

RESINS FOR PREPARATIVE BIOSEPARATIONS



| | Bulk Stationary phases | Base material | Particle size* (µm) | Pore size* (nm) | pH range | Target molecules and typical application in DSP | | Mode | |
|----------------|------------------------|---------------------------------|---------------------------------|-----------------|--------------|---|--|----------------|---------|
| IEX | AEX | BioPro IEX Q75 | 75 | porous | 2.0–12.0 | Capturing and high-scale purification of proteins and oligos, removal of DNA and HCP | C CIP | Charge - | |
| | | BioPro IEX SmartSep Q30 | 30 | porous | 2.0–12.0 | Large-scale polishing and purification of proteins, peptides, VLPs, oligos and plasmids | I P CIP | | |
| | | BioPro IEX SmartSep Q20 | 20 | porous | 2.0–12.0 | Large-scale polishing and purification of proteins, peptides, VLPs, oligos and plasmids | I P CIP | | |
| | | BioPro IEX SmartSep Q10 | 10 | porous | 2.0–12.0 | Polishing of protein, peptide and oligo purification at high resolution | P CIP | | |
| | CEX | BioPro IEX S75 | 75 | porous | 2.0–12.0 | Capturing and high-scale purification of proteins, removal of HCP | C CIP | Charge + | |
| | | BioPro IEX SmartSep S30 | 30 | porous | 2.0–12.0 | Large-scale polishing and purification of proteins, peptides, antibodies | I P CIP | | |
| | | BioPro IEX SmartSep S20 | 20 | porous | 2.0–12.0 | Large-scale polishing and purification of proteins, peptides, antibodies | I P CIP | | |
| | | BioPro IEX SmartSep S10 | 10 | porous | 2.0–12.0 | Polishing of protein and peptide purification at high resolution | P CIP | | |
| SEC | YMC*Gel Diol-HG-120 | High grade silica | 10, 15, 20, 50 | 12 | 5.0–7.5 | Purification of small proteins, separation from aggregates | P | Size | |
| | YMC*Gel Diol-HG-200 | High grade silica | 10, 15, 20 | 20 | 5.0–7.5 | Purification of intermediate and larger proteins, nanodiscs, separation from aggregates | P | | |
| | YMC*Gel Diol-HG-300 | High grade silica | 10, 15, 20 | 30 | 5.0–7.5 | Purification of large proteins, complexes, antibodies, VLPs and lipoproteins | P | | |
| Reversed Phase | C18 | YMC-Triart Prep C18-S | 7, 10, 15, 20 | 12 | 2.0–10.0 | Purification of biologicals in acidic, neutral and basic conditions, sample desalting and concentration | I P CIP | Hydrophobicity | |
| | | YMC*Gel ODS-A-HG | 10, 15, 20, 50 | 8, 12, 20, 30 | 2.0–7.5 | Purification of small proteins and peptides | I P | | |
| | | YMC*Gel ODS-AQ-HG | 10, 15, 20, 50 | 8, 12, 20 | 2.0–7.5 | Purification of more polar biomolecules like nucleic acids, sample desalting and concentration | C I P | | |
| | YMC Omega | Classical silica | 10, 20, 50 | proprietary | 2.0–7.5 | Purification of polyunsaturated fatty acids | C I P | | |
| | C8 | YMC-Triart Prep C8-S | Organic/inorganic hybrid silica | 10, 15, 20 | 12, 20 | 2.0–10.0 | Capturing and intermediate purification of larger proteins in acidic, neutral and basic conditions | | I P CIP |
| | | YMC-Triart Prep Bio200 C8 | Organic/inorganic hybrid silica | 10 | 20 | 2.0–10.0 | Purification of larger peptides, specifically insulin at broad pH-range | | I P CIP |
| | | YMC*Gel C8-HG | High grade silica | 10, 15, 20, 50 | 12, 20, 30 | 2.0–7.5 | Capturing and intermediate purification of larger proteins | | C I P |
| | | YMCbasic | Classical silica | 10 | 20 | 2.0–7.5 | Purification of peptides and basic compounds | | I P |
| | Phenyl | YMC-Triart Prep Phenyl-S | Organic/inorganic hybrid silica | 10 | 12 | 2.0–10.0 | Purification of peptides and small proteins in acidic, neutral and basic conditions | | I P CIP |
| | | YMC*Gel Ph-HG | High grade silica | 10, 15, 20, 50 | 12, (20, 30) | 2.0–7.5 | Purification of proteins with low/intermediate hydrophobicity | | C I P |
| C4 | YMC-Triart Prep C4-S | Organic/inorganic hybrid silica | 10 | 12 | 2.0–10.0 | Purification of oligonucleotides and peptides in acidic, neutral and basic conditions | I P CIP | | |
| | YMC*Gel C4-HG | High grade silica | 10, 15, 20, 50 | 12, 20, 30 | 2.0–7.5 | Separation of protein isoforms, aggregate removal, removal of HCP | C I P | | |

C Capturing I Intermediate purification P Polishing CIP CIP-compatible

*not all combinations of particle and pore size are available

YMC SAMPLE OPTIONS FOR PREPARATIVE CHROMATOGRAPHY

| | Sample Type | Figure | Features / Properties | Available dimensions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|--|-------------|------------------|------------------|--|---------|-------------|-------------|-------------|-------------|-------------|-------------|------|-----|-----|-----|----|-----|--|--|-----|-----|-----|-----|--|--|-----|------|-----|-----|--|--|-----|------|-----|-----|--|--|-----|------|-----|-----|--|--|--|------|----|-----|--|--|--|------|-----|------|
| Biochromatography | Screening kits |  | Kits containing 5 polypropylene columns with 1 or 5 mL of resin Compatible with Äkta and comparable LC systems Available for BioPro IEX resins with particle sizes: 20, 30 and 75 µm | 26 mm x 7.0 mm (1 mL variant) 26 mm x 15.6 mm (5 mL variant) Single-format: 5 cartridges with identical resin Mixed-format: 4 cartridges with 30 µm and 75 µm resins, each as „S“ and „Q“ variant respectively | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MiniChrom™ columns |  | Pre-packed polypropylene screening columns Compatible with Äkta and comparable LC systems | <table border="1"> <thead> <tr> <th colspan="3">Stock format, available on short notice:</th> <th colspan="3">Further formats:</th> </tr> <tr> <th>ID (mm)</th> <th>Length (mm)</th> <th>Volume (mL)</th> <th>ID (mm)</th> <th>Length (mm)</th> <th>Volume (mL)</th> </tr> </thead> <tbody> <tr> <td>8.0</td> <td>100</td> <td>5.0</td> <td>5.0</td> <td>10</td> <td>0.2</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>25</td> <td>0.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>50</td> <td>1.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>8.0</td> <td>20</td> <td>1.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>8.0</td> <td>50</td> <td>2.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>11.3</td> <td>50</td> <td>5.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>11.3</td> <td>100</td> <td>10.0</td> </tr> </tbody> </table> | Stock format, available on short notice: | | | Further formats: | | | ID (mm) | Length (mm) | Volume (mL) | ID (mm) | Length (mm) | Volume (mL) | 8.0 | 100 | 5.0 | 5.0 | 10 | 0.2 | | | | 5.0 | 25 | 0.5 | | | | 5.0 | 50 | 1.0 | | | | 8.0 | 20 | 1.0 | | | | 8.0 | 50 | 2.5 | | | | 11.3 | 50 | 5.0 | | | | 11.3 | 100 | 10.0 |
| | Stock format, available on short notice: | | | Further formats: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ID (mm) | Length (mm) | Volume (mL) | ID (mm) | Length (mm) | Volume (mL) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8.0 | 100 | 5.0 | 5.0 | 10 | 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 25 | 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 50 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 8.0 | 20 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 8.0 | 50 | 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 11.3 | 50 | 5.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 11.3 | 100 | 10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Packed analytical columns |  | Pre-packed PEEK scout columns Available for all BioPro IEX resins | 150 mm x 4.6 mm ID PEEK 100 mm x 4.6 mm ID PEEK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bulk samples |  | Resin for self-packing of screening columns Various packaging sizes available Available for all BioPro IEX resins | 50 mL 250 mL other dimensions available on request | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RoboColumns® |  | Rack format For automated screening via Tecan and Perkin Elmer sampler robots Customized formats possible with individually packed rows of columns (1 resin each) | <table border="1"> <thead> <tr> <th colspan="3">Stock format, available on short notice:</th> <th colspan="3">Further formats:</th> </tr> <tr> <th>ID (mm)</th> <th>Length (mm)</th> <th>Volume (µL)</th> <th>ID (mm)</th> <th>Length (mm)</th> <th>Volume (µL)</th> </tr> </thead> <tbody> <tr> <td>5.0</td> <td>10.0</td> <td>200</td> <td>5.0</td> <td>2.5</td> <td>50</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>5.0</td> <td>100</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>22.5</td> <td>450</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>25.0</td> <td>500</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.0</td> <td>30.0</td> <td>600</td> </tr> </tbody> </table> | Stock format, available on short notice: | | | Further formats: | | | ID (mm) | Length (mm) | Volume (µL) | ID (mm) | Length (mm) | Volume (µL) | 5.0 | 10.0 | 200 | 5.0 | 2.5 | 50 | | | | 5.0 | 5.0 | 100 | | | | 5.0 | 22.5 | 450 | | | | 5.0 | 25.0 | 500 | | | | 5.0 | 30.0 | 600 | | | | | | | | | | | | | |
| Stock format, available on short notice: | | | Further formats: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ID (mm) | Length (mm) | Volume (µL) | ID (mm) | Length (mm) | Volume (µL) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.0 | 10.0 | 200 | 5.0 | 2.5 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 5.0 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 22.5 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 25.0 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 5.0 | 30.0 | 600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reversed Phase / Normal Phase | Packed analytical columns |  | Pre-packed stainless-steel scout columns Analytical HPLC columns packed with preparative bulk Available for all types of YMC RP/NP bulk media Available for all particle sizes | Typical dimensions: 250 mm x 4.6 mm ID stainless-steel column 150 mm x 4.6 mm ID stainless-steel column 250 mm x 10 mm ID stainless-steel column 150 mm x 10 mm ID stainless-steel column | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bulk samples |  | Stationary phase media for self-packing Various quantities and packaging sizes available Available for all types of YMC RP/NP bulk media | Flexible, customized sample formats | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RoboColumns and MiniChrom are registered trademarks of Repligen Corporation. Bulk stationary phases for preparative BioLC 03/2023