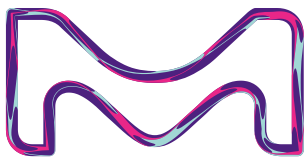


NEWS on diagnostics

Volume 1 2022



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Welcome to the first volume of News on Diagnostics for 2022. Laboratory equipment, glassware, and plasticware are essential for the success of any diagnostics laboratory. We offer a wide selection of laboratory equipment and supplies to support more than 100 areas of interest. This edition covers labware suitable for use with your critical assay development.

Labware Partners

As well as manufacturing our own labware products, such as Millex® Filters, and Stericup® E products, we are proud to partner with well-known companies to bring you the highest quality labware. Our labware partners include the BRAND®, Corning®, Cytiva™, and Eppendorf® product portfolios. Explore these product portfolios to find the right product for your labware needs.



BRAND® Products

BRAND® GmbH and BRANDTECH® glassware and plasticware, lab storage solutions, bottle-top dispensers, pipettes and pipette tips, cuvettes, and cell culture and PCR consumables for laboratories.



Corning® Products & Labware

Corning® brand glass and plastic labware, filtration membranes, cell culture supplies, and equipment for life sciences.



Cytiva™ Products

Cytiva™ products for drug Discovery® research and therapeutics bioprocess manufacturing including Whatman® lab filtration products, Amersham™ chromatography columns and resins, tissue culture reagents, and products for protein sample preparation, blotting, and analysis.



Eppendorf® Products

Eppendorf® brand conical and microfuge tubes, pipettes and pipette tips, dispensers, centrifuges, microtiter plates, mixers, spectrometers, and PCR equipment for laboratories.

Cell Culture

Sterile Millex® Filters

Millex® syringe filters are ideal for sterilizing 1 mL – 200 mL of cell culture reagents, such as cell culture media, antibiotics, sera, supplements, viruses for infection, and other biological solutions. Many sterile Millex® filters are CE-marked and/or are approved as medical devices, meaning that they can be used to filter pharmaceutical solutions before they are introduced to human patients.



Because of the quality of their design, manufacturing and quality control, sterile Millex® filters are known for superior performance compared to syringe filters from other suppliers.

- Less clogging, faster flow
- Minimal leaching of impurities into filtered solutions
- Minimal non-specific binding of desirable biomolecules, such as high value antibiotics, growth factors and serum proteins.

To help you to select your Millex® filters, download our handy wall chart at SigmaAldrich.com/Millex®-wall-chart

Reduced Lab Plastic Waste with Stericup® E Filters

Stericup® E and Steritop® E systems are funnel-less filter products for use in the sterile vacuum filtration of aqueous solutions such as tissue culture media and buffers. The two new formats (38 mm and 45 mm thread-compatible connector) are designed specifically for direct attachment to all commercially-available media and buffer bottles.



Eliminating the funnel greatly reduced the plastic content of the system; beyond improved sustainability, the smaller device results in a significantly reduced footprint both in storage and biohazard waste disposal. All systems contain 0.22 µm Millipore® Express® PLUS polyethersulfone (PES) membrane for maximal flow rate with minimal protein loss or denaturation. The Steritop® system has a standard threaded 45 mm connection and does not include a bottle. Stericup® and Steritop® systems are sterile and non-pyrogenic.

- Stericup® E and Steritop® E sterile filtration—evolved with an eco-conscience

- Filter design reduces your lab’s environmental impact
- Reduction of up to 26% plastic and 20% packaging for Stericup® E sterile filters
- Reduction up to 48% plastic and 69% packaging for Steritop® E sterile filters

	Plastics*	Packaging*
Stericup® E Sterlie filter Eliminates disposable filter funnel	↓ Up to 26%	↓ Up to 20%
Steritop® E Sterlie filter Eliminates disposable filter funnel & receiver bottle	↓ Up to 48%	↓ Up to 69%

* Plastic and packaging reduction figures derived from comparison to traditional sterile filters

To learn more, visit SigmaAldrich.com/Stericup-E

Our video at SigmaAldrich.com/Stericup-E gives more information on this environmentally friendlier alternative for your filtration needs.

Corning® Cell Culture Labware

Support your cell growth with a comprehensive line of high-quality cell culture solutions from Corning. We are pleased to be designated by Corning as its Globally Respected Distributor, providing you with all the Corning® products you need via a more convenient matched numbering system. We have been providing Corning® Life Science products to the scientific community for over 20 years. Corning is well known for brands such as

- | | |
|-------------|-----------------|
| PYREX® | Costar® |
| CellBIND® | CellSTACK® |
| ClearPro® | DNA-Bind® |
| Carbo-BIND® | Netwells® |
| ProCulture® | Stripette® |
| Thermowell® | Transtar® |
| UltraGAPS® | Universal-BIND® |
| Snapwell® | Tgold® |



Corning’s highly valued plastic products, and multiwell plates for cell culture and drug Discovery® nicely complement our extensive selection of reagents and chemicals for these same applications.

Explore the range at SigmaAldrich.com/corning

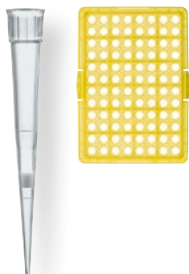
PCR Supplies & Equipment

The polymerase chain reaction (PCR) is a powerful core molecular biology technique. It is an efficient and rapid *in vitro* method for enzymatic amplification of specific DNA or RNA sequences from nucleic acids of various sources. A simple PCR reaction consists of a set of synthetic oligonucleotide primers that flank the target DNA sequence, target DNA, a thermostable DNA polymerase, and dNTPs.



BRAND® Pipette Tips

All BRAND® tips and filter tips are produced under supervised state-of-the-art clean-room conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.



Quality features include:

- High-purity polypropylene, free from DiHEMA and oleamide
- New: All sterile tips and packaging are manufactured under BIO-CERT quality certification: Sterile acc. ISO 11 137 and AAMI guidelines, a SAL 10-6 is obtained
- Environmentally friendly packaging systems
- Pipette and filter tips from BRAND are tested for BRAND® pipettes and most of the pipette types from Thermo Fisher Scientific Finnpipette, Eppendorf and Biohit/Sartorius.

A repetitive series of cycles involving template denaturation, primer annealing, followed by extension of the annealed primers, yields tremendous amounts of DNA. Because the strands synthesized in one cycle serve as a template in the next, a million-fold increase in the DNA amount is achieved in just 20 cycles. From PCR microplates, plate covers, pipette tips, PCR tubes, and thermocyclers, explore our comprehensive offering of PCR consumables and equipment to support every step of your PCR workflow.

PCR plates, strips, and films

With BRAND® PCR products you can protect your samples from contamination and evaporation. Cleanroom production, high-quality raw materials, and seamless quality controls by accredited laboratories ensure consistently high standards for cleanliness. Sealing films and covers made to fit plates and tubes significantly reduce evaporation loss and allow for reliable analyses, even with small sample volumes. BRAND® PCR consumable materials are always free from DNase, DNA, RNase, and endotoxins. We also offer Eppendorf® twin-tec PCR plates that combine the advantages of using both polypropylene and polycarbonate materials while the Corning® Thermowell PCR 96 well plates are suitable for the majority of thermocyclers and ideal for high-throughput automation.

For example, Eppendorf® LoBind twin.tec® PCR plates are available as a one-piece design combining a polycarbonate frame and polypropylene wells.

1. LoBind material ensures minimized sample-to-surface binding for optimal product recovery.
2. Thin-walled wells ensure optimal heat transfer.
3. OptiTrack® matrix for high contrast labeling of the alphanumeric grid ensures accurate sample identification and to minimize pipetting errors.
4. Raised well rims facilitate effective sealing and prevent cross-contamination.
5. The plates are free from detectable human DNA, DNase, RNase, and PCR inhibitors.

PCR Pipette Tips & Filter Tips

Explore a variety of reliable pipette tips, including market-leaders such as ART® pipette tips in our [product selection table](#). In addition, BRAND® pipette tips and filter tips are manufactured in a cleanroom under the most modern production conditions and are automatically rack packed and packaged to ensure that the tips are of consistently high quality. BRAND® pipette tips and filter tips are manufactured with high-purity polypropylene, free from DiHEMA, oleamide, DNA (< 40 fg), RNase (< 8.6 fg), endotoxins (< 1 pg) and ATP (< 1 fg). Additionally, we are proud to offer a portfolio of Eppendorf® products such as Eppendorf pipette tips that are used for liquid handling applications. They are useful for speed processing and avoiding cross-contamination. We offer a broad range of pipette tips for niche applications according to the volume capacities, sterile and non-sterile demands as well as racking. Furthermore, Axygen consumables include not only pipette tips but also a variety of microplate options to match your specific application needs.

Find out more about our range of PCR equipment, including links to application notes, webinars and white papers on our dedicated [Labware webpage](#).

Multiscreen® PCR Filter Plates

MultiScreen® PCR filter plates exploit size exclusion principles for purifying products of polymerase chain reaction (PCR), bacterial artificial chromosome (BAC) preparations, and plasmid preparations, as well sequencing reaction cleanup. These plates offer filters for fast, automatable, high-throughput PCR purification. Plates are provided in 96- and 384-well formats, including a micro-96-well format for purification of smaller volume PCR product samples.



- High purity and recovery
- Fast processing times
- >99.5% primer removal
- MultiScreen® PCR96 microwell filter plate recommended for small volumes (1 – 150 µL).

Multiscreen® ELISA Plates

Enzyme-Linked Immunosorbent Assay (ELISA) is a plate-based assay technique designed for detecting and quantifying soluble substances such as peptides, proteins, antibodies, and hormones. MultiScreen® HTS ELISA Microplates are made of polypropylene and available in 96-well or 8-well strip formats. 8-well strip formats allow for single wells or strips of wells to be used in an assay rather than consuming the entire microplate. These are available with medium or high binding surfaces to best suit the needs of the application and molecules involved.

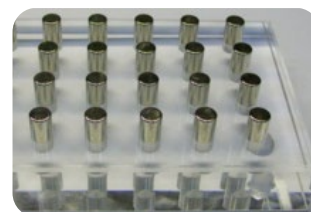
Learn more about our [range of plates](#)

Magna GrIP

The Magna GrIP Rack is a polyethylene rack containing 4 neodymium magnets. The rack is designed to rapidly and easily pellet samples bound to magnetic particles from the supernatant. In its horizontal position, the rack contains 8 holes suitable for 1.5-2.0 mL tubes or spin columns. The rack is versatile and may be used with either 15 mL or alternately, 0.5 mL tubes, simply by standing the rack on either side.



The Magna GrIP HT96 Rack (for 96 well plates) is designed for separation of magnetic particles from solutions in a 96-well plate. This effective magnetic separation device is composed of an acrylic block (12.8 cm x 8.6 cm) containing 24 (4 x 6) neodymium magnetic rods each having a diameter of approximately 7 mm and a Gauss rating of 1200 (1.21 to 1.22 Teslas). When a standard 96-well or PCR plate is fitted over the magnetic rack, each magnetic rod sits between four adjacent wells and rapidly pulls magnetic particles to the side or bottom of the wells.



Find out more about our Magna GrIP products

Description	Cat. No.
The Magna GrIP Rack	20-400
The Magna GrIP HT96 Rack	17-10071

