MILLIPORE

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

- New **MultiScreen PCR$_{\mu 96}$ Filter Plate**
- **MultiScreen PCR$_{96}$ Filter Plate**
- **MultiScreen PCR$_{384}$ Filter Plate**
- **Montage PCR Centrifugal Filter**



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$_{\mu 96}$ 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$_{\mu 96}$ Filter Plate	1 – 150 µL	96	Vacuum	Sequencing Genotyping Microarray	• Highly concentrated final sample • Reaction miniaturization
MultiScreen PCR$_{96}$	150 – 300 µL	96	Vacuum	Microarray	• Volumetric capacity
MultiScreen PCR$_{384}$ Filter Plate	1 – 100 µL	384	Vacuum	Sequencing Genotyping Microarray	• Highly concentrated final sample • Reaction miniaturization • Ultra-high throughput
Montage PCR Filter Unit	1 – 100 µL	1	Centrifugal	Cloning General purpose	• Single-spin operation • Volumetric capacity

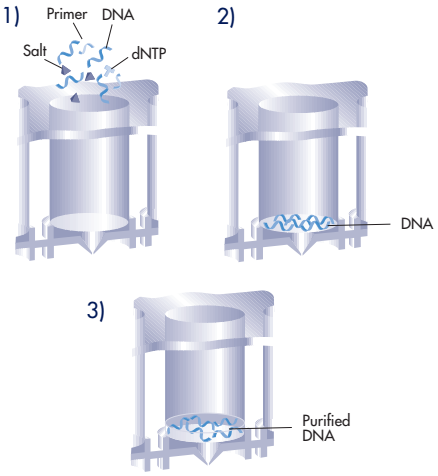
Ordering Information*

Description	Qty/Pk	Catalogue No.	Vacuum manifold (sold separately)
MultiScreen PCR$_{\mu 96}$ 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.

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.

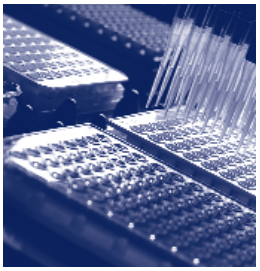


1. Load sample.
2. Apply force to purify sample. Contaminants filter to waste and PCR products remain on top of membrane.
3. Add resuspension buffer to recover sample*.

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

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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

▶ Montage Plasmid Miniprep Kit

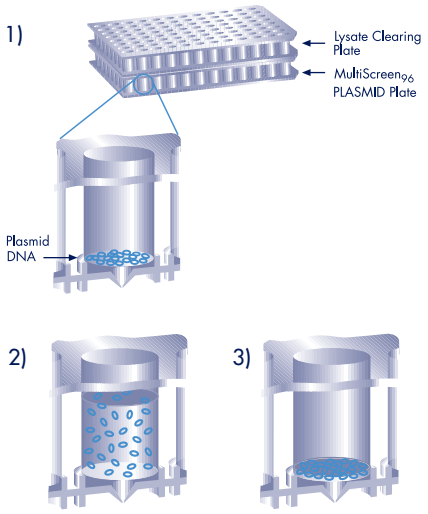
Ordering Information*

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.

Simply Clear, Concentrate and Wash, and Recover



1. Using vacuum, clear lysates with the Lysate Clearing Plate. Cleared lysate is captured in the MultiScreen™$_{96}$ PLASMID Plate.
2. Move MultiScreen$_{96}$ 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.

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BAC Minipreps



The Montage BAC$_{96}$ 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*

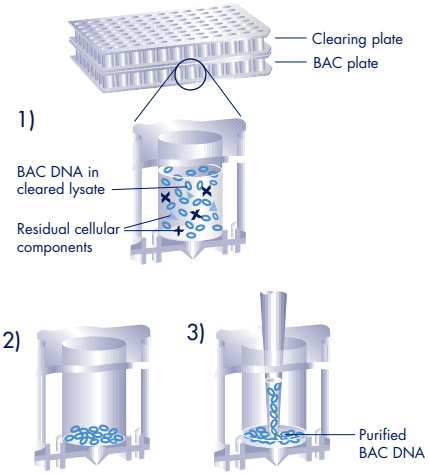
Each kit includes the required reagents and disposable materials, a comprehensive user guide, and an easy-to-follow protocol card.

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 0R
	4 x 96-well BAC minipreps	LSKB 096 04	
	24 x 96-well BAC minipreps	LSKB 096 24	

*Additional accessories listed on back cover.

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.

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Sequencing Reaction **Cleanup**

- **Montage SEQ$_{96}$ Sequencing Reaction Cleanup Kit**
- **MultiScreen SEQ$_{384}$ Filter Plate**



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. Avalible 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 x 96 wells	LSKS 096 01	SAVM 384 01
	4 x 96 wells	LSKS 096 04	
	24 x 96 wells	LSKS 096 24	
MultiScreen SEQ$_{384}$ Filter Plates *(does not include reagents)*			
	10 plates	S384 SEQ 10	
	50 plates	S384 SEQ 50	

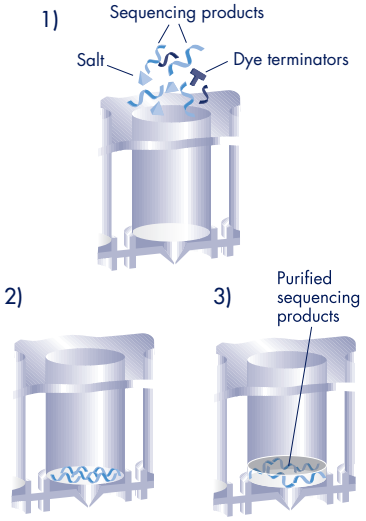
Accessories*

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

*Accessories listed on back cover.

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.

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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

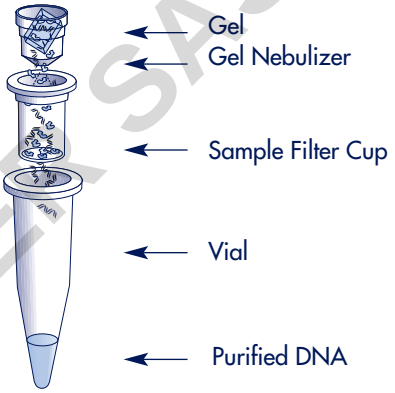
Description	Qty/Pk	Catalogue No.
Montage DNA Gel Extraction Kit *(Includes 50 Ultrafree-DA devices and 500 mL of 50x stock modified TAE buffer)*	50 devices/pk	LSKG EL0 50
Ultrafree-DA Centrifugal Filters	50	42600
Optional Accessories		
50 x Modified TAE buffer	1 x 500 mL bottle	LSKM TAE 50

▶ 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.

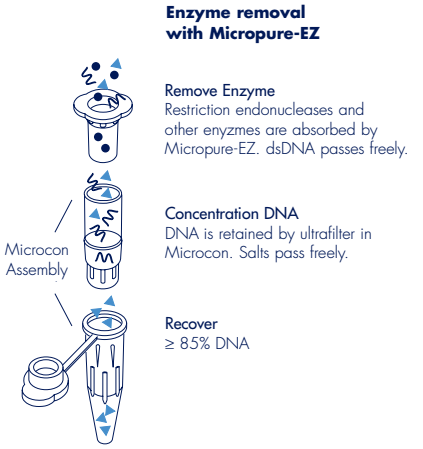
▶ Micropure-EZ Centrifugal Filter

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

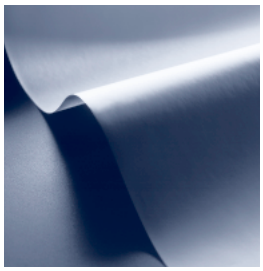
DNA ● Enzyme ▲ Salt

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



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Blotting and Colony Lifts



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

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Accessories

Item	Description	Catalogue No.
MultiScreen Vacuum Manifold (96-well)	For use with: • MultiScreen PCR_{96} • Montage BAC_{96} Miniprep Kit • Montage Plasmid $Miniprep_{96}$ Kit	MAVM 096 0R
MultiScreen Vacuum Manifold (384 well)	For use with microwell plates: • MultiScreen $PCR_{\mu 96}$ filter plate • MultiScreen PCR_{384} filter plate • MultiScreen SEQ_{384} 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	SLFA 050 10
Tubing, silicone vacuum, 25 ft		XX80 000 25
Vacuum Filtering Flask, 1 Liter (2 required)	1	XX10 047 05
Perforated silicone stopper, $^{9}/_{16}$" hole	5	XX10 047 08
MultiScreen Sealing Tape, Opaque Non-sterile	100/pk	MATA H0P 00
MultiScreen Sealing Tape, Clear Non-sterile	100/pk	MATA HCL 00

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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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Lit. No. MC1005ENUS Rev. - 10/04 Printed in U.S.A. 04-053
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