

MultiScreen® PCR_{μ96} Plate User Guide

LSKM PCR 10 (10/pk) ■ LSKM PCR 50 (50/pk)

Introduction

The MultiScreen® PCR_{μ96} plate is a small volume, 96-well device for the purification of PCR products. The PCR_{μ96} plate enables purification of both small and large volume PCR reactions (e.g., 20–100 μL) with recovery of purified products in as little as 20 μL of solution. The vacuum-based, size exclusion separation effectively removes contaminating salts, unincorporated dNTPs and primers from PCR reactions in less than 15 minutes. The purified DNA is suitable for downstream applications such as sequencing, genotyping, or microarraying. Additionally, the automation friendly design of the MultiScreen PCR_{μ96} plate makes it ideal for high throughput applications.

Usage Guidelines

- The use of PCR reaction buffers that contain high concentrations of surfactants (i.e., greater than the critical micelle concentration) or protein stabilizers (e.g., gelatin) is not recommended for this application. Surfactants including Tween®-20, Triton® X-100 and Nonidet® P-40 are not efficiently removed by the MultiScreen PCR_{μ96} plates and may result in carry-over into subsequent reactions.
- The use of a partial plate is not recommended.
- Filtration time will vary depending on the amount of DNA and/or the volume of the PCR reaction. The greater the amount of DNA, the longer the filtration times necessary.
- For optimal recovery of PCR products, do not exceed the recommended vacuum pressure.

How to Use the MultiScreen PCR_{μ96} Plate

1. Adjust the volume of the PCR reactions to 100 μL with TE Buffer.
NOTE: Dilution is critical for optimal recovery of PCR products but is not necessary for reaction volumes greater than 100 μL.
2. Transfer PCR reactions to the MultiScreen PCR_{μ96} plate.
3. Place the MultiScreen PCR_{μ96} plate on the vacuum manifold (Millipore Cat. No. SAVM 384 01) and apply vacuum at 20 inches Hg for 7 to 12 minutes, or until the wells are completely empty.
NOTE: Complete filtration of PCR products is required for sample purity. The filters appear shiny even after they are dry, and should remain under vacuum for a minute after the last well has filtered to dryness.
4. Remove MultiScreen PCR_{μ96} plate from manifold and, if desired, use an absorbent material to blot any remaining droplets from the bottom of the filter prior to resuspending the purified PCR products.
NOTE: A wash step may be added, using 25–100 μL of water or buffer, followed by vacuum filtration. A washing step will be more effective if wash buffer is mixed several times within each well prior to vacuum filtration. A moderate decrease in overall recovery of purified PCR products may be observed when a wash step is employed.
5. Dissolve the samples in a suitable aqueous buffer (e.g., Milli-Q® grade water or TE buffer) by vigorously mixing, using either a pipetting workstation or a plate mixer.
NOTE: Maximal recovery of purified PCR products requires efficient dissolution of the concentrated nucleic acid from the membrane surface. For example, the Beckman Multimek™-96 workstation can be used to dissolve the samples in 20 μL by adjusting the tip height to just above the membrane surface and mixing 15 μL for 50 cycles at 50% pipetting speed. Other pipetting workstations may also be used to efficiently resuspend purified products from the MultiScreen PCR_{μ96} plate. Alternatively, the purified samples can be dissolved by shaking for 10 minutes on, for example, a Lab-Line® Titer Plate Shaker (Model 4625) set at 1100 rpm.
6. Retrieve the purified PCR products from each well by pipetting.

Storage

Prolonged storage of either dry or resuspended PCR products in the MultiScreen PCR_{μ96} plate is not recommended. If storage is required, we recommend transferring the resuspended samples to a solid-bottom plate, sealing the plate to prevent evaporation, and storing at 4 °C.

MILLIPORE

Specifications

Maximum well volume: 175 μ L
Working well volume: 100–150 μ L
PCR product capacity (maximum evaluated): 10.0 μ g
Distance from bottom of the plate to membrane surface: 3 mm
Materials of construction
Plastic housing: Purple polystyrene
Membrane: Proprietary

Product Ordering Information

This section lists the catalogue numbers for the MultiScreen PCR₁₉₆ Plate. See the Technical Assistance section for information about contacting Millipore. You can also buy Millipore products on-line at www.millipore.com/purecommerce.

Product	Catalog Number	Qty/Pk
MultiScreen PCR ₁₉₆ Plate	LSKM PCR 10	10
MultiScreen PCR ₁₉₆ Plate	LSKM PCR 50	50
Vacuum Manifold	SAVM 384 01	1
Also Available		
MultiScreen Plasmid ₉₆ Plate	LSKP 096 24	24
MultiScreen BAC ₉₆ Plate	LSKB 096 24	24
MultiScreen SEQ ₉₆ Plate	LSKS 096 24	24
MultiScreen SEQ ₃₈₄ Plate	S384 SEQ 50	50

Technical Assistance

For more information, contact the Millipore office nearest you. In the U.S., call **1-800-MILLIPORE** (1-800-645-5476). Outside the U.S., see your Millipore catalogue for the phone number of the office nearest you or go to our web site at www.millipore.com/offices for up-to-date worldwide contact information. You can also visit the tech service page on our web site at www.millipore.com/techservice.

Standard Warranty

Millipore Corporation (“Millipore”) warrants its products will meet their applicable published specifications when used in accordance with their applicable instructions for a period of one year from the date of shipment of the products. **MILLIPORE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** The warranty provided herein and the data, specifications and descriptions of Millipore products appearing in Millipore’s published catalogues and product literature may not be altered except by express written agreement signed by an officer of Millipore. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorized and if given, should not be relied upon.

In the event of a breach of the foregoing warranty, Millipore’s sole obligation shall be to repair or replace, at its option, the applicable product or part thereof, provided the customer notifies Millipore promptly of any such breach. If after exercising reasonable efforts, Millipore is unable to repair or replace the product or part, then Millipore shall refund to the customer all monies paid for such applicable product or part. **Millipore shall not be liable for consequential, incidental, special or any other indirect damages resulting from economic loss or property damages sustained by any customer from the use of its products.**

©2004 Millipore Corporation. All rights reserved. Printed in the U.S.

Millipore, Milli-Q and MultiScreen are registered trademarks of Millipore Corporation.

Tween is a registered trademark of the Atlas Powder Company.

Triton is a registered trademark of the Rohm and Haas Company.

Nonidet is a trademark of the Royal Dutch/Shell Group

Beckman is a registered trademark of Beckman Coulter, Inc.

Multimek is a trademark of Beckman Coulter, Inc.

Lab-Line is a trademark of Lab-Line Instruments, Inc., or an affiliated company.

The PCR process is covered by U.S. Patents 4,683,195 and 4,683,202 and foreign equivalents owned by Hoffmann-La Roche Inc.

P36502, Rev. A, 10/04

MILLIPORE