



MOLECULAR PRODUCTS

for plant health testing

CATALOGUE 2024

qualiplante

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Find the best tool for your plant health testing

Plant health: for a better human health

Plant health is essential for the well-being of our planet and for human health. In fact, about **80% of food** relies on plants and plant products but **plant pests** and **diseases** can cause **huge losses** in crops (over 40%). Both global food security and environmental protection depend on economically and environmentally sustainable plant production.

Reliable, validated and **easy-to-use** pest detection tools are essential to **reduce economic costs** and support surveillance activities in plant production **globally**.

Our “raison d’être”

The worldwide plant production chain is looking for **more reliable** and **faster diagnostic** tools in order to detect plant diseases early and to reduce treatments with plant protection products’ (PPP).

Qualiplante aims to contribute to the development of sustainable agriculture, through the development and production of innovative molecular-based diagnostic kits for the detection of a large number of plant diseases. Whether you are a private or a public laboratory, a nursery, a professional organization, Qualiplante offers molecular tools adapted to your needs to detect plant diseases and that simplify your work.

Qualiplante expertise

Qualiplante is a **global provider** of reliable, validated and easy-to-use diagnostic test kits with **high quality standards** for **plant health testing**. The R&D team have **the expertise** to develop **new methods** to meet the needs of the market.

Qualiplante kit validation by **world-renowned opinion leaders** together with the **development of several scientific partnerships** ensure the best quality and highest reliability on the market.

Qualiplante also supplies instruments to **facilitate the testing procedures** at **competitive prices** and our experts are available to train people on the analytical procedures.

Molecular biology technologies

Qualiplante, your partner in plant health testing

How can Qualiplante help you in your plant health analysis?

Current diagnostic tools are most often unreliable, of low sensitivity, time-consuming, impossible to develop for some diseases and often do not permit multi-detection. For these reasons, **it is time to improve plant disease diagnostics!**

Molecular biology is the most **appropriate method to detect** plant diseases in an early and reliable way. Farmers can target and reduce PPP treatments with an early diagnostic in order to contribute to a sustainable agriculture. Qualiplante products are developed **to democratize** molecular biology for plant certification and **to simplify** its use.

All-inclusive format

All the QUALIPLANTE kits are supplied with ready-to-use reagents.

The kit composition depends on the molecular method used and contains at least: a **ready-to-use master mix** tube, **positive** and **negative** control tubes, **instructions for use** and a **certificate of quality** of the batch. For all the kits, the **validation data sheet** is available upon request.

Key Benefits of the Qualiplante kits

- **Reliable** and **sensitive** methods with low limits of detection (LOD)
- **Multiple targets** methods
- **All-inclusive** format: one single supplier, kits easily integrated into the quality management system
- **Ready to use** and **easy to use**





Molecular methods & kit contents

PCR methods



End-Point PCR uses DNA as starting material. After PCR amplification, the presence or absence of the corresponding DNA product is determined by gel electrophoresis.

Contents: ready-to-use direct master mix tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



One-Step End-Point RT-PCR uses RNA as starting material. In a one-step reaction, the RNA is first reverse transcribed (RT) into cDNA. After PCR amplification, the presence or absence of the corresponding cDNA product is determined by gel electrophoresis.

Contents: ready-to-use direct master mix tube, RT tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



Nested End-Point PCR uses DNA as starting material. Nested End-Point PCR reaction performs two distinct successive PCR runs. After a first PCR, a target within the first PCR product is amplified in a second PCR and the presence or absence of the corresponding DNA product is determined by gel electrophoresis.

Contents: ready-to-use direct master mix tube, ready-to-use nested master mix tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



Two-Step End-Point RT-PCR uses RNA as starting material. The overall reaction is performed into two separate reaction steps. In a first step the RNA is reverse transcribed (RT) into cDNA. In a second step, the cDNA is amplified and analyzed as in the End-Point PCR.

Contents: ready-to-use RT master mix tube, RT tube, ready-to-use direct master mix tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.

Molecular methods & kit contents

Real-Time PCR methods



Taq-Man® qPCR uses DNA as starting material. The amplified DNA is measured in real time after each amplification cycle using fluorescent TaqMan® probes.

Contents: ready-to-use direct master mix tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



One-Step Taq-Man® RT-qPCR uses RNA as starting material. In a one-step reaction, the RNA is reverse transcribed (RT) into cDNA which is amplified during the same reaction and after each amplification, the fluorescence is measured by using fluorescent Taq-Man® probes.

Contents: ready-to-use direct master mix tube, RT tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



SYBR®-Green qPCR uses DNA as starting material. The amplified DNA is measured in real time after each amplification cycle using the fluorescent SYBR®-Green dye.

Contents: ready-to-use direct master mix tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



SYBR®-Green RT-qPCR uses RNA as starting material. In a one-step reaction, the RNA is first reverse transcribed (RT) into cDNA, then the cDNA is amplified during the same reaction and the fluorescence is measured by using the fluorescent SYBR®-Green dye.

Contents: ready-to-use direct master mix tube, RT tube, positive and negative control tubes, instructions for use and certificate of quality of the batch.



Bacteria & Fungi

Bacteria & fungi detection kits

Pathogen	Molecular method	Kit contents (tubes)	No. of tests	Article No.
<i>Agrobacterium vitis</i> & <i>Agrobacterium tumefaciens</i>	Triplex End-Point PCR	PC, NC, D-MM	96	PCR AgVit 96
<i>Botryosphaeria</i> spp.	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR Botr 96
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> (Cmm)	End-Point PCR	PC, NC, D-MM	96	PCR Cmm 96
<i>Erwinia amylovora</i>	Real-Time PCR (Taq Man®)	PC, NC, D-MM	96	qPCR Ea 96
<i>Monosporascus cannonballus</i>	End-Point PCR	PC, NC, D-MM	96	PCR.Monocano 96
<i>Pseudomonas corrugata</i> & <i>Pseudomonas mediterranea</i>	Duplex End-Point PCR	PC, NC, D-MM	96	PCR Pcorr 96
<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (PSA)	Duplex End-Point PCR (according to Gallelli)	PC, NC, D-MM	96	PCR PSAg 96
<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (PSA)	Real-Time PCR (SYBR®-Green) (according to Gallelli)	PC, NC, D-MM	96	SYBR PSAg 96
<i>Ralstonia solanacearum</i>	Real-Time PCR (Taq Man®)	PC, NC, D-MM	96	qPCR Rsol 96
<i>Xanthomonas axonopodis</i> pv. <i>allii</i> (Xaa)	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR Xaa 96
<i>Xanthomonas axonopodis</i> pv. <i>dieffenbachiae</i> (Xad)	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR Xad 96
<i>Xylella fastidiosa</i>	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR Xfast 96
<i>Xylella fastidiosa</i>	Real-Time PCR (Taq Man®) (according to Harper)	PC, NC, D-MM	96	qPCR Xfast 96

D-MM: Direct Master Mix
 N-MM: Nested Master Mix
 PC: Positive Control Amplification
 NC: Negative Control Amplification

Phytoplasma

Phytoplasma detection kits

Pathogen	Molecular method	Kit contents (tubes)	No. of tests	Article No.
Apple Proliferation Group	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR AP 96
<i>Candidatus phytoplasma vitis/Candidatus phytoplasma solani</i> (Flavescence dorée/Bois noir)	Duplex Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR FDBN 96
<i>Candidatus phytoplasma vitis/Candidatus phytoplasma solani</i> (Flavescence dorée/Bois noir)	Triplex Real-Time PCR (Taq Man®) with IC IpadLab patented method	PC, NC, D-MM	96	qPCR FDBN 96
<i>Phytoplasma phoenicium</i> (AlmWB)	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR.AImWB 96
<i>Phytoplasma phoenicium</i> (AlmWB)	Real-Time PCR (SYBR®-Green)	PC, NC, D-MM	96	SYBR AlmWB 96
Universal Phytoplasma	Nested End-Point PCR	PC, NC, D-MM, N-MM	96	nPCR Uniphy 96
Universal Phytoplasma	Real-Time PCR (Taq Man®)	PC, NC, D-MM	96	qPCR Uniphy 96

IC: Internal Control

D-MM: Direct Master Mix
 N-MM: Nested Master Mix
 PC: Positive Control Amplification
 NC: Negative Control Amplification

Virus & Viroids

Virus & viroid detection kits

Pathogen	Molecular method	Kit contents (tubes)	No. of tests	Article No.
Apple mosaic virus (ApMV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR ApMV 96
Apple stem pitting virus (ASPV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR ASPV 96
ArMV, GFLV, GFkV, GLRaV-1, GLRaV-2, GLRaV-3, GVA	Two-step Multiplex End-Point PCR (without RT) with IC	PCA, PCB, NC, D-MM	96	PCR 7GV woRT 96
ArMV, GFLV, GFkV, GLRaV-1, GLRaV-2, GLRaV-3, GVA	Two-step Multiplex End-Point PCR (with RT) with IC	PCA, PCB, NC, D-MM, RT, RT-MM	96	PCR 7GV 96
Cherry leaf roll virus (CLRV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR CLRV 96
<i>Citrus cachexia</i> viroid (HSVd)	One-Step Real-Time RT-PCR (SYBR®-Green)	PC, NC, D-MM, RT	96	SYBR HSVd 96
<i>Citrus exocortis</i> viroid (CEVd)	One-Step Real-Time RT-PCR (SYBR®-Green)	PC, NC, D-MM, RT	96	SYBR CEVd 96
<i>Citrus tristeza</i> virus (CTV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR CTV 96
<i>Citrus tristeza</i> virus (CTV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR CTV 96
Cucumber mosaic virus (CMV)	End-Point PCR	PC, NC, D-MM	96	PCR CMV 96
General Potyvirus	End-Point PCR	PC, NC, D-MM	96	PCR PotyV 96
Grapevine fanleaf virus (GFLV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR GFLV 96
Grapevine fleck virus (GFkV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR GFkV 96
Grapevine leafroll-associated virus 1 (GLRaV-1)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR LR1 96
Grapevine leafroll-associated virus 1 (GLRaV-1)	Real-Time PCR (SYBR®-Green)	PC, NC, D-MM	96	SYBR LR1 96
Grapevine leafroll-associated virus 2 (GLRaV-2)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR LR2 96
Grapevine leafroll-associated virus 3 (GLRaV-3)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR LR3 96
Grapevine leafroll-associated virus 3 (GLRaV-3)	Real-Time PCR (SYBR®-Green)	PC, NC, D-MM	96	SYBR LR3 96
Grapevine Pinot gris virus (GPGV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR GPGV 96
Grapevine Pinot gris virus (GPGV)	One-Step Real-Time RT-PCR (SYBR®-Green)	PC, NC, D-MM, RT	96	SYBR GPGV 96
Grapevine redblotch-associated virus (GRBaV)	End-Point PCR	PC, NC, D-MM	96	PCR GRBaV 96
Grapevine redblotch-associated virus (GRBaV)	Real-Time PCR (SYBR®-Green)	PC, NC, D-MM	96	SYBR GRBaV 96
Grapevine virus A (GVA)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR GVA 96
Grapevine virus B (GVB)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR GVB 96

IC: Internal Control

D-MM: Direct Master Mix
 N-MM: Nested Master Mix
 RT-MM: Reverse Transcriptase Master Mix
 RT: Reverse Transcriptase enzyme
 PC: Positive Control Amplification
 PCA: Positive Control Amplification A
 PCB: Positive Control Amplification B
 NC: Negative Control Amplification

Virus & Viroids

Virus & viroid detection kits

Pathogen	Molecular method	Kit contents (tubes)	No. of tests	Article No.
Pepino mosaic virus (PepMV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR PepMV 96
Pepino mosaic virus (PepMV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR PepMV 96
Plum Pox Virus (PPV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR PPV 96
Plum Pox Virus (PPV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR PPV 96
Potato spindle tuber viroid (PSTVd)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR PSTVd 96
Prunus dwarf virus (PDV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR PDV 96
Prunus necrotic ringspot virus (PNRSV)	One-Step End-Point RT-PCR	PC, NC, D-MM, RT	96	PCR PNRSV 96
Tomato infectious chlorosis virus (TICV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR TICV 96
Tomato chlorosis virus (ToCV)	One-Step Real-Time RT-PCR (Taq Man®)	PC, NC, D-MM, RT	96	qPCR ToCV 96

D-MM: Direct Master Mix
 RT: Reverse Transcriptase enzyme
 PC: Positive Control Amplification
 NC: Negative Control Amplification

Accessories

HOMOGENIZER

Products	Description	Code
Plant sample homogenizer	Apparatus for the homogenization of the preparation of plant samples (wood, leaves, roots...)	PSH-001



bCUBE®

miniaturized thermal cycler

Innovative thermal cycler

Miniaturized thermal cycler with **real-time multi-wavelength** optical acquisition (FAM/HEX/Cy5). **Compatible** with isothermal (LAMP) and cycling (Real-Time PCR) protocols. **Fully controllable** and **programmable** through Wi-Fi connection or wired PC/Laptop connection.

Key benefits of the bCUBE®

- **Fast** DNA/RNA amplification and detection
- **Portable, robust, compact** and **lightweight**
- **High precision** thermal control
- Performs **isothermal amplification, real-time PCR** and **melting curve**
- 2 or 3 simultaneous wavelengths
- **Enhanced** connectivity: Wi-Fi, Ethernet
- bDATA service featuring cloud storage as well as remote control and monitoring
- Monitor and control your bCUBE® **remotely**
- Check the status and the position of the bCUBE on a map
- Share your analysis worldwide with bDATA service

Products	Description	Code
bCUBE® 2.0 thermal cycler	Miniaturized thermal cycler with real-time multi-wavelength optical acquisition (FAM/HEX – excitation wavelengths: 472 nm, 530 nm). Compatible with isothermal (LAMP) and cycling (Real-Time PCR) protocols. Fully controllable and programmable through Wi-Fi connection or wired PC/Laptop connection.	bCUBE 2.0
bCUBE® 3.0 thermal cycler	Miniaturized thermal cycler with real-time multi-wavelength optical acquisition (FAM/HEX/CY5 – excitation wavelengths: 472 nm, 530 nm and 630 nm). Compatible with isothermal (LAMP) and cycling (Real-Time PCR) protocols. Fully controllable and programmable through Wi-Fi connection or wired PC/Laptop connection.	bCUBE 3.0
bAPP phone application for bCUBE®	Application for bCUBE® Wi-Fi connection. Pre-registered protocols for analysis, available on-line. Real-time PCR and LAMP PCR protocols programming. Real-time monitoring of the analysis. Sample geolocation and shooting.	bAPP
bPANEL	Windows application for bCUBE® laboratory procedure. Allows to run custom analysis protocols. Extraction of raw data from the bCUBE®.	bPANEL
bCUBE® 16 wells cartridges	Analysis plates - bCUBE® 16 wells cartridges - Pack of 25	bCUBE-CT16.01-25
bCUBE® 36 wells cartridges	Analysis plates - bCUBE® 36 wells cartridges - Pack of 25	bCUBE-CT36.01-25





ONCE TRIED

ALWAYS USED

FOLLOW US



info@qualiplante.eu



+33 (0)6 50 06 96 87



Cap Alpha
Avenue de l'Europe
34830 Clapiers - France



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