

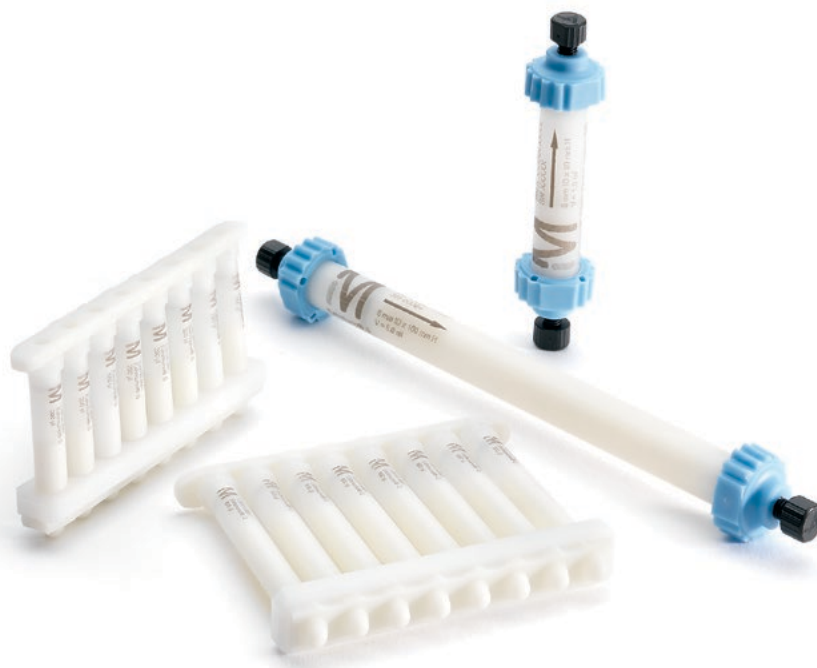
# Robocolumn® and MiniChrom Chromatography Columns

Small-scale preppacked chromatography columns for rapid process development, method optimization, parameter screening and sample preparation

Both the Robocolumn® and MiniChrom columns are available with our comprehensive portfolio of chromatography resins, eliminating the time-consuming process of packing your individual columns.

Developing a purification process that is robust, meets impurity removal requirements, and adheres to your processing parameters is complex. The diverse offering of chromatography resins requires screening different options to determine the optimal solution. To enable fast, accurate, high-throughput screening, we offer MiniChrom and Robocolumn® preppacked columns with the full range of our resins to drive your research forward.

Different column sizes (0.2 mL, 0.6 mL, 1 mL, 5 mL) and chromatography resin combinations are available. The resin quality remains consistent with all our columns being packed in a quality-controlled environment using established packing procedures that produce reproducible results.



## MiniChrom Columns

MiniChrom columns are designed for analytical and preparative chromatography with small volumes and rapid separation. Filled with our Fractogel® or Eshmuno® resin, they are developed for resin evaluation, process development, method optimization and parameter screening, as well as sample preparation. These columns are compatible with any chromatographic work station, HPLC system or peristaltic pump.

### Benefits

- Convenient and rapid comparison of different chromatography resins
- Superior reproducibility
- Excellent scalability

## MiniChrom Column Characteristics

Characteristic	Specification
Components	Column—Polypropylene Bed supports—Polypropylene/Polyethylene
Connections	Standard HPLC (M10-32 UNF for 1/16 in. tubing)
Maximum Working Pressure	30 bar
Flow Rate	Up to 10 mL/min
Chemical Stability of Column Hardware	pH 1–14, organic solvents (except halogenated), minerals and salts, common eluents and additives (urea, antioxidants, thiols, detergents, tensides)
Temperature Ranges	2–30 °C*
Bed Volumes	1 and 5 mL
Column Dimensions (mm)	Internal Diameter    Bed Length    Column Bed Volume (mL)
The 8 mm diameter columns allow for scale-up from 1 to 5 mL column volumes with a constant internal diameter.	8                                  20                                  1
	8                                  100                                  5

\*Except Eshmuno® A resin, which requires refrigeration for long term storage.

## RoboColumn® Columns

Easy-to-use, miniaturized chromatography columns that can be individually arranged on the commonly used and standard 96-well microplate format according to application requirements. One pack is a row of 8 RoboColumn® columns.

They are designed for high-throughput process development, resin and condition screening and optimization, and sample preparation prior to subsequent analysis.

### Benefits

- Real chromatography mode of operation
- Rapid method development
- Automated parallel chromatography

## RoboColumn® Column Characteristics

Characteristic	Specification
Components	Polypropylene
Maximum Working Pressure	8 bar
Flow Rate	16–1000 cm/h
Chemical Stability of Column Hardware	All commonly used aqueous buffers, pH 1–14, organic solvents
Temperature Ranges	2–30 °C*
Bed Volumes	0.2 mL and 0.6 mL

\*Except Eshmuno® A resin, which requires refrigeration for long term storage.

## Ordering Information

Description	Column Size	Catalogue No.
<b>MiniChrom Columns</b>		
Fractogel® EMD TMAE (M)	1 mL	1.25054.0001
Fractogel® EMD TMAE Hicap (M)	1 mL	1.25055.0001
Fractogel® EMD TMAE Medcap (M)	1 mL	1.25056.0001
Fractogel® EMD TMAE (S)	1 mL	1.25057.0001
Fractogel® EMD DEAE (M)	1 mL	1.25058.0001
Fractogel® EMD DMAE (M)	1 mL	1.25059.0001
Fractogel® EMD SE Hicap (M)	1 mL	1.25060.0001
Fractogel® EMD SO3 (M)	1 mL	1.25061.0001
Fractogel® EMD SO3 (S)	1 mL	1.25181.0001
Fractogel® EMD COO (M)	1 mL	1.25062.0001
Fractogel® EMD Chelate (M)	1 mL	1.25063.0001
Eshmun® S	1 mL	1.25064.0001
Eshmun® Q	1 mL	1.25065.0001
Eshmun® HCX	1 mL	1.25066.0001
Eshmun® CMX	1 mL	1.25185.0001
Eshmun® CP-FT	1 mL	1.25168.0001
Eshmun® CPX	1 mL	1.25156.0001
Eshmun® A	1 mL	1.25160.0001
Fractogel® EMD TMAE (M)	5 mL	1.25069.0001
Fractogel® EMD TMAE Hicap (M)	5 mL	1.25070.0001
Fractogel® EMD TMAE (S)	5 mL	1.25071.0001
Fractogel® EMD SO3 (M)	5 mL	1.25072.0001
Fractogel® EMD SO3 (S)	5 mL	1.25182.0001
Fractogel® EMD TMAE Medcap (M)	5 mL	1.25078.0001
Fractogel® EMD DEAE (M)	5 mL	1.25079.0001
Fractogel® EMD DMAE (M)	5 mL	1.25080.0001
Fractogel® EMD SE Hicap (M)	5 mL	1.25081.0001
Fractogel® EMD COO (M)	5 mL	1.25082.0001
Fractogel® EMD Chelate (M)	5 mL	1.25083.0001
Eshmun® S	5 mL	1.25073.0001
Eshmun® Q	5 mL	1.25074.0001
Eshmun® CMX	5 mL	1.25186.0001
Eshmun® CP-FT	5 mL	1.25169.0001
Eshmun® HCX	5 mL	1.25075.0001
Eshmun® CPX	5 mL	1.25157.0001
Eshmun® A	5 mL	1.25161.0001

Description	Column Size	Catalogue No.
<b>RoboColumn® Columns</b>		
Fractogel® EMD TMAE (M)	0.2 mL x 8	1.25084.0001
Fractogel® EMD TMAE Hicap	0.2 mL x 8	1.25085.0001
Fractogel® EMD TMAE (S)	0.2 mL x 8	1.25086.0001
Fractogel® EMD SO3	0.2 mL x 8	1.25090.0001
Fractogel® EMD SO3 (S)	0.2 mL x 8	1.25183.0001
Fractogel® EMD DEAE (M)	0.2 mL x 8	1.25145.0001
Fractogel® EMD DMAE (M)	0.2 mL x 8	1.25146.0001
Fractogel® EMD SE Hicap	0.2 mL x 8	1.25147.0001
Fractogel® EMD COO (M)	0.2 mL x 8	1.25148.0001
Fractogel® EMD Chelate (M)	0.2 mL x 8	1.25149.0001
Fractogel® EMD TMAE Medcap (M)	0.2 mL x 8	1.25144.0001
Eshmun® S	0.2 mL x 8	1.25132.0001
Eshmun® Q	0.2 mL x 8	1.25133.0001
Eshmun® HCX	0.2 mL x 8	1.25134.0001
Eshmun® CMX	0.2 mL x 8	1.25187.0001
Eshmun® CP-FT	0.2 mL x 8	1.25171.0001
Eshmun® CPX	0.2 mL x 8	1.25158.0001
Eshmun® A	0.2 mL x 8	1.25162.0001
Fractogel® EMD TMAE (M)	0.6 mL x 8	1.25136.0001
Fractogel® EMD TMAE Hicap	0.6 mL x 8	1.25137.0001
Fractogel® EMD TMAE (S)	0.6 mL x 8	1.25138.0001
Fractogel® EMD SO3	0.6 mL x 8	1.25139.0001
Fractogel® EMD SO3 (S)	0.6 mL x 8	1.25184.0001
Fractogel® EMD TMAE Medcap (M)	0.6 mL x 8	1.25150.0001
Fractogel® EMD DEAE (M)	0.6 mL x 8	1.25151.0001
Fractogel® EMD DMAE (M)	0.6 mL x 8	1.25152.0001
Fractogel® EMD SE Hicap	0.6 mL x 8	1.25153.0001
Fractogel® EMD COO (M)	0.6 mL x 8	1.25154.0001
Fractogel® EMD Chelate (M)	0.6 mL x 8	1.25155.0001
Eshmun® S	0.6 mL x 8	1.25140.0001
Eshmun® Q	0.6 mL x 8	1.25141.0001
Eshmun® HCX	0.6 mL x 8	1.25142.0001
Eshmun® CMX	0.6 mL x 8	1.25188.0001
Eshmun® CP-FT	0.6 mL x 8	1.25172.0001
Eshmun® CPX	0.6 mL x 8	1.25159.0001
Eshmun® A	0.6 mL x 8	1.25163.0001

## Ordering Information

For additional information, please visit  
**SigmaAldrich.com**

Description	Catalogue No.
<b>Eshmuno® Resins (bulk resins)</b>	
Eshmuno® S	120078
Eshmuno® Q	120079
Eshmuno® HCX	120087
Eshmuno® CMX	120650
Eshmuno® CP-FT	120093
Eshmuno® CPX	120083
<b>Fractogel® EMD Resins (bulk resins)</b>	
Fractogel® EMD TMAE (M)	116881
Fractogel® EMD TMAE Hicap (M)	110316
Fractogel® EMD TMAE Medcap (M)	116885
Fractogel® EMD TMAE (S)	116887
Fractogel® EMD DEAE (M)	116883
Fractogel® EMD DMAE (M)	116884
Fractogel® EMD SE Hicap (M)	114894
Fractogel® EMD SO3 (S)	116890
Fractogel® EMD SO3 (M)	116882
Fractogel® EMD COO (M)	116886
Fractogel® EMD Chelate (M)	110338
<b>Protein A Resins (bulk resins)</b>	
Eshmuno® A	120089

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