Trypsin-digested BSA MS Standard (CAM-modified)

1-800-632-7799
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P8108S 012150917091

P8108S

500 pmol **Lot: 0121509** **Exp: 9/17**
freeze dried **Store at –20°C**

Description: A complex mixture of peptides produced by Trypsin digestion of Bovine Serum Albumin (BSA) that was reduced and alkylated with Iodoacetimide (CAM modified). This peptide mixture can be used to test a Matrix-Assisted Laser Desorption/Ionization Time-Of-Flight (MALDI-TOF) or Electrospray Ionization (ESI) mass spectrometer (TOF, Q-TOF or Ion Trap).

Source: BSA (GENBANK P02769) was digested using Trypsin (TPCK-treated).

Useful Range: 500 to 3000 Daltons.

Quality Assurance: Peptides are free of salts, glycerol and detergents.

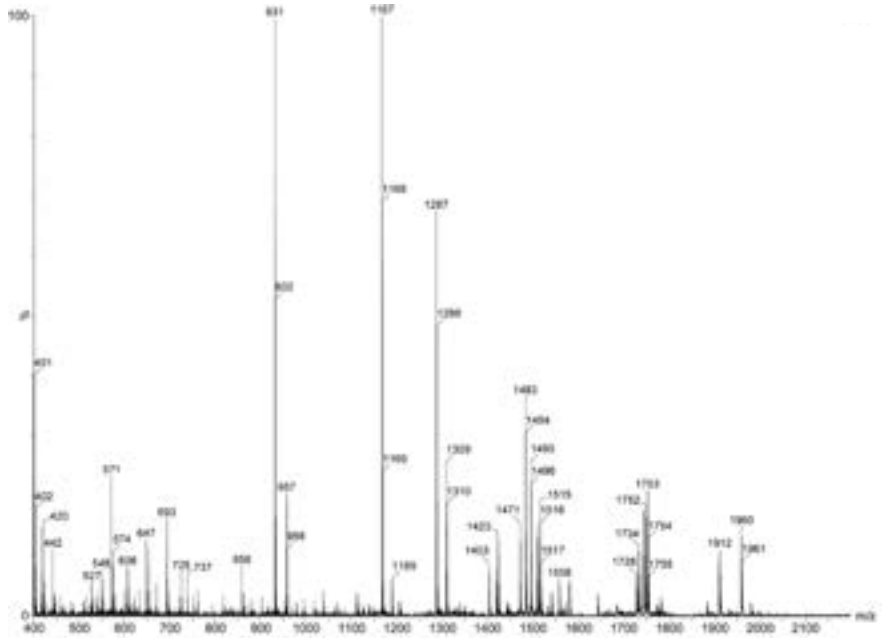
Storage Conditions: Supplied in lyophilized form. Store at –20°C.

Quality Controls

Online Analysis: One hundred fmol of the digest solution is injected via a split-less Agilent NanoLC onto a reverse phase C18 column and analyzed online by an Orbitrap Mass Spectrometer (Thermo Scientific) with an electrospray ion source. Peptides are separated by a water to acetonitrile gradient, both solvents containing 0.1% formic acid. MS/MS spectra were acquired using an acquisition range of 400 to 1600 m/z. Greater than 60% sequence coverage is observed.

MALDI-TOF MS: The BSA digest is dissolved to 1 pmol/µl. One µl of digest is mixed with 1 µl of α-cyano-4-hydroxycinnamic acid matrix solution, air-dried and subjected to MALDI-TOF MS analysis on a Waters Micro MX MALDI-TOF MS. The spectra obtained contains more than 15 resolved peaks which match the theoretical peaks.

Notes: Suggested volume to resuspend: 500 µl. Avoid repeated freeze/thaw cyles once in solution.



MALDI Analysis of BSA Digest: *The BSA digest is dissolved to 1 pmol/µl. One µl of digest is mixed with 1 µl of α-cyano-4-hydroxycinnamic acid (10 mg/ml in 50:50 acetonitrile:water with 0.1% trifluoroacetic acid). One µl of the digest/matrix solution were then spotted directly onto a MALDI target plate.*

(see other side)

CERTIFICATE OF ANALYSIS

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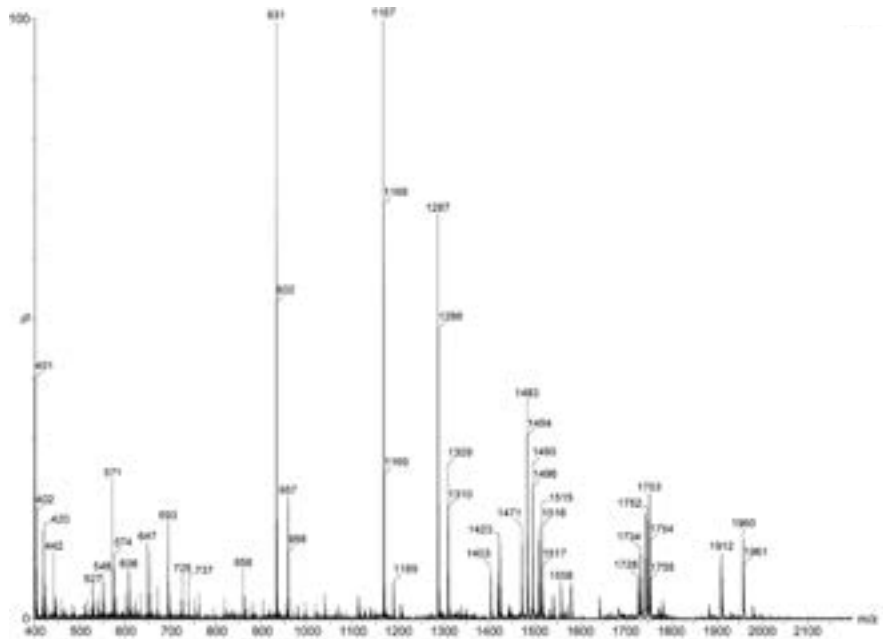

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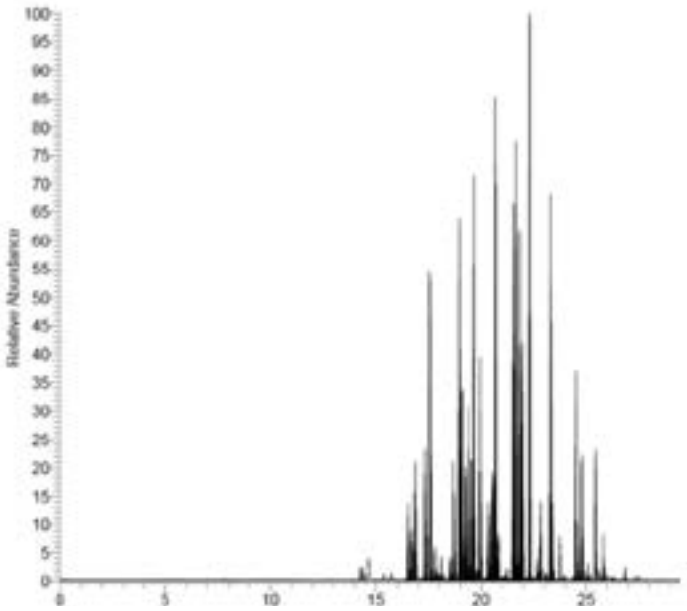
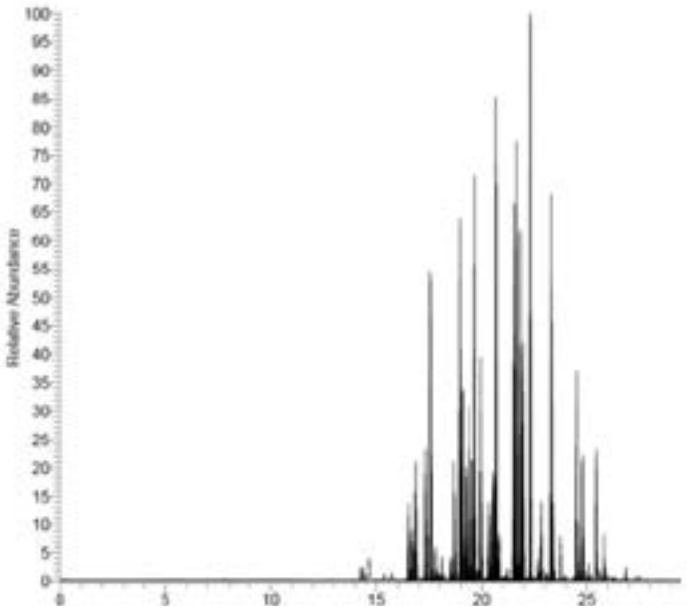


Online Analysis of BSA Digest: *The BSA digest solution was diluted to 100 fmol/µl with 0.1% formic acid. One µl (100 fmol) of the digest solution was injected via an Easy-nanoLC II (Proxeon) onto a self-packed reverse phase C18 nano column (Phenomenex packing material, 5 cm, 150 µm) and loaded onto a self-packed C18 analytical column with an integrated tip (New Objective Picofrit, 15 cm, 100 µm, Phenomenex packing material). Peptides were separated using a 45 min 5-70%B gradient (A = 0.1% formic acid, B = CH3CN, 0.1% formic acid) at a flow rate of 400 nl/min. Eluting peptides were analyzed online by a Q-Exactive mass spectrometer (Thermo Scientific) with an electrospray ion source. MS/MS spectra were acquired by HCD using an acquisition range of 400 to 1600 m/z.*



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