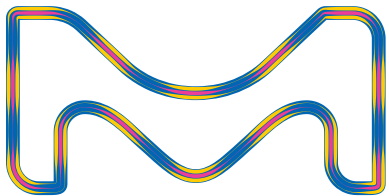


Biochromatography Portfolio Guide

Bulk Resin, Membranes and Prepacked Columns



The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Millipore®

Preparation, Separation,
Filtration & Monitoring Products

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Devices	Catalog No.	Bulk Media	Catalog No.
Strong anion exchangers (AEX)	Eshmuno® Q media Base matrix: Hydrophilic Polyvinyl Ether	TMAE Trimethylammoniumethyl	Purification of acidic and neutral proteins and peptides from different sources, (including plasma proteins). DNA removal. Designed specifically for highly productive downstream bioprocessing. Separation at high flow rates.	<ul style="list-style-type: none"> • Mean particle size: d_{50} 85 μm • Protein binding capacity about 150 mg BSA/ml of gel • pH stability range (working): 2–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~1000 cm/h < 2.5 bar net pressure 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Eshmuno® Q media: 1.75 L (10 x 20 cm) 7 L (20 x 20 cm) 17.9 L (32 x 20 cm)		1250650001 1250740001 1251330001 1251410001	10 mL 100 mL 500 mL 5 L	1200790010 1200790100 1200790500 1200795000
	Fractogel® EMD TMAE (M) media Base matrix: Methacrylate		Purification of acidic and neutral proteins and peptides from different sources, (including plasma proteins). DNA and virus removal, plasmid isolation, vaccine purification.	<ul style="list-style-type: none"> • Particle size: 40–90 μm • Protein binding capacity about 100 mg BSA/mL of gel • pH stability range (working): 2–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~240 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Fractogel® EMD TMAE (M) media: 2.1 L (10 x 20 cm) 8.4 L (20 x 20 cm) 21.4 L (32 x 20 cm)		1250540001 1250690001 1250840001 1251360001	10 mL 100 mL 500 mL 5 L	1168810010 1168810100 1168810500 1168815000
	Fractogel® EMD TMAE (S) media Base matrix: Methacrylate		<ul style="list-style-type: none"> • Particle size: 20–40 μm • Protein binding capacity about 100 mg BSA/mL of gel • pH stability range (working): 2–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~80 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)		1250570001 1250710001 1250860001 1251380001	10 mL 100 mL 500 mL 5 L	1168870010 1168870100 1168870500 1168875000	
	Fractogel® EMD TMAE Hicap (M) media Base matrix: Methacrylate		<ul style="list-style-type: none"> • Particle size: 40–90 μm • Protein binding capacity about 180 mg BSA/mL of gel • pH stability range (working): 2–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~180 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Fractogel® EMD TMAE (M) Hicap media: 2.1 L (10 x 20 cm) 8.4 L (20 x 20 cm) 21.4 L (32 x 20 cm)		1250550001 1250700001 1250850001 1251370001	10 mL 100 mL 500 mL 5 L	1103160010 1103160100 1103160500 1103165000	
	Fractogel® EMD TMAE Medcap (M) media Base matrix: Methacrylate		<ul style="list-style-type: none"> • Particle size: 40–90 μm • Protein binding capacity about 150 mg BSA/mL of gel • pH stability range (working): 2–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~180 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)		1250560001 1250780001 1251440001 1251500001	10 mL 100 mL 500 mL 5 L	1168850010 1168850100 1168850500 1168855000	
	NatriFlo® HD-Q membrane adsorber Base matrix: Porous polyacrylamide	High density quaternary amine chemistry (amidopropyl trimethylammonium chloride)	Single-use membrane adsorber for host cell proteins, virus, DNA and endotoxin removal.	<ul style="list-style-type: none"> • Nominal pore size: 0.4 μm • Protein binding capacity: > 200 mg BSA/mL of membrane • Flow rate: 5–25 membrane volume per minute (2.4–12 seconds residence time) 		NatriFlo® HD-Q Recon Mini (0.2 mL) NatriFlo® HD-Q Recon (0.8 mL) NatriFlo® HD-Q Pilot (15 mL) NatriFlo® HD-Q Process 150 (115 mL) NatriFlo® HD-Q Process 600 (460 mL)	NXF-01 NXF-02 NXF-10 NXF-20 NXF-50		

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Catalog No.	Bulk Media	Catalog No.
Weak anion exchangers (AEX)	Fractogel® EMD DEAE (M) media Base matrix: Methacrylate	DEAE Diethylaminoethyl	Purification of acidic and neutral proteins and peptides from different sources, (including plasma proteins), DNA removal, vaccine purification, blood fractionation. Due to the titration behavior, the ion exchange media can be used from pH 2 up to pH 9.5.	<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 100 mg BSA/mL of gel pH stability range (working): 2–13 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~170 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Fractogel® EMD DEAE (M) media: 2.1 L (10 x 20 cm) 8.4 L (20 x 20 cm) 21.4 L (32 x 20 cm)	1250580001 1250790001 1251450001 1251510001 CHRPC18831 CHRPC18832 CHRPC18833	10 mL 100 mL 500 mL 5 L	1168830010 1168830100 1168830500 1168835000
	Fractogel® EMD DMAE (M) media Base matrix: Methacrylate	DMAE Dimethylaminoethyl	Purification of acidic and neutral proteins (e.g. plasma proteins), peptides, and nucleic acids (e.g. plasmid DNA), blood fractionation. Due to the titration behavior, the ion exchange media can be used from pH 2 up to pH 8.5.	<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 100 mg BSA/mL of gel pH stability range (working): 2–13 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~170 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Fractogel® EMD DMAE (M) media: 2.1 L (10 x 20 cm) 8.4 L (20 x 20 cm) 21.4 L (32 x 20 cm)	1250590001 1250800001 1251460001 1251520001 CHRPC18841 CHRPC18842 CHRPC18843	10 mL 100 mL 500 mL 5 L	1168840010 1168840100 1168840500 1168845000
Strong cation exchangers (CEX)	Eshmuno® S media Base matrix: Hydrophilic Polyvinyl Ether	SO ₃ Sulfoisobutyl	Purification of basic and neutral proteins (e.g. antibodies) and peptides, designed specifically for highly productive downstream bioprocessing. High flowrate applications.	<ul style="list-style-type: none"> Mean particle size d₅₀: 85 µm Protein binding capacity about 165 mg lysozyme/mL of gel pH stability range (working): 2–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~1000 cm/h (< 2.5 bar net pressure) 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm) Chromabolt® columns prepacked with Eshmuno® S media: 1.74 L (10 x 20 cm) 7 L (20 x 20 cm) 17.9 L (32 x 20 cm)	1250640001 1250730001 1251320001 1251400001 CHRPC10781 CHRPC10782 CHRPC10783	10 mL 100 mL 500 mL 5 L	1200780010 1200780100 1200780500 1200785000
	Eshmuno® CPX media Base matrix: Hydrophilic Polyvinyl Ether	SO ₃ Sulfoisobutyl	Intermediate or polishing purification of monoclonal antibodies. High aggregate removal efficiency. Excellent IgG dynamic binding capacity. Wide pH and conductivity operating window.	<ul style="list-style-type: none"> Mean particle size d₅₀: 50 µm Protein binding capacity about 120 mg lysozyme/mL of gel pH stability (working): 2–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~500 cm/h (< 3.0 bar net pressure) 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1251560001 1251570001 1251580001 1251590001	10 mL 100 mL 500 mL 5 L	1200830010 1200830100 1200830500 1200835000
	Eshmuno® CP-FT media Base matrix: Hydrophilic Polyvinyl Ether	SO ₃ Sulfoisobutyl	Intermediate or polishing purification of monoclonal antibodies in frontal chromatography mode, for the removal of aggregates	<ul style="list-style-type: none"> Mean particle size d₅₀: 50 µm Protein binding capacity about 70 mg lysozyme/mL of gel pH stability (working): 2–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~400 cm/h (< 3.0 bar net pressure) 	MiniChrom Columns: 0.2 mL (5 x 10 mm) 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns®: 0.2 mL (5 x 10mm) 0.6 mL (5 x 30mm)	1.25170.0001 1.25168.0001 1.25169.0001 1.25171.0001 1.25172.0001	10 mL 100 mL 500 mL 5 L	1200930010 1200930100 1200930500 1200935000

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Catalog No.	Bulk Media	Catalog No.
Strong cation exchangers (CEX)	Fractogel® EMD SO ₃ ⁻ (M) media Base matrix: Methacrylate	SO ₃ ⁻ Sulfoisobutyl	Purification of basic and neutral proteins (e.g. antibodies) and peptides.	<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 130 mg lysozyme/mL of gel pH stability range (working): 1–13 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~200 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm)	1250610001 1250720001	10 mL 100 mL 500 mL 5 L	1168820010 1168820100 1168820500 1168825000
	Fractogel® EMD SO ₃ ⁻ (S) media Base matrix: Methacrylate		Purification of basic and neutral proteins (e.g. antibodies) and peptides.	<ul style="list-style-type: none"> Particle size: 20–40 µm Protein binding capacity about 150 mg lysozyme/mL of gel pH stability range (working): 1–13 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~80 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm)	1251810001 1251820001	10 mL 100 mL 500 mL 5 L	1168900010 1168900100 1168900500 1168905000
	Fractogel® EMD SE Hicap (M) media Base matrix: Methacrylate	SO ₃ ⁻ Sulfoethyl	Purification of basic and neutral proteins (e.g. antibodies) and peptides.	<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 160 mg lysozyme/mL of gel pH stability range (working): 1–13 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~220 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm)	1250600001 1250810001	10 mL 100 mL 500 mL 5 L	1148940010 1148940100 1148940500 1148945000
Fractogel® EMD COO ⁻ (M) media Base matrix: Methacrylate	Purification of basic and neutral proteins (e.g. antibodies) and peptides. Due to the titration behavior, the ion exchange media can be used from pH 6 up to pH 12. Efficient for difficult aggregate removal.		<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 100 mg lysozyme/mL of gel pH stability range (working): 1–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~300 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm)	1250620001 1250820001	10 mL 100 mL 500 mL 5 L	1168860010 1168860100 1168860500 1168865000	
Weak cation exchangers (CEX)	Fractogel® EMD COO ⁻ (M) media Base matrix: Methacrylate	COO ⁻ Carboxyethyl	Purification of basic and neutral proteins (e.g. antibodies) and peptides. Due to the titration behavior, the ion exchange media can be used from pH 6 up to pH 12. Efficient for difficult aggregate removal.	<ul style="list-style-type: none"> Particle size: 40–90 µm Protein binding capacity about 100 mg lysozyme/mL of gel pH stability range (working): 1–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to ~300 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm)	1250620001 1250820001	10 mL 100 mL 500 mL 5 L	1168860010 1168860100 1168860500 1168865000
					RoboColumns®: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1251480001 1251540001	Chromabolt® columns prepacked with Fractogel® EMD COO⁻ (M) media: 2.1 L (10 x 20 cm) 8.4 L (20 x 20 cm) 21.4 L (32 x 20 cm)	CHRPC18861 CHRPC18862 CHRPC18863

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Catalog No.	Bulk Media	Catalog No.		
CEX High salt-tolerant (multi-mode media)	Eshmun^o HCX media Base matrix: Hydrophilic Polyvinyl Ether	Sulfo + carboxy + phenyl	Direct capture and intermediate polishing from clarified feed stocks. High dynamic binding capacity at high conductivity applications.	<ul style="list-style-type: none"> • Mean particle size d_{50}: 85 μm • Protein binding capacity about 50 mg pIgG/ mL of gel • pH stability range (working): 2–12 • pH stability range (CIP): 2–14 • Pressure limit 8 bar • Linear flow rate up to ~1000 cm/h (<2.5 bar net pressure) 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns^o: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1250660001 1250750001 1251340001 1251420001	10 mL 100 mL 500 mL 5 L	1200870010 1200870100 1200870500 1200875000		
	Immobilized metal affinity chromatography (IMAC)		Fractogel^o EMD Chelate (M) media Base matrix: Methacrylate	Iminodiacetic acid	Various proteins, e.g. histidine-tailed recombinant proteins or proteins with exposed histidine residues. The metal ion can coordinate to non-bonding electron pairs of the amino acid side chains.	<ul style="list-style-type: none"> • Particle size: 40–90 μm • Protein binding capacity about 60 mg lysozyme/mL of gel • Metal ion binding capacity about 75 μmol copper/mL of gel • pH stability range (working): 1–12 • pH stability range (CIP): 0–14 • Pressure limit 8 bar • Linear flow rate up to ~240 cm/h 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns^o: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1250630001 1250830001 1251490001 1251550001	10 mL 100 mL 250 mL 500 mL 5 L	1103380010 1103380100 1103380250 1103380500 1103385000
Protein A affinity chromatography		Eshmun^o A media Base matrix: Hydrophilic Polyvinyl Ether	Merck proprietary ligand recombinantly expressed in <i>E. coli</i>		High capacity caustic stable Protein A affinity chromatography resin for the purification of Fc-containing proteins, including but not limited to monoclonal antibodies	<ul style="list-style-type: none"> • Mean particle size d_{50}: 50 μm • Protein binding capacity 40–55mg/mL at 3–6 min RT and 5% breakthrough for mAbs • pH stability range 1.5–13.5 • Pressure limit 8 bar • Linear flow rate > 500 cm/hr 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns^o: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1251600001 1251610001 1251620001 1251630001	10 mL 100 mL 500 mL 5 L 10 L	1200890010 1200890100 1200890500 1200895000 1200899010
	ProSep^o Ultra Plus media Base matrix: Controlled Pore Glass (CPG)	rSPA = recombinant structurally conserved natural protein A (<i>E. coli</i>)		High capacity Protein A affinity chromatography resin for the purification of Fabs and Fc-containing proteins, including but not limited to monoclonal antibodies.	<ul style="list-style-type: none"> • Particle size: 37–74 μm • Dynamic Binding Capacity: > 50 mg/mL • pH stability range: 1–8.5 • Pressure limit 10 bar • Linear flow rate up to 500 cm/h at 2 bar at 20 cm bed height 	MiniChrom Columns: 1 mL (8 x 20 mm) 5 mL (8 x 100 mm) RoboColumns^o: 0.2 mL (5 x 10 mm) 0.6 mL (5 x 30 mm)	1250670001 1250760001 1251350001 1251430001	2 mL 10 mL 100 mL 1 L 5 L 10 L 25L	175118822 175118824 175118827 175118830 175118833 175118835 175118834	
	ProSep^o-vA Ultra media Base matrix: Controlled Pore Glass (CPG)	nPA = native animal free protein A from <i>Staphylococcus aureus</i>		Affinity purification of mAbs.	<ul style="list-style-type: none"> • Particle size: 75–125 μm • Dynamic Binding Capacity: ~35 mg/mL • pH stability range: 1–8.5 • Pressure limit 10 bar • Linear flow rate up to 1000 cm/h at 2 bar at 20 cm bed height 				2 mL 10 mL 100 mL 1 L 5 L 10 L 25L	115115822 115115824 115115827 115115830 115115833 115115835 115115834
	ProSep^o-vA High Capacity media Base matrix: Controlled Pore Glass (CPG)	nPA = native animal free protein A from <i>Staphylococcus aureus</i>		Affinity purification of mAbs.	<ul style="list-style-type: none"> • Particle size: 75–125 μm • Dynamic Binding Capacity: > 20 mg/mL at 10% breakthrough and 3–6 minute residence time • pH stability range: 1–8.5 • Pressure limit 10 bar • Linear flow rate up to 1000 cm/h at 2 bar at 20 cm bed height 				2 mL 10 mL 100 mL 1 L 5 L 10 L	113115822 113115824 113115827 113115830 113115833 113115835

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Catalog No.	Bulk Media	Catalog No.
Affinity Chromatography	Eshmuno® P anti-A and Eshmuno® P anti-B media Base matrix: Hydrophilic Polyvinyl Ether	Trisaccharide blood group antigens (A or B)	Removal of anti-A/B antibodies from immunoglobulin (Ig)	<ul style="list-style-type: none"> Particle size d₅₀: 50 µm pH stability range: 1.5–13.5 Pressure limit 8 bar Linear flow rate > 500 cm/hr > 75% of anti-A and anti-B removal 			10 mL 100 mL 500 mL 5 L	anti-A 1200940010 1200940100 1200940500 1200945000
								anti-B 1200950010 1200950100 1200950500 1200955000
Size exclusion chromatography (SEC)	Fractogel® EMD BioSEC (S) media Base matrix: Methacrylate	Modified pore structure	Separation of proteins in the range between 5 kDa and 1000 kDa.	<ul style="list-style-type: none"> Particle size: 20–40 µm pH stability range (working): 1–12 pH stability range (CIP): 0–14 Pressure limit 8 bar Linear flow rate up to 100 cm/h 			150 mL 250 mL 5 L	1103170150 1103170250 1103175000
Normal-phase and Reversed-phase Chromatography	PharmPrep™ P100 sorbent Base matrix: Spherical silica gel particles	Si 100, 10 µm, 20 µm RP-18e, 10 µm, 20 µm RP-8e, 10 µm	Peptides (insulin), APIs, antibiotics, intermediates.	<ul style="list-style-type: none"> Spherical high-performance sorbent Mean pore size: 10 nm Pressure PharmPrep™ P Si 100 ≤ 25 bar (10 µm), ≤ 10 bar (20 µm) Pressure PharmPrep™ P100 RP-18e ≤ 40 bar (10 µm), ≤ 25 bar (20 µm) Pressure PharmPrep™ P100 RP-8e ≤ 40bar (10 µm) 	Ready to use columns for method development Scout columns 250 x 4.6 mm PharmPrep™ P100 RP-18e, 10 µm PharmPrep™ P100 RP-18e, 20 µm PharmPrep™ P100 RP-8e, 10 µm	1205710001 1205720001 1205940001	10, 100, 1000 g x PharmPrep™ P Si 100, 10 µm PharmPrep™ P Si 100, 20 µm PharmPrep™ P100 RP-18e, 10 µm PharmPrep™ P100 RP-18e, 20 µm PharmPrep™ P100 RP-8e, 10 µm	1.19681 1.19682 1.19995 1.19996 1.19132
					Validation kit (3x Scout columns 250 x 4.6mm) PharmPrep™ P100 RP-8e, 10 µm Ready to use columns for preparative chromatography HIBAR® prepacked columns 250 x 25 mm PharmPrep™ P100 RP-18e, 10 µm PharmPrep™ P100 RP-18e, 20 µm PharmPrep™ P100 RP-8e, 10 µm PharmPrep™ P Si100 10 µm and 20 µm are also available in HIBAR® prepacked columns 250 x 25 mm on demand (customized).	1205940003 1205730001 1205740001 1205880001	All PharmPrep™ products are available in HIBAR® prepacked columns 250 x 50 mm on demand, customized. Validation kit (3 x 100 g) PharmPrep™ P100 RP-8e, 10 µm Validation kit PharmPrep™ P100 RP-18e, 10 µm Validation kit PharmPrep™ P100 RP-18e, 20 µm	1191320003 1199950003 1199960003
	LiChroprep® sorbent Base matrix: Irregular-shaped silica gel particles	Si 60, RP-8, RP-18	APIs, antibiotics, steroides, intermediates, natural products.	<ul style="list-style-type: none"> Irregular-shaped silica gel particles 15–25 µm, 25–40 µm, 40–63 µm Mean pore size of RP-18, RP-8: 10 nm Mean pore size of Si 60: 6 nm 	Ready to use columns for preparative chromatography HIBAR® prepacked columns 250 x 25 mm, 250 x 50 mm	On demand	LiChroprep® sorbent Si 60, 15–25 µm LiChroprep® sorbent Si 60, 25–40 µm LiChroprep® sorbent Si 60, 40–63 µm LiChroprep® sorbent RP-8, 40–63 µm LiChroprep® sorbent RP-18, 15–25 µm LiChroprep® sorbent RP-18, 25–40 µm LiChroprep® sorbent RP-18, 40–63 µm	1.09336 100 g, 500 g, 5 kg, 25 kg 1.09390 250 g, 1 kg, 25 kg 1.13905 250 g 1.09362 250 g, 1 kg 1.13901 1 kg, 25 kg 1.09303 1 kg 1.13900 250 g, 1 kg 1139730250 100 g, 500 g, 1 kg

* Cat. no. needs to be complemented by the 4-digit volume indication: 10 g: 0010; 100 g: 0100; 1000 g: 1000; 5000 g: 5000

Media Type	Product Description	Ligand	Application	Product Characteristics	Prepacked Columns	Catalog No.	Bulk Media	Catalog No.
Chromatography columns prepacked with Merck resins	Chromabolt® prepacked columns	See resin	Prepacked, prevalidated chromatography columns, with Merck resins for early clinical stage, process development and scale up.	<p>See resin for resin characteristics. All columns are packed in a ISO 8 Clean Room using automated packing and sanitizing equipment. This ensures a high quality reproducible and robust manufacturing process.</p> <p>The columns are in sizes 10, 20 and 32 cm (inner diameter) with fixed 20 cm bed heights.</p> <p>The columns have been validated to maintain specifications after undergoing ISTA-1E testing to simulate shipping conditions.</p> <p>Each column comes with the following:</p> <ul style="list-style-type: none"> • User Guide • Certificate of Quality • Certificate of Quality of resin lot packed in the column <p>The 20/32 cm Chromabolt® columns are shipped with a 50 mL sample of resin that is packed in the column</p>	<p>Chromabolt® columns prepacked with Eshmuno® Q media:</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC10791 CHRPC10792 CHRPC10793</p>		
					<p>Chromabolt® columns prepacked with Fractogel® EMD COO- (M):</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC18861 CHRPC18862 CHRPC18863</p>		
					<p>Chromabolt® columns prepacked with Fractogel® EMD SE Hicap (M):</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC18941 CHRPC18942 CHRPC18943</p>		
					<p>Chromabolt® columns prepacked with Fractogel® EMD TMAE (M):</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC18891 CHRPC18892 CHRPC18893</p>		
					<p>Chromabolt® columns prepacked with Fractogel® EMD DEAE (M):</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC18831 CHRPC18832 CHRPC18833</p>		
					<p>Chromabolt® columns prepacked with Eshmuno® A:</p> <p>10 cm (inner diameter) 20 cm (inner diameter) 32 cm (inner diameter)</p>	<p>CHRPC10891 CHRPC10892 CHRPC10893</p>		

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