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The Power to create better outcomes for your Research




For further information on Merck Millipore and our products contact:

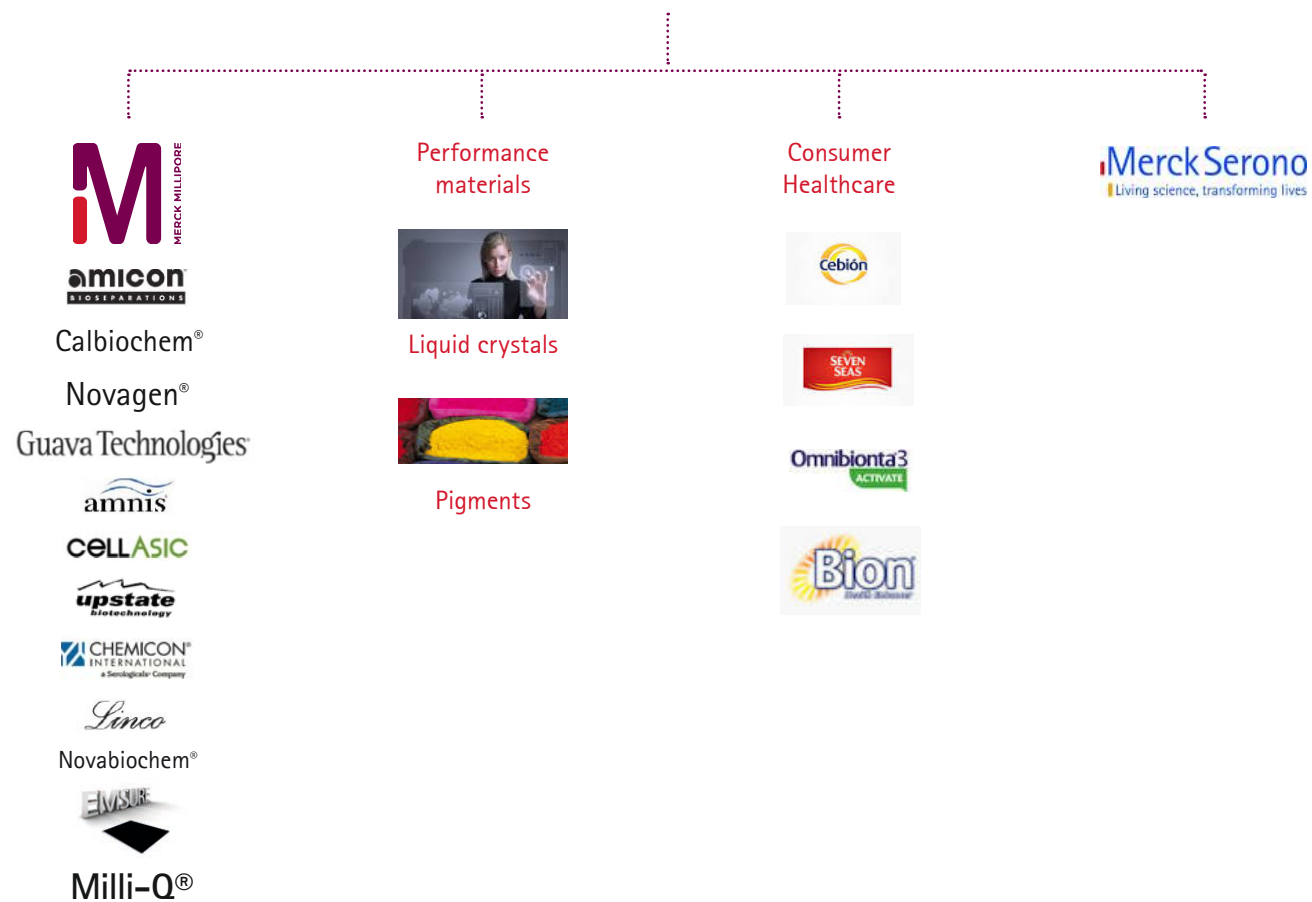
Merck KGaA
Frankfurter Str. 250
64293 Darmstadt
Germany

www.merckmillipore.com

PB6452ENEU

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Merck Millipore is a division of 



Delivering faster insights for your research ...

Biology

Microbiology
Molecular Biology
Biochemistry
Molecular Genetics
Protein Expression
Immunology

Neuroscience



Infectious disease



Oncology



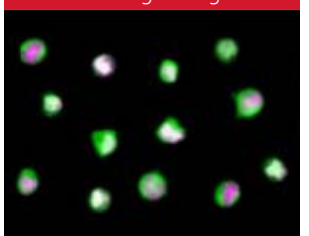
Metabolic disorders



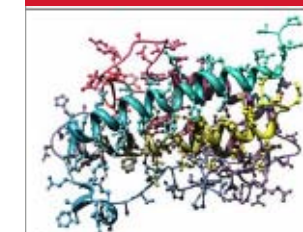
Stem cells



Cell signalling



Protein research



Cell biology



Epigenetics



Who are we? Discover Merck Millipore

Merck Millipore offers a broad spectrum of proven tools and technologies, dedicated to helping our customers succeed in the research, development and production of biotechnology and pharmaceutical drugs, food & beverage applications, Chemical Industry and Water analysis.

With more than 60.000 products and services – from proven successful products to novel technology innovations, you can count on us for the same high quality performance tools from lab to finished products through manufacturing. Renowned for their

know-how and solutions orientation, many of our employees are tenured scientists and engineers. Their proven ability to consult on complex issues, and effectively mobilize capabilities to resolve challenges are key reasons why Merck Millipore products are so often specified into customer protocols and processes. Here are the solutions for **Research & Development** applications that our experts have selected from the comprehensive Merck Millipore product range.

Information

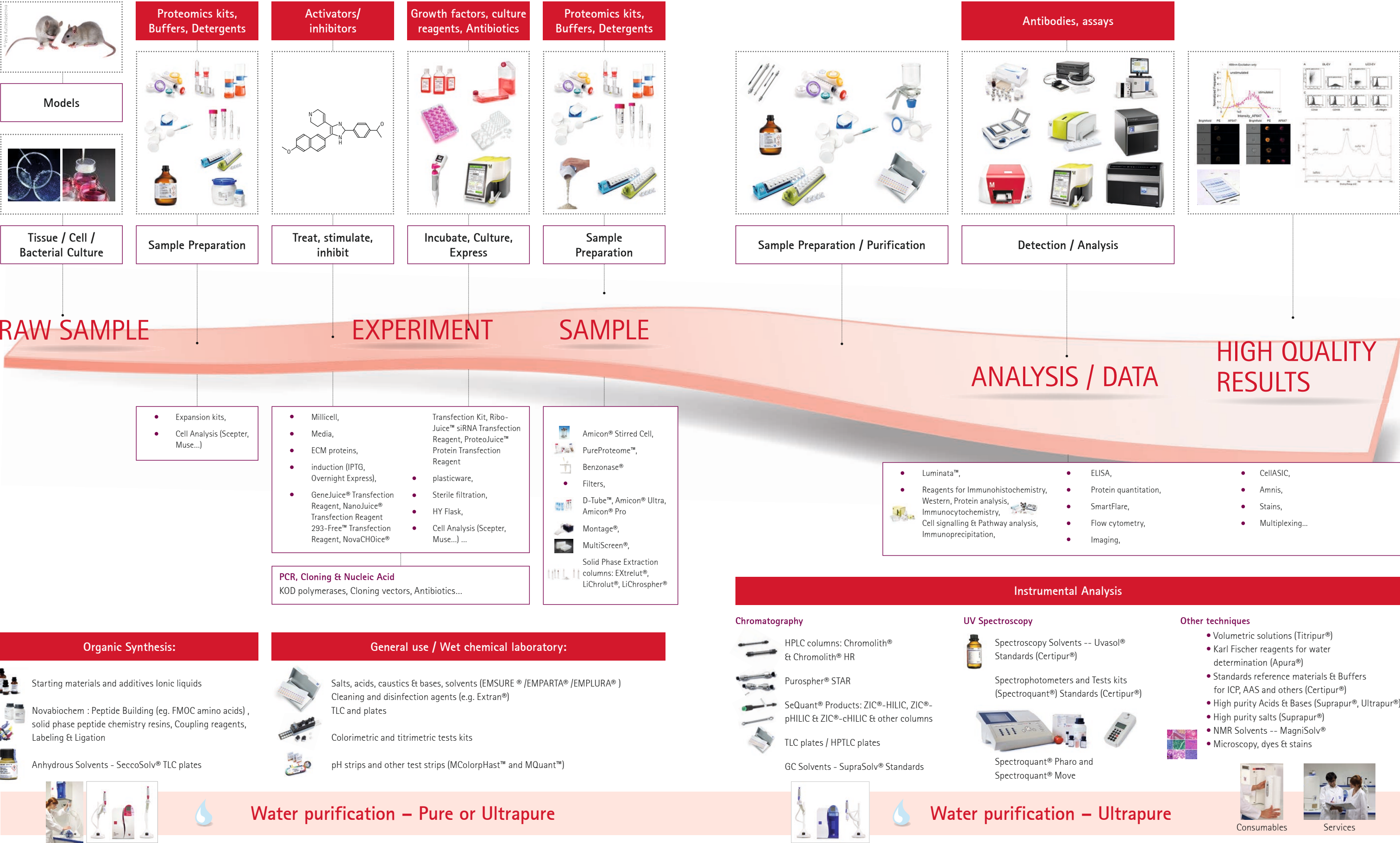
For more information on our full portfolio, go to www.merckmillipore.com or contact your local Merck Millipore partner.

Chemistry

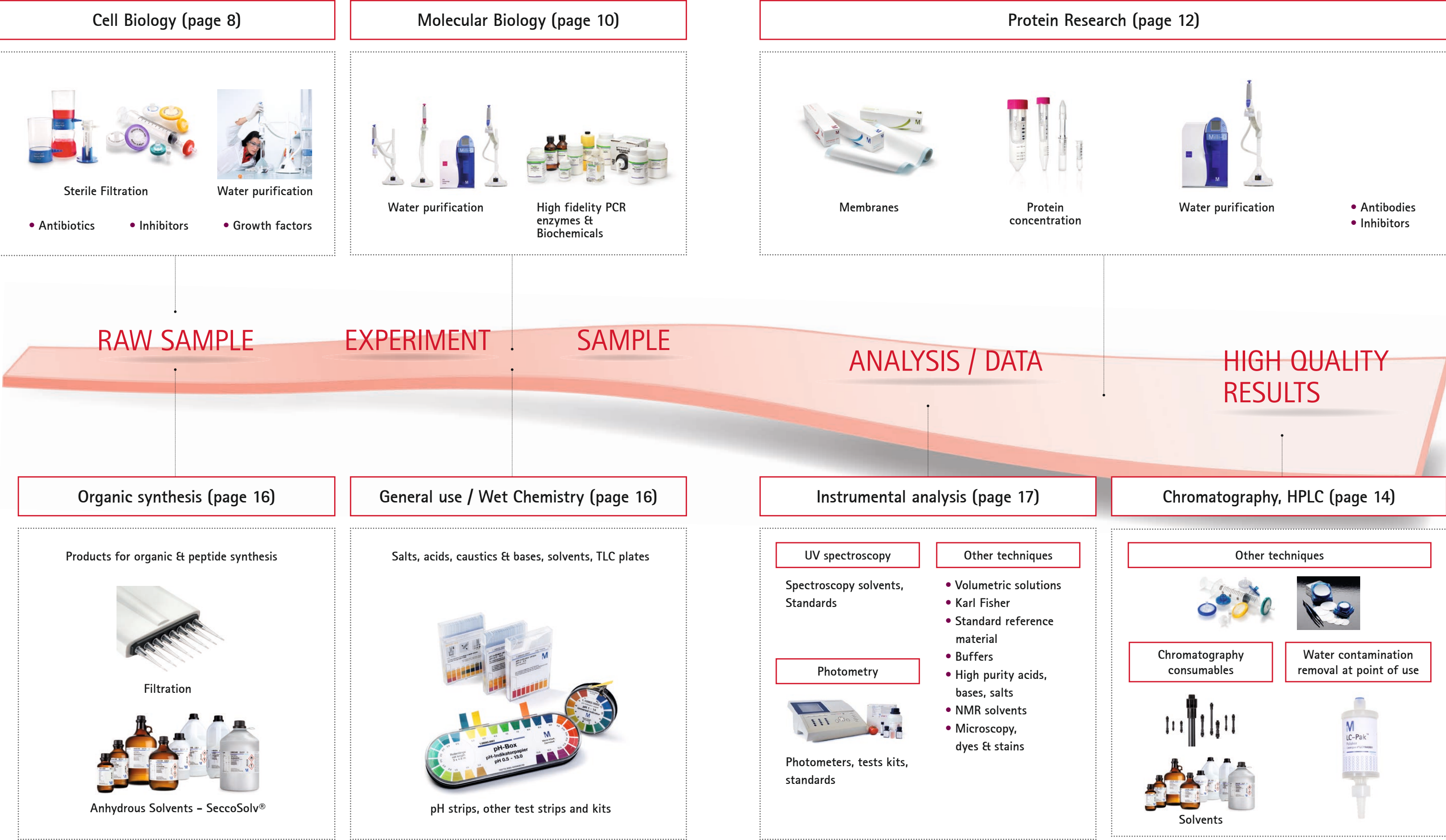
Medicinal Chemistry
Chromatography
Instrumental Analysis
Organic Synthesis
Inorganic Analysis
Polymers
Peptide Synthesis
Wet Chemistry



Merck Millipore products for Research



Applications workflow overview



Enhance Cell Biology with Merck Millipore

Media preparation



- Buffers:
www.merckmillipore.com/biochemicals
- Purified Bottled water
- Antibiotics:
www.merckmillipore.com/antibiotics
- Supplements microbiology: X-gal, IPTG
- Supplements mammalian: Amino acids, FBS (US origin), Growth factors, cytokines
- Microbiology media : LB, TB



Mammalian cell culture Media & supplements (Biochrom AG)

Water Purification Systems, Consumables & Services



Milli-Q® Advantage, Milli-Q® Integral, Elix® Advantage with POD water dispensers



Application-Paks for specific contaminant removal at point of dispense

General use



Certipur®: certified secondary standard reference buffer solutions pH calibration buffers



MColorpHast™ pH strips

Sterile filtration



Sterile Millex™



Stericups® / Steriflip®



Stericups™

Prepare, Grow, Analyze

With industry-leading sterile filtration devices based on 50 years of membrane filtration expertise, Merck Millipore supports conventional and emerging formats for mammalian cell culture. Today, our innovative Cell Culture Systems solutions range from cell culture inserts and filter plates to optimized Cell Culture platforms for precise microenvironment control.

Cell Preparation: Tools that you need to minimize contamination risk and maximize workflow efficiency while preparing your media for cell culture.

Cell Growth: Whatever your cell culture growth needs, we have a plate, insert or vessel that can help you obtain the optimal cell culture results.

Cell Analysis: In addition to our solid base in assay tools and products, we offer new, novel cell culture technologies and cell culture platforms for high content data collection and analysis.

Visit our Learning Center:
www.merckmillipore.com/cellculture

Cell growth



Millicell® hanging/standing inserts and 24- & 96-well plates for microporous membrane-based cell culture
Tissue culture treated plates



CellASIC® ONIX Microfluidic platform: Dynamic environmental control over live cells; performs dynamic, time-laps experiments



Millicell® EZ slides: Culture, fix, stain and view in one device



Millicell® HY cell culture flasks: Consistent cell yield; Uniform culture conditions; Saves on cell passaging; Stackable design

Additives, reagents for cell culture

- Transfection reagents: GeneJuice® Transfection Reagent, NanoJuice® Transfection Reagent, 293-Free™ Transfection Reagent, NovaCHOice® Transfection Kit, RiboJuice™ siRNA Transfection Reagent, ProteoJuice™ Protein Transfection Reagent
- Antibiotics: G418, penstrep
- Antibodies
- Inhibitors

Water Purification with adapted technologies, maintenance & SERVICES



Milli-Q® Advantage, Milli-Q® Integral, Elix® Advantage with POD water dispensers

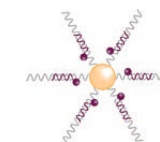


Contaminant removal at point of dispense – Application-Paks

Cell Analysis



Scepter™: Rapid cell counts & cell diameter/volume discrimination in a handheld format



SmartFlare™ : RNA detection probes Eliminates sample preparation and transfection



Guava® Integrated flow cytometry solutions



Amnis® Imaging flow cytometry



Muse®: Cell health assessment; Cell signalling activation pathways & immune status in just minutes

Microscopy: <http://www.merckmillipore.com/microscopy>



Dyes, Stains eg. Crystal violet



Fixing media: M-FIX™



Anhydrous mounting medium for microscopy Neo-Mount®



Control slides with reference tissue ISOSLIDE®

For more information, please consult literature 1, 4, 9, 10, 15, 20, 21, 22, 24, 25, 26, 27 – Ask your Merck Millipore contact for details!

Simply Molecular Biology

Nucleic Acid Purification



Water purification systems: Milli-Q® Advantage, Milli-Q® Integral, Elix® Advantage with POD water dispensers



Application-Paks for specific contaminants removal at point of dispense



Millex® filters



MultiScreen® plates



Montage® kits
DNA Plasmid prep 96



Pellet Paint®

- Detergents: SDS ...
- Standard chemicals: Acids, bases, salts, alcohol, chelating agents, Solvents
- Buffers: Calbiochem, OmniPur®, Merck
- Proteinase K: protein removal

Electrophoresis

- Agarose
- Buffers
- Purified Water
- Stains (Ethidium Bromide)
- Molecular Markers

Manipulate and analyse DNA, RNA with tools for Genomic Analysis

Whether you need to clone a gene, modify a DNA sequence, quantify intracellular DNA and RNA or express a recombinant protein, you need a complete set of genomic analysis tools that work together. Featuring groundbreaking SmartFlare™ technology for live cell RNA detection and building on the molecular biology expertise of Novagen, Merck Millipore's products support every step of your genomic analysis workflow.

Learn how our tools for RNA detection, PCR, DNA purification, cloning, transfection and protein expression can help you develop smarter, more predictive model systems for your research.

Make discoveries faster by using the latest recombinant DNA tools that are specifically designed to meet your scientific and technical goals. Merck Millipore is your source for reagents, kits, cells, and tools for every step of the molecular biology and protein

workflow. Partner with leading scientists on our technical support and research teams, and watch your research flourish.

With the expertise of Novagen®, the household name in cloning and recombinant protein expression technology, Merck Millipore makes it possible to elucidate meaningful functions of even the most intractable gene products.

Cloning – Amplification

Water purification systems, (Milli-Q® Advantage, Elix® Advantage, Milli-Q® Integral), Contaminants removal (Polisher paks)



Bottled water

Vectors

- Bacteria: pET vectors
- Competent cells (bacteria): BL21, NovaBlue ...
- Cloning kits (bacteria): Perfectly Blunt® cloning kits, Tailing kits
- Mammalian: UCOE vector, pTandem™ 1



DNA purification / clean up

PCR clean up, DNA extraction from Agarose (Montage®, Ultrafree®-DA, Microcon®)



Microcon®

Ultrafree®-DA

D-Tube™

PCR

- High Fidelity enzymes:
 - KOD polymerase: High Fidelity amplification,
 - KOD Hot Start master mix
 - KOD Extreme: for high content GC templates
- Standard PCR enzyme:
 - NovaTaq™
 - NovaTaq™ Hot Start
 - NovaTaq™ master mix, NovaTaq™ Hot Start master mix
- RT-PCR: One step, RT-PCR mastermix
- dNTPs



- Detergents: SDS , tween ...
- Standard chemicals: Acids, bases, salts, alcohol, Chelating agents, solvents
- Buffers: Calbiochem, OmniPur®, Merck
- Proteinase K: protein removal



Water purification systems, (Milli-Q® Advantage, Elix® Advantage, Milli-Q® Integral)

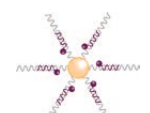


Transfection

- GeneJuice® Transfection Reagent
- NanoJuice® Transfection Reagent
- 293-Free™ Transfection Reagent
- NovaCHOice® Transfection Kit
- RiboJuice™ siRNA Transfection Reagent

RNA detection

- SmartFlare



qPCR

- NovaQUANT Coli™ qPCR kit

Northern blot

- DEPC
- DEPC treated water
- MOPS DEPC treated
- Immobilon-Ny+ / Immobilon-NC

Southern blot / colony plaque lifting



- Detergents: SDS ...
- Standard chemicals : Acids, bases, salts, alcohol, chelating agents, Solvents
- Buffers: Calbiochem, OmniPur®, Merck

For more information, please consult literature 1, 4, 20, 21, 22, 23, 24, 26 – Ask your Merck Millipore contact for details!

Unrivalled Smart tools for Protein Research

For more information, please consult literature
1, 3, 4, 5, 6, 7, 8, 20, 21, 22, 24, 26 –
Ask your Merck Millipore contact for details!

Extraction

Water Purification Systems, Consumables & Services

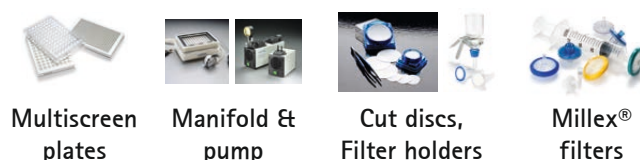


Water purification systems: Milli-Q® Advantage, Milli-Q® Integral, Elix® Advantage with POD water dispensers



Application-Paks for specific contaminants removal at point of dispense

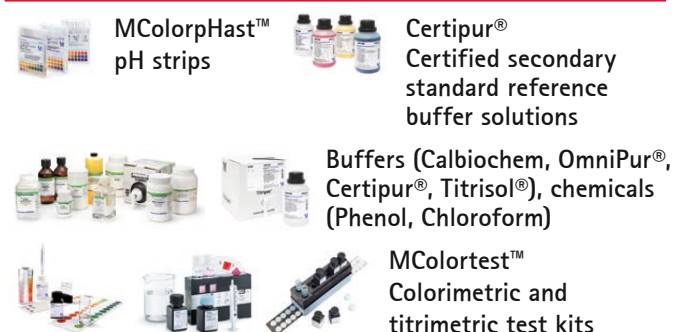
Filtration



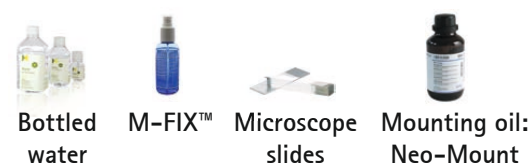
Extraction buffers & reagents

- ProteoExtract™, S-PEK, M-PEK : Fractionation
- PopCulture® reagent
- BugBuster®, Yeastbuster®, CytoBuster® : Lysis buffers
- Zwittergent, Triton....Detergents:
www.merckmillipore.com/detergents
- Benzonase®
- Lysozyme, rLysozyme™
- Inhibitor cocktails (Protease eg. Set III, Phosphatase)
- Buffers : TRIS-HCl, RIPA, NP-40...
www.merckmillipore.com/biochemicals

General use



Detection



- Buffers (Calbiochem, OmniPur®, Merck): Hepes, PBS, TRIS...
- Detergents: Tween,
- Antibodies
- SignalBoost™
- Rapistep ECL reagent



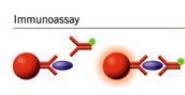
- BløK®: protein free blocking reagents
www.merckmillipore.com/western
- BløK®-CH for chemiluminescence
- BløK®-FL for fluorescence
- BløK® PO for phosphoprotein detection
- Luminata™: premix detection reagent (Classico, Crescendo, Forte Substrates)
- ReBlot™ Plus: dehybridization solution, β-mercaptoethanol free reagent, effective and fast, available in mild and strong concentrations
- FITC Probe labelling



www.merckmillipore.com/snap

Multiplexing

- Luminex instruments
- MagPix
- Luminex 200
- FlexMAP 3D



Milliplex® kits

ELISA



Purification

Water Purification Systems, Consumables & Services

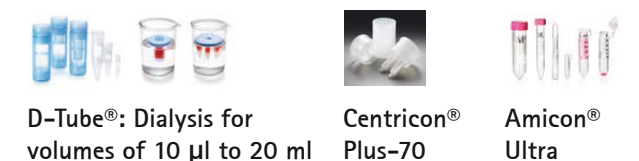


Water purification systems with adapted end filter for specific contaminant removal at point of dispense

Biochemicals



Dialysis, Concentration, separation, purification 1)



www.merckmillipore.com/psp

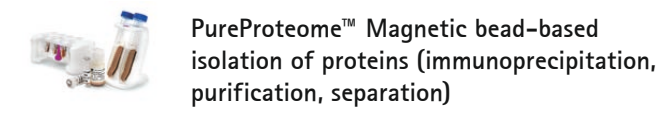
Dialysis, Concentration, separation, purification 2)



Concentration of biological samples containing antigens, enzymes, nucleic acids microorganisms; purification of cell lysates or extracts Primer removal, protein removal prior to HPLC, desalting, size exclusion



www.merckmillipore.com/amiconpro



HPLC, UHPLC columns : Chromolith®, Purospher®

Protein Quantitation

- Direct Detect®: Spectrometer
www.merckmillipore.com/directdetect
- Assay kits (OmniPur®, Merck)

Electrophoresis



- Acrylamide, Bis-Acrylamide
- Detergents: Tween, SDS
- Buffers: Calbiochem, OmniPur®, Certipur®

- Glycine, TRIS, PBS ...
- Chemicals: Acids/ bases
- Coomassie Blue
- Protein markers

Bottled water

Water purification systems with adapted Application-Pak for specific contaminant removal at point of dispense



Western blotting

- Immobilon® Membranes: Transfer
- Immobilon®-P 0.45 µm pre-cut or in rolls
- Immobilon®-Psq 0.22 µm for the transfer of proteins < 20 KD
- Immobilon®-FL: single membrane without autofluorescence
- Buffers: Calbiochem, OmniPur®, Certipur®
www.merckmillipore.com/biochemicals

Water purification systems, (Milli-Q® Advantage, Elix® Advantage, Milli-Q® Integral), Contaminants removal



Because quality matters in Chromatography ...



Innovative Solutions for all Applications

Since the early days of chromatography, Merck Millipore has introduced numerous products that have been recognized as milestones in the development of chromatography technology.

This spirit of innovation still continues relentlessly. Today, Merck Millipore is among the leaders in the science of liquid chromatography and is committed to the further development of sorbents, analytical and preparative columns, sample preparation, mobile phases, thin layer chromatography products, water purification technologies for highest quality for this critical application.

Whether for research and development, quality control or purification purposes, Merck Millipore products are used throughout the world.

How did we get where we are today?

Through uncompromising quality and a strong customer focus. From the very beginning, our highest priorities have been to develop tailored solutions for our customers' applications and provide specialized guidance throughout the process. We continue to translate our expertise into innovation, in order to offer you the best possible product for your investigation.

Visit the Analytical Sample Preparation Learning & Chromatography resource centres:

Laboratory filtration:

<http://www.merckmillipore.com/asp>

Water purification:

<http://www.merckmillipore.com/labwater>

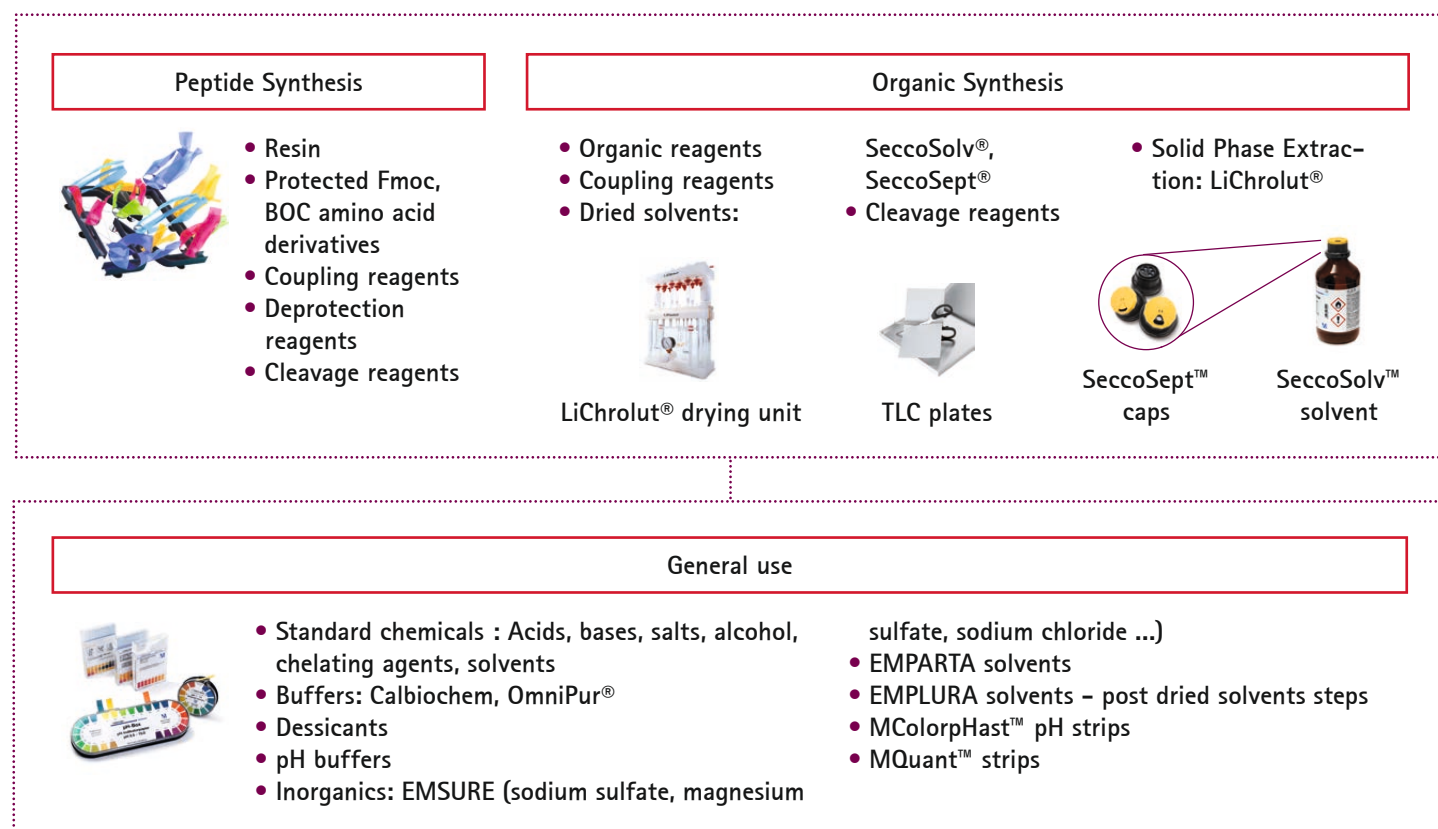
Analytical Chromatography:

<http://www.merckmillipore.com/chromatography>

Merck Millipore, your trusted partner for Chromatography (HPLC, UHPLC)



Merck Millipore for Chemistry: Because Chemists have all the Solutions



It All Starts... and Ends with Quality.

We believe that quality in means quality out. That's why our reagents, chemicals, instruments and accessories are subjected to stringent controls during development and production to ensure reliable and reproducible results. Whether for analysis or synthesis, complex or routine applications, research or production or even production, cleaning or monitoring, we give you a choice of over 30,000 premium chemicals and reagents to facilitate your daily work. And, should you need further support, you can expect the same excellent quality from our service teams around the world.

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Outstanding quality with extensive specifications ensure maximum reliability for almost all applications in analytical labs. Our fully-integrated solution includes solvents, documentation, application oriented packaging and safety accessories.

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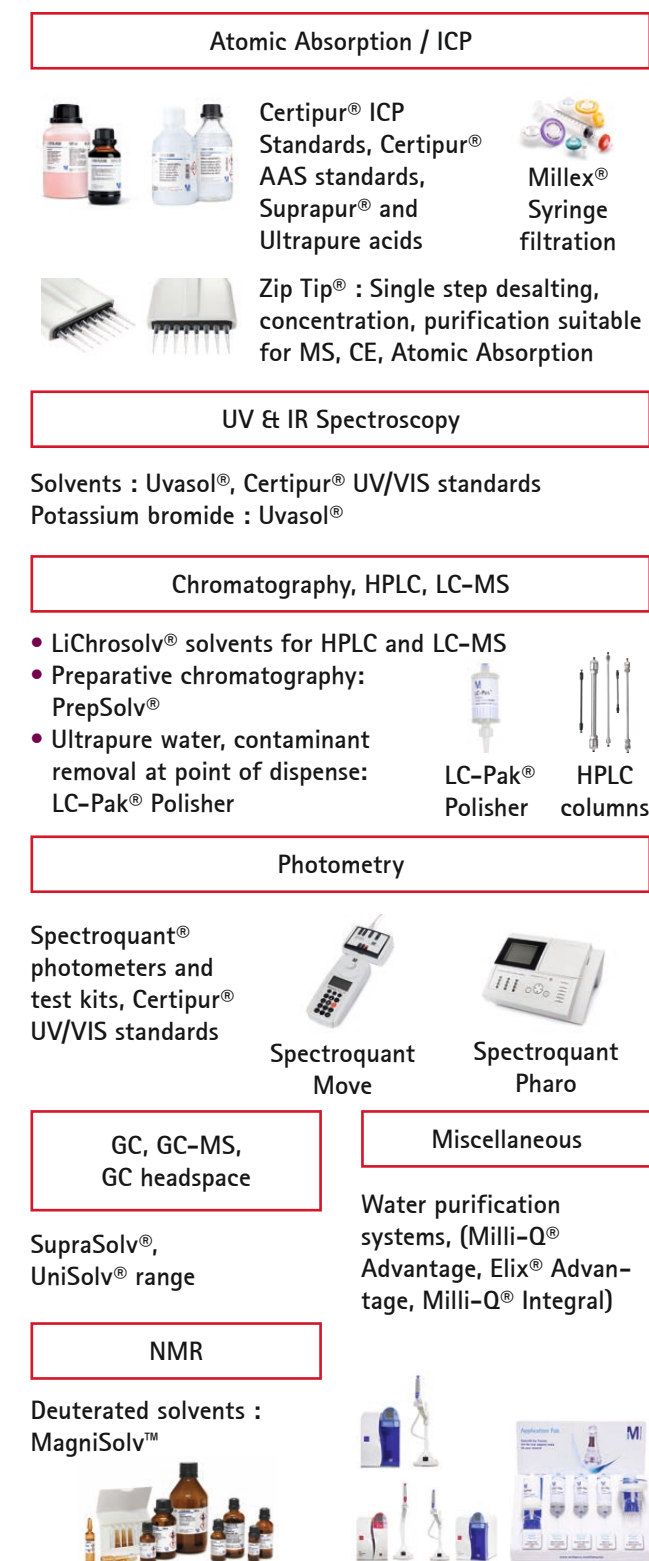
Peptide, High-throughput Organic Synthesis

Over 1000 Novabiochem® reagents of unparalleled quality for peptide synthesis, HT organic chemistry, labeled peptides, and custom manufactured products. An extensive portfolio of around 10,000 products for laboratory and production scale organic synthesis. Our products range from building blocks, reagents and solvents to catalysts and special organic and inorganic compounds, available in sizes from grams to tons, to meet the needs of academia and industry.



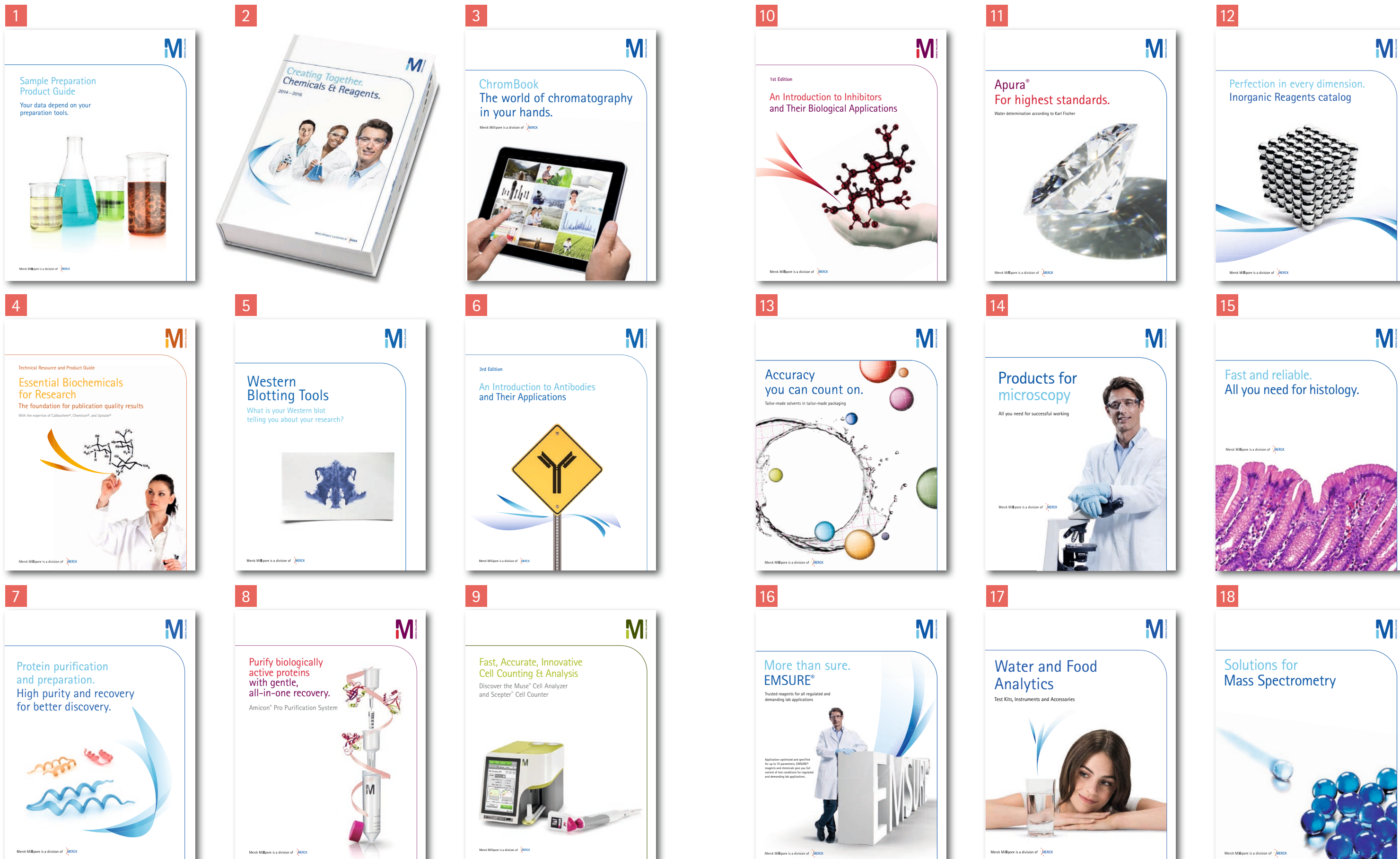
For more information, please consult literature 1, 2, 3, 11, 12, 13, 16, 17, 18, 19, 22, 23, 24, 26 – Ask your Merck Millipore contact for details!

Analytical



Resource library

Key literature, product guides, application notes



Resource library

Key literature, product guides, application notes

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Additional resources

Chromatography Sample Preparation

www.merckmillipore.com/chromatography

Analytics and Sample Preparation

www.merckmillipore.com/asp

Cell Culture and Systems

www.merckmillipore.com/cellculture

Protein Sample Preparation

www.merckmillipore.com/psp

Amicon® Ultra Centrifugal Filters

www.merckmillipore.com/amicon

Western blotting

www.merckmillipore.com/western

Antibody-Specific Search Engine

www.merckmillipore.com/antibodies

Validated, guaranteed antibodies:
Neuroscience, Cancer, Signaling,
Epigenetics, Stem Cell, etc.

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Research Essential Biochemicals (antibiotics, buffers, detergents, dyes, stains, and substrates)

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Detergents for biological systems

www.merckmillipore.com/detergents

Complete Solutions from Cell Counting to Flow Cytometry & Flow Imaging

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MILLIPLEX® Multiplex Assays Using Luminex®

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Chromatography:

www.merckmillipore.com/chromatography

Chrombook

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Solvents

www.merckmillipore.com/solvents

Microscopy

www.merckmillipore.com/microscopy

Mass spectrometry

www.merckmillipore.com/mass-spectrometry

Peptide synthesis

www.merckmillipore.com/novabiochem

Your partner of choice for water purification and related service

www.merckmillipore.com/labwater

