

DNA Template Prep and Sequencing Reaction Cleanup



Montage™ Genomics Kits and MultiScreen® filter plates incorporate size-exclusion technology for high performance PCR, BAC, and plasmid template preparation, as well as 96- and 384-well sequencing reaction cleanup. DNA gel extraction kits, centrifugal filters for enzyme removal and Immobilon™ blotting membranes are also available.

Visit www.millipore.com for performance data, ordering information, and links to automation protocols.

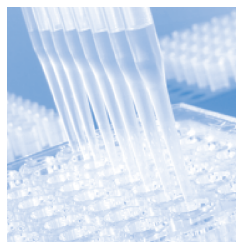
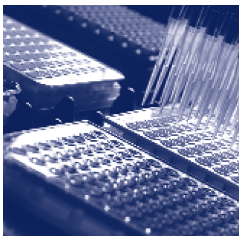


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PCR Cleanup



Montage PCR filter plates offer fast, automatable solutions for high-throughput PCR purification. Available in 96- and 384-well formats, including micro 96-well format for small volume PCR product purification, Montage PCR filter plates provide high purity and high recovery. The protocol is fast with fewer handling steps than other methods.

For single samples, Millipore also provides Montage PCR centrifugal filters. These one-up filter units yield quality DNA in a single 15-minute spin.

- High purity and high recovery
- Fast processing times
- >99.5% primer removal
- MultiScreen PCR_{μ96} microwell filter plate recommended for small fragments (1 – 150 bp)

Selection Guidelines

| Product Name | Reaction Volume | Number of Samples | Mode of Operation | Recommended Applications | Features |
|---|-----------------|-------------------|-------------------|--|---|
| Montage PCR _{μ96} Filter Plate | 1 – 150 μL | 96 | Vacuum | Sequencing Genotyping Microarray | <ul style="list-style-type: none"> • Highly concentrated final sample • Reaction miniaturization |
| MultiScreen PCR ₉₆ | 150 – 300 μL | 96 | Vacuum | Microarray | <ul style="list-style-type: none"> • Volumetric capacity |
| MultiScreen PCR ₃₈₄ Filter Plate | 1 – 100 μL | 384 | Vacuum | Sequencing Genotyping Microarray | <ul style="list-style-type: none"> • Highly concentrated final sample • Reaction miniaturization • Ultra-high throughput |
| Montage PCR Filter Unit | 1 – 100 μL | 1 | Centrifugal | Cloning General purpose | <ul style="list-style-type: none"> • Single-spin operation • Volumetric capacity |

Ordering Information*

| Description | Qty/Pk | Catalogue No. | Vacuum manifold (sold separately) |
|--|------------------------|----------------------------|-----------------------------------|
| MultiScreen PCR _{μ96} Filter Plates | 10 plates 50 plates | LSKM PCR 10 LSKM PCR 50 | SAVM 384 01 |
| MultiScreen PCR ₉₆ Filter Plates | 10 plates 50 plates | MANU 030 10 MANU 030 50 | MAVM 096 0R |
| MultiScreen PCR ₃₈₄ Filter Plates | 10 plates 50 plates | S384 PCR 10 S384 PCR 50 | SAVM 384 01 |
| Montage PCR Filter Units | 50 units 250 units | UFC7 PCR 50 UFC7 PC2 50 | N/A (centrifugal) |

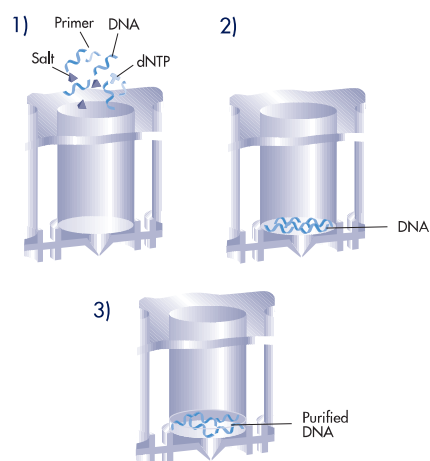
*Accessories listed on back cover.

New MultiScreen PCR_{μ96} Filter Plate

- ▶ MultiScreen PCR₉₆ Filter Plate
- ▶ MultiScreen PCR₃₈₄ Filter Plate
- ▶ Montage PCR Centrifugal Filter

Remove Primers and Unincorporated dNTPs in One Step

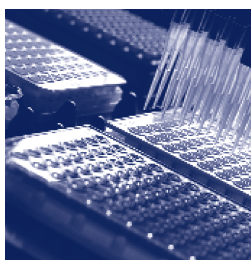
Montage PCR cleanup products incorporate Millipore's size-exclusion technology for sample cleanup without bind-wash-elute steps or added solvents.



1. Load sample.
2. Apply force to purify sample. Contaminants filter to waste and PCR products remain on top of membrane.
3. Add resuspension buffer to recover sample*.

*Single-sample centrifugal devices require an inverted spin to recover sample.

Plasmid Minipreps



This fast, easy-to-use kit yields clean and reproducible DNA in 50% less time than traditional methods. There are no bind-wash-elute or centrifugation steps.

The kit includes all the reagents and disposable materials needed to purify plasmid DNA in a 96-well format. Purified samples are suitable for the most sensitive downstream applications including cloning, DNA sequencing and transformation.

- No centrifugation or precipitation steps required
- Minimum processing time
- Excellent purity, yields and reproducibility

Ordering Information*

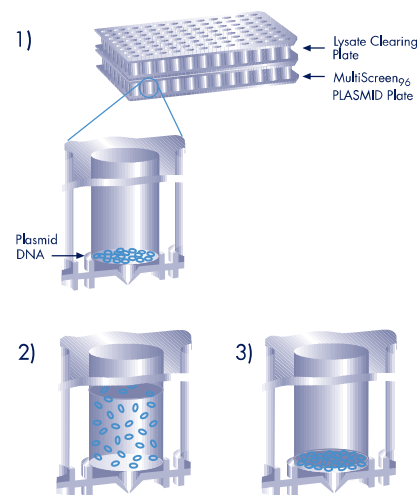
The kit includes all the reagents and disposable materials you need to purify plasmid DNA in a 96-well format.

| Description | Qty/Pk | Catalogue No. | Vacuum manifold (sold separately) |
|--|---------------------------|---------------|-----------------------------------|
| Montage Plasmid Miniprep ₉₆ Kit | 1 x 96 plasmid miniprep | LSKP 096 01 | MAVM 096 0R |
| | 4 x 96 plasmid minipreps | LSKP 096 04 | |
| | 24 x 96 plasmid minipreps | LSKP 096 24 | |

*Accessories listed on back cover.

► Montage Plasmid Miniprep Kit

Simply Clear, Concentrate and Wash, and Recover



1. Using vacuum, clear lysates with the lysate Clearing Plate. Cleared lysate is captured in the MultiScreenTM PLASMID Plate.
2. Move MultiScreen₉₆ PLASMID plate to top of manifold and apply vacuum for approximately 5 to 7 minutes to concentrate sample. Plasmid DNA is retained on the membrane surface while contaminants are filtered to waste. Add wash solution and filter for 3 to 5 minutes.
3. Add resuspension buffer and collect purified sample by aspiration.

BAC Minipreps



The Montage BAC₉₆ Miniprep kit is specifically optimized for fast and reliable BAC DNA, fosmid, and cosmid purification. The automation-compatible kit prepares sequencing-grade quality, RNA-free DNA that yields excellent read lengths. Purified samples are available in <60 minutes—including a 10-minute resuspension step.

- No alcohol precipitation steps
- Quick, 10-minute resuspension of purified BAC DNA
- Sequencing-grade quality DNA

Ordering Information*

Each kit includes the required reagents and disposable materials, a comprehensive user guide, and an easy-to-follow protocol card.

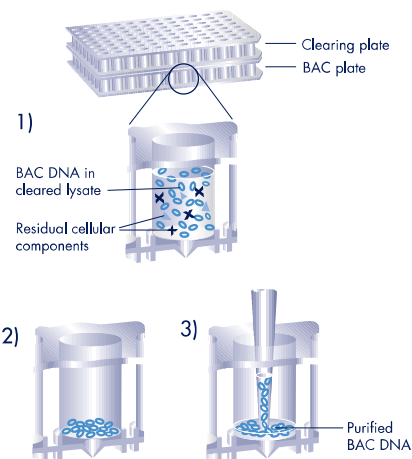
| Description | Qty/Pk | Catalogue No. | Vacuum manifold (sold separately) |
|--|----------------------------|---------------|-----------------------------------|
| Montage BAC ₉₆ Miniprep Kit | 1 x 96-well BAC minipreps | LSKB 096 01 | MAVM 096 OR |
| | 4 x 96-well BAC minipreps | LSKB 096 04 | |
| | 24 x 96-well BAC minipreps | LSKB 096 24 | |

*Additional accessories listed on back cover.

► Montage BAC Miniprep₉₆ Kit

60-minute Protocol Including Resuspension Step

The vacuum-based protocol is fast and easy—and eliminates centrifugation steps.



1. Assemble Clearing plate (top) and BAC plate (bottom) in manifold. Add lysate to Clearing plate and apply vacuum (6 – 8 min). Cleared lysate is collected in the BAC plate.
2. Discard Clearing plate and move BAC plate to top of manifold. Apply vacuum (6 – 10 min) to concentrate BAC DNA on the BAC plate membrane surface. Contaminants are filtered to waste. Add wash solution and apply vacuum (4 – 6 min) to wash.
3. Add resuspension solution and collect purified BAC DNA by aspiration from the top.

Sequencing Reaction Cleanup



Montage and MultiScreen Sequencing Reaction Cleanup products incorporate patented size-exclusion membrane to yield highly purified sequencing reaction products. In addition to eliminating centrifugation steps, filter plates do not require filtrate collection or column packing. Available in 96- and 384-well formats, the plates follow a vacuum-driven protocol, and are automation compatible.

Size-exclusion technology eliminates variability in sequencing reaction cleanup. Because there is no alcohol precipitation, there is no risk of salts or ethanol affecting final sequencing results. Pass rates are consistently high and results are reproducible.

The 96-well Montage kit includes all the reagents needed for sample processing.

- 10-minute vacuum-based protocol
- Compatible with a variety of templates
- Optimized for use with BigDye™ chemistries

Ordering Information

| Description | Qty/Pk | Catalogue No. | Vacuum manifold (sold separately) |
|---|---------------|---------------|-----------------------------------|
| Montage SEQ ₉₆ Sequencing Reaction Cleanup Kit (includes 96-well filter plates and injection solution) | 1 × 96 wells | LSKS 096 01 | SAVM 384 01 |
| | 4 × 96 wells | LSKS 096 04 | |
| | 24 × 96 wells | LSKS 096 24 | |

| | | |
|--|-----------|-------------|
| MultiScreen SEQ ₃₈₄ Filter Plates (does not include reagents) | 10 plates | S384 SEQ 10 |
| | 50 plates | S384 SEQ 50 |

Accessories*

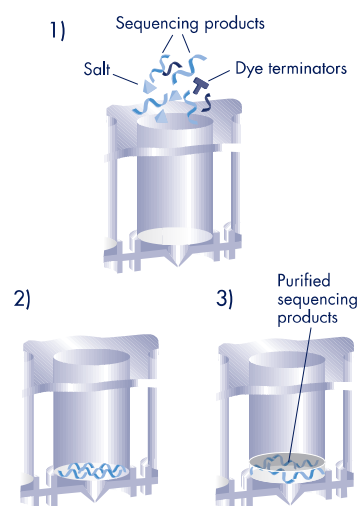
| Description | Catalogue No. |
|------------------------------------|---------------|
| Montage Wash Solution, 500 mL | LSKS BW5 00 |
| Montage Injection Solution, 500 mL | LSKS IS5 00 |

*Accessories listed on back cover.

- ▶ Montage SEQ₉₆ Sequencing Reaction Cleanup Kit
- ▶ MultiScreen SEQ₃₈₄ Filter Plate

Patented Size-exclusion Technology

Montage SEQ Sequencing Reaction Cleanup kits follow a 10-minute, vacuum-driven protocol that is easily integrated with automation.



1. Add sample and injection solution to well.
2. Filter using Montage vacuum manifold until wells are empty. DNA is retained on the membrane surface while smaller contaminants are filtered to waste.
3. Wash sample once, resuspend, and recover.

DNA Extraction from Agarose Gels



The Montage DNA Gel Extraction Kit is a fast, effective solution for fully functional DNA recovery from agarose gel slices. In one 10-minute spin, the agarose gel containing the DNA of interest is fragmented and compressed to extrude the DNA ready for sequencing or cloning.

The kit includes Ultrafree-DA centrifugal units with optimized TAE buffer solution (concentrate) for gel casting and running. Ultrafree-DA centrifugal units are also available separately.

- Maximizes DNA recovery from agarose gel slices
- One 10-minute spin recovers fully functional DNA
- Purified DNA is ready for cloning or sequencing

Ordering Information

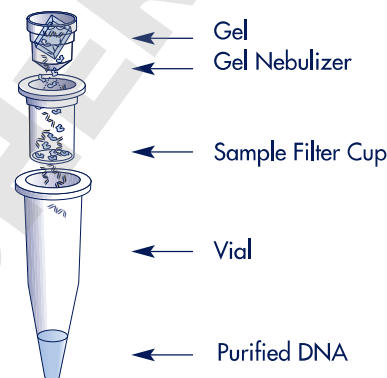
| Description | Qty/Pk | Catalogue No. |
|--|-------------------|---------------|
| Montage DNA Gel Extraction Kit (Includes 50 Ultrafree-DA devices and 500 mL of 50x stock modified TAE buffer) | 50 devices/pk | LSKG E10 50 |
| Ultrafree-DA Centrifugal Filters | 50 | 42600 |
| Optional Accessories | | |
| 50 x Modified TAE buffer | 1 x 500 mL bottle | LSKM TAE 50 |

▶ Montage DNA Gel Extraction Kit

▶ Ultrafree®-DA Centrifugal Unit

Single-spin Operation

Centrifugal force drives the agarose slice through a small orifice in the Gel Nebulizer. The resultant gel slurry is sprayed into the sample filter cup. As the spin compresses the agarose, DNA is extruded from the gel pores. The gel matrix is retained by the membrane, while purified DNA passes through into the collection vial.



Exploded view of Ultrafree-DA centrifugal unit.

Enzyme Removal and DNA desalting/concentration

Micropure-EZ provides an easy, rapid means of removing restriction endonucleases and other enzymes from double-stranded (ds) DNA. The membrane in the device has a high affinity for protein but dsDNA remains in solution. In a single 30-second spin, enzymes from the reaction mix are selectively adsorbed and DNA is recovered in a vial – undiluted and enzyme-free. If concentration or desalting of the sample is required, Microcon® centrifugal filter devices may be substituted for the filtrate vial, to enable DNA purification, concentration and desalting in a single unit.

- Fast protocol
- >85% recovery of dsDNA
- One step-step DNA purification

Ordering Information

| Membrane Description | Qty/Pk | Catalogue No. |
|--|--------|---------------|
| Micropure-EZ Enzyme Removers | 8 | 42528 |
| | 24 | 42529 |
| | 100 | 42530 |
| Micropure-EZ Enzyme Removers Filter units only (for use with Microcon) | 8 | 42531 |
| | 24 | 42532 |
| | 100 | 42533 |

| Membrane Description | MW Cut-Off | Nucleotide Cut-off Double-stranded | Qty/Pk* | Catalogue No. |
|--|------------|------------------------------------|---------|---------------|
| Microcon Centrifugal UF Filter Devices (includes 2 vials with each device) | | | | |
| Microcon YM-3 | 3,000 | 10 | 24 | 42403 |
| Microcon YM-10 | 10,000 | 20 | 24 | 42406 |
| Microcon YM-30 | 30,000 | 50 | 24 | 42409 |
| Microcon YM-50 | 50,000 | 100 | 24 | 42415 |
| Microcon YM-100 | 100,000 | 125 | 24 | 42412 |

*8 and 100 packs also available.

▶ Micropure-EZ Centrifugal Filter

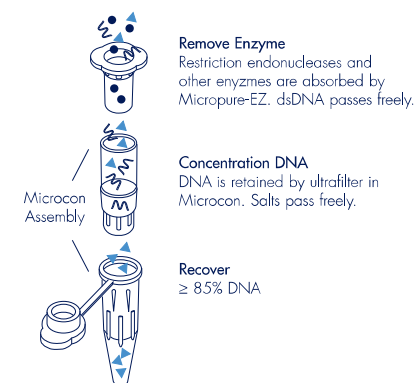
Selection Guideline

| Intended Use | Recommended Device |
|--|--|
| Enzyme removal only | Micropure-EZ |
| Enzyme removal and DNA concentration/desalting | Micropure-EZ filter unit only and Microcon -30 and -50 |



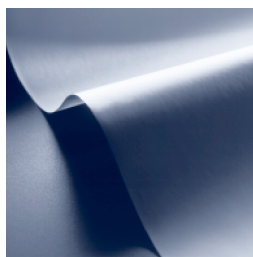
Simultaneous enzyme removal and concentration, buffer exchange or desalting, with Micropure-EZ and Microcon

Enzyme removal with Micropure-EZ



Blotting and Colony Lifts

► Immobilon-Ny+ Transfer Membrane



For superior results in genomics applications including Southern blotting, northern blotting, and colony/plaque lifts, use Immobilon-Ny+ Transfer Membrane.

Immobilon-Ny+ is a positively charged nylon membrane optimized for reliable and reproducible transfer, immobilization, hybridization, and subsequent reprobing. The density and uniformity of the positively charged surface produces maximum sensitivity with minimal background. The membrane is reinforced for enhanced durability, which is especially important in reprobing experiments.

- Maximum sensitivity with minimal background
- Exceptional reprobing characteristics
- Performs well in both chemiluminescent and radioactive detection systems

Ordering Information

Immobilon-Ny+ Blotting Membranes are available in discs, sheets, and rolls.

| Description | Qty/Pkg | Catalogue No. |
|----------------------|-----------|----------------------------|
| 82 mm disc | 50 | INYC 082 50 |
| 85 mm disc | 50 | INYC 085 50 |
| 132 mm disc | 50 | INYC 132 50 |
| 137 mm disc | 50 | INYC 137 50 |
| 6 x 11 sheet | 50 | INYC 611 50 |
| 9 x 12 sheet | 50 | INYC 091 20 |
| 10 x 10 cm sheet | 10 | INYC 101 00 |
| 20 x 20 cm sheet | 10 | INYC 202 00 |
| 22.2 x 22.2 cm sheet | 10 100 | INYC 222 20 INYC 222 2C |
| 26 x 26 cm sheet | 10 | INYC 262 60 |
| 30 cm x 3.3 m roll | 1 | INYC 000 10 |

Accessories

| Item | Description | Catalogue No. |
|--|--|---------------|
| MultiScreen Vacuum Manifold (96-well) | For use with: <ul style="list-style-type: none">• MultiScreen PCR₉₆• Montage BAC₉₆ Miniprep Kit• Montage Plasmid Miniprep₉₆ Kit | MAVM 096 OR |
| MultiScreen Vacuum Manifold (384 well) | For use with microwell plates: <ul style="list-style-type: none">• MultiScreen PCR₉₆ filter plate• MultiScreen PCR₃₈₄ filter plate• MultiScreen SEQ₃₈₄ filter plate | SAVM 384 01 |

Components for Assembling Complete Vacuum Filtration Systems

| Item | Description/Qty | Catalogue No. |
|--|---|---|
| Chemical Duty Pump | 115 V, 60 Hz 220 V, 50 Hz 100 V, 50 – 60 Hz | WP61 115 60 WP61 220 50 WP61 100 60 |
| Millex-FA 50 hydrophobic vent filter | 10/pk | SFA 050 10 |
| Tubing, silicone vacuum, 25 ft | | XX80 000 25 |
| Vacuum Filtering Flask, 1 Liter (2 required) | 1 | XX10 047 05 |
| Perforated silicone stopper, $\frac{1}{16}$ " hole | 5 | XX10 047 08 |
| MultiScreen Sealing Tape, Opaque Non-sterile | 100/pk | MATA HOP 00 |
| MultiScreen Sealing Tape, Clear Non-sterile | 100/pk | MATA HCL 00 |

To Place an Order or Receive Technical Assistance

For additional information call your nearest Millipore office:

In the U.S. and Canada, call toll-free **1-800-MILLIPORE (1-800-645-5476)**

In the U.S., Canada and Puerto Rico, fax orders to **1-800-MILLIFX (1-800-645-5439)**

Internet: www.millipore.com

Tech Service: www.millipore.com/techservice

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