performance studies (TPS).



**IQNet**  
THE INTERNATIONAL CERTIFICATION NETWORK  
**CERTIFICATE**  
SQS has issued an IQNet recognized certificate that the organization:

**BIOREBA AG**  
Christoph Merian-Ring 7  
4153 Reinach  
Switzerland

for the following scope and type of activities

**Entire Company**  
**Agro-Diagnostics: Research and development, production and worldwide distribution of tests, test systems and equipment, as well as testing service for customers**

which fulfils the requirements of the following standard(s):  
**ISO 9001:2015 / Quality Management System**

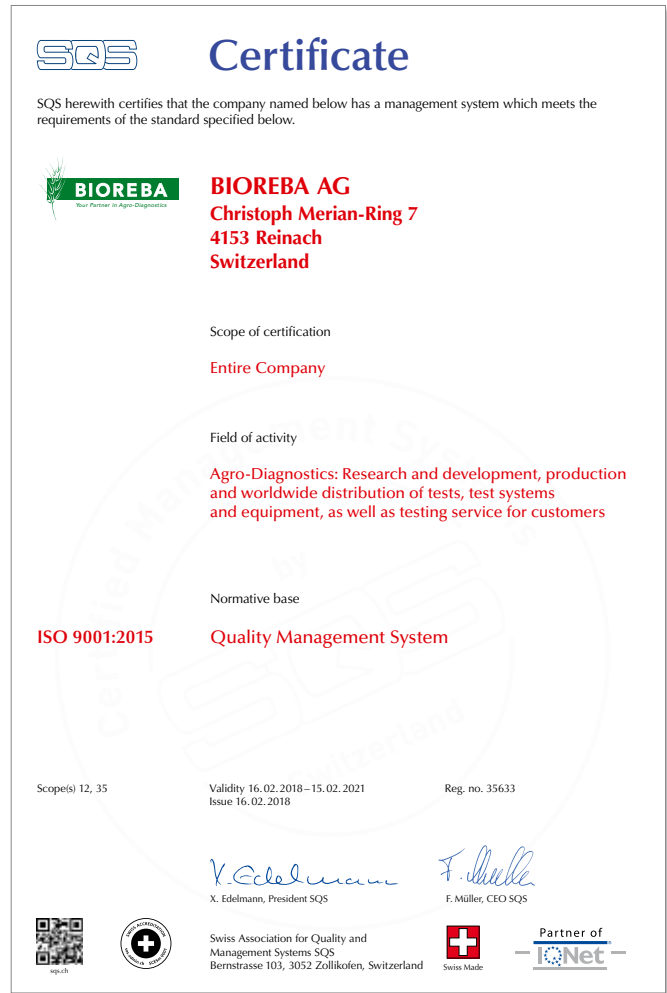
for the validity date, please refer to the original certificate\* issued by SQS  
This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Scope No(s): 12, 35  
Issued on: 2018-02-16  
Validity date: 2021-02-15  
Registration Number: CH-35633

Alex Stoichitoiu, President of IQNet  
Felix Müller, CEO SQS

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**SQS** **Certificate**

SQS herewith certifies that the company named below has a management system which meets the requirements of the standard specified below.

**BIOREBA**  
The Partner of Agro-Diagnostics

**BIOREBA AG**  
Christoph Merian-Ring 7  
4153 Reinach  
Switzerland

Scope of certification  
**Entire Company**

Field of activity  
**Agro-Diagnostics: Research and development, production and worldwide distribution of tests, test systems and equipment, as well as testing service for customers**

Normative base  
**ISO 9001:2015** **Quality Management System**

Scopes(s) 12, 35  
Validity 16.02.2018 – 15.02.2021  
Issue 16.02.2018  
Reg. no. 35633

X. Edelmann, President SQS  
F. Müller, CEO SQS

Swiss Association for Quality and Management Systems SQS  
Bernstrasse 103, 3052 Zollikofen, Switzerland

Partner of **IQNet**

# Distribution Worldwide

BIOREBA AG is committed to serving our products for sample preparation, plant pathogen diagnostic tests and additional products on a global scale. We deliver our products worldwide. Besides, in more than 50 countries, we have established long-term strategic relationships with the local partners.

You will find a list of our distributing partners on our website [www.bioreba.com](http://www.bioreba.com)

Direct sales support can be provided by contacting our local distributor or BIOREBA AG at our headquarter in Switzerland.





*Your Partner in  
Agro-Diagnostics*  
**www.bioreba.com**

