• • • • • Inspiring Innovation • • • • •

# Molecular Biology

Methods for Disease Research



•••• Inspiring Innovation ••••

# **Power** Your Research

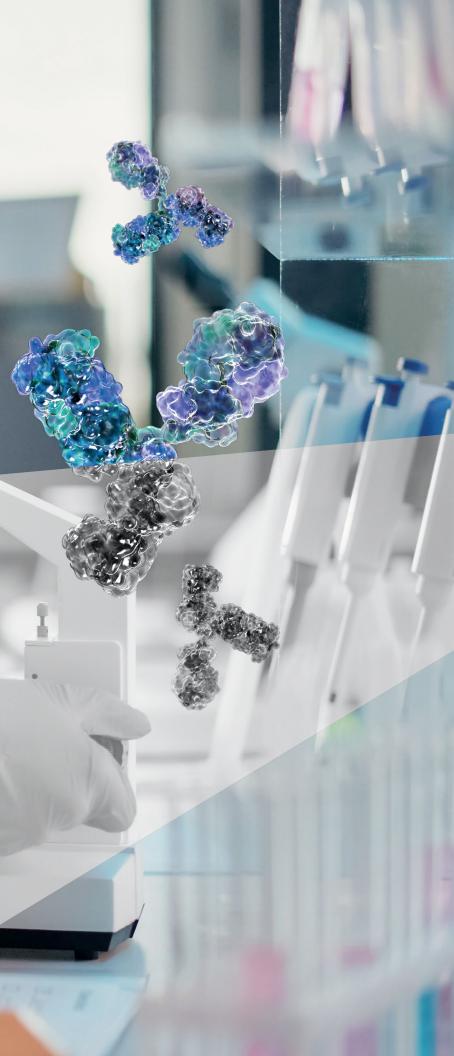
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**Trademarks:** Acclaro, Applied Biosystems, Cell Free DNA BCT, ClipTip, Cytiva, EnduraPlate, Fisher Bioreagents, HiPrep, HiScreen, HiTrap, MabSelect, MicroAmp, My Pipette, NanoDrop, RESOURCE, SciVault, Sera-Mag, Sera-Xtracta, SpinTrap, Streck, SuRe, SYBR, TaqMan, Thermo Scientific, Whatman



# **DNA** Extraction and Microbiological Analysis

Cytiva magnetic bead technology optimizes nucleic acid isolation in molecular biology applications to reduce bottlenecks and improve results in the sample preparation process.

# cytiva

#### **Cytiva** Sera-Xtracta Cell-Free DNA Kits

Designed to select small fragment cfDNA while minimizing genomic DNA contamination, these kits offer reliable extraction and purification of cfDNA for liquid biopsy samples, including plasma, serum, and urine. They're well suited to cancer monitoring, even with limited sample sizes.

- Efficiently recover small fragment cfDNA (50 to 300 bp)
- Provide minimal co-purification of genomic DNA with higher molecular weight
- Scale to cover up to 4 mL of sample with one kit
- Use extraction procedure that can be completed in two hours
- Work with next-generation sequencing, qPCR, ddPCR, BEAMing, and other amplification and genotyping methods

Description	Cat. No.
Sera-Xtracta Cell-Free DNA Kit	09-920-066

Sera-Xtracta Cell-Free DNA Kits are supported by Cytiva in Sera-Mag bead technology and are for research use only (RUO).



#### **Cytiva** Whatman Mixed Cellulose Ester Membranes

Composed of cellulose acetate and cellulose nitrate, these membranes have a smoother and more uniform surface than pure nitrocellulose and help simplify microbiological colony counting. Choose plain membranes for automatic colony counting and gridded membranes for standard quantitation techniques.

- Biologically inert, thermally stable, free of surfactants
- · Color contrast facilitates particle detection and minimizes eye fatigue
- Grids printed with ink that is nontoxic and doesn't inhibit growth
- Available sterile or nonsterile (autoclavable) and gridded or plain

#### Plain ME\* Membranes, Pore Size: 0.45 µm

Diameter	Sterile	Quantity	Cat. No.
25 mm	No	100/Pack	09-927-178
47 mm	No	100/Pack	09-927-611
47 mm	Yes	100/Pack	09-927-255
50 mm	No	100/Pack	09-927-192
50 mm	Yes	100/Pack	09-927-612
110 mm	No	50/Pack	09-927-608
90 mm	No	50/Pack	09-927-830
100 mm	No	50/Pack	09-927-607
142 mm	No	25/Pack	09-927-193

\*ME filters have a lower cellulose acetate content than WME membranes.

#### **Cvtiva**

# MabSelect PrismA Protein A Chromatography Resin and **Pre-Packed Columns**

With an optimized high-flow agarose base matrix and a genetically engineered protein A-derived ligand, this resin was designed to support mAb purification and bispecific antibody processing. Its enhanced dynamic binding capacity compared to other resins allows high-mass throughput of processed mAb per resin volume unit.

#### Description

HiTrap MabSelect PrismA Columns, May Be Used with Syringes, Perista Pumps, or Chromatography Systems

HiScreen MabSelect PrismA Columns, Optimized for Method and Proce Development

MabSelect PrismA Resin



# Gridded ME Membranes, Pore Size: 0.45 µm

Diameter	Sterile	Grid Color	Quantity	Cat. No.
47 mm	No	Black	100/Pack	09-874-623
47 mm	Yes	Black	100/Pack	09-806-216
50 mm	No	Black	100/Pack	09-927-572
50 mm	Yes	Black	100/Pack	09-927-794



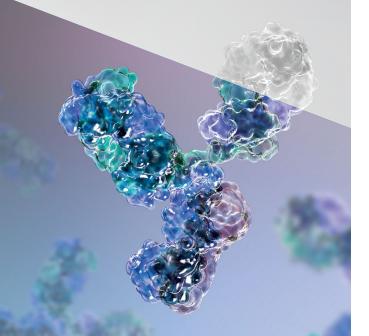
	Quantity	Cat. No.
taltic	1 x 1 mL	09-928-068
	5 x 1 mL	09-928-069
	1 x 5 mL	09-928-070
	5 x 5 mL	09-928-071
cess	1 x 4.7 mL	09-928-072
	25 mL	09-928-073
	200 mL	09-928-074
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# Enhanced Sample Quality Assessments

Thermo Scientific NanoDrop technology with Acclaro software capabilities can differentiate between dsDNA and RNA in nucleic acid analysis and measure and correct concentrations to help you conduct downstream procedures using samples that meet desired qualifications.

# thermo scientific



### **Thermo Scientific** NanoDrop One/One<sup>C</sup> **UV-Vis Spectrophotometers**

Assess sample quality sooner to prevent costly assay delays. Identify contaminants, correct concentrations, and improve results from downstream applications.

- Quantify and gualify DNA, RNA, and protein samples in just 1 to 2 µL of sample
- Reach full spectra (190 to 850 nm) in seconds
- Save time when processing multiple samples with Auto-Blank and Auto-Measure features
- Operate as a stand-alone device using the touchscreen or connect to your PC

Description	Cat. No.
NanoDrop One, Pedestal Position Only	13-400-518
NanoDrop One <sup>c</sup> , Pedestal and Cuvette Positions	13-400-519



# How Does Acclaro Work?

Acclaro uses a chemometric approach to analyze sample components — it's the same analysis used in infrared spectroscopy systems (e.g., FTIR and NIR). This allows the spectrophotometer to identify and correct for contaminants that can affect concentration readings. Acclaro can also differentiate between DNA and RNA in samples to provide better concentration information.



Description	Cat. No.
NanoDrop Eight	13-400-527

#### **Thermo Scientific** SciVault Software

SciVault software helps maintain compliance with CFR Part 11 regulations and ensure the integrity of scientific data for pharmaceutical and biotech companies participating in clinical trials. It integrates with the NanoDrop Eight software and allows you to control user account access, apply digital signatures, review audit logs, and validate systems. When installed on a central computer, it can be used with multiple instruments.

Description	Cat. No.
SciVault Software	13-400-533

#### **Thermo Scientific** Security Suite Software

This software operates with many different Thermo Scientific analytical instruments to help manage results in regulated environments. Now available for the NanoDrop One/One<sup>c</sup> Spectrophotometers for use in 21 CFR Part 11-regulated labs, Security Suite software integrates directly into the NanoDrop One PC Control Software.

Description	Cat. No.
Security Suite Software	13-400-501

### **Thermo Scientific** NanoDrop Eight UV-Vis Spectrophotometers

Efficiently analyze sample quantity and quality using the nextgeneration NanoDrop Eight. It expands capacity to eight samples for high-throughput workflows while retaining the benefits of the standard NanoDrop One and Acclaro Sample Intelligence Technoloav.

- Process eight samples in less than 20 seconds and a 96-well plate in under six minutes
- Identify and correct for contamination in protein or nucleic acid samples (including mammalian DNA/RNA differentiation)
- Automatically take measurements
- Reduce fatigue with ergonomic ambidextrous pipetting and moveable pipetting guide
- Export data into popular LIMS packages
- Add optional SciVault software to help maintain 21 CFR Part 11 regulation compliance







# Reliable Data for a Range of Studies

With carefully selected content, Applied Biosystems TagMan gene expression assays and arrays can generate high-quality data for a broad range of studies, providing over 2.3 million pre-designed primer/probe sets covering more than 30 species. Dried probes and primers are available in 96- and 384-well plate formats. The fast format can provide results in less than 60 minutes.

#### **Applied Biosystems** TaqMan Arrays for Cancer Research

These gene expression arrays can help you reliably detect and quantify the expression levels of common and novel biomarkers identified in high-throughput transcriptomic studies that require verification.

Description	Format	Reaction Volume	Cat. No.
TaqMan Array Human BRCA1 Pathway	96-Well	20 µL	44-141-11
TaqMan Array Human Breast Cancer Regulation by Stathmin1	96-Well	20 µL	44-141-12
TaqMan Array Human Colorectal Cancer Metastasis	96-Well	20 µL	44-141-21
TaqMan Array Human Developmental Phases of Colorectal Cancer	96-Well	20 µL	44-141-25
TaqMan Array Human DNA Repair Mechanism	96-Well	20 µL	44-141-28



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### **Applied Biosystems** TaqMan Arrays for Immunology

These gene expression arrays can help you discover and verify immunological pathways and biomarkers with reliable specificity and sensitivity.

scription	ormat	Reaction Volume	Cat. No.
Man Array Human emokines	96-Well	20 µL	44-140-84
Man Array Human emokines, Fast	96-Well	10 µL	44-187-29
Man Array Human Cholera ction	6-Well	20 µL	44-141-75
Man Array Human Cholera ction, Fast	96-Well	10 µL	44-188-20
Man Array Human CMV & PK Pathways	96-Well	20 µL	44-141-69
ction Man Array Human Cholera ction, Fast Man Array Human CMV &	96-Well	10 μL	44-18

### **Applied Biosystems** TaqMan Gene Expression Arrays for Complex and Neurological **Disease Research**

These arrays are available for in vitro studies that focus on a single genetic or environmental factor thought to be a factor in a complex disease.

Description	Format	Reaction Volume	Cat. No.
TaqMan Array Human Alzheimer's Disease, Fast	96-Well	10 µL	44-187-15
TaqMan Array Mouse Alzheimer's Disease	96-Well	20 µL	44-140-78
TaqMan Array Mouse Alzheimer's Disease, Fast	96-Well	10 µL	44-187-23

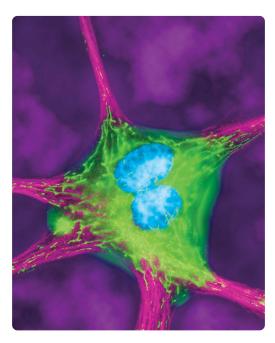
Available in the U.S. only.

#### Visit fishersci.com/order/genome-database/ to explore more TaqMan products.

Visit **fishersci.com/qpcrreagents** or **fishersci.ca/qpcrreagents** to learn more about Applied Biosystems gene expression tools.

For research use only.







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# Find the Right Assays

Explore a variety of Applied Biosystems TaqMan gene expression assays and find the right one for your unique workflow.

Visit **fishersci.com/order/genome-database/** to use the assay search tool.

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Fisher Bioreagents products meet the needs of every budget and scale. Economical powders come in a variety of package sizes, while concentrated stock solutions offer convenient one-step dilution. Realize the biggest time savings of all when you choose a Fisher Bioreagents ready-to-use solution.

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# Experience the Power of Connected Pipetting

Boost productivity and efficiency with the Thermo Scientific E1-ClipTip Pipetting System and My Pipette Creator.

The protocol library is an expanding collection of pre-programmed and validated E1-ClipTip pipetting programs designed specifically for Thermo Fisher Scientific assays and kits. Now, many of your favorite Thermo Fisher Scientific assays and kits are even easier to use, with the combined power of the Thermo Fisher Cloud and your connected E1-ClipTip pipettes.



Description	Capacity	Quantity	Color Code	Cat. No.
E1-ClipTip 8-Channel Pipette	0.5 to 12.5 μL	Each	Pink	14-387-969BT
ClipTip Sterile Filtered Tips, Extended Length	12.5 µL	3,840/Pack		04-100-511
E1-ClipTip 8-Channel Pipette	2 to 125 µL	Each	Yellow	14-387-971BT
ClipTip Sterile Filtered Tips	125 µL	3,840/Pack		14-387-993
E1-ClipTip 8-Channel Pipette	10 to 300 µL	Each	Orange	14-387-967BT
ClipTip Sterile Filtered Tips, Extended Length	300 µL	768/Pack		04-100-504
E1-ClipTip 6-Channel Pipette	15 to 1,250 µL	Each	Teal	14-387-965BT
E1-ClipTip 8-Channel Pipette	15 to 1,250 µL	Each		14-387-968BT
ClipTip Sterile Filtered Tips	1,250 μL	768/Pack		14-387-983

Visit **fishersci.com/mypipettecreator** or **fishersci.ca/mypipettecreator** to learn how the My Pipette Creator app can help you pre-program pipetting protocols.

Visit **fishersci.com/handleanything** or **fishersci.ca/handleanything** to learn more about Thermo Scientific liquid handling products.



# More Life Sciences Products

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Description	Format	Barcode	Quantity	Cat. No.
MicroAmp Optical Reaction Plates with Barcode	96-Well	Yes	20/Case	43-067-37
			500/Case	43-266-59
MicroAmp Optical Reaction Plates with Barcode and Optical Adhesive Films	96-Well	Yes	100/Case	43-143-20
MicroAmp Optical Reaction Plates	96-Well	No	10/Case	43-168-13
			500/Case	N8010560
MicroAmp Fast Optical Reaction Plates with Barcode, 0.1 mL	96-Well	Yes	20/Case	43-469-06
			200/Case	43-669-32
MicroAmp Fast Optical Reaction Plates, No Barcode, 0.1 mL	96-Well	No	10/Case	43-469-07
MicroAmp Optical Reaction Plates with Barcode	384-Well	Yes	50/Case	43-098-49
			500/Case	43-262-70
MicroAmp Optical Reaction Plates, No Barcode	384-Well	No	1,000/Case	43-433-70
MicroAmp Fast Optical Reaction Plates, No Barcode	48-Well	No	20/Case	43-758-16
MicroAmp EnduraPlate Optical Green Reaction Plates with Barcode	96-Well	Yes	20/Case	44-833-49
EnduraPlate Optical Clear Reaction Plates with Barcode	96-Well	Yes	500/Case	44-833-52
EnduraPlate Optical Clear Reaction Plates with Barcode	384-Well	Yes	20/Case	44-832-85





# Tube Strips and Adhesive Film

Description	Quantity	Cat. No.
MicroAmp Optical 8-Tube Strip, 0.2 mL	1,000/Case	43-165-67
MicroAmp Clear Adhesive Film	100/Case	43-063-11
MicroAmp Optical Adhesive Film	25/Case	43-609-54
	100/Case	43-119-71



# Master Mix

Description	Quantity	Cat. No.		
Power SYBR Green PCR Master Mix	1 mL	43-685-77		
	5 mL	43-676-59		
	2 x 5 mL	43-687-06		
	5 x 5 mL	43-687-02		
	10 x 5 mL	43-687-08		
	50 mL	43-676-60		

# Columns

Description	Volume	Quantity	Cat. No.
Disposable PD-10 Desalting Columns	8.3 mL	30/Pack	45-000-148
Disposable PD-10 Columns, Empty, With Caps	NA	50/Pack	45-000-067
Superdex 75 Increase Prepacked Column, 10/300 GL	24 mL	Each	45-003-050
HiPrep 26/10 Desalting Columns	53 mL	Each	45-000-266
		4/Pack	45-000-267
HiTrap IEX HP Prepacked Columns with SP Sepharose HP	5 mL	5/Pack	45-000-192
HiTrap IEX HP Prepacked Columns with Q Sepharose HP	1 mL	5/Pack	45-000-193
	5 mL	5/Pack	45-000-194
HiTrap Desalting Prepacked Columns	5 mL	5/Pack	45-000-252
HiTrap Q Sepharose Fast Flow IEX Columns	5 mL	5/Pack	45-000-293
RESOURCE Q IEX Columns	1 mL	Each	45-000-198
PD SpinTrap G-25 Desalting Columns	5 mL	50/Pack	45-001-527



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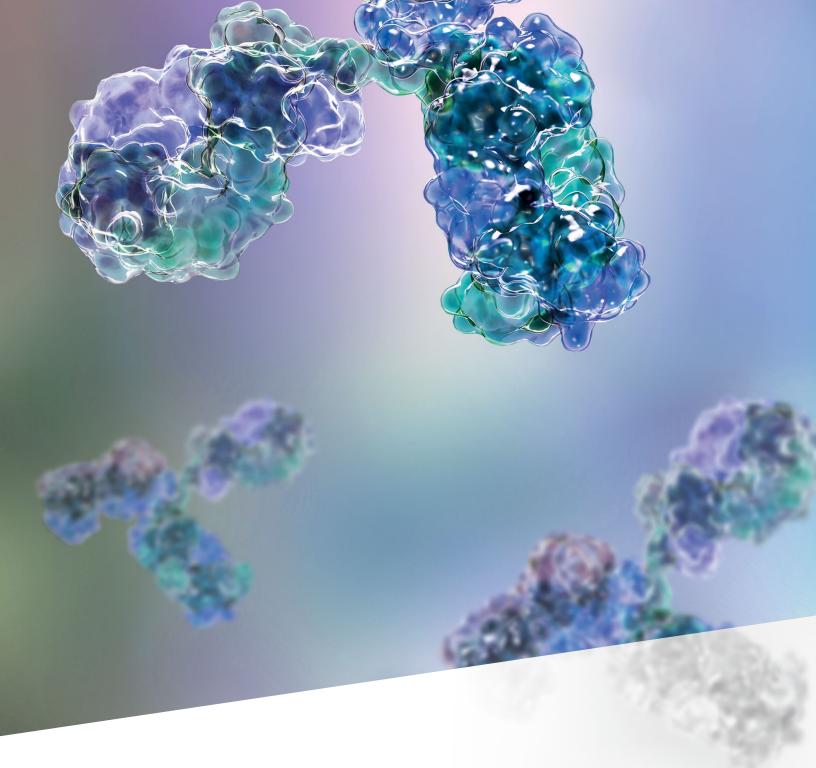
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