



- ▶ High throughput 96-well processing
- ▶ Automation compatible
- ▶ Reliable well-to-well performance

# MultiScreen™ Filter Plate with Ultracel®-10 Membrane

## **Automation-compatible 96-well ultrafiltration plate for use in concentration and purification of biological solutions**

### **High Throughput UF Technology**

MultiScreen filter plate with Ultracel-10 membrane provides a new method for high throughput sample prep. The ultrafiltration-based filter plate is designed for automation-compatible sample purification, concentration and desalting of biological solutions, as well as protein removal from samples prior to instrument analysis.

The 96-well MultiScreen filter plate incorporates Ultracel-10 10,000 nominal molecular weight limit regenerated cellulose ultrafiltration membrane for low-binding, high recovery results. It is designed for use with centrifugation and is compatible with standard microtiter plates, instrumentation, and liquid handling equipment.

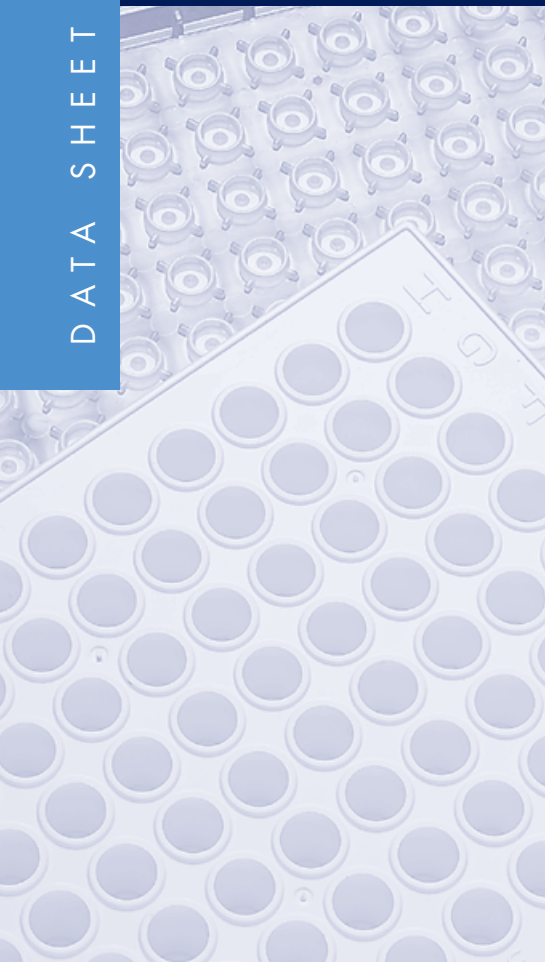
### **Reliable**

MultiScreen filter plate with Ultracel-10 membrane is designed for low protein binding and high protein retention. The assay-grade plates meet stringent manufacturing release specifications and are lot tested for protein retention for >95% retention of cytochrome c (12,500 Daltons). They also offer high well-to-well uniformity on performance.

### **Versatile Operation**

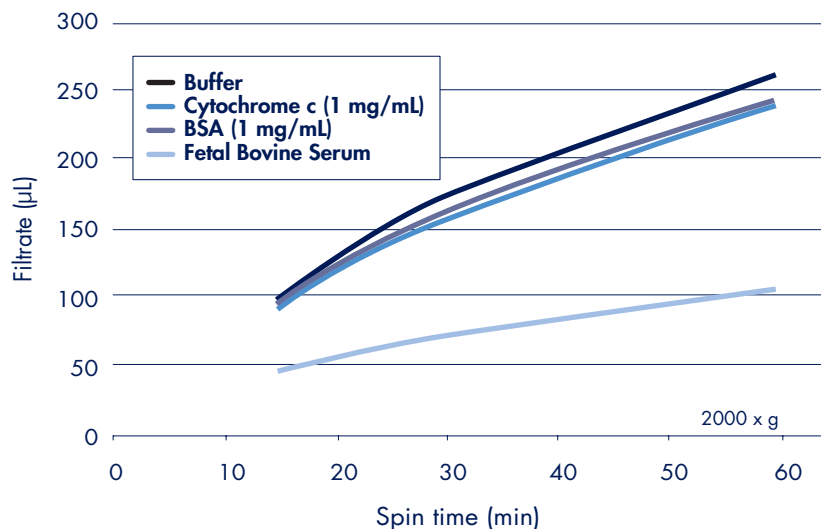
MultiScreen filter plate with Ultracel-10 membrane allows for processing and collection of sample volumes from 50 to 500  $\mu\text{L}$ . They are compatible with a range of standard receiver 96-well microtiter plates including 300  $\mu\text{L}$ , 700  $\mu\text{L}$  deep well and 150  $\mu\text{L}$  conical well.

MultiScreen with Ultracel-10 membrane is ideal for applications including protein concentration and desalting prior to validation or screening assays. They are able to remove large molecular weight proteins prior to instrument analysis.



## Performance

### Typical Flow Rates



**Figure 1.** This graph shows the effect of spin time on ultrafiltrate volume for different protein solutes with an initial sample volume of 300 µL and a force of 2000 x g. Ultrafiltrate volumes are lower for samples with higher protein concentrations such as serums.

### Protein Rejection Characteristics

Membrane NMWL	Protein Solute	Typical Retention %
10,000	Cytochrome c 12,500 Daltons (1 mg/mL)	95%
	BSA 67,000 Daltons (1 mg/mL)	99%

**Table 1.** Performance of MultiScreen filter plate with Ultracel-10 membrane using a centrifuge at 2000 x g. With a 300 µL starting volume, spin times were 30 minutes to concentrate protein solute to 130 µL.

## Specifications

<b>Filter Plate Well Capacity</b>	500 $\mu$ L
<b>Working Sample Volume Capacity</b>	Limited to receiver plate. Compatible with standard 96-well microtiter plates (300 $\mu$ L, 700 $\mu$ L deep well, and 150 $\mu$ L conical u-bottom).*
<b>Centrifugal Speed Maximum</b>	3000 x g
<b>Filter Plate Dimensions</b>	
Length:	127.6 mm
Width	85.2 mm
Depth:	14.6 mm

## Materials of Construction

Filter plate:	Polyolefin
Membrane:	10,000 NMWL Regenerated cellulose

\*Recommended receiver plates sold separately. See "Required Equipment" (below) for details.

## Ordering Information

Pack includes MultiScreen filter plates with Ultracel-10 regenerated cellulose membrane and microtiter plate storage lids. Receiver microtiter plate must be purchased separately.

Description	Qty/pk	Catalogue No.
MultiScreen Ultracel-10 Filter Plate	2	MAUF 010 02
	10	MAUF 010 10

## Required Equipment (not included)

- Centrifuge capable of a minimum of 2000 x g-force with a swinging bucket rotor and 96-well plate carrier
- Pipettors or robotic liquid handlers for transferring 10  $\mu$ L, 25  $\mu$ L and 300  $\mu$ L volumes
- 96-well microtiter plate receiver tray  
Recommended receiver plates (contact Millipore Technical Service for more information)
  - Greiner 150  $\mu$ L conical well plates for use with filtrate volumes <30  $\mu$ L: Cat. No. 652270
  - Greiner 300  $\mu$ L plate for sample volumes up to 300  $\mu$ L: Cat. No. 651201
  - Greiner 700  $\mu$ L deep well plate for use with sample volumes up to 500  $\mu$ L: Cat. No. 786201

## To Place an Order or Receive Technical Assistance

For additional information call your nearest Millipore office:

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Lit. No. PF2050EN00

Printed in U.S.A. 2/03 03-013

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