

# MultiScreen® PCR<sub>μ96</sub> Plate User Guide

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

## Introduction

The MultiScreen® PCR<sub>μ96</sub> plate is a small volume, 96-well device for the purification of PCR products. The PCR<sub>μ96</sub> 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<sub>μ96</sub> 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<sub>μ96</sub> 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<sub>μ96</sub> 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<sub>μ96</sub> plate.
3. Place the MultiScreen PCR<sub>μ96</sub> 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<sub>μ96</sub> 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<sub>μ96</sub> 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<sub>μ96</sub> 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.

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## Specifications

Maximum well volume: 175  $\mu$ L

Working well volume: 100–150  $\mu$ L

PCR product capacity (maximum evaluated): 10.0  $\mu$ 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 PCR<sub>196</sub> Plate. See the Technical Assistance section for information about contacting Millipore. You can also buy Millipore products on-line at [www.millipore.com/purecommerce](http://www.millipore.com/purecommerce).

Product	Catalog Number	Qty/Pk
MultiScreen PCR <sub>196</sub> Plate	LSKM PCR 10	10
MultiScreen PCR <sub>196</sub> Plate	LSKM PCR 50	50
Vacuum Manifold	SAVM 384 01	1

### Also Available

MultiScreen Plasmid <sub>96</sub> Plate	LSKP 096 24	24
MultiScreen BAC <sub>96</sub> Plate	LSKB 096 24	24
MultiScreen SEQ <sub>96</sub> Plate	LSKS 096 24	24
MultiScreen SEQ <sub>384</sub> 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](http://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](http://www.millipore.com/techservice).

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