Effective Small Volume Ultrafiltration and Buffer Exchange

Hand-sized, ready-to-use Sartocon Micro Crossflow Ultrafiltration Units bridge the gap between centrifugal units and crossflow cassette systems, effectively concentrating or purifying sample volumes of 50mL to 1 liter. They offer ease of handling and the user safety of closed, sterile units. The tangential flow across the filter is gentle on the sample, preventing the foaming and denaturation which can occur in stirred cells.

Sartocon Micro units contain the same membranes as the cassettes for Sartocon Crossflow Systems, so they are ideal for small-scale tests of membrane performance for large-scale filtration processes. No assembly is required – a Sartocon Micro unit is simply slipped into an aluminum holding clamp (ordered separately) for a firm hold during filtration.

Each unit is integrity tested, to ensure that it will not leak during filtration. Supplied sterile and pyrogen-free.

Concentration/Time Test Results with Sartocon Micro Units

<table>
<thead>
<tr>
<th>Flux (mL/min)</th>
<th>Time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>

50kD Unit: 89kD MAb, Initial Conc. 3.2mg/mL
10kD Unit: BSA, Initial Conc. 10mg/mL
5kD Unit: BSA, Initial Conc. 10mg/mL

Specifications: Sartocon Micro Crossflow Ultrafiltration Units

- **Cytotoxicity:** nontoxic, as determined with L929 mouse fibroblast cells, MRC-5 human embryonic lung cells
- **Extractables:** pass USP Plastics Class VI Test
- **Filtration Area:** 57.5cm²
- **Flow Rates*:**
  - water: 5kD: 10; 10kD: 25; 30kD: 35;
  - 50kD: 110; 100kD: 125; 300kD: 700; 0.2µm pores: 1050
  - 1% albumin: 10kD: 6 (unchanged after cleaning with 0.1N NaOH)
- **Holdup Volume:** concentrate side: 0.5mL; filtrate side: 1.7mL
- **Construction:** polypropylene housing; polyethersulfone membrane filter or ultrafilter; ethylene vinyl acetate tubing
- **Connectors:** hose barb, 4mm OD
- **Maximum Pressure:** 28 psi
- **Maximum Temperature:** 50°C
- **Priming Volume:** Sartocon unit: 4mL; system with tubing: 20-25mL
- **Working Volume:** 50mL–1 liter

*1mL/min at 28psi inlet pressure. All values approximate.
### Ordering Information:

**Sartocon Micro Crossflow Ultrafiltration Units**

Order clamp separately

<table>
<thead>
<tr>
<th>Nominal Mol. Wt. Limit (Dalton)</th>
<th>Cat. No.</th>
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</thead>
<tbody>
<tr>
<td>One unit</td>
<td></td>
</tr>
<tr>
<td>5kD</td>
<td>15629001</td>
</tr>
<tr>
<td>10kD</td>
<td>15639001</td>
</tr>
<tr>
<td>30kD</td>
<td>15659001</td>
</tr>
<tr>
<td>50kD</td>
<td>15650001</td>
</tr>
<tr>
<td>100kD</td>
<td>15669001</td>
</tr>
<tr>
<td>300kD</td>
<td>15679001</td>
</tr>
<tr>
<td>0.2µm pores</td>
<td>15607001</td>
</tr>
<tr>
<td>10 units</td>
<td></td>
</tr>
<tr>
<td>5kD</td>
<td>1562900D</td>
</tr>
<tr>
<td>10kD</td>
<td>1563900D</td>
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<tr>
<td>300kD</td>
<td>1567900D</td>
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<tr>
<td>0.2µm pores</td>
<td>1560700D</td>
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<tr>
<td>Clamp</td>
<td>17802</td>
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**Trademarks**

FPLC – Pharmacia Biotech AB  
Centrisart, Sartocon – Sartorius Corp.

### Related Products

**Sartobind Ion Exchange Membrane Adsorber Units**

Ready-to-use Sartobind membrane adsorber units are the ultimate for simple, ultra-rapid concentration of proteins from highly dilute solutions, or for separating proteins from a mixture. They feature high binding capacity (~1mg/cm²), high flow rates (>100mL/min), and excellent resolution. Four types of exchangers – S-type, Q-type, C-type, and D-type – are available in disposable units of 5cm² filtration area and reusable units of 15cm² and 100cm² filtration area. The units can be used with syringes, peristaltic pumps, or preparative HPLC/FPLC® workstations. Luer-Lock inlet/outlet.

**Centrisart® I Centrifugal Concentrators**

These ready-to-use units are for small volume centrifugal ultrafiltration, for preparing protein-free supernatants, or for recovering low molecular weight substances from biological fluids. A unique design prevents premature blockage of the membrane. Minimum maximum sample size: 0.5mL/2.5mL; final concentrate volume: ~0.1mL. Available with 5kD, 10kD, 20kD, and 100kD molecular weight cutoffs.

**Centrisart C4 Centrifugal Microconcentrators**

Centrisart C4 microconcentrators are designed for quick and efficient small volume ultrafiltration or microfiltration. Five types are major applications. For the 5kD, 10kD, 20kD, and 100kD units are concentrating and purifying proteins and DNA, buffer exchange, desalting, and removing low molecular weight substances such as primers, non-incorporated nucleotides, and excess linkers. The maximum sample volume is 0.4mL; the final concentrate volume can be as little as 5-10µL.

**Centrisart C30 Centrifugal Concentrators**

Centrisart C30 units are a centrifugal filtration unit for rapidly concentrating small sample volumes by ultrafiltration, and for removing particles. They can be used without adapters in all laboratory centrifuges that accept standard 17mm tubes. The sample volume is 3mL, and the final volume can be as little as 30-50µL. 10kD, 20kD, and 100kD units are available.

For additional information about these products, contact the Supelco Customer Service Department:

- **Telephone**: USA or Canada (toll-free) 800-247-6628, outside USA or Canada 814-359-3441
- **Fax**: USA or Canada (toll-free) 800-447-3044, outside USA or Canada 814-359-3044
- **Telex (worldwide)**: 510-670-3600
- **Electronic Data Interchange (worldwide)**: 814-359-5448
- **E-mail (worldwide)**: supelco@sial.com

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