

Thermo Scientific EASY-Spray Columns

Plug-and-spray with state of the art performance

The unique EASY-Spray™ design provides uncompromised performance and ease of use in nano LC-MS. The highest quality chromatographic media and device components ensure high precision and robustness for routine operation.

- Outstanding peak capacity for comprehensive proteome characterization
- Temperature control for maximum reliability and performance
- Thermo Scientific nanoViper fittings provide simple connectivity and eliminate dead volumes

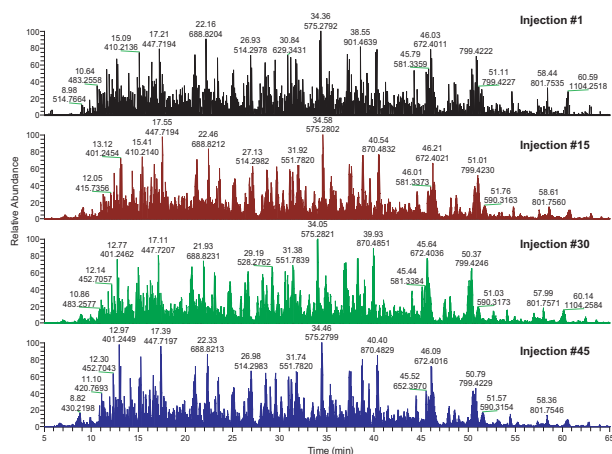


Figure 1. Selected base peak chromatograms from 45 repeat runs of 500 ng *E. coli* digest. EASY-Spray Column ES801 (15 cm x 50 μ m ID, Acclaim PepMap RSLC C18, 2 μ m).



Integrated column/emitter design

Making the perfect zero dead volume connection is critical in order to obtain the best nano-flow LC-MS performance. EASY-Spray columns provide a fully integrated and temperature controlled column-emitter design with only a single nanoViper connection between the LC and the MS ion source.

This integrated design eliminates dead volumes. The result is ultra-sharp peaks (peak widths of less than 3 seconds are routinely achievable as shown in Figure 2 over the page), that deliver outstanding peak capacity and maximize peptide coverage.

Outstanding reproducibility and reliability

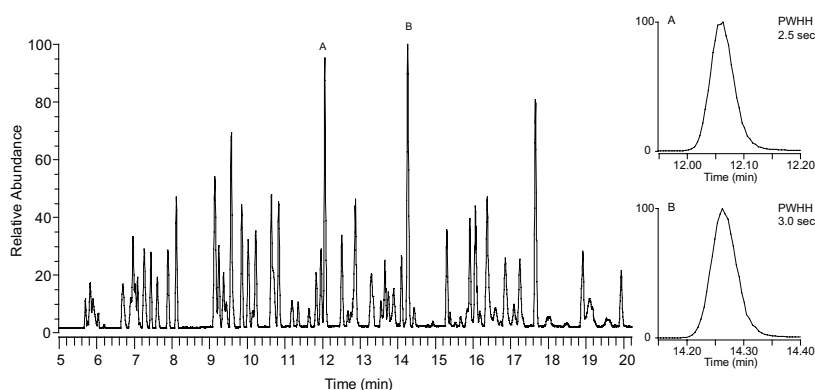
Column-to-column reproducibility is an extremely important parameter in proteomics, particularly when running large experiments or multi-site collaborations.

Exact manufacturing precision and strict quality control ensure EASY-Spray columns deliver class leading reproducibility and reliability. Each column is individually tested to ensure consistently high performance.

EASY-Spray columns provide stable performance over time as shown in Figure 1 on the left. Retention time precisions of 0.2% rsd match today's requirements for proteomics researchers.

Rugged performance to 1000 bar

The EASY-Spray column assembly is designed for use with UHPLC to fully harness the benefits of small particles and long columns. The use of a nanoViper fitting provides simple, finger-tight connection to 1000 bar.

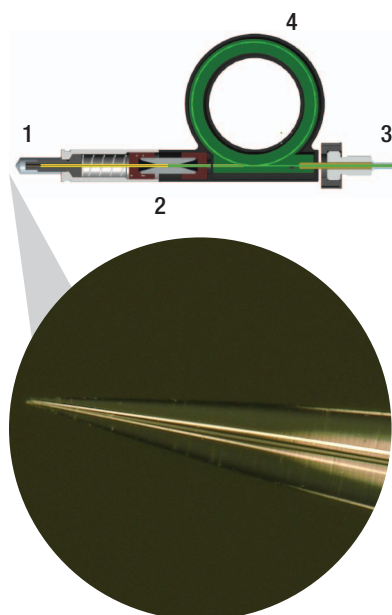


Column: EASY-Spray Column ES801
(15 cm x 50 μ m ID
Acclaim PepMap
RSLC C18, 2 μ m)

Peak width A: 2.5s FWHM
Peak width B: 3.0s FWHM

Data courtesy Karl Mechtler, Institute of Molecular Pathology (IMP), Vienna

Figure 2. EASY-Spray columns deliver ultra-sharp peaks



EASY-Spray column features

- 1. Precision positioned glass emitter**
Quality controlled and polished fused silica emitter with a uniform inner diameter of 5 μ m delivers an exceptionally stable spray.
- 2. Integrated ZDV union**
Zero dead volume column to emitter connection delivers narrower peaks and maximized peak capacity, leading to improved sequence coverage.
- 3. nanoViper™ fitting**
Easy to use, fingertight fitting to 1000 bar eliminates column damage due to over-tightening and experimental damage due to bad connections.
- 4. Column with integrated temperature control**
Column temperature control immediately before the MS inlet increases run to run reproducibility and allows the use of even longer columns and/or smaller particle sizes since elevated temperatures lower eluent viscosity and reduce the overall backpressure.

EASY-Spray column options

EASY-Spray columns are designed to give proteomics researchers more than ever before: more throughput, more sensitivity, more separation power and more ease of use.

EASY-Spray columns are available with the following options:

- 15 cm x 75 μ m ID packed with 3 μ m C18 particles for routine applications
- 15 cm x 50 μ m ID columns packed with 2 μ m particles for extra sensitivity
- 25 cm and 50 cm length columns packed with 2 μ m particles for greater peak capacity.

Ordering Information

Description	Part Number
EASY-Spray column, 15 cm x 75 μ m ID, PepMap C18, 3 μ m	ES800
EASY-Spray column, 15 cm x 50 μ m ID, PepMap RSLC C18, 2 μ m	ES801
EASY-Spray column, 25 cm x 75 μ m ID, PepMap RSLC C18 2 μ m	ES802
EASY-Spray column, 50 cm x 75 μ m ID, PepMap RSLC C18, 2 μ m	ES803

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