

# 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
		BioPro IEX SmartSep Q30	30	porous	2.0–12.0	large-scale purification of proteins, peptides and oligos	I P CIP
		BioPro IEX SmartSep Q20	20	porous	2.0–12.0	large-scale purification of proteins, peptides and oligos	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
		MacroSep IEX Q	30	macro-porous	2.0–12.0	purification of large biomolecules like AAV, VLPs, plasmid DNA, protein complexes	I P CIP
IEX	CEX	BioPro IEX S75	75	porous	2.0–12.0	capturing and high-scale purification of proteins, removal of HCP	C CIP
		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	10, 15, 20, 50	12	5.0–7.5	purification of small proteins, separation from aggregates	P
		YMC*Gel Diol-HG-200	10, 15, 20	20	5.0–7.5	purification of intermediate and larger proteins, nanodiscs, separation from aggregates	P
		YMC*Gel Diol-HG-300	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
		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
	C8	YMC-Triart Prep C8-S	10, 15, 20	12, 20	2.0–10.0	capturing and intermediate purification of larger peptides in acidic, neutral and basic conditions	I P CIP
		YMC-Triart Prep Bio200 C8	10	20	2.0–10.0	purification of larger peptides, specifically insulin at broad pH-range	I P CIP
		YMC*Gel C8-HG	10, 15, 20, 50	12, 20, 30	2.0–7.5	capturing and intermediate purification of larger peptides	C I P
	Ph	YMC-Triart Prep Phenyl-S	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	10, 15, 20, 50	12, (20, 30)	2.0–7.5	purification of peptides with low/intermediate hydrophobicity	C I P
	C4	YMC-Triart Prep C4-S	10	12	2.0–10.0	purification of oligonucleotides and peptides in acidic, neutral and basic conditions	I P CIP
YMC*Gel C4-HG		10, 15, 20, 50	12, 20, 30	2.0–7.5	separation of peptide isoforms, purification of oligonucleotides	C I P	

Charge -

Charge +

Size

Hydrophobicity

\*not all combinations of particle and pore size are available

C Capturing I Intermediate purification P Polishing CIP CIP-compatible

	SAMPLE TYPE	FIGURE	FEATURES / PROPERTIES	AVAILABLE DIMENSIONS																																																						
Biochromatography	Screening kits		<ul style="list-style-type: none"> <li>Kits containing 5 polypropylene columns with 1 or 5 mL of resin</li> <li>Compatible with Äkta and comparable LC systems</li> <li>Available for MacroSep IEX Q and BioPro IEX with particle sizes: 20, 30 and 75 µm</li> </ul>	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		<ul style="list-style-type: none"> <li>Pre-packed polypropylene screening columns</li> <li>Compatible with Äkta and comparable LC systems</li> </ul>	<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
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Packed analytical columns		<ul style="list-style-type: none"> <li>Pre-packed bioinert columns in analytical dimensions</li> <li>Available for IEX resins</li> </ul>	150 mm x 4.6 mm ID 100 mm x 4.6 mm ID																																																							
Bulk samples		<ul style="list-style-type: none"> <li>Resin for self-packing of screening columns</li> <li>Various packaging sizes available</li> <li>Available for IEX resins</li> </ul>	50 mL 250 mL other dimensions available on request																																																							
RoboColumns®		<ul style="list-style-type: none"> <li>Rack format</li> <li>For automated screening via Tecan and Perkin Elmer sampler robots</li> <li>Customized formats possible with individually packed rows of columns (1 resin each)</li> </ul>	<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													
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Reversed Phase / Normal Phase	Packed analytical columns		<ul style="list-style-type: none"> <li>Pre-packed stainless-steel scout columns</li> <li>Analytical HPLC columns packed with preparative bulk</li> <li>Available for all types of YMC RP/NP bulk media</li> <li>Available for all particle sizes</li> </ul>	<b>Typical dimensions:</b> 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		<ul style="list-style-type: none"> <li>Stationary phase media for self-packing</li> <li>Various quantities and packaging sizes available</li> <li>Available for all types of YMC RP/NP bulk media</li> </ul>	flexible, customized sample formats																																																						