

POROS™ and CaptureSelect™ RoboColumn™ Products

Pub. No. 100042478 Rev. E



WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](https://www.thermofisher.com/support).

Product description

POROS™ and CaptureSelect™ RoboColumn™ products are small chromatography columns that are provided in 8-column strips. RoboColumn™ products are useful for fully automated and parallel chromatographic separations using a robotic liquid handling platform such as the Freedom EVO™ series from Tecan Group, Ltd. Up to 96 RoboColumn™ columns can be individually fixed onto a 96-well plate.

POROS™ RoboColumn™ products are available in 200 µL and 600 µL volumes. CaptureSelect™ RoboColumn™ products are available in 50 µL and 200 µL volumes.

RoboColumn™ products provide high efficiency and peak symmetry that are similar to preparative and process separation columns because:

- The packed bed is contained between two filter frits.
- The columns are professionally packed with conditions suited to the compression requirements of each resin.

RoboColumn™ technology can be used in a variety of applications, including:

- High-throughput screening
 - Parallel screening and optimization of chromatographic conditions
 - Chromatographic resin screening for dynamic binding capacity and separation efficiency
- Scale-down experiments

The following table lists the available RoboColumn™ products. For information on specific resin characteristics and handling, refer to the document listed for the resin.

Table 1 RoboColumn™ products and resin documentation

Resin	Application	Surface functionality	Documentation Pub. No.
POROS™ HS	Strong cation exchange	Sulphopropyl	100031321
POROS™ XS	Strong cation exchange	Sulphopropyl	
POROS™ HQ	Strong anion exchange	Quaternized polyethyleneimine	100031320
POROS™ XQ	Strong anion exchange	Proprietary quaternary amine	
POROS™ PI	Weak anion exchange	Polyethyleneimine	
POROS™ D	Weak anion exchange	Dimethyl aminopropyl	
POROS™ Ethyl, Benzyl, and Benzyl Ultra	Hydrophobic interaction chromatography (HIC): <ul style="list-style-type: none"> • Ethyl— Bind/elute mode to bind moderately to strongly hydrophobic molecules. • Benzyl— Bind/elute or flow-through mode depending on the hydrophobicity of the molecule. • Benzyl Ultra— Flow-through mode in lower salt concentration to bind impurities such as aggregates. 	<ul style="list-style-type: none"> • Ethyl— Novel ethyl • Benzyl— Low-density benzyl/aromatic • Benzyl Ultra— High-density benzyl/aromatic 	100063752
POROS™ Caprylate	Mixed-mode cation exchange for aggregate removal in flow through mode	Caprylic (octanoic) acid	MAN0029949
POROS™ MabCapture™ A and MabCapture™ A Select	Affinity: Protein A	Recombinant Protein A	100031319
CaptureSelect™ Kappa XL	Affinity: Recombinant human IgG	CaptureSelect™ KappaXL affinity ligand	MAN0009652
CaptureSelect™ Human Albumin	Affinity: Human albumin and albumin fusion proteins	CaptureSelect™ HSA affinity ligand	MAN0009649
CaptureSelect™ FcXL	Affinity: Recombinant human IgG, Fc fusion proteins, and plasma-derived IgG	CaptureSelect™ FcXL affinity ligand	MAN0013480
CaptureSelect™ CH1-XL	Affinity: All Fab fragments (independent of light chain type) as well as human IgGs (all subclasses—1, 2, 3, and 4)	CaptureSelect™ CH1-XL affinity ligand	MAN0017350
POROS™ Oligo dT(25)	Affinity: mRNA via polyA tail	Poly-deoxythymidine (dT25-mer) ligand	100092591
POROS™ CaptureSelect™ AAV	Affinity: AAV1 through AAV9, numerous recombinant and chimeric serotypes	CaptureSelect™ AAVX affinity ligand	100038399

Column specifications

This section lists column specifications. For resin specifications, see the documents listed in Table 1.

Characteristic	Specification	
	POROS™ column	CaptureSelect™ column
Column volume	200–600 µL	50–200 µL
Bed height	10.0–30.0 mm	2.5–10.0 mm
Column inner diameter	5 mm	5 mm
Column material	Polypropylene	Polypropylene
Shipping and storage solution	<ul style="list-style-type: none"> Anion and cation: 20% ethanol, 150 mM NaCl HIC and Affinity, mixed-mode to anion, cation: 20% ethanol POROS Caprylate: 0.1M NaOH 	<ul style="list-style-type: none"> Human Albumin: 20% ethanol, 1 M NaCl, 0.1M Tris, pH 8.0 KappaXL, FcXL, CH1-XL: 20% ethanol
Recommended storage temperature	<ul style="list-style-type: none"> Anion, cation, and HIC: 2°C–30°C Affinity: 2°C–8°C 	2°C–8°C
Operating temperature	2°C–30°C	2°C–25°C
Maximum operating pressure	Up to 8.0 bar	Up to 8.0 bar
Flow rate	16 cm/hr–1,000 cm/hr	16 cm/hr–1,000 cm/hr

Sample preparation, experimental setup, and troubleshooting

For instructions and troubleshooting information, see:

- OPUS™ RoboColumn™ Pre-Packed Chromatography Columns User Guide [01-08R-E03](#) available from [repligen.com](#)
- The documentation provided with your robotic liquid handling platform

Ordering information

All columns are provided in 1 strip with 8 columns (8-row).

Table 2 POROS™ RoboColumn™ Ion exchange columns

Item	Cat. No.
HS50, 200 µL	A30713
HS50, 600 µL	A30714
XS, 200 µL	A30715
XS, 600 µL	A30716
HQ50, 200 µL	A30717
HQ50, 600 µL	A30718
XQ50, 200 µL	A30719
XQ50, 600 µL	A30720
PI50, 200 µL	A30721
PI50, 600 µL	A30722
D50, 200 µL	A30723
D50, 600 µL	A30724

Table 3 POROS™ RoboColumn™ HIC columns

Item	Cat. No.
Ethyl, 200 µL	A34810
Ethyl, 600 µL	A34812
Benzyl, 200 µL	A34813
Benzyl, 600 µL	A34814
Benzyl Ultra, 200 µL	A34815
Benzyl Ultra, 600 µL	A34816

Table 4 POROS™ RoboColumn™ Mixed-Mode columns

Item	Cat. No.
Caprylate, 200 µL	A51056
Caprylate, 600 µL	A51057

Table 5 POROS™ RoboColumn™ Affinity columns

Item	Cat. No.
MabCapture™ A, 200 µL	A30725
MabCapture™ A, 600 µL	A30726
Oligo dT(25), 200 µL	A48349
Oligo dT(25), 600 µL	A48350
AAVX, 200 µL	A37794
AAVX, 600 µL	A37795
AAV8, 200 µL	A57270
AAV8, 600 µL	A57271
AAV9, 200 µL	A57272
AAV9, 600 µL	A57273

Table 6 CaptureSelect™ RoboColumn™ Affinity columns

Item	Cat. No.
Kappa XL, 50 µL	5943210050
Kappa XL, 200 µL	5943210200
FcXL, 50 µL	5943280050
FcXL, 200 µL	5943280200
Human Albumin, 50 µL	5912970050
Human Albumin, 200 µL	5912970200
CH1-XL, 200 µL	5943462200

Limited product warranty

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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

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Revision	Date	Description
E	20 May 2024	Added additional Cat. Nos. for POROS™ RoboColumn™ Mixed-Mode columns, POROS™ RoboColumn™ Affinity columns, and CaptureSelect™ RoboColumn™ Affinity columns.
D	18 June 2020	Added Oligo dT(25) resin and AAVX resin information, updated manufacturer address.
C	30 January 2018	Added CH1-XL resin information.
B	17 July 2017	Added POROS™ Ethyl, Benzyl, and Benzyl Ultra HIC resin information.
A	24 May 2016	New document.

The information in this guide is subject to change without notice.

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