



Peak of Perfection

Made for a faster and easier daily routine:
Eppendorf Liquid Handling Consumables

Our Benchmark: Your Requirements

How liquid handling consumables can influence your assay results

The reliability and consistency of your research results are our priority when developing consumables.

Chemicals like slip agents, plasticizers or biocides, used as manufacturing additives, can leach out of the plastic into the sample and substantially inhibit enzymatic assays and binding studies. As described in recent publications these chemicals, such as slip agents (e.g. oleamide), can slow down evaporation, skew absorbance readings and lead to erroneous DNA quantification. Some of these slip agents have also been shown to negatively affect the outcome of biological tests like enzyme activity or receptor-binding assays.

Providing excellence for scientific experts ensures unaffected and reproducible results.

To achieve highest reliability and consistency for your experiments, Eppendorf has optimized materials and processes to minimize the risk of interference.

- > Eppendorf liquid handling consumables are made of highest quality, virgin polypropylene (PP) free of biocides, plasticizers and latex
- > Optimized, highly polished molds produced without the use of slip agents like oleamide, erucamide, stearamide
- > Used dyes are free of organic additives and heavy metals



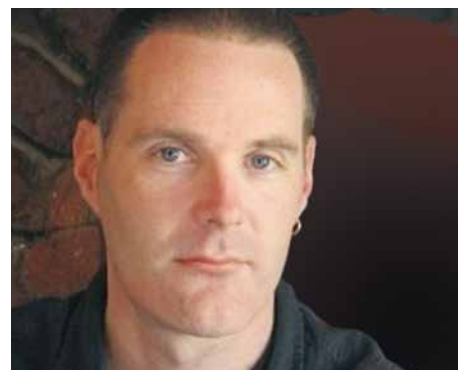
»We have seen substantial inhibition of our enzyme assays by chemicals leaching from disposable plastic consumables. To obtain the best possible reproducibility we use consumables from manufacturers that can confirm the absence of critical manufacturing additives.«

Dr. Andrew Holt
*Department of Pharmacology,
University of Alberta, Canada*



»We need to avoid that contaminants from the plastic material enter the sample and inhibit bacterial growth. The consumables that we use to analyse water samples should be of the highest purity to obtain reliable results.«

Karen Thomsen
*Mikrobiologie-Zentrallabor,
Hamburg Wasser GmbH, Germany*



»Our DNA isolation protocols from both animal and plant material require grinding of tissue prior to and during the cell lysis process. As we work with high numbers of samples, breaking of consumables and subsequent sample loss can be critical. The excellent quality and stability of the 1 mL Deepwell Plates from Eppendorf convinced us as it improved the reliability of our process significantly.«

Dr. Paul Gooding
*Plant Genomics Centre, Australian
Genome Research Facility*

Premium Quality Is Our Standard

Certified quality and purity

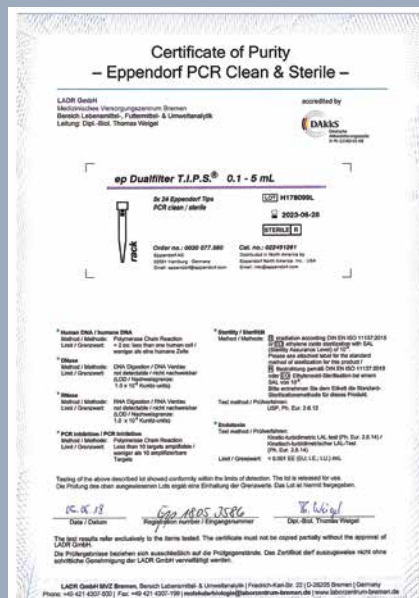
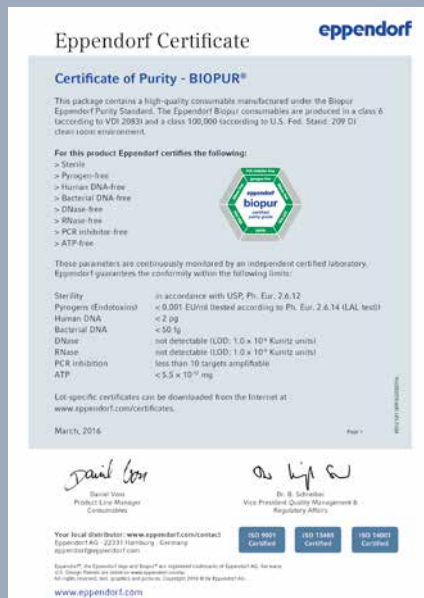
Continuous quality assurance throughout the entire production process – from the initial material to the finished product.

- > Manufactured from carefully selected, purest raw materials which comply with international purity criteria (FDA 21 CFR§177.1520 »Olefin Polymers«, FDA 21 CFR§178.2010 »Antioxidants and Stabilizers for Polymers«)
- > Fully automatic production under clean room conditions according to VDI 2083 class 6 and to U.S. Fed.Stand. 209D class 100.000: continuous bioburden and particle monitoring of the plant for impeccable production environment
- > SOP present for storage and every production step – elimination of human error
- > Frequent production tool checks plus regular in-process quality and functional checks for consistent quality guarantee and absolute reproducibility
- > Full traceability for each product – full control, each product to be traced back to material lot

> Proof of compliance with requirements of standards, guidelines and regulations that apply to biological and industrial laboratories:

- > Lot-specific purity certificates document testing by an independent lab for products with the purity grades
 - > Eppendorf Biopur®
 - > PCR clean
 - > Sterile
 - > PCR clean and Sterile
- > General quality certificates as e.g.
 - > Certificates of Purity for PCR clean and Eppendorf Biopur products
 - > Certificates of Quality – e.g. Statement on BSE/TSE
- > Product specific certificates
 - > For trace metal
 - > For absence of surface active additives
 - > With special focus, e.g. filter efficiency for ep Dualfilter T.I.P.S.®

> Certificates verifying Quality Management System/ compliance with standards



> All certificates may be downloaded on www.eppendorf.com/certificates

A System You Can Rely On

Tailored to your application needs

Eppendorf has set industry standards in consumable purity levels. Building on the famous Eppendorf Quality, four additional purity grades tailor Eppendorf Consumables to various applicational needs – Sterile, PCR clean, Forensic DNA Grade and Biopur.

You have highest expectations on consistency and reproducibility? Make Eppendorf consumables your choice!

Paving the way for modern lab standards

All consumables are subject to internal process controls on function, tightness, precision, transparency, low wetting property and high chemical and thermal resistance. Additionally, all Sterile, PCR clean, Biopur, and Forensic DNA Grade products are tested by an independent, external laboratory for compliance. The lot-specific certificates issued by this laboratory may be downloaded here: www.eppendorf.com/certificates



Eppendorf Quality™

Continuous quality controls

Example applications:

All routine lab applications



Sterile

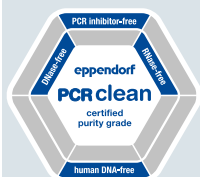
Continuous quality controls

Certified by an ISO 17025 accredited independent laboratory:

- > Pyrogen-free
- > Sterile

Example applications:

Microbiology and cell culture applications



PCR clean

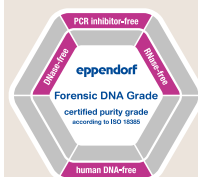
Continuous quality controls

Certified by an ISO 17025 accredited independent laboratory:

- > Human DNA-free
- > DNase-free
- > RNase-free
- > PCR inhibitor-free

Example applications:

The perfect choice for isolation and analytics (PCR/qPCR, NGS, microarrays) of RNA, DNA, nucleic acids



Forensic DNA Grade according to ISO 18385

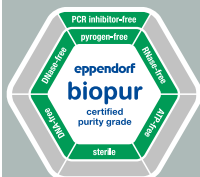
Continuous quality controls

Certified by an ISO 17025 accredited independent laboratory:

- > Human DNA-free
- > DNase-free
- > RNase-free
- > PCR inhibitor-free

Example applications:

For the preparation of forensic DNA analysis, extraction and purification



Biopur®

Continuous quality controls

Certified by an ISO 17025 accredited independent laboratory:

- > Human DNA-free
- > Bacterial DNA-free
- > DNase-free
- > RNase-free
- > PCR inhibitor-free
- > ATP-free
- > Pyrogen-free
- > Sterile

Example applications:

For highest purity demands in cell culture, nucleic acid analytics, or hygiene monitoring





	Sterile	PCR clean	PCR clean and Sterile	Forensic DNA Grade*	Biopur*
Lot testing (certified) for the following purity criteria					
Pyrogen-free (endotoxin-free)	•		•		•
Sterile (Ph. Eur./USP)	•		•		•
Human DNA-free		•	•	•	•
DNA-free (Human- and bacterial DNA)					•
DNase-free		•	•	•	•
RNase-free		•	•	•	•
PCR inhibitor-free		•	•	•	•
ATP-free					•
Methods (examples)					
Bacteria and yeast culture	✓		✓		✓
Cell and tissue culture	✓		✓		✓✓
Isolation and storage of DNA		✓✓	✓	✓✓	✓
Isolation and storage of RNA		✓	✓	✓	✓✓
DNA analysis (PCR, qPCR, restriction analysis, hybridization, microarrays, sequencing)		✓✓	✓	✓✓	✓
Mitochondrial DNA analysis				✓✓	✓✓
Bacterial DNA analysis					✓✓
RNA analysis		✓	✓	✓	✓✓
Application Areas (Examples)					
Molecular biology	✓	✓✓	✓	✓✓	✓
Microbiology	✓		✓		✓
Cell biology:					
> Stem cell research			✓		✓✓
> Transgenic animals/plants					
Research:					
> Medical			✓		✓✓
> Agriculture and aquaculture					
Quality control:					
> Food and beverage			✓		✓✓
> Water supply					
> Environmental monitoring					
Forensic		✓	✓	✓✓	✓✓

✓ Recommended, ✓✓ Highly recommended

* Increased safety due to individually packaged/single-blistered products.

The Perfect Fit – epT.I.P.S.®

Each of your valuable samples deserve best treatment. See for yourself how Eppendorf pipette tips will save time and reduce costs.

With respect to material, fit, design and operating forces our pipette tips set new standards. The close environment of each sample should be adapted to its specific quality and purity needs. This can involve a specific purity level or the absence of certain substances, but also stability, reliability or geometry. The epT.I.P.S. pipette tips from Eppendorf are designed to cover all of the specific needs of your samples.

Our epT.I.P.S. – Eppendorf Totally Integrated Pipetting System – have been developed to work in perfect combination with our pipettes. This results in reduced tip attachment and ejection forces while maintaining a complete seal between tip and pipette. Additionally, the universal nose cone design allows the tips to be used with pipettes from other manufacturers.

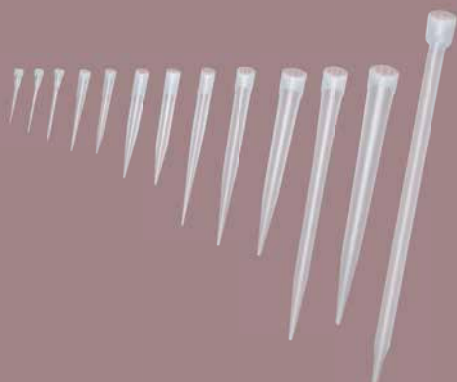
In the Eppendorf owned production facilities in the north of Germany, we can maintain the highest standards in the selection and processing of plastic materials. Ideal wetting properties, high transparency, and special certified purity levels are the visible expression of this production philosophy.

Every tip is manufactured to match specifically to its respective Eppendorf pipettes, thus ensuring the maximum precision and reliability you have come to expect and to rely on.

Each pipette tip together with the pipette forms a complete coordinated system. In our current Application Note 354 "The tip of the iceberg – How pipette tips influence results" we have compiled research results to provide you with comprehensive information about erroneous test results caused by using an uncoordinated pipetting system.

Learn more at: www.eppendorf.com/tip-quality

How can you recognize original Eppendorf pipette tips? The unmistakable feature of our tips is the "ring" of drop-shaped relief elements at the edge of the tip crown. Additionally, every tip has the "Eppendorf" name embossed on the edge.



epT.I.P.S.® Racks

- > Ideal for when absolute purity is needed – available in Sterile/Pyrogen free and Eppendorf Biopur
- > Eppendorf Biopur® pipette tips provide maximum biological purity. Guaranteed PCR clean, sterile, pyrogen-free, ATP-free, bacterial DNA-free, they meet the most stringent requirements of the medical, pharmaceutical and foodstuffs industry as well as those of molecular biology and cell biology
- > Lot-specific certificates issued by an independent laboratory are available on the Internet at www.eppendorf.com/certificates
- > Packaged in racks of 96, 48 or 24 tips
- > Batch number and expiration date on each rack label



epT.I.P.S.® Standard

- > Original, high-quality Eppendorf pipette tips packaged in resealable bags
- > Available in sizes from 10 µL to 10 mL
- > epT.I.P.S. Standard pipette tips can be autoclaved at 121 °C in 20 min.



epT.I.P.S.® Box/ epT.I.P.S.® Set

- > Contact-free transfer of trays to the working box
- > System optimized for use with multichannel pipettes
- > Color-coded trays for simple identification of tips and matching Eppendorf pipette
- > Reloads require less storage space than racks or boxes
- > Reload trays and epT.I.P.S. boxes are entirely autoclavable for future use at 121 °C



epT.I.P.S.® Reloads

- > Reduced waste as compared with disposable racks
- > The Reload system, depending on tip size, is packaged as either dual-sided or in stack form
- > Reloads are available in two purity levels: Eppendorf Quality and PCR clean
- > Easy one handed reloading under clean bench



epT.I.P.S.® Singles

- > Individually wrapped pipette tips for the strictest lab environments when absolute purity must be guaranteed until each tip is ready for use in Eppendorf Biopur: guaranteed sterile, RNase-, DNA-, ATP- and pyrogen-free
- > Batch number and expiration date printed on each blisterpack
- > Continuous quality control of each batch by an independent laboratory – Batch-specific purity certificates available on www.eppendorf.com/certificates

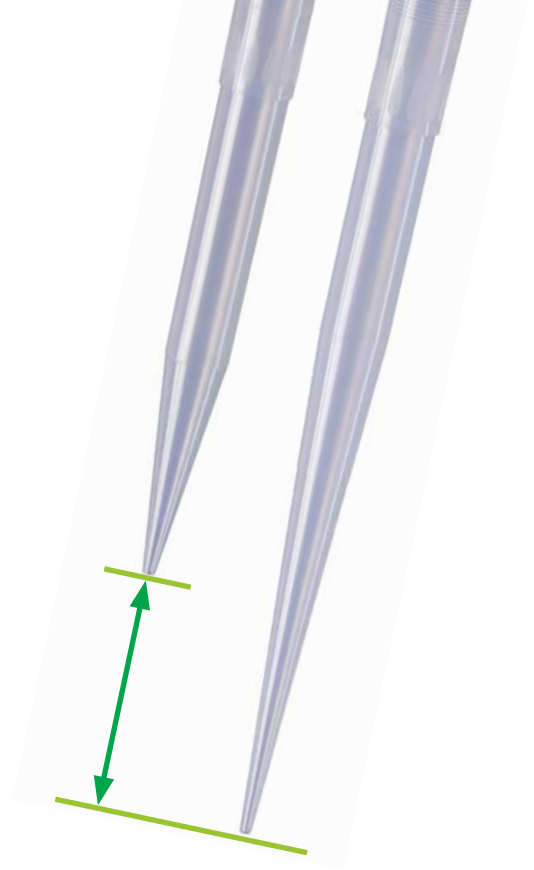
Long-Distance Tips

Extended length for reliable sampling

epT.I.P.S. L pipette tips enable you to reliably reach your sample while pipetting from and into conical tubes, high reagent bottles, narrow deep vessels, cell culture flasks or deepwell plates. The long and slim design of these elongated pipette tips gives you free access to your sample with reduced risk of touching the sides of tubes or wells. Cross-contamination during pipetting can be reduced to a minimum.

Product features and benefits

- > Safe sample access to Eppendorf 5 mL tubes, 15 mL conical tubes, test tubes, cell culture flasks, deepwell plates and other deep vessels
- > Highest protection for pipette and sample with ep Dualfilter T.I.P.S. L
- > Available in the purity standards Eppendorf Quality, PCR clean, Eppendorf Biopur and as ep Dualfilter T.I.P.S. in PCR clean/Sterile
- > 0.5 – 20 μ L L, 46 mm for 0.2, 0.5, 1.5, and 2.0 mL tubes or plates
- > 50 – 1,250 μ L L, 103 mm for 1 mL deepwell plates and with multi-channel pipette
- > 0.2 – 5 mL L, 175 mm for 15 mL, 50 mL conical tubes
- > 0.5 – 10 mL L, 243 mm for 75 cm² cell culture flasks, 1 L reagent bottles, Erlenmeyer flasks, measuring cylinders



> epT.I.P.S. L are available in volumes of: 0.5–20 μ L L 46 mm long, 50–1,250 μ L L 103 mm long, 0.2–5 mL L 175 mm long and 0.5–10 mL L 243 mm long

ep Dualfilter T.I.P.S.®

Two filter layers are better than one

Eppendorf ep Dualfilter T.I.P.S. are the first filter tips with a two-phase filter for contamination protection. The unmistakable blue and white filter layers are made of flexible, hydrophobic material to fit perfectly in the tip cone and retain practically 100 % of all aerosols* and biomolecules. This unique filtering effect is achieved using various well-defined pore sizes in the two filter layers.

The white layer that faces the sample retains drops, splashes and aerosols. The blue layer forms a highly-effective double barrier that reliably binds biomolecules.

* An aerosol is a colloid of fine solid particles or liquid droplets, in air or another gas.

The air flow rate through the filter is the same as with single-layer filters – it simply makes your rapid pipetting tasks much safer. The ep Dualfilter T.I.P.S. hydrophobic filter surface also enables easier and complete recovery of samples.

Product features und benefits

- > Two filter layers provide dual protection
- > Dual protection for pipette and sample
- > Dual protection from aerosols and biomolecules
- > Free of PCR inhibitor additives
- > Eppendorf PCR clean, Sterile and pyrogen-free
- > Batch certified

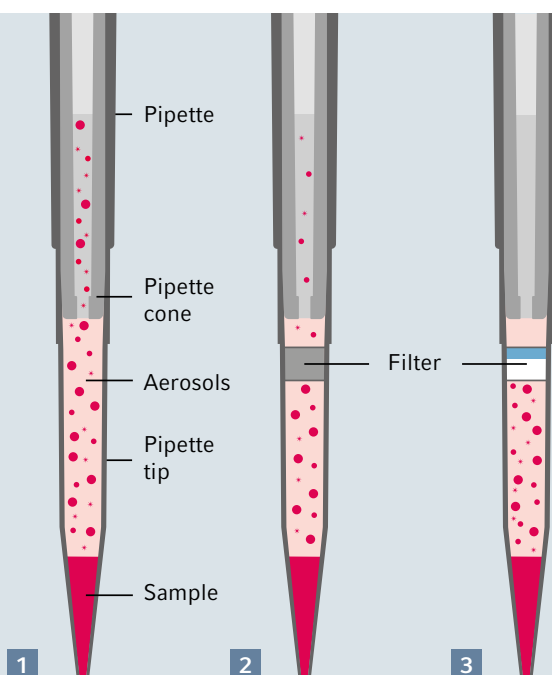
Applications

- > DNA applications (e.g. PCR)
- > RNA applications (e.g. Gene expression analysis)
- > Protein applications (e.g. Antibody Research)
- > Cell Culture applications (e.g. Media)
- > Applications with radioactive substances

Dual protection against contamination right from the start.

ep Dualfilter T.I.P.S. are manufactured to the highest possible quality from pure, non-recycled materials under cleanroom conditions. They are characterized by defined flow dynamics, low wettability and high thermal stability.

ep Dualfilter T.I.P.S. are sterilized by electron beams and certified pyrogen-free and PCR clean (free from human DNA, DNase, RNase and PCR-inhibiting substances).



Aerosols are formed during the movement of liquids. Without a filter **1** the pipette is exposed to contamination by samples and aerosols. Conventional single-layer filters **2** do not fully block particles and molecules. Only ep Dualfilter T.I.P.S. **3** provide reliable protection even against the finest impurities.

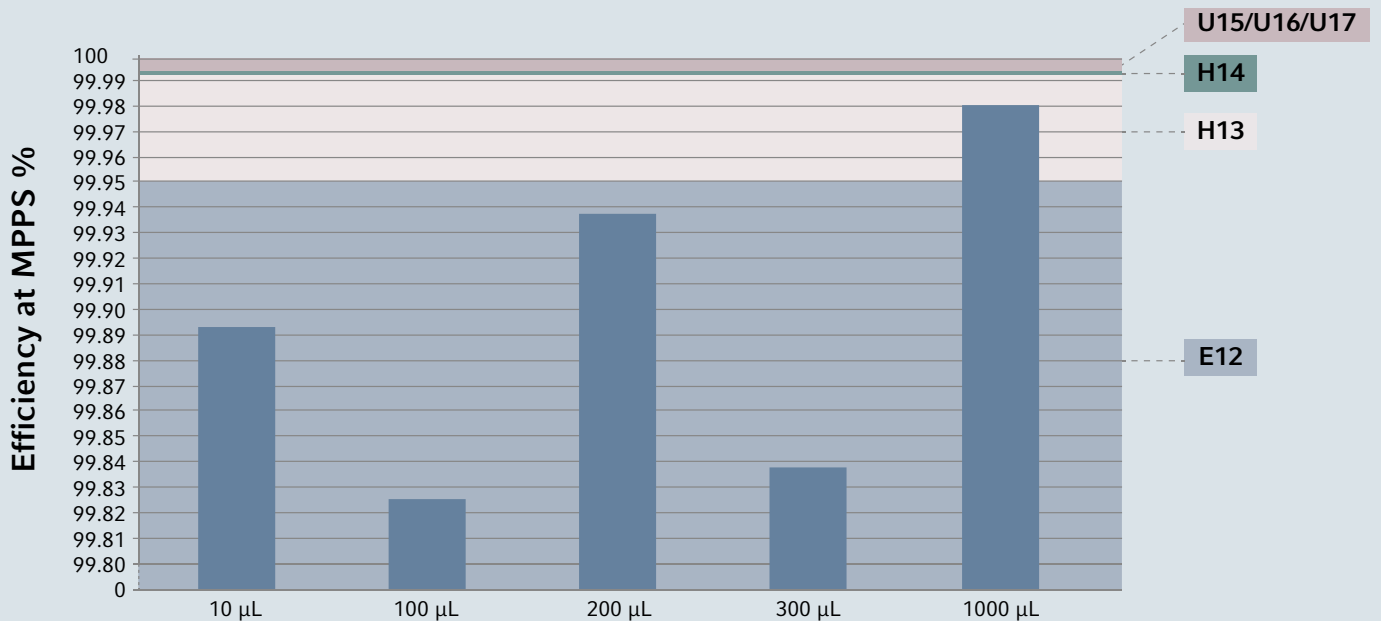
Scientifically Proven

Excellent protection with ep Dualfilter T.I.P.S.®

For the introduction of the ep Dualfilter T.I.P.S.® filter tips in 2006, filter tips from various manufacturers were tested in a blind trial at the Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM) in Hanover, Germany. Testing focused on the prevention of tip cone contamination by aerosols. Efficacy of the filters from various manufacturers to protect against salt aerosols and biomolecules (DNA fragments) was examined. Quantitative determination of DNA fragments was performed using real-time PCR.

The results indicate that ep Dualfilter T.I.P.S. filter tips are much better at protecting against aerosols than the other filter tips tested during the trial. With regard to particle permeability, ep Dualfilter T.I.P.S. are 55 to 677 times more effective. ep Dualfilter T.I.P.S. were 21 to 600 times more effective when protection against DNA fragments was examined for the first time.

Both filters, ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax, are made of the same Polyethylene (PE) and have comparable pore size structure. Thus a further study with ep Dualfilter T.I.P.S. SealMax was conducted based on the standard EN 1822. This standard deals with filtration performance testing of filters as used, for example, for applications in clean room technology or pharmaceutical industry. The results of the filter efficiency testing done by a certified institute showed a minimum particle collection efficiency of the ep Dualfilter T.I.P.S. SealMax of 99.5 % with NaCl aerosol particle sizes of 0.05–0.5 µm.



Performance of ep Dualfilter T.I.P.S. SealMax at MPPS (most penetrating particle size).

Measurements performed according to EN 1822.

Filters retain different particle sizes with different performance. The MPPS displays the lowest performance. The labels on the right side of the graphic refer to different classes of MPPS within the standard EN 1822. All ep Dualfilter T.I.P.S. comply with class E12, whereas the most used ep Dualfilter T.I.P.S. variant, the 1,000 µL tip, even complies with class H13. This means that it catches at least 99.98 % of the particles.

Don't Panic

Your pipette is safe with ep Dualfilter T.I.P.S. SealMax

Eppendorf's ep Dualfilter T.I.P.S. SealMax filter tips protect your pipette against both aerosols and liquids. When it comes to an accidental over-pipetting situation, the new violet layer of ep Dualfilter T.I.P.S. SealMax becomes a reliable barrier against sample liquid – no liquid will pass through the filter. Your pipette is safe at all times! Additionally, virtually 100 % of aerosols* and biomolecules are retained while the hydrophobic white layer protects against splashes and droplets. Further information on specific sample recovery features, PCR inhibition and aerosol protection are available on your local Eppendorf website.

* An aerosol is a colloid of fine solid particles or liquid droplets, in air or another gas.

Product features and benefits

- > Reliable blocking of liquid for comprehensive pipette protection
- > Maximum protection against aerosols and biomolecules for pipette and sample
- > No PCR-inhibition in case of sample contact
- > Available in PCR clean, Sterile (sterile, pyrogen-free)
- > Lot specific purity certificates

Extended applications

- > Applications with toxic or other dangerous sample material
- > Applications where limited sample amounts are available
- > Applications where sample preparation is especially time and cost consuming



Violet Layer

Forms a highly-effective barrier that blocks liquids and binds aerosols and biomolecules.

White Layer

Designed to be hydrophobic to repel drops, splashes and to bind aerosols

epT.I.P.S.® LoRetention

Increased sensitivity with maximum reproducibility

Do you depend on your precious samples? Then don't leave any valuable residues in your tips when pipetting solutions that contain detergents! Based on a unique and innovative method of material modification, the new Eppendorf epT.I.P.S. LoRetention pipette tips allow you to transfer almost 100 % of the liquid picked up («pearl effect») – for maximum recovery with unbeaten precision.

The pipetting of liquids containing detergents is ubiquitous in modern laboratory processes. The lower surface tension of detergents has a marked influence on the dosing properties of samples, thus making it noticeably more difficult to perform reproducible work with these liquids.

The »Pearl Effect«

The ultrahydrophobic extremely homogenous surface of the epT.I.P.S. LoRetention pipette tips is achieved through an innovative treatment at the molecular level – the Pearl Effect Technology.

The tips are uncoated, free from additives, and do not leach into the sample. Liquids roll off completely, so that only a tiny drop remains in the tip. In comparison, the adhesive layer of liquid in standard tips retains considerably more sample material.

For users of the epT.I.P.S. LoRetention pipette tips, this unique material property guarantees maximum sample recovery, improved reproducibility and higher sensitivity. Available in purity grade of PCR clean and Eppendorf Quality, also as PCR clean/Sterile ep Dualfilter T.I.P.S..



The »Pearl Effect« –
Maximum recovery with
epT.I.P.S. LoRetention



Simple differentiation of racks and reloads
through a new, clear lid with a white seal. The
reusable seal supplied with the reloads can



also be used to label existing epT.I.P.S. boxes.
When open, the writing »LoRetention« can be
seen from the inside.

The Facts Speak for Themselves

Maximum reproducibility in genomics epT.I.P.S.

LoRetention pipette tips are especially recommended for applications where highest precision of DNA/RNA analysis results are needed, such as for PCR and real-time PCR or NGS library preparation. For example expensive master mixes and enzyme solutions tend to adhere to the tips inner surface. Special treated low retention surfaces are created to repel detergent solutions to a maximum - for minimum loss of your valuable sample.

Examples of liquids with wetting effect:

- > Master mixes and NGS reagents
- > Enzyme solutions: restriction enzymes, ligation, DNase
- > DNA ladders for gel electrophoresis

epT.I.P.S. LoRetention perform considerably better in terms of precision and sample recovery than standard pipette tips as shown in fig. 1.

Maximum reproducibility in proteomics

It is not only in molecular biology that high sensitivity detection methods require extreme reliability and reproducibility in pipetting. Also in protein analysis and purification the reagents and samples often contain detergents, like e.g. SDS-Page. By minimizing sample retention and improving reproducibility of pipetting, epT.I.P.S. LoRetention pipette tips and ep Dualfilter T.I.P.S. LoRetention filter tips are especially advantageous in proteomic applications.

Routine protein applications:

- > Isolation
- > Purification
- > Denaturation

The facts speak for themselves – when compared to standard pipette tips, epT.I.P.S. LoRetention showed markedly better results in terms of precision and sample recovery, as displayed in fig. 1 and 2.

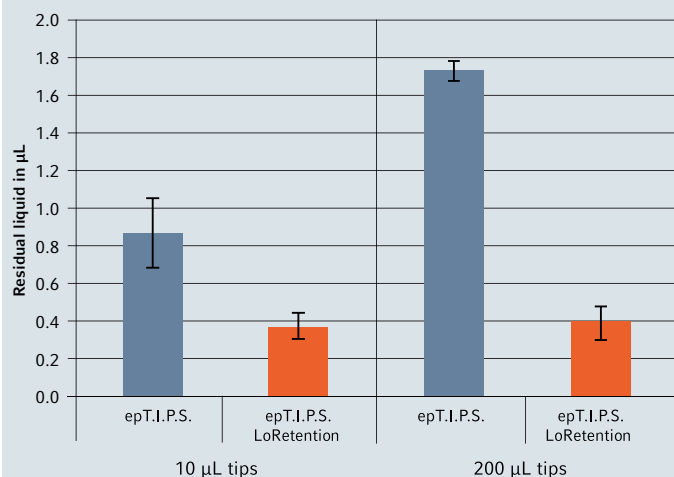


Fig. 1: Comparison of residual liquid of epT.I.P.S. and epT.I.P.S. LoRetention with master mix for *real-time* PCR. Once the liquid had been dispensed, the residual liquid in the tips was determined. The measurements were repeated several times and the standard deviation was determined. epT.I.P.S. LoRetention resulted in the lowest residual liquid.

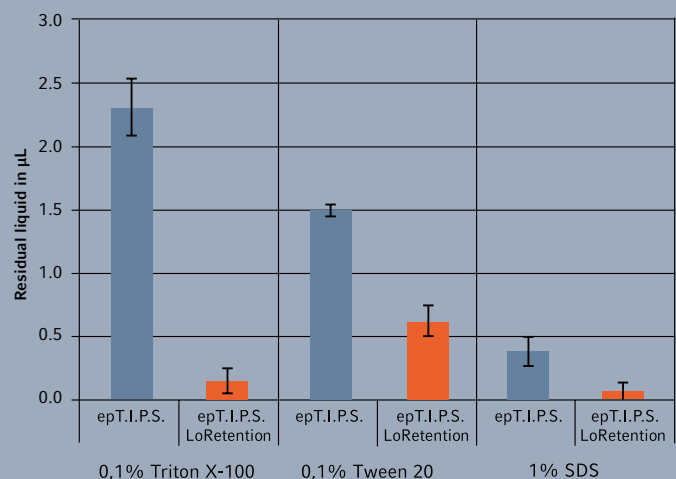


Fig. 2: Comparison of resistance of the low retention property when subjected to solvents typically used in proteomics. 200 µL epT.I.P.S. and epT.I.P.S. LoRetention were treated with the solvents specified. An enzymatic buffer containing detergents was then pipetted and the residual moisture was determined. epT.I.P.S. LoRetention resulted in reproducible low levels of residual liquids.

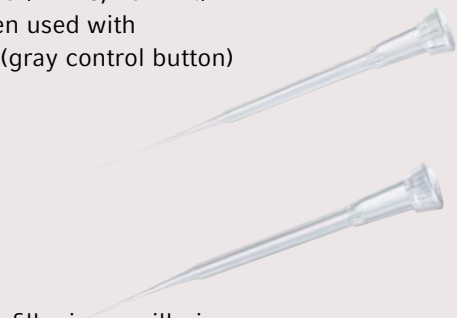
Loading and Filling

Eppendorf GELoader®

Eppendorf's GELoader Tips have been designed to simplify the loading of samples onto polyacrylamide gels. These flexible, long and narrow tips prevent the gels from being damaged whilst allowing optimal handling of smallest volumes.

Product features and benefits

- > Special tip for gel electrophoresis
- > GELoader Tips and rack autoclavable (121°C, 20 min.)
- > Highest precision and accuracy when used with Eppendorf pipettes for 0.5 to 10 µL (gray control button)



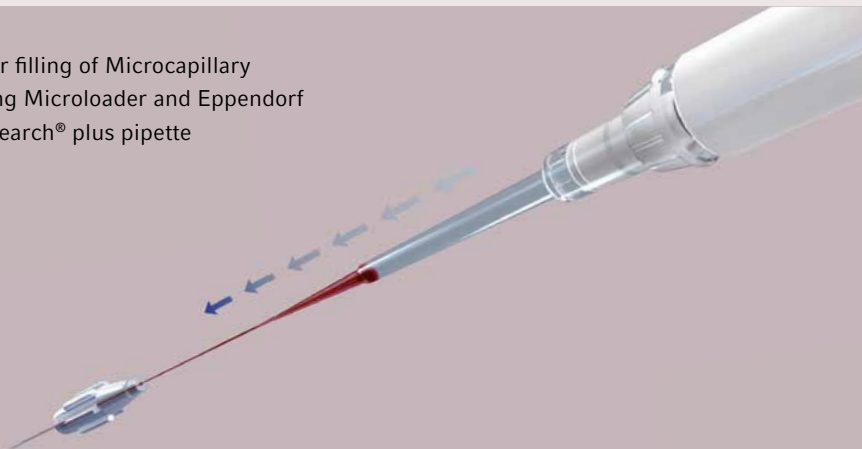
Eppendorf Microloader™

These unique tips are ideally suited to fill microcapillaries used for microinjection. The extremely long, fine and flexible tip provides also the ideal solution for all kind of applications in which additional immersion depth is needed while pipetting smallest volumes.

Product features and benefits

- > Extremely long, fine and flexible for filling of microcapillaries for microinjection
- > Rack package can be autoclaved by 121 °C
- > Ideal for recovering surplus solution from the capillary

Rear filling of Microcapillary using Microloader and Eppendorf Research® plus pipette



Unmistakably Eppendorf –

Thanks to the patented 3D design on the upper rim, Repeaters® are able to automatically and reliably detect the volume type of Combitips advanced®.



Always ready to hand –

Combitips advanced are color coded for easy selection and secure connection – the Combitip rack also makes single-hand operation possible.



A perfect team – The Combitips advanced and ViscoTips® are optimized for all previous and new Repeater models – thus creating a perfect connection!

Time for a New Original



Eppendorf Combitips advanced®

The invention of the Eppendorf Repeater® manual dispenser and the Eppendorf Combitips® marks a milestone in the field of Liquid Handling! Executing long pipetting and dispensing series were thus made significantly simpler and faster. Thanks to its innovative sensor technology for automatic Combitip recognition, this dispensing system has become an indispensable tool for every laboratory. The increasingly high demands of modern laboratory work have also heightened the requirements for a highprecision dispensing tip. Our experts have thoroughly optimized the Combitips using sophisticated engineering.

The result: A revolutionary 360° evolution! Setting a completely new standard in dispensing systems.

The »Combitips« principle

- > Positive displacement principle (comparable to a syringe)
- > High-precision-dispensing regardless of the density and viscosity of the liquid
- > Prevents aerosol contamination with sealed piston for secure dispensing and provides protection from radioactive and toxic substances
- > Quick dispensing of long series with precise, repeated dispensing of identical volumes (in combination with the Repeater)
- > Individually color coded – Quick identification of the desired Combitips facilitates the workflow
- > Variety and selection – With 9 volume sizes (0.1 mL to 50 mL) and several purity levels you will always find the perfect Combitip for your application. The tips in Eppendorf Biopur, Sterile, PCR clean, and Forensic DNA Grade are individually blister-wrapped and feature an access tab which makes them easier to open, even with gloves

Technical Specifications

Combitips advanced®

Technical specifications

Combitips advanced	Min./max. volume	Increment/step size	Max. dispensing volume	Test volume	Inaccuracy*1	Imprecision*1
for Repeater® M4 and Combitips advanced system						
0.1 mL	1 µL 20 µL	1 µL	20 µL	2 µL 20 µL	±1.6 % ±1.0 %	±3.0 % ±2.0 %
0.2 mL	2 µL 40 µL	2 µL	40 µL	4 µL 40 µL	±1.3 % ±0.8 %	±2.0 % ±1.5 %
0.5 mL	5 µL 100 µL	5 µL	100 µL	10 µL 100 µL	±0.9 % ±0.8 %	±1.5 % ±0.6 %
1 mL	10 µL 200 µL	10 µL	200 µL	20 µL 200 µL	±0.9 % ±0.6 %	±0.9 % ±0.4 %
2.5 mL	25 µL 500 µL	25 µL	500 µL	50 µL 500 µL	±0.8 % ±0.5 %	±0.8 % ±0.3 %
5 mL	50 µL 1,000 µL	50 µL	1,000 µL	100 µL 1,000 µL	±0.6 % ±0.5 %	±0.6 % ±0.25 %
10 mL	100 µL 2,000 µL	100 µL	2,000 µL	200 µL 2,000 µL	±0.5 % ±0.5 %	±0.6 % ±0.25 %
25 mL	250 µL 5,000 µL	250 µL	5,000 µL	500 µL 5,000 µL	±0.4 % ±0.3 %	±0.6 % ±0.25 %
50 mL	500 µL 10,000 µL	500 µL	10,000 µL	1,000 µL 10,000 µL	±0.3 % ±0.3 %	±0.5 % ±0.3 %
for Repeater® stream/Xstream/E3/E3x and Combitips advanced system						
0.1 mL	1 µL 100 µL	0.1 µL	0.1 mL	10 µL 50 µL 100 µL	±1.6 % ±1.0 % ±1.0 %	±2.5 % ±1.5 % ±0.5 %
0.2 mL	2 µL 200 µL	0.2 µL	0.2 mL	20 µL 100 µL 200 µL	±1.3 % ±1.0 % ±1.0 %	±1.0 % ±1.0 % ±0.5 %
0.5 mL	5 µL 500 µL	0.5 µL	0.5 mL	50 µL 250 µL 500 µL	±0.9 % ±0.9 % ±0.9 %	±0.8 % ±0.5 % ±0.3 %
1 mL	10 µL 1 mL	1 µL	1 mL	100 µL 500 µL 1,000 µL	±0.9 % ±0.6 % ±0.6 %	±0.55 % ±0.3 % ±0.2 %
2.5 mL	25 µL 2.5 mL	2.5 µL	2.5 mL	250 µL 1,250 µL 2,500 µL	±0.8 % ±0.5 % ±0.5 %	±0.45 % ±0.3 % ±0.15 %
5 mL	50 µL 5 mL	5 µL	5 mL	500 µL 2,500 µL 5,000 µL	±0.8 % ±0.5 % ±0.5 %	±0.35 % ±0.25 % ±0.15 %
10 mL	100 µL 10 mL	10 µL	10 mL	1,000 µL 5,000 µL 10,000 µL	±0.5 % ±0.4 % ±0.4 %	±0.25 % ±0.25 % ±0.15 %
25 mL	250 µL 25 mL	25 µL	25 mL	2,500 µL 12,500 µL 25,000 µL	±0.3 % ±0.3 % ±0.3 %	±0.35 % ±0.25 % ±0.15 %
50 mL	500 µL 50 mL	50 µL	50 mL	5,000 µL 25,000 µL 50,000 µL	±0.3 % ±0.3 % ±0.3 %	±0.5 % ±0.2 % ±0.15 %

*1 The data for imprecision (random error) and inaccuracy (systematic error) according to EN ISO 8655 only apply when using original Eppendorf Combitips advanced.

Compatibility of Combitips advanced with standard laboratory tubes

Combitips advanced/ ViscoTip®	Eppendorf Safe-Lock Tubes			Eppendorf Tubes® 5.0 mL	Conical tubes		Eppendorf Deepwell Plates		
	0.5 mL	1.5 mL	2.0 mL		15 mL	50 mL	96/500 µL	96/1000 µL	96/2000 µL
0.2 mL	+	+	+	+	–	–	+	+	+
0.5 mL	+	+	+	+	–	–	+	+	+
1 mL	+	+	+	+	–	–	+	+	+
2.5 mL	+	+	+	+	+	+	+	+	+
5 mL	+	+	+	+	+	+	+	+	+
10 mL	+	+	+	–	–	+	+	+	+
25 mL	–	+	+	–	–	–	+	+	+
50 mL	–	+	+	–	–	–	+	+	+

ViscoTip®

Experience the new member of the Combitips advanced dispenser tip family. The ViscoTip is specifically designed and optimized for handling high viscosity liquids up to 14,000 mPa*s such as Glycerol 99.5%, Tween, oils, cremes, shampoos or honey. It significantly reduces operating forces while handling such liquids leading to enhanced ergonomics, increased working speed and longer charge life time of your Repeater battery.



1. The optimized geometry significantly reduces operating forces. It allows manual handling of liquids which otherwise would be too viscous for dispensing.
2. The tip allows dispensing volumes in a range from 100 µL up to 10 mL with increments of 10 µL.
3. An adjusted volume scale and a color coded double ring allow instant identification of the ViscoTip.

Applications

- > Positive displacement principle (comparable to a syringe)
- > High viscosity liquids with dynamic viscosities of 200 to 14,000 mPa*s
- > Provides protection from infectious and toxic substances



Positive Displacement Tips



For Eppendorf Maxipettor®

The pipette tips for the Maxipettor are tailored to different vessels. For example, the Eppendorf Maxitips P are designed for aspirating 1 mL to 10 mL from beakers, and it pipettes according to the positive displacement principle. The Eppendorf Maxitip S for 2.5 mL to 10 mL forms a system with the Maxitip and a dispensing part. This system can be used for aspirating liquids from tall, narrow-neck vessels.

Product features and benefits

- > Maxitips P (fig. 1) for aspirating 1 mL to 10 mL from beakers using a positive displacement technique
- > Maxitips S (fig. 2): The dosing part, in combination with the Eppendorf Maxitip (fig. 3) forms a system for aspiration of between 2.5 mL and 10 mL liquid from high, narrow-mouth vessels – air displacement principle
- > Valve for Maxitips ensures drip-free dispensing of liquids with a high vapour pressure
- > Maxitip is graduated for dispensing accurate volumes of nonaqueous liquids



Reliable Unattended Automation



epT.I.P.S.® Motion – Eppendorf Totally Integrated Pipetting System for Automation

For routine pipetting with the best precision in the industry it is important to have a perfect system of tips and automate. The epT.I.P.S. Motion have been developed to work in perfect combination with our epMotion® platform.

The epT.I.P.S. Motion racks consist of two options for simple integration into the epMotion liquid handling workstation: A single use box with color coded trays for easy volume identification and a TipHolder adapter to use the trays as a Reload-System. With color coded trays you can quickly and easily see the volume range of the tip and assure an even higher level of sample safety. The new Reload trays also offer a more environmentally friendly option and will be delivered in a PET blister packaging with a sealed cap assuring the same well established quality as all Eppendorf tips.

The optional TipHolder adapter (autoclavable) replaces the normal tip box component and reduces waste by up to 40 %. A perfect match for the most demanding user.

Product features and benefits

More safety

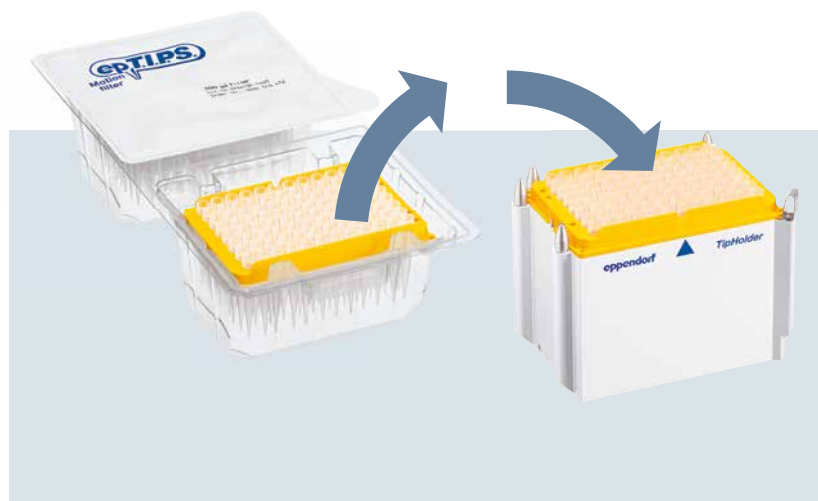
- > Each tip is checked for straightness before packaging
- > Color-coded trays for direct volume identification
- > Dispensing tool design assures an optimal fit each time
- > Optical sensor automatically identifies tip type

Flexible handling

- > For volume ranges (0.2 µL to 1 mL) available with and w/o filter in multiple purity grades
- > Easily exchangeable, no additional labware files required
- > Available as SafeRacks for tip reuse with individual tip compartments

Eco-friendly Reload System








- > Easy conversion with TipHolder adapter
- > TipHolder adapter is autoclavable
- > Reduces waste by up to 40 %

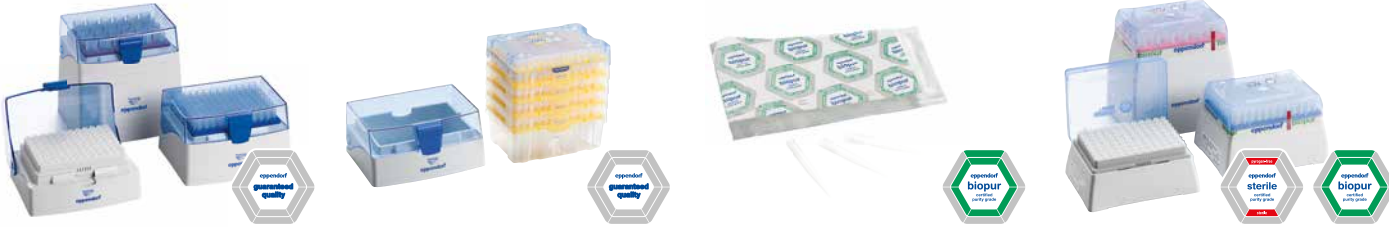


Volume range/epT.I.P.S.®**epT.I.P.S.® LoRetention**


























(all tips shown are actual size)



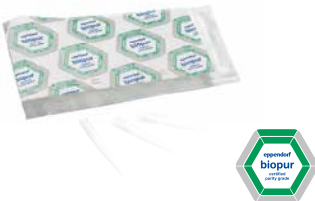

Standard**Reloads****Reloads****Eppendorf Quality™****Eppendorf Quality™****PCR clean**

0.1–10 µL, 34 mm ■ dark gray 	2 bags of 500 tips = 1,000 tips ■ 022492004	10 trays of 96 tips = 960 tips ■ 022491504 ■ 022493018 LoRetention	10 trays of 96 tips = 960 tips ■ 022491709 ■ 022493010 LoRetention
0.1–20 µL, 40 mm ■ medium gray 	2 bags of 500 tips = 1,000 tips ■ 022492012	10 trays of 96 tips = 960 tips ■ 022491512	10 trays of 96 tips = 960 tips ■ 022491717
0.5–20 µL, 46 mm □ light gray 	2 bags of 500 tips = 1,000 tips □ 022492021	10 trays of 96 tips = 960 tips □ 022491521 □ 022493020 LoRetention	10 trays of 96 tips = 960 tips □ 022491725 □ 022493012 LoRetention
2–200 µL, 53 mm ■ yellow 	2 bags of 500 tips = 1,000 tips ■ 022492039	10 trays of 96 tips = 960 tips ■ 022491539 ■ 022493022 LoRetention	10 trays of 96 tips = 960 tips ■ 022491733 ■ 022493014 LoRetention
20–300 µL, 55 mm ■ orange 	2 bags of 500 tips = 1,000 tips ■ 022492047	10 trays of 96 tips = 960 tips ■ 022491547	10 trays of 96 tips = 960 tips ■ 022491741
50–1,000 µL, 71 mm ■ blue 	2 bags of 500 tips = 1,000 tips ■ 022492055	10 trays of 96 tips = 960 tips ■ 022491555 ■ 022493024 LoRetention	10 trays of 96 tips = 960 tips ■ 022491750 ■ 022493016 LoRetention
50–1,250 µL, 76 mm ■ green 	2 bags of 500 tips = 1,000 tips ■ 022492063	10 trays of 96 tips = 960 tips ■ 022491563	10 trays of 96 tips = 960 tips ■ 022491768

Box	Set	Singles	Racks
			
Eppendorf Quality™	Eppendorf Quality™	Eppendorf Biopur®	Eppendorf Sterile Eppendorf Biopur®
1 reusable box incl. 96 tips ■ 022491300	1 reusable box incl. 5 trays of 96 tips ■ 022491407 ■ 0030072251 LoRetention		
1 reusable box incl. 96 tips ■ 022491318	1 reusable box incl. 5 trays of 96 tips ■ 022491415	100 tips, individually wrapped ■ 022491130	Biopur 5 racks of 96 tips = 480 tips Sterile 10 racks of 96 tips = 960 tips ■ 022491067 Biopur ■ 022492250 Sterile
1 reusable box incl. 96 tips □ 022491326	1 reusable box incl. 5 trays of 96 tips □ 022491423 □ 0030072260 LoRetention		
1 reusable box incl. 96 tips ■ 022491334	1 reusable box incl. 5 trays of 96 tips ■ 022491431 ■ 0030072278 LoRetention	100 tips, individually wrapped ■ 022491148	Biopur 5 racks of 96 tips = 480 tips Sterile 10 racks of 96 tips = 960 tips ■ 022491083 Biopur ■ 022492276 Sterile
1 reusable box incl. 96 tips ■ 022491342	1 reusable box incl. 5 trays of 96 tips ■ 0022491440		Biopur 5 racks of 96 tips = 480 tips Sterile 10 racks of 96 tips = 960 tips ■ 022491091 Biopur ■ 022492284 Sterile
1 reusable box incl. 96 tips ■ 022491351	1 reusable box incl. 5 trays of 96 tips ■ 022491458 ■ 0030072286 LoRetention	100 tips, individually wrapped ■ 022491156	Biopur 5 racks of 96 tips = 480 tips Sterile 10 racks of 96 tips = 960 tips ■ 022491105 Biopur ■ 022492292 Sterile
1 reusable box incl. 96 tips ■ 022491369	1 reusable box incl. 5 trays of 96 tips ■ 022491466		Biopur 5 racks of 96 tips = 480 tips Sterile 10 racks of 96 tips = 960 tips ■ 022491113 Biopur ■ 022492306 Sterile

Volume range/epT.I.P.S.®
(all tips shown are actual size)

	Standard	Reloads	Reloads
			
	Eppendorf Quality™	Eppendorf Quality™	PCR clean
50–1,250 µL L, 103 mm 	4 bags of 250 tips = 1,000 tips  022494018	10 trays of 96 tips = 960 tips  022494004	10 trays of 96 tips = 960 tips  022494006
			
0.25–2.5 mL, 115 mm 	5 bags of 100 tips = 500 tips  022492071	10 trays of 48 tips = 480 tips  022491571	10 trays of 48 tips = 480 tips  022491776
			
0.1–5 mL, 120 mm 	5 bags of 100 tips = 500 tips  022492080		
			
0.2–5 mL L, 175 mm 	3 bags of 100 tips = 300 tips  0030000650		
			
0.5–10 mL, 165 mm 	2 bags of 100 tips = 200 tips  022492098		
			
0.5–10 mL L, 243 mm (Image reduced in size) 	2 bags of 100 tips = 200 tips  022492101	Fits in deep and narrow test tubes, cell culture bottles and measuring pistons	
			

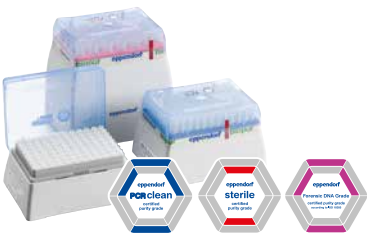
Box	Set	Singles	Racks
			
Eppendorf Quality™ 1 reusable box incl. 96 tips ■ 022494016	Eppendorf Quality™	Eppendorf Biopur® (sterile)	Eppendorf Biopur® (sterile) 5 racks of 96 tips = 480 tips ■ 022494014
1 reusable box incl. 48 tips ■ 022491377	1 reusable box incl. 5 trays of 48 tips ■ 022491474		5 racks of 48 tips = 240 tips ■ 022491121
1 reusable box incl. 24 tips ■ 022491385			5 racks of 24 tips = 120 tips ■ 00030075200 Biopur ■ 022492314 Sterile
			5 racks of 24 tips = 120 tips ■ 0030075218
			5 racks of 24 tips = 120 tips ■ 022491164



Volume range/ep Dualfilter T.I.P.S.[®],
ep Dualfilter T.I.P.S.[®] SealMax,
ep Dualfilter T.I.P.S.[®] LoRetention
(all tips shown are actual size)



Racks



PCR clean, sterile incl. pyrogen-free

0.1–10 µL S, 34 mm ■ dark gray



10 racks of 96 tips = 960 tips

- 022491202
- 022493000 LoRetention
- 0030077806 SealMax

0.1–10 µL M, 40 mm ■ medium gray



10 racks of 96 tips = 960 tips

- 022491211
- 0030077768 Forensic DNA Grade

0.5–20 µL L, 46 mm □ light gray



10 racks of 96 tips = 960 tips

- 022491229
- 022493002 LoRetention
- 0030077814 SealMax

2–20 µL, 53 mm ■ yellow



10 racks of 96 tips = 960 tips

- 022491270
- 0030077776 Forensic DNA Grade

2–100 µL, 53 mm ■ yellow



10 racks of 96 tips = 960 tips

- 022491237
- 022493006 LoRetention
- 0030077822 SealMax

2–200 µL, 55 mm ■ yellow



10 racks of 96 tips = 960 tips

- 022491296
- 0030077830 SealMax
- 0030077784 Forensic DNA Grade

20–300 µL, 55 mm ■ orange



10 racks of 96 tips = 960 tips

- 022491245
- 022493004 LoRetention
- 0030077849 SealMax

50–1,000 µL, 76 mm ■ blue



10 racks of 96 tips = 960 tips

- 022491253
- 022493008 LoRetention
- 0030077857 SealMax
- 0030077792 Forensic DNA Grade

50–1,250 µL L, 103 mm ■ dark green



5 Racks of 96 Tips = 480 Tips

- 022494002

Volume range/ep Dualfilter T.I.P.S.®
(all tips shown are actual size)

Racks



PCR clean, sterile incl. pyrogen-free

0.1–5 mL, 120 mm ■ violet



5 racks of 24 tips = 120 tips
■ 022491261

0.2–5 mL L, 175 mm ■ violet



5 racks of 24 tips = 120 tips
■ 0030077725

0.5–10 mL L, 243 mm ■ turquoise
(Image reduced in size)



100 tips, individually wrapped
■ 022491288

Special Tips

Volume range/pipette tip

0.5–20 µL, 62 mm □ light gray

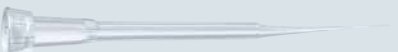


GEloader®

2 racks of 96 tips = 192 tips
□ 022351656



0.5–20 µL, 100 mm ■ medium gray



Microloader

2 racks of 96 tips = 192 tips
■ 930001007



Combitips advanced® and Accessories

Combitips advanced®	Color coding	Eppendorf Quality™ 100 pcs. (4 bags × 25 pcs.)	PCR clean 100 pcs. (4 reclos- able bags × 25 pcs.)	Forensic DNA Grade 100 pcs. (indivi- dually wrapped)	Eppendorf Biopur® 100 pcs. (individually wrapped)	Sterile 100 pcs (indivi- dually wrapped)
0.1 mL	□ white	0030089405	0030089766		0030089618	0030089510
0.2 mL	■ light blue	0030089413	0030089774		0030089626	0030089529
0.5 mL	■ violet	0030089421	0030089782		0030089634	0030089537
1 mL	■ yellow	0030089430	0030089790	0030089855	0030089642	0030089545
2.5 mL	■ green	0030089448	0030089804	0030089863	0030089650	0030089553
5 mL	■ blue	0030089456	0030089812	0030089871	0030089669	0030089561
10 mL	■ orange	0030089464	0030089820		0030089677	0030089570
25 mL*	■ red	0030089472	0030089839		0030089685	0030089588
50 mL*	■ light gray	0030089480	0030089847		0030089693	0030089596
Eppendorf ViscoTips®						
10 mL	■ orange	0030089502				
Accessories						
Adapter advanced						
25 mL adapter (1 pc.)	■ red		0030089715			
50 mL adapter (1 pc.)	■ light gray		0030089723			
25 mL adapter (7 pcs.)	■ red					0030089731
50 mL adapter (7 pcs.)	■ light gray					0030089740
Combitip Rack (for 8 Combitips advanced®, 0.1 mL–10 mL)			0030089758			
Combitips advanced® Assortment pack (1 Combitip of each size, incl. adapters)			0030089936			

* 4 boxes of 25 pcs. each; each box containing one adapter.

Eppendorf Maxitip P and S for Maxipettor®

Description	Order no.
Maxipettor , single-channel, with continuous volume selection, 1 – 10 mL	022290002
Maxitip P , to remove liquid from smaller vessels 100 pieces	022291050
Maxitip S Starter kit to liquid from narrow-necked vessels and measuring flasks, consisting of 100 Maxitips, 10 dispensing parts, 10 valves	022291301
Cylinder with piston , 30 pieces	022291408
Maxitip S , graduated, 200 pieces	022291351
Maxitip S valve , 100 pieces	022291459

epMotion® Automated Pipetting System

Description	Order no.
epT.I.P.S.® Motion pipette tips	
Automatic pipette tips in individual racks for use on the epMotion®. The tip type and size is automatically recognized on the device. 96 epT.I.P.S.®/rack, 10 racks per set. The refill racks from the reload products can be placed in an autoclavable TipHolder adapter. Three purity levels: Eppendorf Quality™, PCR clean and sterile. Pipette tips available with or without a filter. Testing of production batches (certificates available).	
Without filter	
10 µL, sterile, free of pyrogens, volume range 0,2-10 µL, 10 x 96 tips in racks	0030015185
50 µL, sterile, free of pyrogens, volume range 1–50 µL, 10 x 96 tips in racks	0030015207
300 µL, sterile, free of pyrogens, volume range 20–300 µL, 10 x 96 tips in racks	0030015223
1,000 µL, sterile, free of pyrogens, volume range 40–1,000 µL, 10 x 96 tips in racks	0030015240
50 µL, Eppendorf Quality™, volume range 1–50 µL, 10 x 96 tips in racks	0030014405
300 µL, Eppendorf Quality™, volume range 20–300 µL, 10 x 96 tips in racks	0030014448
1,000 µL, Eppendorf Quality™, volume range 40–1,000 µL, 10 x 96 tips in racks	0030014480
50 µL, Eppendorf Quality™, Reloads, volume range 1–50 µL, 24 x 96 tips	0030014421
300 µL, Eppendorf Quality™, Reloads, volume range 20–300 µL, 24 x 96 tips	0030014464
1,000 µL, Eppendorf Quality™, Reloads, volume range 40–1,000 µL, 24 x 96 tips	0030014502
SafeRacks, 50 µL, Eppendorf Quality™, volume range 1–50 µL, 10 x 96 tips	0030014600
SafeRacks, 300 µL, Eppendorf Quality™, volume range 20–300 µL, 10 x 96 tips	0030014626
SafeRacks, 1,000 µL, Eppendorf Quality™, volume range 40–1,000 µL, 10 x 96 tips	0030014642
With filter	
10 µL, PCR clean, sterile, free of pyrogens, volume range 0,2-10 µL, 10 x 96 tips in racks	0030015193
50 µL, PCR clean, sterile, free of pyrogens, volume range 1–50 µL, 10 x 96 tips in racks	0030015215
300 µL, PCR clean, sterile, free of pyrogens, volume range 20–300 µL, 10 x 96 tips in racks	0030015231
1,000 µL, PCR clean, sterile, free of pyrogens, volume range 40–1,000 µL, 10 x 96 tips in racks	0030015258
50 µL, PCR clean, volume range 1–50 µL, 10 x 96 tips in racks	0030014413
300 µL, PCR clean, volume range 20–300 µL, 10 x 96 tips in racks	0030014456
1,000 µL, PCR clean, volume range 40–1,000 µL, 10 x 96 tips in racks	0030014499
50 µL, PCR clean, Reloads, volume range 1–50 µL, 24 x 96 tips	0030014430
50 µL, PCR clean, sterile, free of pyrogens, Reloads, volume range 1–50 µL, 24 x 96 tips	0030014537
300 µL, PCR clean, Reloads, volume range 20–300 µL, 24 x 96 tips	0030014472
300 µL, PCR clean, sterile, free of pyrogens, Reloads, volume range 20–300 µL, 24 x 96 tips	0030014529
1,000 µL, PCR clean, Reloads, volume range 40–1,000 µL, 24 x 96 tips	0030014510
SafeRacks, 50 µL, PCR clean, volume range 1–50 µL, 10 x 96 tips	0030014618
SafeRacks, 300 µL, PCR clean, volume range 20–300 µL, 10 x 96 tips	0030014634
SafeRacks, 1,000 µL, PCR clean, volume range 40–1,000 µL, 10 x 96 tips	0030014650
Reservoir rack modules	
Are inserted in a Reservoir rack. They can be temperature controlled with a thermal module for heating and cooling.	
PCR 0.2 mL, for 8 x 0.2 mL PCR tubes	960002601
Eppendorf Tubes® 5.0 mL, for 4 x 5 mL tubes	5075799340
Eppendorf Safe-Lock, for 4 x 0.5/1.5/2 mL tubes	960002620
Tubes Ø 12 mm, for 4 x Ø 12 mm tubes	960002630
Tubes Ø 16 mm, for 4 x Ø 16 mm tubes	960002640
15 mL conical tubes, for 4 x Ø 17 mm tubes	960002650
50 mL conical tubes, for 2 x Ø 29 mm tubes	960002660
10 mL reservoir, for use with reservoir rack, 5 x 10 large volume reservoirs, PCR clean	0030126521
30 mL reservoir, for use with reservoir rack, 5 x 10 large volume reservoirs, PCR clean	960051009
100 mL reservoir, for use with reservoir rack, 5 x 10 large volume reservoirs, PCR clean	960051017
195 mL low dead volume reservoir, single well with 96 cavities, PCR clean, 4 x 5 reservoirs	0030126556
400 mL reservoir, also for use in the epMotion® VAC, 10 pcs./set, made of PP	960002229

Eppendorf Pipette/epT.I.P.S.® Combinations

Eppendorf Research® plus		0.1 µL– 10 µL (S)	0.1 µL– 10 µL (M)	0.1 µL– 20 µL	0.5 µL– 20 µL L	2 µL– 20 µL	2 µL– 100 µL	2 µL– 200 µL	20 µL– 300 µL
		■ dark gray	■ medium gray	■ light gray	■ yellow	■ yellow	■ yellow	■ yellow	■ orange
ep T.I.P.S.®		✓		✓	✓	✓	✓	✓	✓
ep T.I.P.S.® LoRetention		✓			✓			✓	
ep Dualfilter T.I.P.S.®		✓	✓		✓	✓	✓	✓	✓
ep Dualfilter T.I.P.S.® LoRetention		✓			✓		✓		✓
ep Dualfilter T.I.P.S.® SealMax		✓		✓			✓	✓	✓
Fixed volume									
10 µL	■ medium gray	✓	✓	✓	✓				
20 µL	■ light gray				✓				
10 µL	■ yellow					✓	✓	✓	
20 µL	■ yellow					✓	✓	✓	✓
25 µL, 50 µL, 100 µL	■ yellow						✓	✓	✓
200 µL	■ yellow							✓	✓
200 µL, 250 µL, 500 µL, 1,000 µL	■ blue								
Adjustable volume									
0.1 µL–2.5 µL	■ dark gray	✓	✓	✓					
0.5 µL–10 µL	■ medium gray	✓	✓	✓	✓				
2 µL–20 µL	■ light gray	✓	✓	✓	✓				
2 µ–20 µL	■ yellow					✓	✓	✓	✓
10 µL–100 µL	■ yellow					✓	✓	✓	✓
20 µL–200 µL	■ yellow					✓	✓	✓	✓
30 µL–300 µL	■ orange					✓	✓	✓	✓
100 µL–1,000 µL	■ blue								
0.5 mL–5 mL	■ violet								
1 mL–10 mL	■ turquoise								

Eppendorf Xplorer® Eppendorf Xplorer® plus		0.1 µL– 10 µL (S)	0.1 µL– 10 µL (M)	0.1 µL– 20 µL	0.5 µL– 20 µL L	2 µL– 20 µL	2 µL– 100 µL	2 µL– 200 µL	20 µL– 300 µL
		■ dark gray	■ medium gray	■ light gray	■ yellow	■ yellow	■ yellow	■ yellow	■ orange
ep T.I.P.S.®		✓		✓	✓	✓	✓	✓	✓
ep T.I.P.S.® LoRetention		✓			✓			✓	
ep Dualfilter T.I.P.S.®		✓	✓		✓	✓	✓	✓	✓
ep Dualfilter T.I.P.S.® LoRetention		✓			✓		✓		✓
ep Dualfilter T.I.P.S.® SealMax		✓		✓			✓	✓	✓
0.5 µL–10 µL	■ medium gray	✓	✓	✓	✓				
5 µL–100 µL	■ yellow					✓	✓	✓	✓
15 µL–300 µL	■ orange					✓	✓	✓	✓
50 µL–1000 µL	■ blue								
50 µL–1200 µL	■ green								
0.25 mL–5 mL	■ violet								
0.5 mL–10 mL	■ turquoise								

✓ : Compatible, ✓ : Limited volume

50 µL– 1,000 µL ■ blue	50 µL– 1,250 µL ■ green	50 µL– 1,250 µL L ■ dark green	0.25 mL– 2.5 mL ■ red	0.1 mL– 5 mL ■ violet	0.2 mL– 5 mL L ■ violet	0.5 mL– 10 mL ■ turquoise	0.5 mL– 10 mL L ■ turquoise	GEloader Microloader ■ light gray
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓								
✓		✓		✓	✓	✓	✓	
✓								
✓								
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✓	✓	✓						
				✓	✓			
						✓	✓	

50 µL– 1,000 µL ■ blue	50 µL– 1,250 µL ■ green	50 µL– 1,250 µL L ■ dark green	0.25 mL– 2.5 mL ■ red	0.1 mL– 5 mL ■ violet	0.2 mL– 5 mL L ■ violet	0.5 mL– 10 mL ■ turquoise	0.5 mL– 10 mL L ■ turquoise	GEloader Microloader ■ light gray
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓								
✓		✓		✓	✓	✓	✓	
✓								
✓								
								✓
✓	✓	✓						
	✓	✓						
				✓	✓			
						✓	✓	

Eppendorf Pipette/epT.I.P.S.® Combinations

Eppendorf Reference® 2		0.1 µL– 10 µL (S)	0.1 µL– 10 µL (M)	0.1 µL– 20 µL	0.5 µL– 20 µL L	2 µL– 20 µL	2 µL– 100 µL	2 µL– 200 µL	20 µL– 300 µL
		■ dark gray	■ medium gray	■ light gray	■ yellow	■ yellow	■ yellow	■ yellow	■ orange
ep T.I.P.S.®		✓		✓	✓	✓	✓	✓	✓
ep T.I.P.S.® LoRetention		✓			✓			✓	
ep Dualfilter T.I.P.S.®		✓	✓		✓	✓	✓	✓	✓
ep Dualfilter T.I.P.S.® LoRetention		✓			✓		✓		✓
ep Dualfilter T.I.P.S.® SealMax		✓		✓			✓	✓	✓
Fixed volume									
1 µL, 2 µL	■ dark gray	✓	✓	✓					
5 µL, 10 µL	■ medium gray	✓	✓	✓	✓				
20 µL	■ light gray			✓	✓				
10 µL	■ yellow					✓	✓	✓	
20 µL	■ yellow					✓	✓	✓	✓
25 µL, 50 µL, 100 µL	■ yellow						✓	✓	✓
200 µL	■ yellow							✓	✓
200 µL, 250 µL, 500 µL, 1,000 µL	■ blue								
2 mL, 2.5 mL	■ red								
Adjustable volume									
0.1 µL–2.5 µL	■ dark gray	✓	✓	✓					
0.5 µL–10 µL	■ medium gray	✓	✓	✓	✓				
2 µL–20 µL	■ light gray	✓	✓	✓	✓				
2 µL–20 µL	■ yellow					✓	✓	✓	✓
10 µL–100 µL	■ yellow					✓	✓	✓	✓
20 µL–200 µL	■ yellow					✓	✓	✓	✓
30 µL–300 µL	■ orange					✓	✓	✓	✓
100 µL–1,000 µL	■ blue								
0.25 mL–2.5 mL	■ red								
0.5 mL–5 mL	■ violet								
1 mL–10 mL	■ turquoise								

✓ : Compatible, ✓ : Limited volume

PhysioCare
concept



Make Your Lab a Better Place

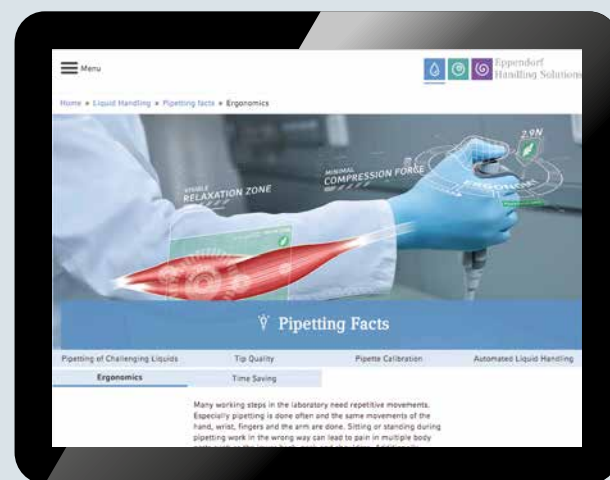
The Eppendorf Liquid Handling Instruments Portfolio

As the inventor of the microliter system, we at Eppendorf have more than fifty years of experience in precise manual and automatic pipetting and transferring of the smallest quantities of liquids. The standards defined by Eppendorf quality assurance (for example, precision and accuracy guidelines) clearly surpass the standards required to obtain these results, and guarantee the reproducibility that our customers have come to depend on.

Our »PhysioCare Concept®« incorporates growing ergonomic demands into all that we do. The use of our liquid handling products has been proven to reduce physical strain at the workstation to a minimum.

This has been perfected by the ergonomic design of our products and flawless fit of device to consumable (e.g., measurably reduced ejecting force when pipetting).

For more information visit
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