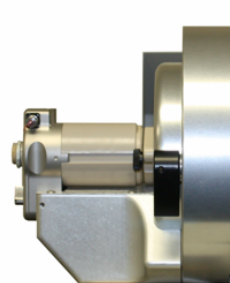


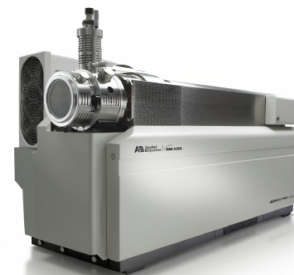


ADVANCE™ Plug-and-Play CaptiveSpray™ LCMS Source For ABI/Sciex MS

- ❖ NanoSpray Sensitivity at 0.5-10 $\mu\text{l}/\text{min}$
- ❖ High Throughput and High Resolution
- ❖ Robust Design Allows 24/7 Operation
- ❖ ESI to CSI Without Breaking Vacuum
- ❖ No XYZ Stage or Cameras Required

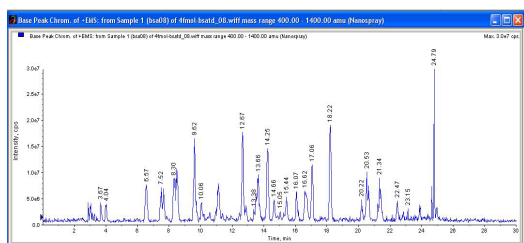


Michrom Advance
CaptiveSpray
Source

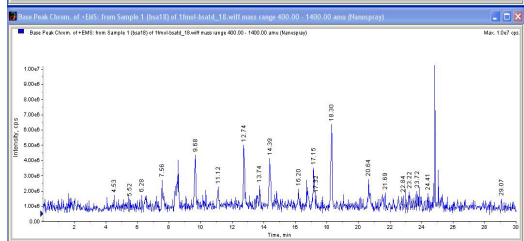


Applied Biosystems
4000 QTRAP
Mass Spectrometer

4 fmol BSA Digest
0.1 x 150mm
Magic C18AQ
500 nl/min
30 minute run

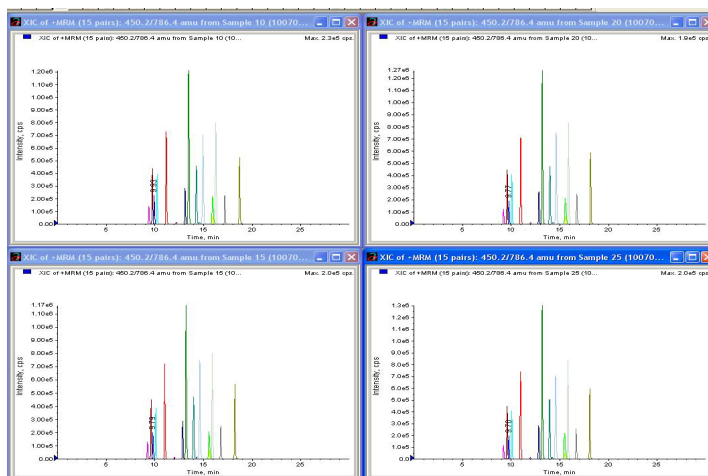


1 fmol BSA Digest
0.1 x 150mm
Magic C18AQ
500 nl/min
30 minute run



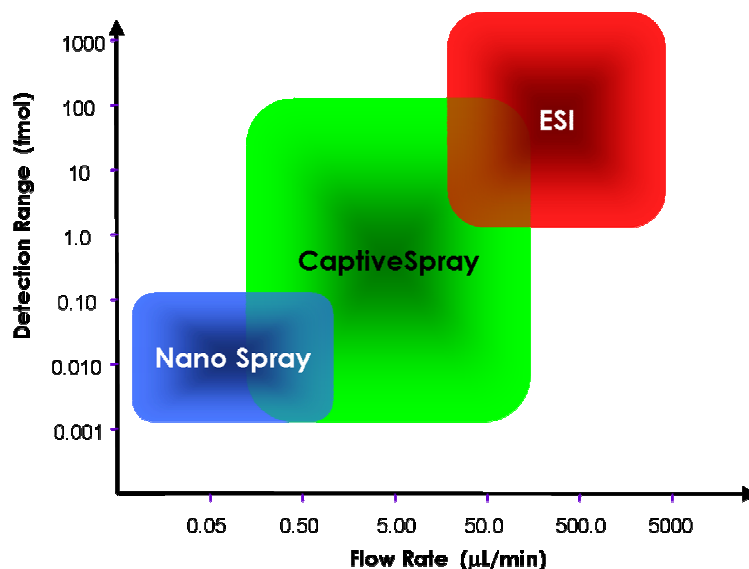
The ADVANCE is a revolutionary LCMS source that utilizes patented CaptiveSpray technology to capture and sweep sample ions into the MS, independent of LC flow rate. The source fits all ABI/Sciex MS systems that come with TurboV IonSpray, and combines the sensitivity of NanoSpray with the robustness, ease of use and throughput of ElectroSpray.

CaptiveSpray operation at μl flow rates allows use of larger column IDs, for rapid analysis of simple proteome samples or improved dynamic range for ID of low abundance proteins in more complex proteome samples. The speed, sensitivity and robustness of CaptiveSpray makes it ideally suited for quantitative applications in biomarker discovery and validation.

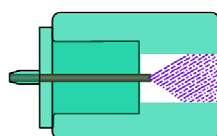


CaptiveSpray™ Technology

The Axial Desolvation Vacuum Assisted Nano Capillary Electrospray (ADVANCE) source uses CaptiveSpray technology for high sensitivity and high throughput LCMS. CaptiveSpray couples a LC column through a capillary spray tip to the inlet of the MS, such that a vacuum seal is created and air is pulled in and around the spray tip. An air funnel sweeps the spray tip and desolvates the sample ions as they are pulled into the MS, which allows faster LC flows and higher sample loading, resulting in higher sensitivity and/or significantly shorter run times. The capillary spray tip is a 30µ ID by 90µ OD Fused Silica Tube (no tapering), which is not susceptible to the plugging, fouling or degradation that effects most tapered NanoSpray tips. For trace level analysis, the CaptiveSpray source can pull in high purity air, rather than lab air (as in NanoSpray), enhancing signal to noise by eliminating background ions from the ambient air environment.

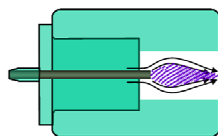


CaptiveSpray Operation



Conventional Spray

Unfocused Taylor Cone from emitter into spray chamber.

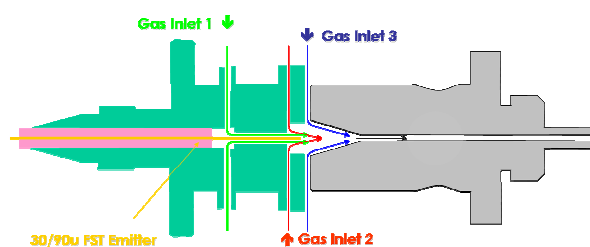


CaptiveSpray

Vortex around spray concentrates and focuses spray into the MS source.

CaptiveSpray Tip and GDM

Ion Transfer Interface to MS



Ordering Information

Description

ADVANCE for ABI/Sciex 3200, 4000 or 5500 Q Trap MS and
API 3200, 4000, 5500 Triple Quad MS

Part Number

SS3/00000/00

For more information or to place an order, please contact :

Michrom Bioresources, Inc.

1945 Industrial Drive, Auburn, CA 95603

Phone: (530) 888-6498

FAX: (530) 888-8295

E-Mail: info@michrom.com

Website: www.michrom.com