Trypsin-digested BSA MS Standard (CAM-modified)

1-800-632-7799
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www.neb.com

P8108S 0041401160 11

P8108S

500 pmol **Lot: 0041401** **Exp: 1/16**

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 Modified Trypsin (TPCK-treated).

Useful Range: 500 to 3000 Daltons.

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

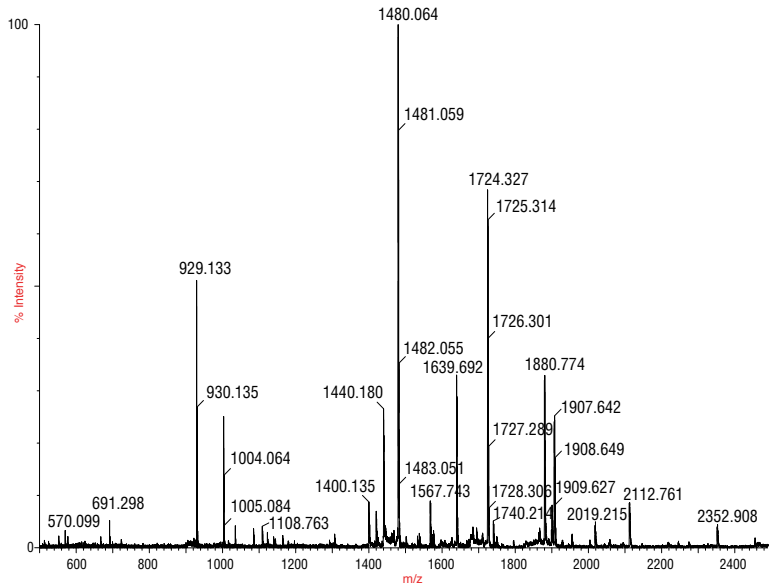
Storage Conditions: Supplied in lyophilized form. Store at –20°C.

Quality Controls

NanoLC-ESI MS/MS: One hundred fmol of the peptide mixture was subjected to nano-reverse-phase liquid chromatography on an Agilent NanoLC C18/Chip 6330 Ion Trap and developed with a water to acetonitrile gradient with both solvents containing 0.1% formic acid. The MS/MS data were analyzed with Mascot, 250 spectra were selected for analysis and a score of 800 or greater was obtained.

MALDI-TOF MS: 0.1 to 1 µl of each of the peptide mixture (0.5 to 5 pmol) was 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 solution was diluted to 1 pmol/µl and mixed at a 1:1 ratio with 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. The sample was then analyzed on a MALDI micro MX Mass Spectrometer (Waters Corporation) with a laser energy of 150.*

(see other side)

CERTIFICATE OF ANALYSIS

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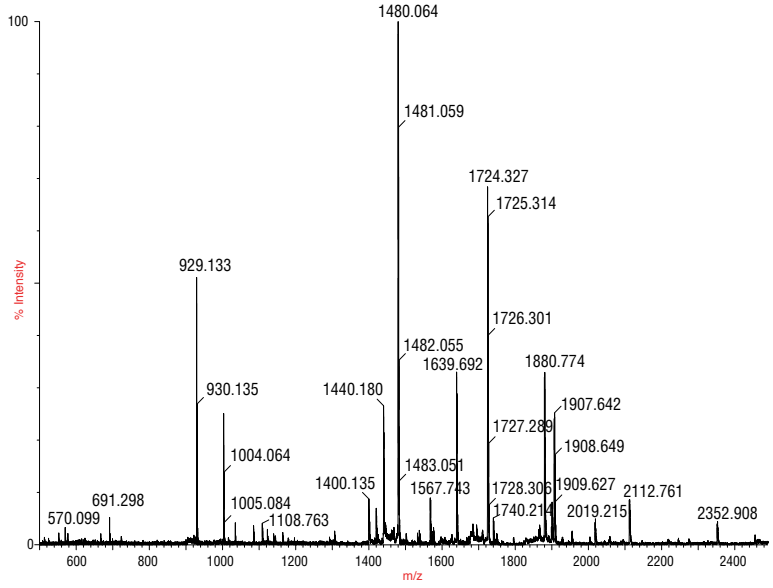

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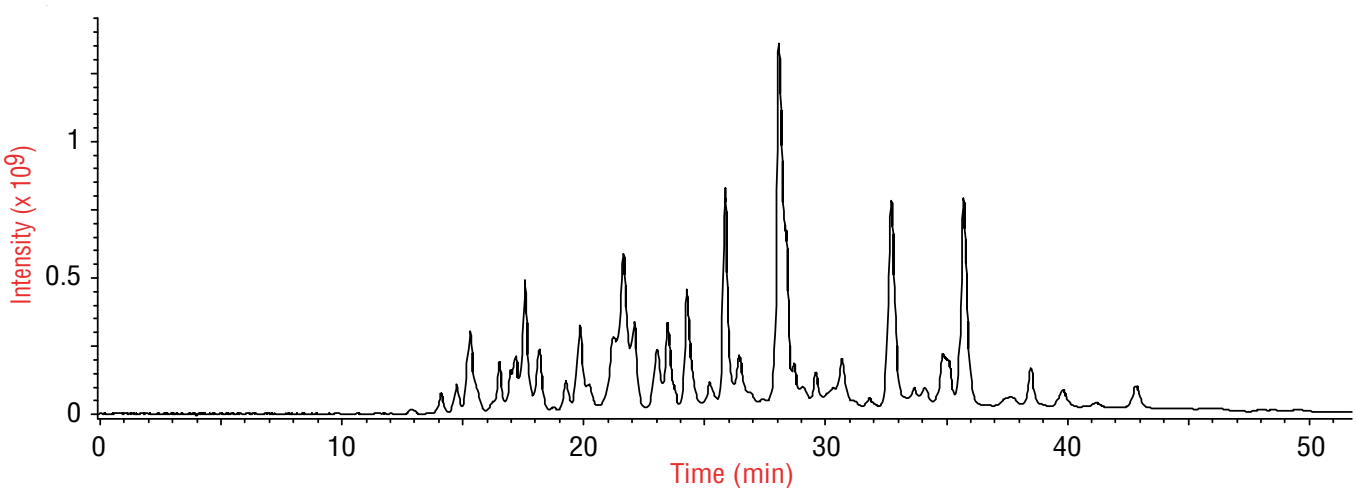
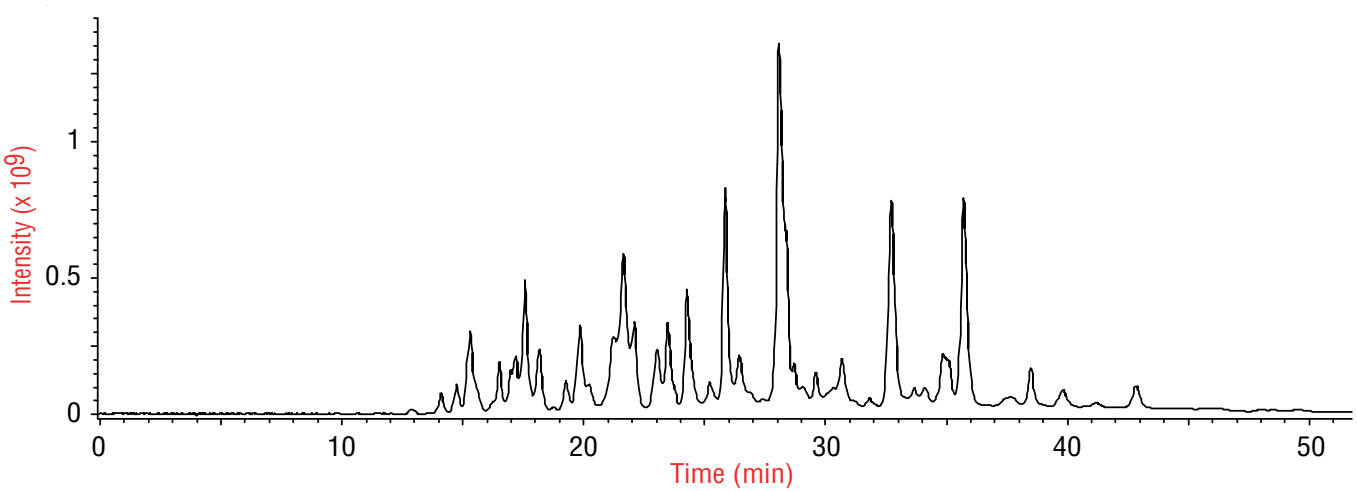


Online Analysis of BSA Digest: *The BSA digest solution was diluted to 100 fmol/µl with 0.1% formic acid. One µl of the digest solution was then injected into an HPLC-Chip Cube system and separated on a Protein ID chip packed with Zorbax 300SB-C18 5 µm material (Agilent Technologies). Peptides were separated using a 60 min 5-95% B linear gradient (A = 0.1% formic acid, B = CH_3CN, 0.1% formic acid) at a flow rate of 0.5 µl/min and analyzed online by a 6330 Ion Trap Mass Spectrometer with a nano-electrospray ionization source (Agilent Technologies). The acquisition range was from 300 to 1800 m/z and a capillary voltage of 1850 V was used.*



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Page 2 (P8108)