thermoscientific



EASY-Spray technology

Plug-and-spray with state-of-the-art performance



Effortless nano electrospray ionization



EASY-Spray source

Integrated design

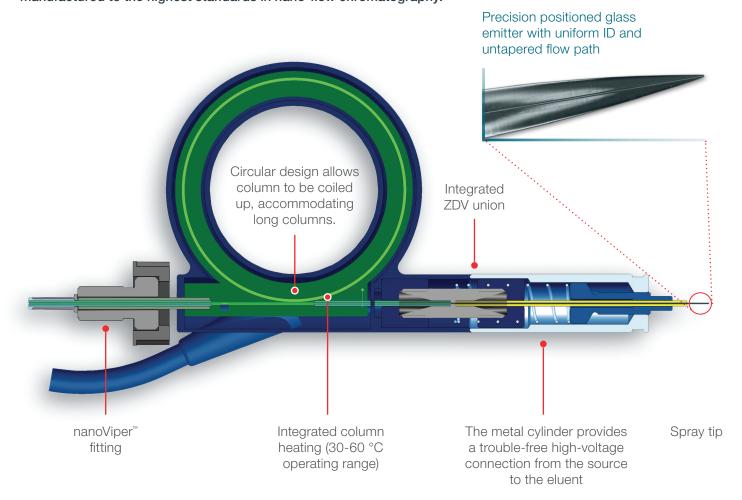
Nano-flow LC-MS relies critically on perfect connections between several pieces of nano-bore tubing and high-voltage electrodes for the spray ionization. Thermo Scientific™ EASY-Spray™ technology provides an integrated and temperature-controlled column-emitter design using a single Thermo Scientific™ Dionex™ nanoViper™ connection between the LC and the EASY-Spray source to remove the most error-prone and difficult connections.

Plug-and-spray nano-electrospray ionization combined with industry-proven columns: the Thermo Scientific EASY-Spray.



Plug-and-spray nano-electrospray ionization

The EASY-Spray columns are high-tech assemblies that are carefully manufactured to the highest standards in nano-flow chromatography.



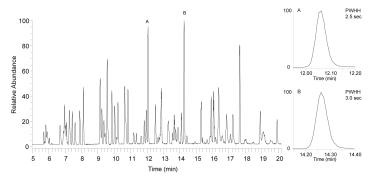




State-of-the-art performance

Achieving state-of-the-art performance from nano-flow LS-MS was never easier: simply plug-and-spray

EASY-Spray delivers performance, reproducibility and reliable results.



Column: EASY-Spray ES901 (15 cm × 50 µm ID

Thermo Scientific™ Acclaim™ PepMap™

RSLC C18, 2 µm)

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

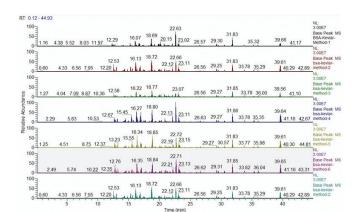
Courtesy of Karl Mechtler, Institute of Molecular Pathology (IMP), Vienna, Austria.

The combined column/sprayer fitted with nanoViper fittings eliminate dead volumes. The result: Ultra-sharp peaks (2.5-3.0 s full width half maximum) that maximize peptide coverage.

Outstanding reproducibility

7 BSA runs on a Thermo Scientific TSQ Vantage triple stage quadrupole mass spectrometer. Retention time precision less than 0.2% RSD.

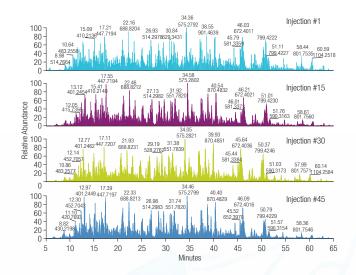
Courtesy of Paul Taylor and Thomas Kislinger, Hospital for Sick Children, Toronto, Canada.



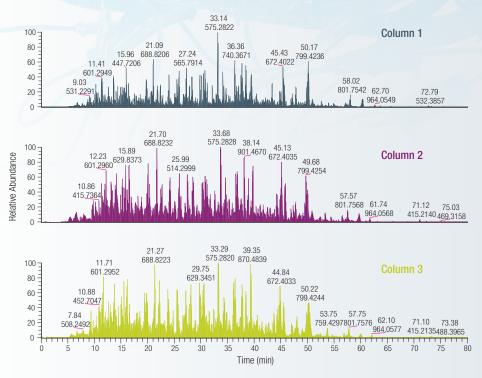
Reliable results every time

EASY-Spray provides stable performance over time to match today's requirements for proteomics researchers.

Selected base peak chromatograms from 500 ng samples of E. coli digest analyzed on a Velos Pro Orbitrap instrument with over 45 repeat runs. A 50 μ m ID \times 15 cm column was used for the separation. The gradient was 5% B to 30% B in 60 min at 300 nL/min. The column heater was set at 35 °C.



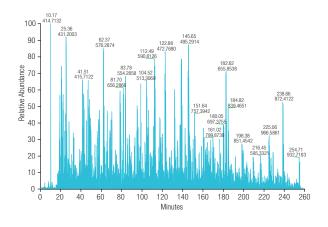
"Right off the shelf, with absolutely no optimization, the first injection gave me beautiful peaks with FWHM times of 2.5-3 seconds!"



Excellent inter-column reproducibility

Column-to-column reproducibility is extremely important in proteomics, particularly when running big experiments or multi-site collaborations. The exacting assembly precision of EASY-Spray columns ensures class leading performance on these parameters.

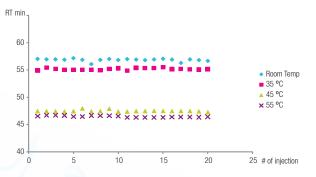
4,087 unique proteins were identified from a single HPLC separation of a 1000 ng human cell digest with a 50 cm EASY-Spray column.



Amazing peak capacity

The entire assembly is designed for heavy use so you can utilize the full pressure range of your UHPLC frontend (up to 1000 bar) and benefit from small particles and long columns. Longer columns and longer gradients both contribute to more identifications.

RT reproducibility of peptide EAVNQVIALLDSGALR from 500 ng E.coli complex sample for 20 repeat runs in different temperature ranges.



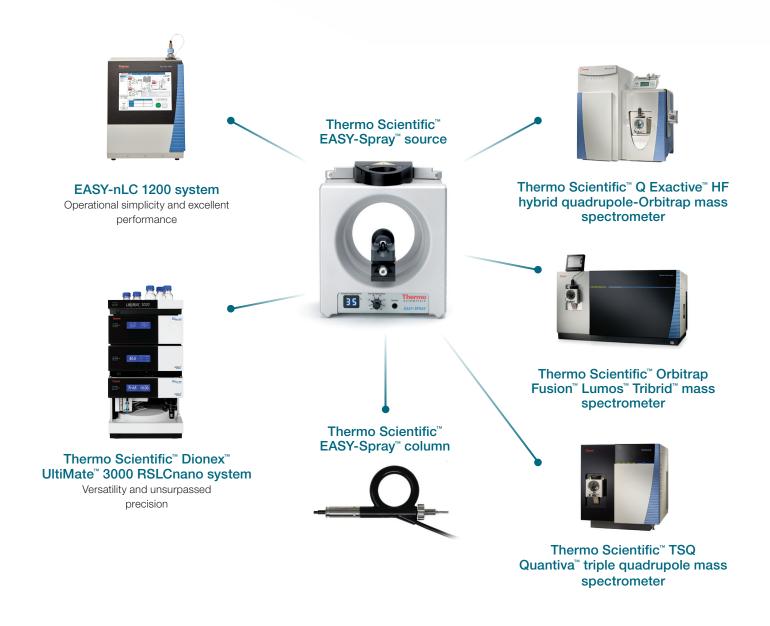
Temperature control

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.

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Full compatibility

EASY-Spray source is fully compatible with the following Thermo Scientific mass spectrometers and columns:



Find out more at thermofisher.com/EasySpray

