Spectra/Por® Biotech Grade Membranes:

Cellulose Ester (CE) & Regenerated Cellulose (RC)

Only Spectrum offers Biotech Grade dialysis membrane for those critical applications requiring stringent MWCO’s and membrane purity. Since these synthetic membranes are made using a process free of heavy metal contaminants and sulfides, they are ultra-pure and require no cleaning or pre-treatment. Simply rinse with DI water, apply Universal Closures* and load sample! Spectrum offers 2 types of Biotech grade membrane to meet the different demands of laboratory dialysis applications: Cellulose Ester (CE) & Regenerated Cellulose (RC).

**ADVANTAGES OF BIOTECH MEMBRANES**

- Ultrapure for critical separations
- Rigidly controlled porosity
- 2 types available for different applications (CE & RC)
- Large MWCO selection (100 - 1,000,000 Daltons)

**Biotech Cellulose Ester (CE) Membrane**

Biologically inert & ultra-pure, Biotech CE Membrane offers the largest and best selection of pore ratings and sizes for isolating ionic species and macromolecular purifications. Of the 2 types, Biotech CE is more sensitive to harsh conditions and solvents. In general, CE membrane will tolerate weak or dilute acids & bases as well as mild alcohols with only a slight change to the MWCO. Exposure to organic solvents will damage the CE membranes. Biotech CE should only be used with pH 2–9 & temp 4–37°C. CE dialysis tubing is available in 9 concise MWCO’s.

**Biotech Regenerated Cellulose (RC) Membrane**

Synthetic Biotech RC Membrane is crafted from a regeneration process that yields improved physical tolerances and chemical compatibilities with the same high purity and rigidly controlled MWCO’s as Biotech CE. RC Membrane can be used with concentrated-weak acids & bases, dilute-strong acids & bases, most alcohols and some mild or dilute organic solvents. Exposure to strong polar or organic solvents may damage RC membranes. Biotech RC can be used with pH 2–12 & temp 4–60°C. Biotech RC is available in dialysis tubing with 3 concise MWCO’s.

*Universal Closures required for use with Biotech Tubing*
### Biotech Dialysis Tubing

#### Product Specifications: 2 Membrane Types

**Cellulose Ester (CE)**
- **Properties:** Hydrophilic, symmetric porosity
- **9 MWCO’s:** 0.1 – 0.5 kD, 0.5 – 1 kD, 3.5 – 5 kD, 8 – 10 kD, 20 kD, 50 kD, 100 kD, 300 kD & 1000 kD
- **4 Flat Widths:** 10 mm, 16 mm, 24 mm & 31 mm
- **Qty/Pkg:** 10 m/roll, wet in 0.05% sodium azide

**Regenerated Cellulose (RC)**
- **Properties:** Hydrophilic, symmetric porosity
- **3 MWCO’s:** 3.5 – 5 kD, 8 – 10 kD & 20 kD
- **2 Flat Widths:** 10 mm & 16 mm
- **Qty/Pkg:** 5 m/roll, dry with glycerin

### Ordering Information: Biotech Dialysis Tubing & Trial Kits

<table>
<thead>
<tr>
<th>MWCO (kD)</th>
<th>Tubing Dimensions: Flat Width / Diameter / Volume per length</th>
<th>Qty</th>
<th>MWCO (kD)</th>
</tr>
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<tbody>
<tr>
<td>0.1 - 0.5</td>
<td>131048 / 131054 / 131057 / 131060</td>
<td>10 m (wet)</td>
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<td>8 - 10</td>
<td>131264 / 131270 / 131273 / 131276</td>
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<td>8 - 10</td>
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<tr>
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<td>100</td>
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<tr>
<td>300</td>
<td>- / 131450 / - / -</td>
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<td>- / 131486 / - / -</td>
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<tr>
<td>3.5 - 5</td>
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<td>5 m (dry)</td>
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<td>133336 / 133342 / - / -</td>
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</table>

**NEW! Biotech Dialysis Trial Kits**

Provides shorter length of Biotech CE or RC Dialysis tubing for membrane/application evaluation.

#### Product Specifications: 2 Membrane Types

**Cellulose Ester (CE)**
- **Properties:** Hydrophilic, symmetric porosity
- **9 MWCO’s:** 0.1 – 0.5 kD, 0.5 – 1 kD, 3.5 – 5 kD, 8 – 10 kD, 20 kD, 50 kD, 100 kD, 300 kD & 1000 kD
- **1 Flat Width:** 16 mm
- **Qty/Kit:** 1 m/roll, wet in 0.05% sodium azide

**Regenerated Cellulose (RC)**
- **Properties:** Hydrophilic, symmetric porosity
- **3 MWCO’s:** 3.5 – 5 kD, 8 – 10 kD & 20 kD
- **1 Flat Width:** 16 mm
- **Qty/Kit:** 0.5 m/roll, dry with glycerin

**NEW! Dialysis Trial Kits**

<table>
<thead>
<tr>
<th>MWCO</th>
<th>Flat Width: 16 mm</th>
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<td>0.5 - 1.0</td>
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