PORTFOLIO OF TOOLS FOR INTACT PROTEIN ANALYSIS
NATIVE TO TOP-DOWN

New Objective offers a full range of tools for intact protein analysis. Whether you are working with native proteins or developing analyses for top-down and middle-down intact protein workflows, we have a solution for your workflow needs.

INTACT PROTEIN SEPARATIONS: C4 COLUMNS

- PicoFrit® Advantage integrated column and emitter packed with C4
- Stable spray, low dead volume, and consistent sensitivity across runs



PICOCHIP



FLOWCHIP

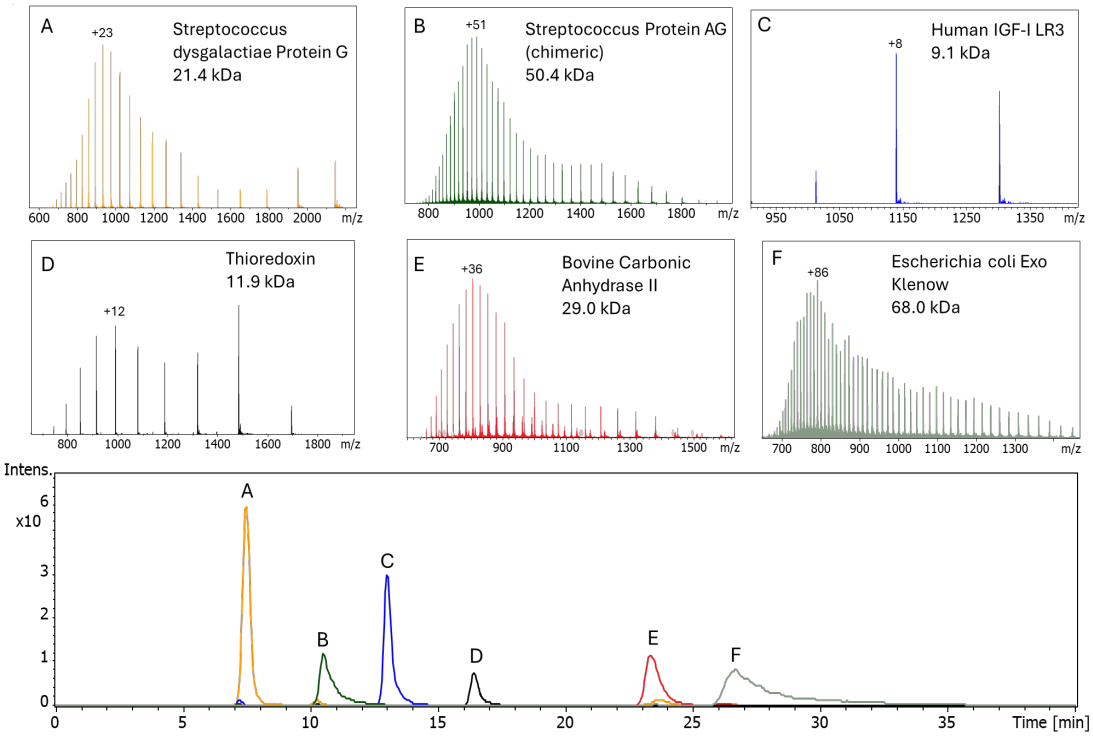


PICOFRIT EXPLORE



PICOFRIT RESOLVE

PICOFRIT RESOLVE
WIDE INTACT PROTEIN MASS RANGE ON TIMSTOF ULTRA™ 2



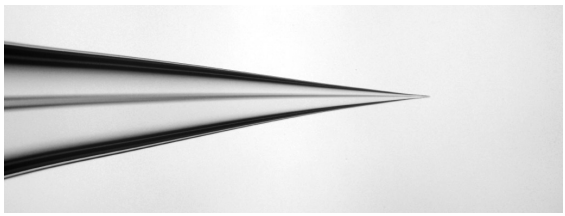
Intact-protein LC-TIMS-MS(/MS): Bruker timsTOF Ultra™2 (TIMS, MS: resolution mode, fragmentation: CID energy 35 eV, Spectral Rate ms: 2Hz), CaptiveSpray™ (1.6 kV, 180 °C), nanoElute® 2 UHPLC, Pierce Intact Protein Standard Mix, PicoFrit® Resolve™ column (25 cm x 75 µm, 3 µm C4). Data collected using a 5–90% B, 40-min gradient at 500 nL/min. Data courtesy of Robert Salzler, Regeneron Pharmaceuticals.

NATIVE MS: GLASSTIP™ EMITTERS

Purpose-built for offline native protein analysis, GlassTip emitters preserve protein conformation and deliver stable, reproducible nanospray with a precisely controlled tip opening — QC validated and ready to use out of the box.

- Preserves native protein conformation
- Compatible with physiological buffers for native protein analysis

GLASSTIP PICOTIP



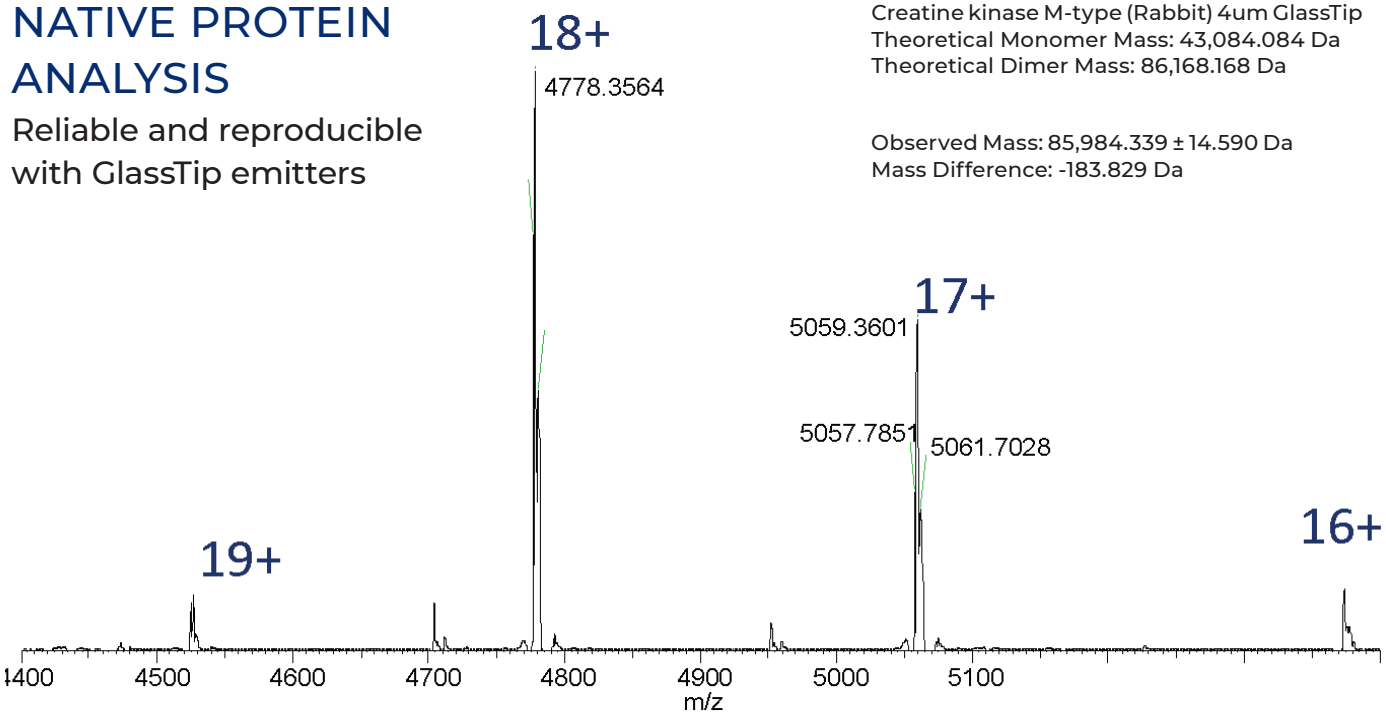
> This lower flow rate ESI, termed nanoESI [35], is highly advantageous for native MS analysis because of its low sample consumption, more uniform response factors, and higher tolerance to salts and buffers. Thus, nanoESI is now by far the most commonly used ionization method in native MS.
>
> Leney, A.C., Heck, A. J. R.: Native Mass Spectrometry: What is in the Name? J. Am. Soc. Mass Spectrom. 28, 5-13 (2017)

NATIVE PROTEIN ANALYSIS

Reliable and reproducible with GlassTip emitters

Creatine kinase M-type (Rabbit) 4um GlassTip
Theoretical Monomer Mass: 43,084.084 Da
Theoretical Dimer Mass: 86,168.168 Da

Observed Mass: 85,984.339 ± 14.590 Da
Mass Difference: -183.829 Da



2 mg/mL Creatine Kinase in 100 mM ammonium acetate using 4 µm GlassTip™ emitter on a Thermo QExactive™ MS equipped with a Nanospray Flex™ ion source at 2200 Volts. Instrument parameters: Resolution: 12500; Detector m/z optimization: low m/z; Ion Transfer Target: high m/z; Desolvation: -75; Trapping Gas Pressure: 3.0. Data courtesy of Prof. Owen Skinner, Northeastern University.