



..... Inspiring Innovation .....

# Biotechnology and Drug Discovery

Research Solutions

 **fisher scientific**  
part of Thermo Fisher Scientific

..... Inspiring Innovation ○○○○○○

# Make the Most of Your Research

Find the high-quality products you need to support every stage of your biotechnology and drug discovery research through the Fisher Scientific channel. Browse our comprehensive portfolio and shop trusted brands to help you make the most of your research from start to finish.

**applied biosystems**



**BioTek**  
A part of **Agilent**



## Trademarks of Thermo Fisher Scientific

Applied Biosystems, Fisher Bioreagents, Invitrogen, IV VILO, Nunc, QuantStudio, SuperScript, TaqMan, Thermo Scientific

## Supplier and Other Trademarks

BD Horizon, BD OptiBuild, BioStack, BioTek, Cytiva, EL406, Hybrid Technology, Sera-Xtracta, Superdex, Synergy, Ultrasonic Advantage, Whatman



# Faster Real-Time PCR Results

Maximize your PCR workflow when you pair Applied Biosystems TaqMan Fast Advanced Master Mix and Array Plates with Invitrogen SuperScript IV VIL0 Reverse Transcriptase. These real-time PCR reagents work together to give you fast and accurate data and help accelerate your research.

## Invitrogen SuperScript IV VIL0 Master Mix

Choose Invitrogen SuperScript IV VIL0 Master Mix, a first-strand cDNA synthesis reaction mix, for your two-step RT-qPCR. This product combines optimized buffer conditions with thermostable reverse transcriptase (RT) to maintain linearity across a broad range of RNA inputs.

- Efficient: Up to 100 times higher cDNA yield
- Sensitive: Reduce as many as eight RT-qPCR cycles
- Robust: Works with degraded RNA samples or those that contain inhibitors
- Fast: Ten-minute reaction times



Quantity	Cat. No.
50 Reactions	11-756-050
500 Reactions	11-756-500

## Applied Biosystems TaqMan Fast Advanced Master Mix

Designed to match or exceed standard master mix performance, Applied Biosystems TaqMan Fast Advanced Master Mix delivers results in less than 40 minutes.

- Enhanced benchtop stability
- Reduced run times (fast or standard instruments)
- Optimized for multiplexing
- Seamless transitions into your protocols

Quantity	Cat. No.
1 x 1 mL	44-445-56
1 x 5 mL	44-445-57
1 x 50 mL	44-445-58
2 x 5 mL	44-449-63
5 x 5 mL	44-449-64
10 x 5 mL	44-449-65



# Applied Biosystems TaqMan qPCR Array Plates

Measure pathway- and disease-related gene expression with Applied Biosystems TaqMan qPCR Array Plates (pre-spotted panels of TaqMan Real-Time PCR Assays). These arrays feature the most popular TaqMan gene expression assays targeting relevant genes. They're ideal for profiling and verification applications that require the analysis of thousands of targets.

Visit [fishersci.com/order/genome-database/](http://fishersci.com/order/genome-database/) to find your array plates.



## Find Your TaqMan Assay

Applied Biosystems TaqMan Assays, backed by the TaqMan Assay Guarantee, come in three cost-effective and easy-to-use formats that support a range of research designs. Discover and verify relevant biomarkers, disease pathways, and immunological responses with high specificity and sensitivity across these key research areas:

- Virology
- Neurology
- Immunology
- Oncology
- Immuno-oncology
- Other complex diseases

This search tool now includes assay ID and a quick order function.



Visit [fishersci.com/TaqManAssays](http://fishersci.com/TaqManAssays) to learn more.

## Save 10% When You Buy All 3

When you purchase the following products, you'll save 10% on your order.

- Applied Biosystems TaqMan Fast Advanced Master Mix
- Invitrogen SuperScript IV VILO Master Mix
- Applied Biosystems Predesigned TaqMan Array

Visit [fishersci.com/fast-taqman](http://fishersci.com/fast-taqman) to learn more.

*Restrictions apply.*

# The Right Tools for Multicolor Flow Cytometry

Although the principles of good panel design match antigen density with fluorochrome brightness, about 20 percent of panels lack at least one required reagent. Improve resolution and generate high-quality data for better scientific insights with the following products.

## BD Horizon and BD OptiBuild Reagents

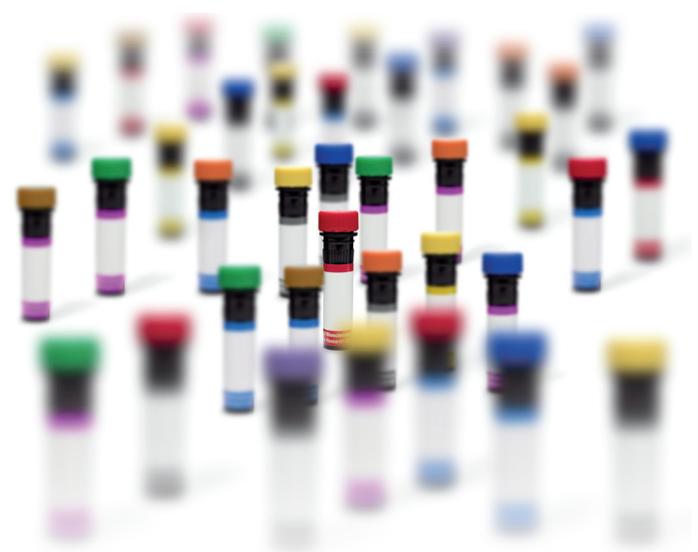
Improve the sensitivity and resolution of low-density markers and intracellular targets with BD Horizon Red 718 Reagents. This innovative and exclusive small-molecule fluorochrome produces maximum emissions at 718 nm.

### You'll experience:

- Brighter and better resolution with surface and markers
- Reduced background staining
- Minimal spread into the APC channel

### BD Horizon Antibodies

Description	Cat. No.
Anti-CD45, Clone	BDB563792
Anti-CD45R/B220, Clone	BDB563793
Anti-CD8, BUV395, Clone, 100 Tests	BDB563795
Anti-CD8, BUV395, Clone, 25 Tests	BDB563796
Ly-6G Rat Anti-Mouse, BUV395, Clone	BDB563978
CXCR5 Rat Anti-Mouse, BUV395, Clone	BDB563980
CD3 Mouse Anti-Human, BUV395, Clone	BDB563546
Anti-Mouse IgG1, BUV395, Clone	BDB563547
CD3 Mouse Anti-Human, BUV395, Clone	BDB563548
CD19 Mouse Anti-Human, BUV395, Clone	BDB563549

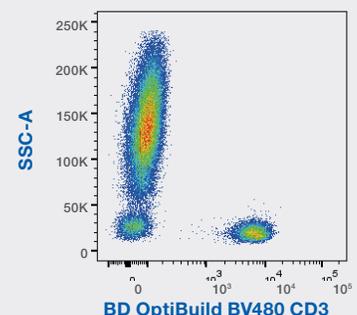


### BD OptiBuild Antibodies

Description	Cat. No.
CD63 Mouse Anti-Human, BUV395, Clone	BDB740310
CD83 Mouse Anti-Human, BUV395, Clone	BDB740311
HLA-A2 Mouse Anti-Human, BUV395, Clone	BDB740313
CD66 Mouse Anti-Human, BUV395, Clone	BDB740314
CD45RA Mouse Anti-Human, BUV395, Clone	BDB740315

### Designed to Meet Your Needs

Evaluate new colors and simplify your panel design for markers of interest with BD OptiBuild and BD Horizon reagents. You'll find multiple fluorochrome options with the antibodies you need when you choose these custom reagents.



# Immunoassays

BD Biosciences offers a portfolio of immunoassay products for the accurate quantitation and detection of a variety of soluble and intracellular proteins. Gain quantitative insight into immune response with the following products.



## BD Cytometric Bead Array (CBA)

Measure cytokines, chemokines, growth factors, phosphorylated cell signaling proteins, and more using flow cytometry. Analyze up to 30 proteins with only 25 to 50  $\mu$ L of sample.

This product is available as a preconfigured kit or in open and configurable formats for your needs.

Description	Cat. No.
Mouse Immunoglobulin Isotyping Kit	BDB550026
Human Th1/Th2 Cytokine Kit	BDB550749
Mouse Th1/Th2 Cytokine Kit	BDB551287
Human Th1/Th2 Cytokine Kit II	BDB551809
Th1/Th2 Cytokine Lyophilized Standard	BDB551810

## BD Immunoassay ELISA Reagents

Quantify cytokines and other soluble proteins with these convenient options:

- Unlabeled capture antibodies
- Biotinylated detection antibodies
- Protein standards

Description	Cat. No.
Human C3a ELISA Kit	BDB550499
Human C4a ELISA Kit	BDB550947
Human IL-10 ELISA Kit II	BDB550613
Mouse IFN- $\gamma$ ELISA Kit II	BDB558258
Human IL-6 ELISA Kit II	BDB550799

## BD OptEIA Sets

Achieve fast and easy quantification of soluble analytes and record total response with the following:

- Reagents sufficient for five or twenty 96-well plates
- Pre-coated 96-well plates
- Three sandwich ELISA formats

Description	Cat. No.
Monkey IFN- $\gamma$ ELISA Set	BDB551492
Mouse IL-6 ELISA Kit	BDB550950
Human IL-12 (p70) ELISA Set	BDB555183
Reagent Set A	BDB550536

## BD ELISPOT Reagents

Detect and analyze individual antibody-secreting cells *in vitro*. The assay can be used to find cells that produce and secrete cytokines and other effector molecules. Take advantage of the flexibility of several formats:

- Enzyme-linked ImmunoSpot technology for direct analysis
- Greater sensitivity than ELISA or intracellular staining
- Monitor T-cell function and antigen-specific T cells using high-throughput analyses

Description	Cat. No.
Human IFN- $\gamma$ ELISPOT Set	BDB551849
Mouse IL-5 ELISPOT Pair	BDB551880
Mouse TNF ELISPOT Pair	BDB551875
Mouse IL-2 ELISPOT Pair	BDB551876

**Save 5%  
on R718  
Reagents**

Get 5% off your purchase of select BD Horizon Red 718 Reagents when you enter promo code **SAVE5BD** at checkout.

Visit [fishersci.com/bd-reagents-5](https://fishersci.com/bd-reagents-5) to learn more.

*Restrictions apply.*

Visit [fishersci.com/bdbiosciences](https://fishersci.com/bdbiosciences) to learn more.

# Run Your Assays with Confidence

The BioTek Synergy Neo2 Multi-Mode Microplate Reader and BioTek EL406 Combination Microplate Washer Dispenser are designed to meet the needs of high-throughput laboratories, offering both cell-based and biochemical assays.

## BioTek Synergy Neo2 Multi-Mode Microplate Reader

The BioTek Synergy Neo2 Multi-Mode Microplate Reader features BioTek's patented Hybrid Technology with independent optical paths that help ensure uncompromised performance in all detection modes.

- CO<sub>2</sub>/O<sub>2</sub> controls, incubation to 65°C, variable shaking for live cell assays, direct bottom illumination, and other advanced environmental features
- Powerful Gen5 Software for complete reader control, powerful data analysis, automation, and LIMS integration
- TRF and Alpha lasers for speed and improved sensitivity
- Patented Hybrid Technology with independent filter and monochromator-based optics
- Variable bandwidth selection to optimize fluorophore specificity and sensitivity
- Multiple PMT detectors for fast plate processing speeds



Description	Cat. No.
<ul style="list-style-type: none"> <li>• Dual Top PMT, Top Filter Fluorescence, Fluorescence Polarization, Time-Resolved Fluorescence, TR-FRET, Luminescence, Filter Luminescence, Monochromator UV-Vis Absorbance</li> <li>• For 1- to 1536-Well Microplates</li> <li>• Incubation to 65°C, Shaking</li> </ul>	BTNEO2
<ul style="list-style-type: none"> <li>• Single Top PMT, Top Filter Fluorescence, Fluorescence Polarization, Time-Resolved Fluorescence, TR-FRET, Luminescence, Filter Luminescence, Monochromator UV-Vis Absorbance</li> <li>• For 1- to 1536-Well Microplates</li> <li>• Incubation to 65°C, Shaking</li> </ul>	BTNEO2S
<ul style="list-style-type: none"> <li>• Dual Top PMT, Top and Bottom Monochromator Fluorescence with Variable Bandwidth, Top and Bottom Filter Fluorescence, Fluorescence Polarization, Time-Resolved Fluorescence, TR-FRET, TRF Laser, Luminescence, Filter Luminescence, Monochromator UV-Vis Absorbance, Alpha Laser</li> <li>• For 1- to 1536-Well Microplates</li> <li>• Incubation to 65°C, Shaking</li> </ul>	NE2MALPHABT

**Save 40% on a Microplate Stacker**

When you purchase a BioTek Synergy Neo2 Multi-Mode Microplate Reader, you'll get 40% off a BioTek BioStack Neo Microplate Stacker.

Visit [fishersci.com/synergy-neo2-lab-shot](http://fishersci.com/synergy-neo2-lab-shot) or [fishersci.ca/synergy-neo2-lab-shot](http://fishersci.ca/synergy-neo2-lab-shot) to learn more.

*Restrictions apply.*

## BioTek BioStack Microplate Stacker

Streamline workflows and reduce errors with BioTek BioStack Microplate Stackers for walk-away automation and high throughput. This compact and versatile microplate stacker is compatible with BioTek detectors, washers, dispensers, and imaging systems. The BioStack 4 offers 96- or 384-well plate exchange with efficient microplate de- and re-lidding for sensitive cell-based assays. Rapid processing and walk-away automation increase your throughput and enhance productivity.

- Ultra-fast plate transfers
- Convenient restacking for automated endpoint and kinetic assays
- Removable, exchangeable stacks of 10, 30, and 50 plates
- Compact footprint to conserve bench space
- Fits inside biosafety enclosures



Description		Cat. No.
BioTek BioStack Neo Microplate Stacker	<ul style="list-style-type: none"> <li>• For 96- to 1536-Well Plates</li> <li>• Compatible with BioTek Synergy Neo2 Products</li> <li>• Offers 6 Second Plate Exchange Times</li> </ul>	BIOSTACKNEO
BioTek BioStack 4 Microplate Stacker	<ul style="list-style-type: none"> <li>• For 24- to 1536-Well Plates with De-Lidding Capability</li> <li>• Compatible with Most BioTek Instruments</li> </ul>	BTBIOSTACK4

## BioTek EL406 Combination Microplate Washer Dispenser

Complete reagent dispensing and plate washing with the all-in-one BioTek EL406 Combination Washer Dispenser. It offers standard assay washing and dispensing, biomagnetic separation, and vacuum filtration. A dual-action manifold optimizes washing for loosely adherent cell monolayers, and patented Ultrasonic Advantage helps prevent manifold tube blockages. Choose from syringe or peristaltic pump dispenser technologies (the EL406 is equipped with both) for flexibility in liquid delivery.

- Microplate washing with three reagent dispensers
- Compatible with 96-, 384-, and 1536-well plates
- Gentle processing accommodates cell-based assays
- Magnetic and polystyrene bead washing
- Easy maintenance



Description		Cat. No.
<ul style="list-style-type: none"> <li>• 384- and 1536-Well Washer</li> <li>• 3 Reagent Dispensers</li> <li>• Includes 1 Peristaltic Pump Dispenser, Dual Syringe Pump Dispensers, Wash Module Ultrasonic Cleaner, Automatic 4-Wash Buffer Switching, 192-Tube Manifold, and 2 Small-Bore Sapphire Jeweled Tube Manifolds</li> </ul>		B406PSUB2SB
<ul style="list-style-type: none"> <li>• 96- and 384-Well Washer</li> <li>• 3 Reagent Dispensers</li> <li>• Includes 1 Peristaltic Pump Dispenser, Dual Syringe Pump Dispensers, Wash Module Ultrasonic Cleaner, Automatic 4-Wash Buffer Switching, and Interchangeable 96- and 192-Tube Manifolds</li> </ul>		11120616
<ul style="list-style-type: none"> <li>• 96- and 384-Well Washer</li> <li>• 1 Reagent Dispenser</li> <li>• Includes 1 Peristaltic Pump Dispenser, Wash Module Ultrasonic Cleaner, Automatic 4-Wash Buffer Switching, and 96-Tube Manifold</li> </ul>		11120608

Other configurations are available. Contact your Fisher Scientific sales representative for details.

# Advance Your Molecular Diagnostics Research



When a novel coronavirus (SARS-CoV-2) was identified in 2019, the spread of COVID-19 triggered numerous and urgent challenges to health systems, diagnostic laboratories, and research communities. Cytiva products, tools, and methods continue to support molecular diagnostics and vaccine development during the global pandemic.

## Cytiva Sera-Xtracta Virus/Pathogen Kits

Isolate total nucleic acid (DNA/RNA) from bacteria and viruses, including adenovirus (type 14), influenza A (H3N2), and COVID-19, with Cytiva Sera-Xtracta Virus/Pathogen Kits. Designed for sensitive detection at low concentrations, this simple and rapid method optimizes your workflow, helps you achieve reproducible results, and offers:

- The benefits of solid phase extraction (using magnetic beads)
- A simplified protocol for automated or manual processing
- Scalability for samples up to 400  $\mu$ L
- Rapid extractions in less than 30 minutes
- For use with respiratory biological matrices, blood, and universal transport media
- Compatible with molecular biology techniques such as qPCR, RT-qPCR, droplet digital PCR (ddPCR), and next-generation sequencing (NGS)



Quantity	Cat. No.
96 Extractions	09-920-080
1000 Extractions	09-920-081

# Cytiva Whatman Puradisc H-PTFE Syringe Filters

Experience quality and cost efficiency with Cytiva Whatman Puradisc H-PTFE Syringe Filters. Suitable for rapid, routine syringe filtration, they can be used to prepare samples for HPLC and uHPLC, capillary electrophoresis, protein filtration, UV spectroscopy, and more. This product is available in a range of diameters and pore sizes, and compatible with most aqueous and aggressive organic solvents.

- Membrane diameters: 13 or 25 mm
- Pore sizes: 0.2 or 0.45 µm
- Filtration capacity: 100 mL

Diameter, Pore Size	Quantity	Cat. No.
25 mm, 0.2 µm	50/Pack	09-924-595
25 mm, 0.2 µm	200/Pack	09-924-596
25 mm, 0.2 µm	1000/Pack	09-924-597
25 mm, 0.45 µm	50/Pack	09-924-598
25 mm, 0.45 µm	200/Pack	09-924-599
25 mm, 0.45 µm	1000/Pack	09-924-600
13 mm, 0.2 µm	100/Pack	09-924-601
13 mm, 0.2 µm	500/Pack	09-924-602
13 mm, 0.2 µm	2000/Pack	09-924-603
13 mm, 0.45 µm	100/Pack	09-924-604
13 mm, 0.45 µm	500/Pack	09-924-605
13 mm, 0.45 µm	2000/Pack	09-924-606



# Cytiva Superdex 200 Prepacked Columns

The Cytiva Superdex 200 Increase is a next-generation size exclusion chromatography (SEC) resin used for high-resolution purification and analysis of monoclonal antibodies (mAbs) and proteins. It's available pre-packed in three different sizes to meeting the needs of various applications. With smaller and more rigid beads than their predecessors, Superdex Increase columns deliver improved resolution in shorter run times.

This agarose-based resin is alkali resistant and supports cleaning-in-place (CIP) procedures. This capability allows the same column to be used for different proteins with minimal risk of carryover between samples.

These columns are well-suited for high-resolution analysis and small-scale purification of mAbs and other biomolecules with molecular weights in the 10,000 to 600,000 M<sub>r</sub> range.

- Improved resolution and run times for enhanced performance
- Small bead size and narrow particle size distribution for high resolution and protein purity
- Rigid beads for excellent pressure and flow properties

Quantity	Cat. No.
Cytiva Superdex Prepacked Columns	45-002-570
	45-002-571
	45-002-572



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# Antibodies

## Advanced Search Tool

The Fisher Scientific channel offers more than 300,000 validated antibodies from market-leading brands.

### Find the Right Antibodies from Thousands of Options

Use the Antibodies Advanced Search Tool to explore our full collection of primary and secondary antibodies, isotype controls, proteins, and peptides from trusted brands. Just enter your requirements, click search, and you're done.

**Primary Antibodies**

**Secondary Antibodies**

**Isotype Controls**

**Proteins and Peptides**

Target, gene symbol, antigen	Application ▼	Target Species ▼	Search
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Visit [fishersci.com/antibodies](https://fishersci.com/antibodies) to learn more.

# Gene Detection and Protein Extraction

## Ethanol, Molecular Biology Grade

Meets ACS specifications for nucleic acid purification and precipitation.

Cat. No. BP28184

## Water, Molecular Biology Grade

Ideal for many fundamental procedures such as PCR and electrophoresis.

Cat. No. BP28194

## Isopropanol, Molecular Biology Grade

Used for purification, precipitation, and preservation.

Cat. No. BP26184

## Phosphate Buffered Saline, 10X

Save time by simply diluting this concentrated solution.

Cat. No. BP39920

## Phosphate Buffered Saline, 1X

Filtered and tested for the absence of DNase, RNase, and protease.

Cat. No. BP243820

## Water, qPCR Grade

Tested to help minimize the risk of false positive signals.

Cat. No. BP28251

## Tris-EDTA, 1X

Eliminates the hassle of dilution or waiting for powder to dissolve.

Cat. No. BP24731

## Tris Hydrochloride, pH 8

A convenient and highly purified solution for a variety of applications.

Cat. No. BP1758-500

## Tris Hydrochloride, pH 7.5

Used in molecular biology, tissue culture, and electrophoresis.

Cat. No. BP1757-500

## Tris Hydrochloride, 1 kg

Can be combined with tris base to simplify buffer preparation.

Cat. No. BP153-1

## HEPES, Molecular Biology Grade

Commonly used as a buffering agent.

Cat. No. BP310-1

## Sodium Chloride

Packaged in a polypropylene bottle and sold individually or in a case of four.

Cat. No. BP358-212

## Dithiothreitol

Often used as a reducing agent to disrupt disulfide bonds in proteins.

Cat. No. BP172-25

## Glycerol

For low-temperature storage of enzymes, bacterial cultures, and more.

Cat. No. BP229-4

## Glycine

Used in the preparation of tris - glycine electrophoresis buffers and culture media.

Cat. No. BP381-5



Visit [fishersci.com/fisherbioreagents](https://fishersci.com/fisherbioreagents) or [fishersci.ca/fisherbioreagents](https://fishersci.ca/fisherbioreagents) to learn more.

## Protein Analysis

### Trypsin Kits

Obtain high-quality analytical results from protein digests.

Cat. Nos. 03-150-404, 03-252-203, 03-150-406, 03-252-206, 03-150-405, 13-622-452

### ImmunoAffinity (IA) Streptavidin Kits

Deliver fast, simple, highly reproducible, and sensitive protein digestion.

Cat. Nos. 13-622-456, 13-622-459

### ImmunoAffinity (IA) Protein A Kits

Complete your capture-digestion workflow in hours instead of days.

Cat. Nos. 13-622-460, 13-622-463

### ImmunoAffinity (IA) Protein G Kits

Quantitate low-level biotherapeutics and biomarkers faster and easier.

Cat. Nos. 13-622-464, 03-251-710

### HPLC Columns

Separate proteins and their variants with high resolution.

Cat. Nos. DXSP5829, DX063655

### pH Gradient Buffers

Ready to use with existing liquid chromatography columns and systems.

Cat. No. DX085349



### Chromatography

Visit [fishersci.com/chromatography](http://fishersci.com/chromatography) or [fishersci.ca/chromatography](http://fishersci.ca/chromatography) to browse related products.

### Solvents

Visit [fishersci.com/solvents](http://fishersci.com/solvents) or [fishersci.ca/solvents](http://fishersci.ca/solvents) to browse related products.

## Consumables

### Serological Pipets

Stringent quality specifications and convenient features make Thermo Scientific Nunc Serological Pipets a great choice for daily lab work. Find the pipets you need to support each stage of cell culture research.

- Color-coded pipets and packaging for convenient volume selection
- Individually packaged in paper/plastic, all plastic, or bulk
- Bold, bi-directional, and easy-to-read graduations
- Available in a variety of volumes

Cat. Nos. 02-923-201, 02-923-202, 02-923-203, 02-923-204, 02-923-205, 02-923-206, 02-923-207, 02-923-208, 02-923-209, 02-923-210, 02-923-211, 02-923-212, 02-923-213, 02-923-214, 02-923-215, 02-923-216, 02-923-217, 02-923-218

### Conical Centrifuge Tubes

Find 15 and 50 mL tubes packaged in bulk or racked for your convenience.

Cat. Nos. 12-565-268, 12-565-269, 12-565-270, 12-565-271



applied biosystems

# Real-Time PCR Systems



## QuantStudio 5 Real-Time PCR System

The Applied Biosystems QuantStudio 5 Real-Time PCR System is an affordable and easy-to-use option for users who need superior performance, maximum dye versatility, and security options.

Description	Cat. No.
384-Well, Laptop	A28140
96-Well, 0.2 mL	A28139
96-Well, 0.1 mL	A28138



## QuantStudio 7 Pro Real-Time PCR System

Gain flexibility with the Applied Biosystems QuantStudio 7 Pro Real-Time PCR System. This product features interchangeable blocks to increase format flexibility and support your evolving needs.

Description	Cat. No.
Array Card	A43165
384-Well	A43164
96-Well, 0.2 mL	A43162
96-Well, 0.1 mL	A43163

**In the United States**

Order online: [fishersci.com](http://fishersci.com)  
Fax an order: 1-800-926-1166  
Call customer service: 1-800-766-7000

**In Canada**

Order online: [fishersci.ca](http://fishersci.ca)  
Fax an order: 1-800-463-2996  
Call customer service: 1-800-234-7437

