



Reach Your 100%

Best-fit solutions for biologic drug-discovery workflows

Partnering for Better Health: Best-Fit Collaboration to Foster Innovation

For more than 75 years, Eppendorf has been developing, producing, and selling premium products, solutions and services for customers around the world. We take our responsibility as a pioneer seriously and continuously develop our product portfolio to drive innovation in high-growth areas like the life science market. We unceasingly expand our knowledge and expertise, learn from our customers and incorporate customer feedback into our product development as an integral commitment to our corporate philosophy. We evolve with the needs of our customers so they can remain at the forefront of the market!

Rely on the innovative power of a global player and the approachability of a mid sized company.

- > **Innovation:** By permanently investing in our innovation pipeline, we ensure all our products meet current and future market needs.
- > **Sustainability:** A key driver of innovation, sustainability at Eppendorf encompasses solutions to reduce the impact on natural resources. Our approach empowers customer to reach their sustainability goals.
- > **Seamless supply chain:** We ensure a reliable supply of our products around the globe with short delivery times by stocking our products in locations near our customers and continuously improving our logistics.
- > **Premium service:** Our service facilities around the globe provide technical service and application support.
- > **Quality:** We provide reliable, high-quality products around the world, – products designed to support you to deliver reproducible results every time and everywhere.



For more information, service ordering details and contact form please visit:
www.eppendorf.com/epServices

Read our Sustainability Report or visit us online to learn more:
www.eppendorf.com/sustainability



Excellence at Every Step: From Candidate Screening to Clinical Phase

Pharmaceutical research is an enormous undertaking and entails considerable time and money. You want to make sure you have the very best, so your laboratory runs efficiently. Let us support you with high-quality equipment, state-of-the-art technologies and proactive

services tailored to your needs. No matter if it's PCR cyclers for fast, reliable results, high-speed centrifuges, ultra-low-temperature freezers, high-performance shakers or bioreactors to optimize cell growth:

Our portfolio keeps efficient drug discovery on track!



Faster workflows

> Rely on products and solutions designed for fast, efficient R&D workflows to accelerate time to market.



Simplified compliance

> Receive support for our products and services in terms of documentation, sustainability, calibration and qualification.



Reliable processes

> Operate effectively and efficiently, maximize throughput and maintain productivity over the long term.



Improved sustainability

> Achieve your sustainability goals with products, that support a greener future.



Reproducible results

> Enable reliable results with the required accuracy and reproducibility you need.



01



Click here!



Mastercycler® X50s



The essential tool for creating your clone

In drug discovery, speed and laboratory efficiency are especially important. The Mastercycler® X50 is the optimal instrument to save time while achieving higher PCR throughput. Up to 50 units can be combined – ideal for high-throughput applications. Our IQ/OQ services include GxP-supporting documentation.

- > Run time: About 40 minutes with block heating rates of up to 10 °C/s and cooling rates of up to 5 °C/s. Fast PCR with a fast polymerase kit in as little as 15 minutes.
- > 2D-gradient for optimizing the annealing and denaturation temperatures in a single run. This saves time and money.



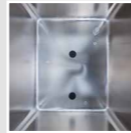
CellXpert® C170i CO₂ Incubator



Reliable cell growth to optimize your drug-discovery

An efficient, reliable drug-discovery workflow calls for an incubator that minimizes contamination risk and is quick to clean. The CellXpert is a flexible, high-quality incubator with a uniform atmosphere thanks to temperature verification at 27 locations inside (German DIN 12880:2007-05 standard). It helps to reduce costs and offers in-field upgradeable options. Our IQ/OQ services include GxP-supporting documentation.

- > Easy cleaning, reliable contamination prevention with the fanless design, seamless chamber, 180 °C sterilization cycle, and removable water tray.
- > Saves up to \$ 9.000 over five years with no internal expendable parts, up to 25% more usable space and significantly reduced CO₂ and N₂ consumption (CO₂ consumption at 5% (without opening door) < 1L/24 h).
- > GMP supporting documentation and third-party certified ISO class 4/GMP grade - A clean-room compatible.



Click here!



02

Ultracentrifuge CP100NX



Increased downstream quality and purity

Obtaining the highest quality and purity in even the smallest particles including exosomes and viral vectors, is crucial in drug research. Centrifuge CP100NX offers the perfect solution. Our IQ/OQ services include GxP-supporting documentation.

- > Maximum centrifugation speeds of 803,000 × g (100,000 rpm with rotor P100AT2).
- > Automatic rotor life management: run data is stored on the rotor and calculations are made on the basis of the actual run time for a prolonged equipment lifetime.
- > User management and documentation function to support labs working in a GxP-environment.
- > Balancing of samples is now easier than ever. Visual check of sample height (within 5 mm*) is sufficient.

* Excluding rotors S140AT, S110AT, S80AT3 and S50A



03

High-Speed Centrifuge CR22N



Your everyday solution for efficient harvesting

Drug discovery requires taking various steps, including harvesting biomass, and pelleting cells, subcellular organelles and larger viruses as well as extracting, precipitating, concentrating and purifying nucleic acids. The Centrifuge CR22N is the optimal solution for completing all these common centrifugation tasks. Our IQ/OQ services include GxP-supporting documentation.

- > Speeds of up to 58,700 × g (fixed angle) or 11,500 × g (swing-bucket) to support applications in genomics, cell biology and proteomics.
- > Self-locking rotor system for increased safety and convenience.
- > User management and documentation function can support labs working in a GxP-environment.
- > Unique 1.5 L triangular bottle for easy, time-efficient harvesting of cell, yeast and bacterial cultures (up to 15,100 × g).

Ultracentrifuge CP100NX

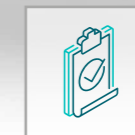


Increased downstream quality and purity

Obtaining the highest quality and purity in even the smallest particles including exosomes and viral vectors, is crucial in drug research. Centrifuge CP100NX offers the perfect solution. Our IQ/OQ services include GxP-supporting documentation.

- > Maximum centrifugation speeds of 803,000 × g (100,000 rpm with rotor P100AT2).
- > Automatic rotor life management: run data is stored on the rotor and calculations are made on the basis of the actual run time for a prolonged equipment lifetime.
- > User management and documentation function to support labs working in a GxP-environment.
- > Balancing of samples is now easier than ever. Visual check of sample height (within 5 mm*) is sufficient.

* Excluding rotors S140AT, S110AT, S80AT3 and S50A



04



05

Centrifuge 5910 Ri



Supports compliance in your centrifugation steps
The large seven-inch VisioNize® touch interface provides fast, error-free operation, thereby ensuring efficient runs. The documentation function and user management support your quality control with multiple authorization levels, password protection and documentation of all runs and user activities. Our IQ/OQ services include GxP-supporting documentation.

- > Supports simultaneously spinning many vessels to increase sample throughput: 68 x 15 mL or 36 x 50 mL conical tubes 120 x 13 mm or 104 x 16 mm blood tubes 20 x MTP/ 4 x DWP 1,000 mL bottles.
- > The unique, universal rotor concept allows centrifugation of tubes, plates and bottles without changing rotors, buckets or adapters.
- > Favorite function allows you to quickly set parameter settings and gain access to full text programs.



Click here!



Centrifuge 5427 R



Supports your sustainability goals
Centrifuge 5427 R not only supports you on your way to becoming a greener lab, it serves as the perfect solution for labs that run a broad range of molecular biology applications or need high-throughput solutions for 1.5 through 2 mL tubes. And the microcentrifuge includes all of this along with the highest throughput/ footprint ratio in the Eppendorf microcentrifuge range. Our IQ/OQ services include GxP-supporting documentation.

- > Natural refrigerant R₂₉₀ keeps your samples cool as well as the planet cool.
- > The adjustable ECO shut-off function will lower your energy consumption so you can save energy and extend the compressor lifetime.
- > Highly versatile with nine different rotor options, the centrifuge is a solution for a wide range of molecular-biology applications that use tubes from 0.2 to 5 mL and eight-place PCR strips.



07

Cold Storage



Keeps your candidate samples organized at all times
The CryoCube® 740 series is designed to optimize performance, protecting your samples. Eppendorf freezers are renowned for reliability and delivering peace of mind. The SafeCode system for Eppendorf CryoStorage Vials is based on three-level coding to enable safe sample identification, which saves time and avoids potential sample loss.

- > Easy tracking with sample management software and compatible with any barcode scanner.
- > Quick recovery times after opening the door ensure sample safety.
- > Green cooling and low energy consumption mean having a small carbon footprint.



Click here!



Move It®: Adjustable Tip Spacing Pipette

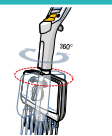
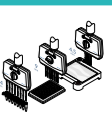


Provides ideal transferring solution for samples from collection vessels to plates
Changing vessel formats often slows down your drug-discovery work Eppendorf Move It® pipettes allow you to easily, swap formats thereby speeding up your workflows. ISO 17025 accredited calibration certificate is available as a service.

- > Adjustable tip spacing accelerates pipetting of multiple samples between tubes, plates and agarose gels.
- > Spacing control supports quick switches backward and forward between source and destination formats.
- > Manual adjustment knob enables smooth, vibration-free format switches and liquid transfers without dripping.



08





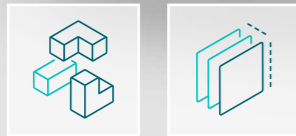
epMotion® 5073t and 5075t NGS Solution



Robust library generation for designing your experiments

Our epMotion 5073t and 5075t NGS Solutions include all dispensing tools, accessories, and consumables needed for NGS library preparation of up to 24 (5073t) or 96 (5075t) samples. With maximum kit flexibility, they are ideal for low- to medium-throughput, complex NGS workflows. Let the epMotion NGS Solution handle your complete workflow – including dilutions, normalization, extraction and NGS library prep. Our IQ/OQ services include GxP-supporting documentation.

- > Compact footprint fits almost every laboratory bench, in addition no high-voltage is needed for operation.
- > Intuitive software interface makes it easy to use and supports rapid method design.
- > Flexibility helps to optimize even complex NGS workflows.



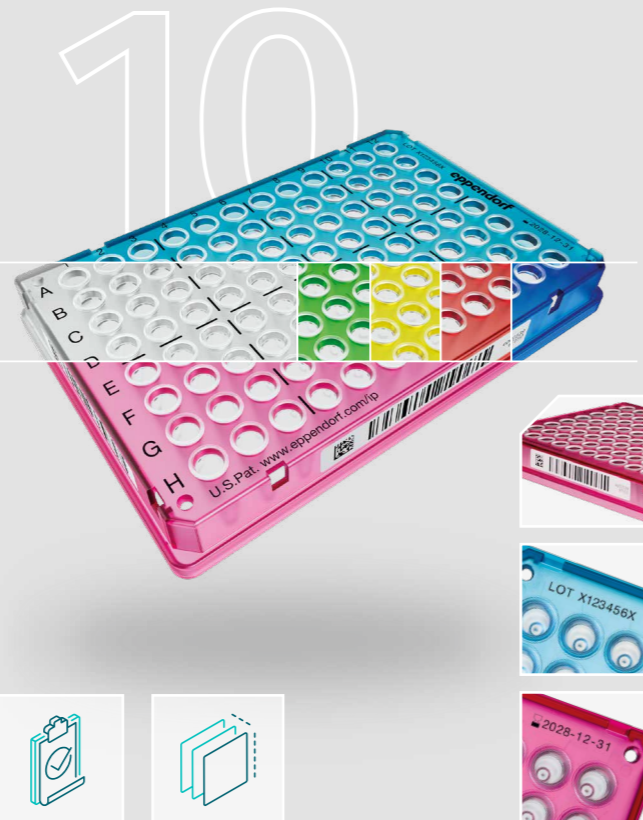
Eppendorf PCR Plates



Reliability for assays and workflows

Eppendorf Plates ensure greater reliability, lower error rates, less downtime, less need for post-analytical corrections and higher turn around times – especially in high throughput applications.

- > High-contrast colors provide support for semi-automated tasks. The very robust frame does not shrink or go out of shape when heated.
- > Nearly unlimited traceability and customization options ensure our products can be tailored to meet your systems' needs. Lot numbers and expiry dates on plates optimize compliance processes.
- > Smart polymers, such as our LoBind® plates, ensure high recovery rates and optimized assay results. Plates are also available in our new BioBased Material.



Eppendorf Tubes® LoBind



Maximize antigen retrieval

The LoBind material guarantees maximum sample retrieval for sensitive assays during antigen characterization and lowers contamination risk. Minimal interference between antigens and the storage vessel also improves reproducibility.

- > These tubes are lot-tested and certified free of DNA, DNase, RNase and PCR inhibitors (PCR clean).
- > Our LoBind tubes improve subsequent assay results (better and more specific signals) through reliable sample retrieval.
- > These tubes certified PCR clean quality provides maximum sample protection and prevents false-positive results.

Eppendorf ThermoMixer®



Improve assay results when using dry incubation and mix your samples simultaneously

The Eppendorf ThermoMixer® C heats, cools and mixes almost all laboratory vessels using different thermo-blocks. The new Eppendorf SmartBlock™ cryo-thaw exchangeable block offers a special thawing program that supports reproducible, reliable thawing of cells up to +37 °C from frozen storage conditions. Our IQ/OQ services include GxP-supporting documentation.

- > Up to 13 different SmartBlocks allow a broad range of vessels to be used.
- > Using QuickLock system supports the easy, tool-free exchange of SmartBlocks.
- > ThermoTop® reduces the risk of condensation in your tubes.
- > Eppendorf SmartExtender enables a second independent incubation temperature for up to 12 vessels (1.5 mL).



13

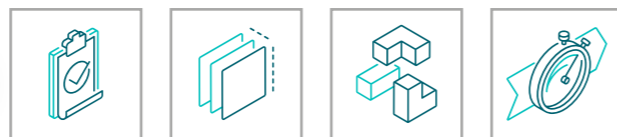


Pipette Manager



Redefine "routine tasks" in drug development
Streamline your pipetting steps by more quickly setting up liquid-handling volumes and therefore to speed up your workflow stages. The Settings are instantly available on all connected electronic pipettes, avoiding setting errors.

- > Quickly set pipetting modes, volumes and speed.
- > Achieve greater accuracy and reproducibility when handling difficult liquids using the embedded software for guidance.
- > Document all pipetting workflows and automatically record pipetting activities. Export records as a PDF via USB (and sign for compliance).

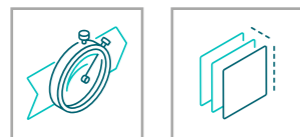


BioFlo 320 Bioprocess Control System and BioBLU® Single-Use Bioreactors



Constant expression conditions during scale-up
The BioFlo 320 offers flexibility, better control and maximized functionality while occupying a fraction of the valuable laboratory space of similar systems. This means greater efficiency and productivity in your laboratory at a lower operating cost. Our IQ/OQ services include GxP-supporting documentation.

- > Universal connections for analog or digital sensors reduce sensor complexity.
- > Autoclavable vessels and our comprehensive portfolio of BioBLU Single-Use Bioreactors support process customization.
- > Extensive working volume ranges from 400 mL to 40 L on a single control platform.



14



Eppendorf Tubes® BioBased



Meet your sustainability targets
Since oil-based plastic vessels have substituted glass vessels, they have become irreplaceable in drug discovery laboratories around the world. For the first time, we can offer a generation of Eppendorf Tubes® with screw caps in 5.0 mL, 15 mL, 25 mL, 50 mL and PCR Plates made of certified polypropylene based on renewable reused raw materials.

- > Tubes are made from 90% »bio-circular« renewable-based feedstock (recycled e.g. from food oil wastes and residues).
- > General Quality Certificates and Compliance with Standards are available.
- > Product-specific and lot-specific purity certificates as well as an ISCC sustainability declaration for Eppendorf Tubes® BioBased.



15



New Brunswick S41i CO₂ Shaker



Set-up your CO₂ incubator shaker safely and quickly for your next batch or project

The only CO₂ incubator shaker in the market with an integrated 120 °C disinfection. The stackable device comes with a small footprint and an easy to clean seamless, stainless steel chamber without a fan. Our IQ/OQ services include GxP-supporting documentation.

- > Shaking of flasks up to 5 L (Corning® or Thomson Optimum Growth®) and simultaneous static incubation on the shelves.
- > The triple eccentric drive outside the chamber ensures trouble-free operation for years.
- > Save time and money, and reach your carbon footprint targets with significantly reduced CO₂ consumption by smart gas control and tight sealing.

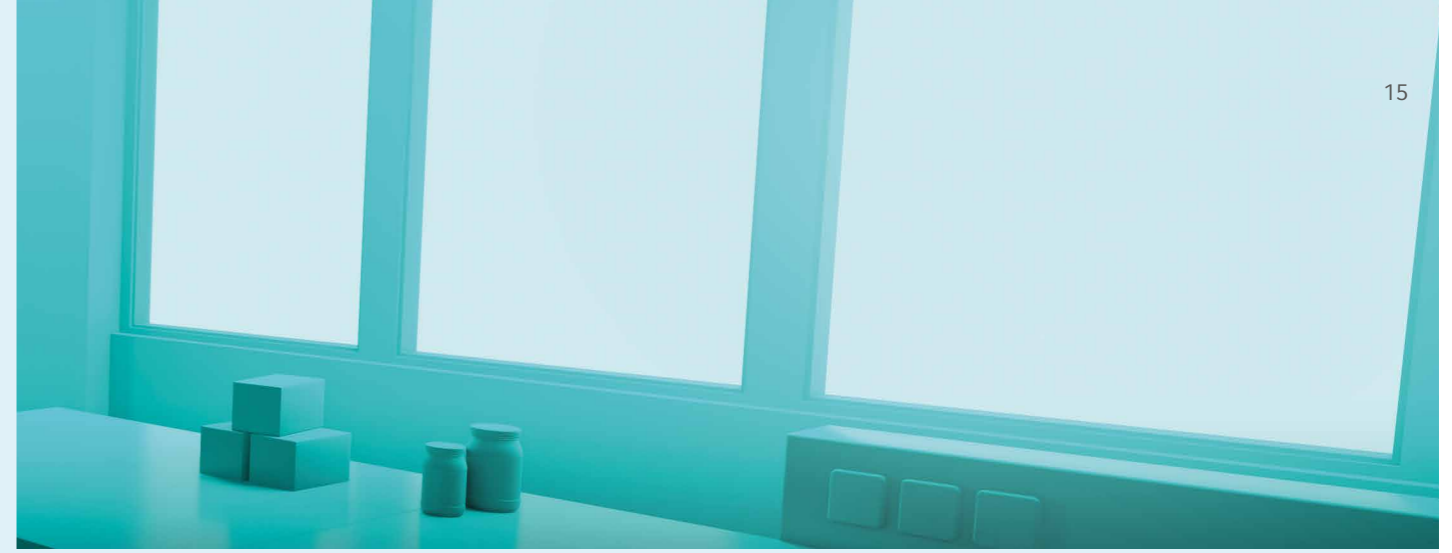


Click here!



16





Supporting You: Maintenance and Qualification Services

Our portfolio of service and extended warranty agreements take the load off your shoulders by simplifying your ordering and budgeting processes for various services over the full lifetime of your instruments. Your costs and instrument life time will be more predictable.

Our agreements also include repair costs – in full or in part – and discounts on other services. Benefit from premium performance for your peace of mind!

Qualification services

Are you working in a regulated environment? We offer specifically created installation qualification and operational qualification services, including GxP-supporting documentation. These documents support complex GxP

standards and regulations while reducing your administrative workload and provide you with qualified assurance that your instrument is installed and operating in accordance with the manufacturer's specifications.

Installation qualification and operational qualification services	IQ/OQ GxP	OQ GxP
Check of delivery status and installation environment	■	-
Installation, including configuration and functional checks	■	-
Detailed IQ report	■	-
Test of alarm functions	■	■
Verification of instrument parameters (e.g., temperature, speed)	■	■
Detailed OQ report and handling of deviation list	■	■
Signed approval by customer and service technician	■	■

Calibration and verification services

How do you know your experimental data is reliable? Assuring your instrument is maintained precisely and accurately according to specifications is your first step to achieving reliable results.

Eppendorf offers calibration and verification services for

- > Temperature
- > Speed
- > O₂/CO₂ concentration
- > Pressure
- > Humidity

Preventive maintenance services

How much do you rely on keeping your instrument in good working order? Our professional cleaning and maintenance services aim to prevent unexpected downtimes and failures by detecting of problems early on. Keeping your instruments in perfect working order will not only extend their service life, but also increase your productivity.

Services include

- > Cleaning (external and internal)
- > Maintenance
- > Exchange of wear-and-tear parts
- > Comprehensive functional check
- > Software updates
- > Evaluation of stored data
- > Documentation
- > Dated service sticker to confirm Eppendorf services



For more information, service ordering details and contact form please visit:
www.eppendorf.com/epServices

Take a Deep Dive Into Our Solutions and Read Related Literature

	<p>Application-Note 180: Eppendorf LoBind®: Evaluation of Protein Recovery in Eppendorf Protein LoBind® Tubes and Plates</p>		<p>Application-Note 416: Scale-Up of a Biosimilar Production Process with CHO Cells from Small to Bench Scale</p>		<p>White-Paper 030: Effective Contamination Control with CO₂-Incubators</p>
	<p>Application-Note 255: Hybridoma and CHO Cell Culture using the New Brunswick™ S41i, an Environmentally-Friendly, »Low Emission« Incubator Shaker</p>		<p>Application-Note 423: Using the Mastercycler® X50 and Its 2D-Gradient to Increase Yield and Specificity of Your PCR</p>		<p>White-Paper 064: Unique 4 × 1.5 L Capacity Rotor for High-Speed Centrifuges CR22N and CR30NX</p>
	<p>Application-Note 372: Faster Isolation of PBMC Using Ficoll-Paque® Plus in the Eppendorf Multipurpose Benchtop Centrifuges 5920 R and 5910 Ri</p>		<p>Application-Note 436: From Shaker to Pilot/Production Bioreactor: How Scale Up Assist Using the BioFlo® 720 Bioreactor Control System Can Help Your Antibody Production Workflow</p>		<p>White-Paper 071: How Can I Improve Sustainability in My Lab?</p>
	<p>Application-Note 382: Comparative Analysis of Protein Recovery Rates in Eppendorf LoBind® and Other »Low Binding« Tubes</p>		<p>Application-Note 437: Standardized and Water-free Cell Thawing using the Eppendorf ThermoMixer® C with the Eppendorf SmartBlock® cryo thaw</p>		<p>White-Paper 072: Laboratory Waste – Immutable Fact of Life, or Opportunity for Change?</p>
	<p>Application-Note 400: Reduced PCR runtimes and increased yields using Eppendorf Fast PCR Consumables</p>		<p>Application-Note 446: Breaking Barriers: Endpoint PCR in 15 Minutes or Less</p>		<p>White-Paper 077: How to Develop and Assemble a Sustainable ULT Freezer</p>

References:

Kyriakidis, N.C., López-Cortés, A., González, E.V. et al. SARS-CoV-2 vaccines strategies: a comprehensive review of phase 3 candidates. *npj Vaccines* 6, 28 (2021). <https://doi.org/10.1038/s41541-021-00292-w>
 Pollard, A.J., Bijker, E.M. A guide to vaccinology: from basic principles to new developments. *Nat Rev Immunol* 21, 83–100 (2021). <https://doi.org/10.1038/s41577-020-00479-7>
 Li, YD., Chi, WY., Su, JH. et al. Coronavirus vaccine development: from SARS and MERS to COVID-19. *J Biomed Sci* 27, 104 (2020). <https://doi.org/10.1186/s12929-020-00695-2>

Your local distributor: www.eppendorf.com/contact
 Eppendorf SE · Barkhausenweg 1 · 22339 Hamburg · Germany
eppendorf@eppendorf.com · www.eppendorf.com

www.eppendorf.com/pharma