

Thermo Scientific EASY-Columns

Excellence in nanoscale separations

- Compatible with any nanoscale HPLC system
- Optimized for online use LC/MS
- Quality control on every column
- Simple, flexible design

Compatible with any nanoscale HPLC system

Using highly pure chromatographic media and biocompatible, metal-free fused silica capillaries, EASY-Column™ capillary LC columns are produced with a focus on design simplicity and strict quality control. As a result, they deliver outstanding chromatographic performance on any nano LC system.

Simple, flexible design

EASY-Column connector kits are available for one and two column configurations. These easy-to-use, zero dead volume column connector kits make setup for on-line LC/MS simple, easy and reproducible using any nano LC system.

Quality control on every column

In order to achieve excellent nanoscale chromatography, it is critical to ensure that dead volumes are minimised. The frit end of the EASY-Column is polished flat and inspected to ensure a clean, zero dead

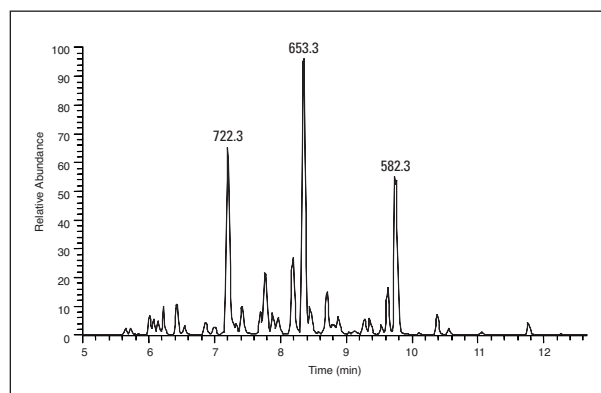
volume connection to the emitter or transfer line.

Each column is rigorously inspected, pressure tested and its chromatographic performance is evaluated against strict specifications. This attention to detail ensures that all the chromatographic peak width is minimised and peak capacity maximised, thereby increasing peptide sequence coverage.

Optimized for online LC/MS

Easy-Columns are available in nanobore formats for online nanospray LC/MS applications, particularly proteomics. At flow rates of nL/min versus mL/min, EASY-Columns offer higher sensitivity with greater signal-to-noise ratio than traditional electrospray.

Analytes can be rapidly detected, identified and quantified at femtomole levels, as illustrated below for the 100 fmol tryptic digest of BSA. Peak widths of less than 6 seconds are routinely achievable.



Test Conditions

LC System:	Thermo Scientific EASY-nLC
Sample:	100 fmol tryptic BSA digest
Flow Rate:	300 nL/min
Gradient:	0-30 % B in 30 min
Solvent A:	0.1 % formic acid
Solvent B:	Acetonitrile, 0.1 % formic acid

Fast separation: Peak widths typically 3-5 sec (FWHM)







Column Specifications




	SC001	SC200
Metal free biocompatible fused silica (360 µm OD)	100 µm ID	75 µm ID
Column volume	0.393 µL	0.442 µL
Packing material	C18-A1	C18-A2
Mean particle size	4.5 – 5.2	2.8 – 3.2
Mean pore diameter (Å)	120 – 150	120 – 150
Surface area (m ² /g)	260 – 340	260 – 340
Pore volume (mL/g)	0.9 – 1.1	0.9 – 1.1
Carbon load (%)	14 – 15	14 – 15
pH stability	pH 2 – 8	pH 2 – 8
Typical backpressure (aqueous solvent, 22°C)	50 +/- 10 bar at 3 µL/min	85 +/- 20 bar at 300 nL/min
Recommended maximum backpressure	300 bar (4500 psi)	300 bar (4500 psi)
Recommended operating temperature range	4 – 60 °C	4 – 60 °C

C18-A1: 5 µm, 120 Å, ReproSil-Pur C18-AQ
(Dr. Maisch, GmbH, Germany)

C18-A2: 3 µm, 120 Å, ReproSil-Pur C18-AQ
(Dr. Maisch, GmbH, Germany)

Ordering Information

	Description	Qty.	Part No.
	EASY-Column, 2 cm, ID 100 µm, 5 µm, C18-A1 (Trap column, 3/pk)	3	SC001
	EASY-Column, 10 cm, ID 75 µm, 3 µm, C18-A2 (Analytical column)	1	SC200
	EASY-Column, 10 cm, ID 75 µm, 3 µm, C18-A2 (Analytical column, 3/pk)	3	SC2003
	A/B Mixing Tee & Venting Tee for two-column setup Nanoliter-dead-volume tee (1/32 inch OD tubing), 10 sleeves for 360 µm OD fused silica (10xSC603)	1	SC601

	Description	Qty.	Part No.
	HPLC-to-Column Connector Kit Zero-dead-volume union (1/32 inch OD tubing), 10 sleeves for 360 µm OD fused silica (10xSC603)	1	SC600
	Connector Kit for two-column setup Zero-dead-volume union (1/32 inch OD tubing), Nanoliter-dead-volume tee (1/32 inch OD tubing), 10 sleeves for 360 µm OD fused silica (10xSC603)	1	SC602
	Sleeves (2 cm, 1/32) for 360 µm OD fused silica	30	SC603

For more information, visit www.thermoscientific.com/easycolumn

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