



Food Testing

Visibly simple food pathogen testing.

Thermo Scientific™ SureTect™ PCR System—
simple, rapid workflows designed to get results

Innovating your Pathogen Detection System

In your pursuit of food safety, every test matters. There's no time to start again or wonder if the products you use will set you back or propel you forward.

With our comprehensive portfolio of assays combined with world-class instrumentation, you can perform food safety tests confidently knowing exactly what you are getting—quality combined with simplicity.

We are committed to enabling you to experience true confidence in your results. The innovative Thermo Scientific™ SureTect™ Food Pathogen Detection PCR System has evolved to even better support your laboratory and your testing needs.

Take advantage of simple, streamlined workflows that utilize a single same-day or overnight enrichment step, common direct lysis protocol for DNA release, and universal cycling parameters.

 Learn more at thermofisher.com/suretect

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Thermo Scientific SureTect PCR System

It's better to be sure

Experience complete confidence, with the tools to help you attain food pathogen detection results that are right first-time, every time.

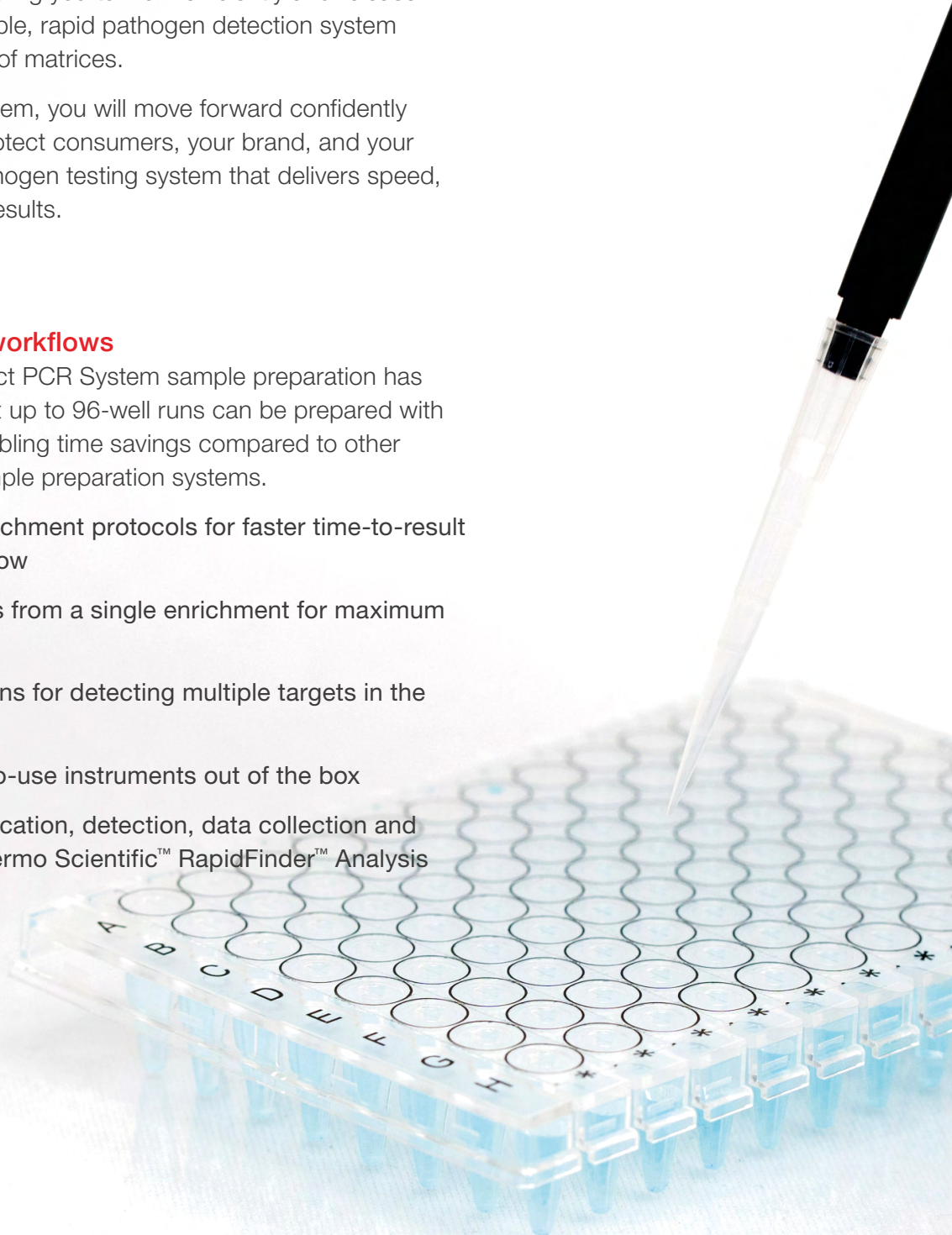
Transform your complete food safety testing workflow with the SureTect PCR System, enabling you to work efficiently and release products quickly with a simple, rapid pathogen detection system validated for a broad range of matrices.

With the SureTect PCR System, you will move forward confidently knowing you are helping protect consumers, your brand, and your bottom-line with a food pathogen testing system that delivers speed, accuracy, and reliability of results.

Streamlined and rapid workflows

The simplicity of the SureTect PCR System sample preparation has now been enhanced so that up to 96-well runs can be prepared with just a few simple steps, enabling time savings compared to other manual and automated sample preparation systems.

- Single, versus dual enrichment protocols for faster time-to-result and streamlined workflow
- Test for multiple targets from a single enrichment for maximum productivity
- Universal PCR conditions for detecting multiple targets in the same run
- 'Plug and play' ready-to-use instruments out of the box
- Fully automated amplification, detection, data collection and data analysis using Thermo Scientific™ RapidFinder™ Analysis Software v2.0 or later

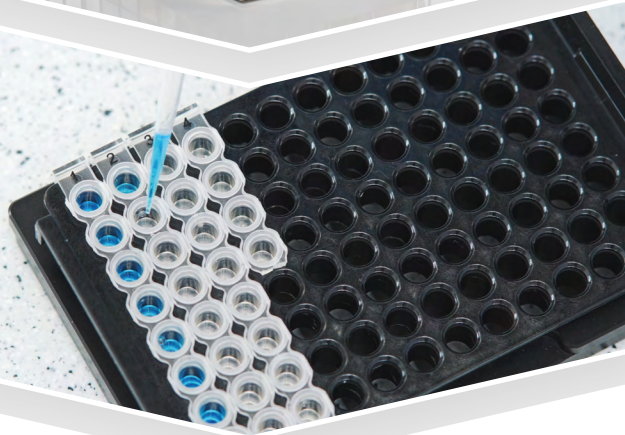


SureTect PCR Workflow

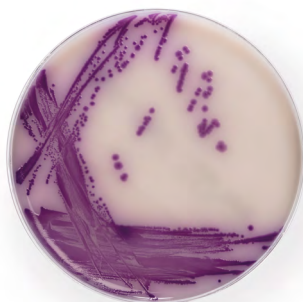
8-24
hours



20
minutes



~80
minutes



Enrichment

Single enrichment step of 8-24 hours (depending on target and matrix)

Lysis

Direct lysis automatically carried out in Applied Biosystems™ SimpliAmp™ Thermal Cycler

Run & read

Results automatically interpreted

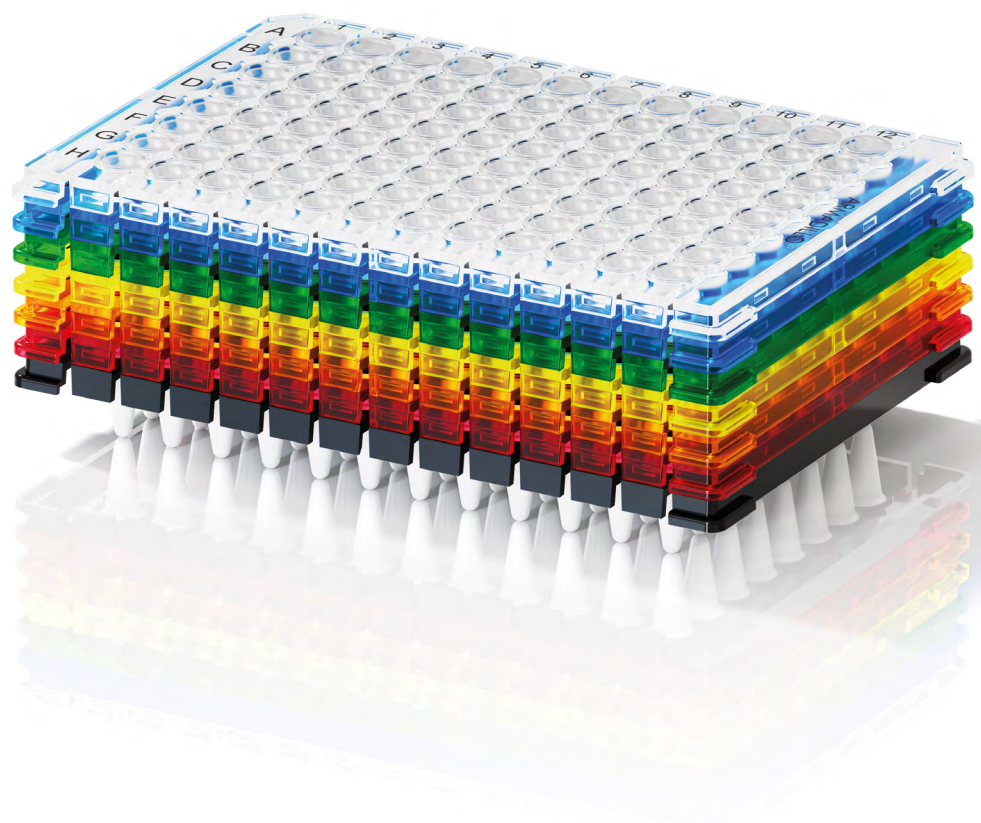
Report/confirm

Report PCR-negative results immediately and confirm PCR-positive results after overnight incubation

Thermo Scientific SureTect PCR Assays

Validated for a broad range of targets and matrices according to the certification requirements of AOAC and ISO 16140-2:2016 (by AFNOR or MicroVal). The SureTect PCR Assays provide the ultimate solution for all your pathogen detection requirements.

- Pre-dispensed lysis and PCR reagents, reducing handling steps and risk of operational error
- Clearly oriented lysis and assay plates reducing human error
- Color indicator in Proteinase K Reagent enabling tracking of pipetted wells
- Pierceable Seals for Lysis Tubes to reduce handling steps and cross-contamination
- Assay Strip Plates color-coded to target pathogens
- Thin-walled polypropylene wells ensure superior thermal cycling performance for consistent results run after run
- Internal positive control (IPC) in every well providing confidence in each and every result





Everything needed to simplify your workflow and help you achieve reliable pathogen test results

Flexibility for efficient laboratory working

- Universal PCR conditions enable multiple target detection in the same run
- Easily and safely broken into 8-tube strips by hand and easy splitting of strips with the Thermo Scientific™ PCR Strip Cutting Tool for maximum flexibility and convenience

Easily and safely divided into 8-tube strips

Use only the number of Assay Tubes needed for each PCR run

Easy visual organization

Target-specific colored Assay Plates and orientation markings

No warping, even after thermal cycling

Hard shell for mechanical stability and flatness

Snug fit to thermal blocks

Thin-wall polypropylene for excellent mechanical fit and heat transfer



Did you know?

Proper plate sealing helps reduce evaporation and well-to-well contamination.

1. Remove the backing of the Thermo Scientific™ 96-well Piercable Seal
2. Align the adhesive Piercable Seal film to cover all wells
3. Rub the flat edge of the Thermo Scientific™ MicroAmp™ Adhesive Film Applicator along the long edge (length) of the plate, then along the short edge (width)



SureTect PCR Assays

Each SureTect PCR Assay contains all of the ready-to-use reagents and consumables for your food SureTect PCR Assay workflows: 96-well Lysis Tube Strip Plate pre-filled with Lysis Reagent 1, Blue-tinted Proteinase K Reagent, Piercable Lysis Tube plate sealing films, 96-well PCR Tube Strip Plate pre-filled with Lyophilized PCR components and optical PCR cap strips.



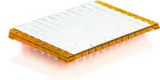
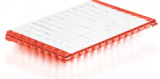
Ordering information

	Product	Description	Cat. No
	Thermo Scientific™ SureTect™ Campylobacter jejuni, C. coli and C. lari PCR Assay	Rapidly detect <i>Campylobacter jejuni</i> , <i>C. coli</i> and <i>C. lari</i> in food and environmental samples with the SureTect <i>Campylobacter</i> PCR Assay. Reliably detect and differentiate <i>Campylobacter</i> from poultry samples, without using gas jars, within 24 hours. AOAC-RI validated on poultry products, with a range of test portion sizes.	A56835
	Thermo Scientific™ SureTect™ Cronobacter species PCR assay	Simply and accurately detect <i>Cronobacter</i> species in low and high sample sizes of powdered infant formula, with and without probiotics, and ingredients in less than 20 hours. ISO 16140-2:2016 validated on infant formula and cereals with and without probiotics, related ingredients and production environment samples.	A56845
	Thermo Scientific™ SureTect™ Escherichia coli O157:H7 PCR Assay	Detect <i>E. coli</i> O157:H7 rapidly with the highly-specific, real-time SureTect <i>E. coli</i> O157:H7 PCR Assay. Validated on beef meats, fruits and vegetables including large test portion sizes following the AOAC-RI and the ISO 16140-2:2016* technical rules.	A56844
	Thermo Scientific™ SureTect™ Escherichia coli O157:H7 and STEC Screening PCR Assay	Rapidly detect multiple genetic targets for Shiga-toxin producing <i>Escherichia coli</i> O157:H7 and other STEC in food and environmental samples. Part of a complete workflow for the rapid detection of <i>Escherichia coli</i> O157:H7, <i>stx</i> , <i>eae</i> , and the <i>Escherichia coli</i> STEC serotypes (O26, O45, O103, O111, O121, O145) from food samples within as little as 10 hours. Samples assessed as positive using the SureTect <i>E. coli</i> O157:H7 and STEC Screening PCR Assay are further tested using the SureTect <i>E. coli</i> Identification PCR Assay. AOAC-RI and ISO 16140-2:2016 validated on a range of food matrices including raw meat (excluding poultry), vegetables, fruits, juices, and dairy samples.	A56838
	Thermo Scientific™ SureTect™ Escherichia coli STEC Identification PCR Assay	Rapidly detect multiple genetic targets for Shiga-toxin producing <i>Escherichia coli</i> O157:H7 and other STEC in food and environmental samples. Part of a complete workflow for the rapid detection of <i>Escherichia coli</i> O157:H7, <i>stx</i> , <i>eae</i> , and the <i>Escherichia coli</i> STEC serotypes (O26, O45, O103, O111, O121, O145) from food samples within as little as 10 hours. Samples assessed as positive using the SureTect <i>E. coli</i> O157:H7 and STEC Screening PCR Assay are further tested using the SureTect <i>E. coli</i> Identification PCR Assay. AOAC-RI and ISO 16140-2:2016 validated on a range of food matrices including raw meat (excluding poultry), vegetables, fruits, juices, and dairy samples.	A56840

*validation according to the ISO 16140-2:2016 standard by AFNOR Certification or MicroVal

SureTect PCR Assays

Ordering information

	Product	Description	Cat. No
	Thermo Scientific™ SureTect™ Listeria monocytogenes PCR Assay	Detect <i>Listeria monocytogenes</i> or all <i>Listeria</i> species in even the most challenging food types with the SureTect <i>L. mono</i> or SureTect <i>Listeria</i> species PCR Assays which incorporates optimized primer and probe components for highly-specific detection of <i>L. monocytogenes</i> . The Assays are AOAC RI, AOAC-OMA and ISO 16140-2:2016* validated for a broad range of foods and environmental samples for additional confidence in your results.	A56843
	Thermo Scientific™ SureTect™ Listeria species PCR Assay		A56842
	Thermo Scientific™ SureTect™ Salmonella species PCR Assay	Detect <i>Salmonella</i> species in food and environmental samples with the SureTect Salmonella species PCR Assay which incorporates optimized primer and probe components for highly-specific detection of <i>Salmonella</i> species. The assay has been AOAC-RI, AOAC-OMA and ISO 16140-2:2016* validated for a broad range of foods and petfood including large test portions.	A56841
	Thermo Scientific™ SureTect™ Staphylococcus aureus PCR Assay	Rapidly detect <i>Staphylococcus aureus</i> in food and environmental samples, including infant formula, in less than 24 hours. AOAC-RI validated covering dairy products including infant formula together with other low moisture products and cheeses.	A56839
	Thermo Scientific™ SureTect™ Vibrio cholera, V. parahaemolyticus and V. vulnificus PCR Assay	Rapidly detect <i>Vibrio cholerae</i> , <i>V. parahaemolyticus</i> and <i>V. vulnificus</i> in food samples in as little as 10 hours. AOAC-RI validated on fish and seafood products, with a range of test portion sizes.	A56837
	Thermo Scientific™ RapidFinder™ Salmonella species, Typhimurium and Enteritidis Multiplex Kit	Simultaneously detect and type <i>Salmonella</i> species, <i>S. Enteritidis</i> and <i>S. Typhimurium</i> with the RapidFinder Salmonella multiplex PCR Kits. AOAC-RI and ISO 16140-2:2016* validated in raw and processed meats, pork and poultry meats, egg products, production environmental samples and primary production.	A56846
	Thermo Scientific™ RapidFinder™ Salmonella species, Typhimurium and Enteritidis Multiplex Kit		A56847

*validation according to the ISO 16140-2:2016 standard by AFNOR Certification or MicroVal

Easy-to-use tools to simplify your workflow handling

Designed specifically to enhance each step of the SureTect PCR Assay Workflow, the new SureTect PCR Workflow tools enable ease-of-handling, reduced hands-on time and operator error providing a superior user handling experience.



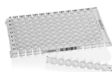
Ordering information

	Product	Description	Cat. No
	Thermo Scientific™ PCR Strip Cutting Tool	Cutting tool for Strip Plates—used to cut both lysis tube strips and PCR change to PCR Assay Tube strips tube strips, if fewer than 8 tubes are required for the analysis	A55329
	Thermo Scientific™ Lysis Tube Uncapping Tool	Opening tool for Strip Plates—used to remove the domed lysis caps from the lysis tubes	A55328
	Thermo Scientific™ PCR Capping Tool	Capping tool for SureTect Lysis and PCR Assay Strip Plates	A55327
	Thermo Scientific™ 96-well PCR Base	96-well base for Strip Plates—hold and stabilize both the Lysis Tubes and Assay Plate	A55330
	Thermo Scientific™ MicroAmp™ adhesive film applicator	Pack of 5 For easy, consistent application of Pierceable Seals	4333183

Accessories

Each SureTect PCR Assay comes with all the reagents and PCR accessories needed to set up your SureTect PCR Assay tests to run on the Applied Biosystems™ QuantStudio™ 5 Food Safety PCR System. Additional SureTect Accessories are available to order separately, including, low-profile PCR Strip Plates for balancing when using the Applied Biosystems™ 7500 Fast Food Safety PCR System and Domed Lysis Tube Caps for use if preferred in place of the Pierceable Lysis Seals.

Ordering information

	Product	Description	Cat. No
	Thermo Scientific™ 96-well Pierceable Seal	Pack of 100 seals • 2 included with each kit • Alternative option to lysis caps • Print around each well for positioning and orientation • Strip perforations	A55331
	Thermo Scientific™ Lysis Tube Caps, domed	Pack of 120 strips Provide the option for caps in addition to pierceable seals for lysis	A56859
	Thermo Scientific™ Low-Profile PCR Strip Plate, 96 well, clear	For balancing of Applied BioSystems™ 7500 fast plates	AB2696
	Thermo Scientific™ Ultra clear qPCR caps	Strips of 8, 120 caps Additional PCR caps if required	A55330

SimpliAmp Thermal Cycler

Utilize the Applied Biosystem™ SimpliAmp™ Thermal Cycler in the SureTect PCR Assay workflow to prepare lysates from enriched samples ready for PCR.

By automating the incubation steps for cell lysis, samples are ready for PCR in around 20 minutes with minimal hands-on steps required. The SimpliAmp Thermal Cycler will hold samples ready for use at 4°C once the lysis steps are completed.

With a responsive color touchscreen and Applied Biosystems™ VeriFlex™ temperature control technology, the SimpliAmp Thermal Cycler enables simple, accurate optimization in addition to cloud enablement, giving you the freedom to design and securely upload your methods, monitor runs, and check instrument availability from any mobile device or desktop computer with the Connect Platform.

Key benefits



Intuitive interface

Large, easy-to-use color touchscreen for easy programming and quick status checks



VeriFlex Block

Three independent temperature zones for PCR optimization



Cloud-enabled

Conveniently access your instrument anytime, anywhere with the Connect Platform



Compact design

Helps save valuable bench space

Key benefits



Elegantly simple and precise

SimpliAmp Thermal Cycler

- 96 reactions
 - 4.0°C/sec
 - 96-well, 0.2ml (3-zone Veriflex Block)
-
- Select your saved SureTect Sample Preparation program
 - The status dial displays the current block temperature and elapsed run time
 - Create a new run method using default templates or existing methods
 - Use the instrument as a precise incubator for non-PCR workflows

SimpliAmp Thermal Cycler

Specifications

Block format	96-well, 0.2mL, 3-zone VeriFlex Block	
Features	• Enabled to run Fast chemistry • Controllable ramp rate • Program overwrite protection • Auto restart (after power outages) • Edit program during experiment • One-touch incubation	
Max. block ramp rate*	4°C/sec	
Max. sample ramp rate*	3°C/sec	
Temperature accuracy	±0.25°C (35–99.9°C)	
Temperature uniformity	<0.5°C (30 sec after reaching 95°C)	
Temperature calibration	Calibrated to standards traceable to the National Institute of Standards and Technology (NIST)	
Dimensions (H x W x D)	21.0 x 24.0 x 46.0 cm (8.3 x 9.5 x 18.1 in.)	
Weight	8.3 kg (18.3 lb)	
PCR volume range	10–100 µL	
Instrument memory	2,000 MB onboard memory (capacity for >1,000 protocols); USB port for additional external storage	
Display interface	8 inch color TFT LCD	
Power	100–240 V, 50–60 Hz, max. 600 W	
VeriFlex Block	3 temperature zones, 20°C range (10°C zone-to-zone)	
Data connectivity**	Cloud or mobile via Ethernet or Wi-Fi	

* At reaction volume of 1 µL.

** The Instrument Connect app, available at Apple and Google app stores, can be used to monitor your instrument. The Connect Platform can be used to create and share protocols, schedule an instrument, and start and monitor runs remotely

Ordering information

Product	Cat. No
SimpliAmp Thermal Cycler	A24811
Recommended Accessories	
SimpliAmp Strip Plate Tray	A55333
SimpliAmp Strip Plate Tray cover	A55971

Did you know?

SimpliAmp Thermal Cyclers have thermal simulation modes that make the transition from other thermal cyclers simple, accurate, and efficient.

A library of modes that mimic the ramp rates of other instruments is available on each instrument.

QuantStudio 5 PCR System

The SureTect PCR Assays are validated to run on the Applied Biosystems™ QuantStudio™ 5 Food Safety Real-Time PCR System.

The QuantStudio 5 Food Safety PCR System is a high-performance benchtop platform, combining ease-of-use and system connectivity with powerful options that enable maximum data utility and control.

Benefit from the flexibility of a 6-channel, 96-well, cloud-enabled open platform suitable for running our full range of PCR solutions for food safety, authenticity, and quality testing.



Intuitive and simple

Easy to use for all levels of experience.

Touchscreen usability, allowing you to stay connected to your data easily

Multiplex with ease

Up to six excitation and six emission filters offer 21 different color combinations, allowing a broad range of detection chemistries and maximum multiplexing

Get up and running quickly

Factory-calibrated for accuracy, quick installation, and immediate use; preoptimized protocol templates help minimize training for new users

Maximize benchtop space

Compact instrument can be configured as a stand-alone or with a computer

Open instrument

Suitable for all our food safety, authenticity, and quality PCR tests. Intuitive, user-friendly software, avoiding subjective interpretation. Cloud-enabled, offering the potential for data sharing, analysis and trending. Capacity for processing several hundred samples a day

QuantStudio 5 Food Safety PCR System

Specifications

For when you need:	Total control
	QuantStudio 5 Food Safety PCR System
Colors	5 or 6 colors (21 filter combinations)
Available formats	96-well (0.1 mL block)
Dimensions (H x W x D)	40 x 27 x 50 cm
Block change	Fixed
VeriFlex temperature control	Yes, 6 zones (96-well blocks only)
Throughput	Medium –High
21 CFR Part 11–enabled	Security, auditing, e-signature package
Touchscreen	Yes, interactive
Cloud-enabled	Yes
Automation compatible	Yes
Key Food Applications	• Food pathogen detection • GMO testing • Meat and Fish species Identification • Legionella detection and quantification



QuantStudio 5 Food Safety PCR System

Specifications continued

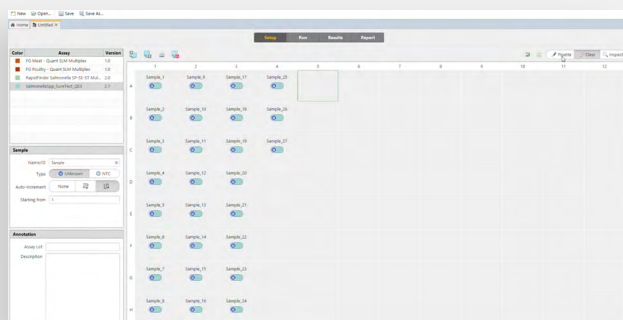
QuantStudio 5 Food Safety PCR System	
Sample capacity (wells)	96
Reaction volume	96-well, 0.1 mL block: 10–30 µL
Footprint (H x W x D)	40 x 27 x 50 cm
Excitation source	Bright white LED
Optical detection	96-well: 6 decoupled filters
Excitation/detection range	96-well: 450–680 nm/500–730 nm
Multiplexing	96-well: up to 6 targets
2D barcode reading	Optional
Heating/cooling method	Peltier
Temperature zone function	96-well: 6 VeriFlex zones
Max. block ramp rate	0.1 mL block: 9.0°C/sec
Average sample ramp rate	3.66°C/sec
Temperature uniformity	0.4°C
Temperature accuracy	0.25°C
Run time	96-well block: <30 min runs
Dye compatibility (name)	FAM/SYBR Green, VIC/JOE/HEX/TET, ABY/NED/TAMRA/Cy3, JUN, ROX/Texas Red, Mustang Purple, Cy5/LIZ, Cy5.5
Chemistry capabilities	Fast/standard
Features to assist with 21 CFR Part 11 compliance	Yes, with no additional fees
Detection sensitivity	1 copy
Sensitivity	Detect differences as small as 1.5-fold in target quantities in singleplex reactions

Ordering information

QuantStudio 5 Food Safety PCR System	Cat.No.
QuantStudio 5 Food Safety PCR System (96-Well, 0.1 mL Block)	A36329
QuantStudio 5 Food Safety PCR System (96-Well, 0.1 mL Block) with Laptop	A36328
QuantStudio 5 Food Safety PCR System (96-Well, 0.1 mL Block) with Desktop	A36320
Recommended Accessories	
QuantStudio 5 Strip-Plate Tray	A55332

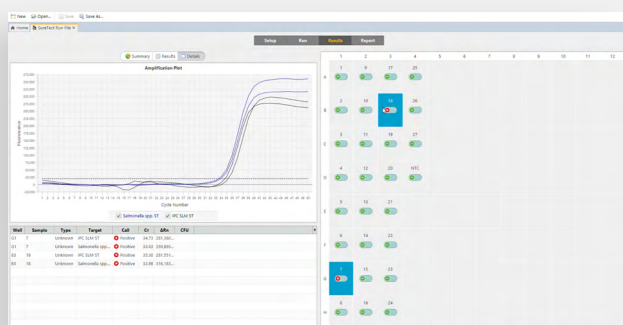
RapidFinder Analysis Software

An integral part of the SureTect PCR Assay workflow, the Thermo Scientific™ RapidFinder™ Analysis Software, is a graphical, easy-to-use tool for food and environmental testing labs to optimize their pathogen detection workflow when using the QuantStudio 5 Food Safety PCR System.



Simple set-up

- Intuitive sample set up
- Flexible plate layout including automatic or customisable options
- Pre-set, optimized thermal cycling conditions per target



Automatic data interpretation

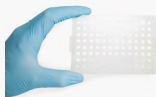
- Fully automated amplification, detection, data collection, and data analysis
- Quick interpretation of data with flags, notifications, and prompts
- Detailed report generation for printing or export
- Interoperability with LIMS or similar data management tool for importing plate set-up and exporting assay results
- Automatically generates results (presence or absence of the target)
- Offers interrogation of results for the whole plate, grouped by sample, or for individual PCR tubes

Order information

Description	Quantity	Cat. No
Thermo Scientific™ RapidFinder™ Analysis Software v2.0	1 download	A53289

New SureTect Trays for ease-of-handling

Ordering information

	Product	Description	Cat. No
	SimpliAmp Strip-Plate Tray	Pack of 10 For compatibility and ease of loading SureTect lysis tubes into the SimpliAmp Thermal Cycler	A55333
	QuantStudio 5 Strip-Plate Tray	Pack of 10 For compatibility and ease of loading SureTect assay tubes into the Quant Studio 5 PCR instrument	A55332
	ABI 7500 Fast Precision Plate Holder	For compatibility and ease of loading SureTect assay tubes into the 7500FAST PCR instrument	A46347
	SimpliAmp strip plate tray cover	Pack of 10 For covering lysis tubes sealed with pierceable film during pipetting and PCR tubes during centrifugation	A55971

Workflow Improvement Starter Pack

Ordering information

Product	Product	Cat. No
 PCR Strip Cutting Tool Cutting tool for SureTect Lysis and Assay strips. Easily and safely cut the strips to provide the exact number of tubes required	 QuantStudio 5 Strip-Plate Tray	
 PCR Lysis Tube Uncapping Tool Uncapping Tool for the SureTect Lysis Strip Tubes	 ABI 7500 Fast Precision Plate Holder	
 PCR Capping Tool Capping tool for SureTect Lysis and PCR Assay plates	 SimpliAmp strip plate tray cover	A56898
 96-well PCR Base 96-well base for SureTect Lysis and Assay strips—used to hold the tubes in both the Lysis step and PCR step	 MicroAmp Adhesive Film Applicator For applying Pierceable Lysis Tube Seals	
 SimpliAmp Strip-Plate Tray	 Lysis tube caps-domed-pack of 120 strips Provide the option for caps instead of, or in addition to, pierceable seals for Lysis Tubes	



It's easy to be sure
with the SureTect
PCR System.

Learn more at thermofisher.com/suretect

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