

Certificate of Analysis

HSA Peptides Standard

Agilent Part Number: G2455-85001
Sample Lot Number: LB85434

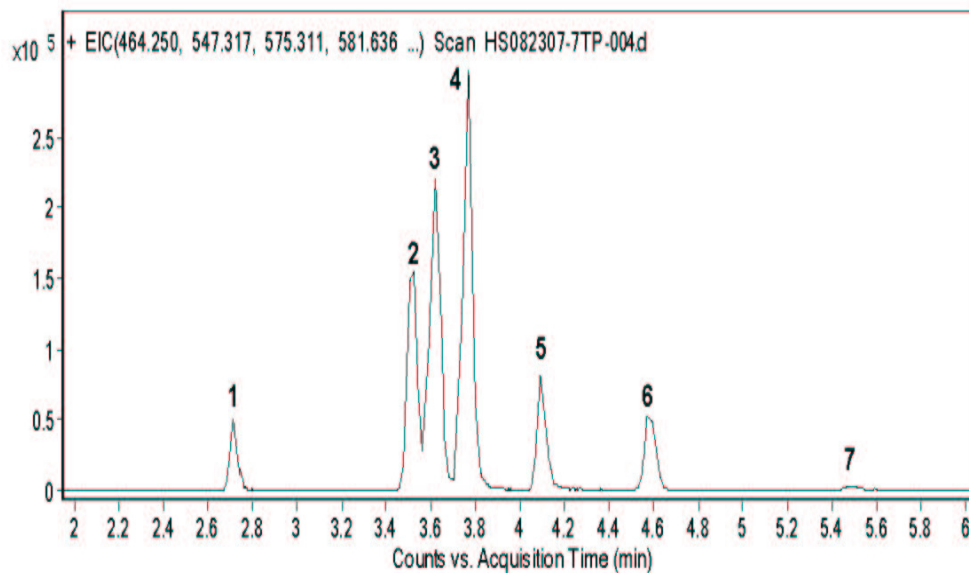
Weight and Purity/Grades:

#	Peptide	Weight*	Neat Material Purity
1	AAFTE[CAM][CAM]QAADK Average MW = 1371.52, C ₅₅ H ₈₆ O ₂₁ N ₁₆ S ₂	690 µg (± 5%)	> 97.0 %
2	YLYEIAR Average MW = 927.05, C ₄₄ H ₆₆ O ₁₂ N ₁₀	460 µg (± 5%)	> 97.0 %
3	LVNEVTFAK Average MW = 1149.29, C ₅₂ H ₈₄ O ₁₇ N ₁₂	570 µg (± 5%)	> 93.0 %
4	KVPQVSTPTLVEVSR Average MW = 1639.92, C ₇₂ H ₁₂₆ O ₂₃ N ₂₀	820 µg (± 5%)	> 97.0 %
5	RP[CAM]FSALEVDETYVPK Average MW = 1911.18, C ₈₅ H ₁₃₁ O ₂₇ N ₂₁ S	960 µg (± 5%)	> 97.0 %
6	AVMDDFAAFVEK Average MW = 1342.54, C ₆₁ H ₉₁ O ₁₉ N ₁₃ S	670 µg (± 5%)	> 97.0 %
7	HPYFYAPELLFFAK Average MW = 1743.01, C ₉₀ H ₁₁₉ O ₁₉ N ₁₇	880 µg (± 5%)	> 97.0 %

*Each of the synthetic peptides was weighed out and dissolved in acetonitrile. 50 µl of the solution was placed into a vial and then lyophilized. Each vial contains 500 picomoles (± 10%) of each HSA peptide standard included in the mix (7 total).

HSA synthetic peptides #1 and #5 have [CAM] carbamidomethylated cysteines (+57). For all the peptides, the C-terminus is the free acid and the N-terminus is unmodified (-NH₂).

HSA Peptides Standard: 50 femtomoles on Chip-QTOF



Peptide	R.T.	Sequence	ESI: $[M+H]^+$	ESI: $[M+2H]^{+2}$	ESI: $[M+3H]^{+3}$	MALDI: $M+Na^+$
1	2.712	AAFTE[CAM][CAM]QAADK	1371.566762	686.287019	457.860438	1393.548706
2	3.516	YL YEIAR	927.493444	464.250360	309.835999	949.475389
3	3.619	LVNEVTEFAK	1149.615016	575.311146	383.876523	1171.596960
4	3.769	KVPQVSTPTLVEVSR	1639.937747	820.472512	547.317433	1661.919692
5	4.094	RP[CAM]FSALEVDETYVPK	1910.931675	955.969476	637.648743	1932.913620
6	4.582	AVMDDFAAFVEK	1342.634765	671.821021	448.216439	1364.616710
7	5.482	HPYFYAPELLFFAK	1742.894091	871.950684	581.636215	1764.876036

[CAM] = carbamidomethylated cysteine

Precursor ion masses (green shaded cells)

Chip-QTOF Instrument Parameters

Sample: G2455-85001 HSA Peptides Standard

Dilution prepared at 0.5 pmole/ul in 85:15 vol/vol H₂O/ACN + 0.1% formic

Instruments: Agilent G4240 ChipCube, G6510A QTOF

Agilent 1100 NanoFlow LC System + G1376A Capillary pump

CapLC Parameters:

Solvent A = 0.1% formic acid in H₂O

Solvent B = 0.1% formic acid in 90% ACN / 10% H₂O

A/B ratio (isocratic) = 97%A / 3%B

CapLC flow rate: 3 µl/min

NanoLC Parameters:

Solvent A = 0.1% formic acid in H₂O

Solvent B = 0.1% formic acid in 90% ACN / 10% H₂O

Linear LC gradient, 3-70% B in 7 minutes

Nanopump flowrate: 0.6 µl/min

Chip Product ID: G4240-62001 (Chip 40nl trap, 0.075 x 43mm Zorbax 300SB-C18, 5 µm)

Injection volume = 0.1 µl (50 femtomoles on column)

QTOF Parameters:

Polarity/Ionization mode: positive ion nanoESI

Drying gas flow: 5 L/min, Drying gas temperature: 325°C

Vcap: -1750 V

Fragmentor: 175 V

Skimmer: 65 V

Oct. RF: 750 V pk-pk

MS scan: m/z 300-2000 at 8 spectra/sec

MS/MS scan: m/z 50-3000 at 3 spectra/sec

Precursor selection criteria: Max of 5 precursors above TH 500,

Active exclusion after 2 spectra for 0.1 minute, preferred charges 2, 3, >3, unk

CE: 3.7 V/100 Da, 2.5 V Offset

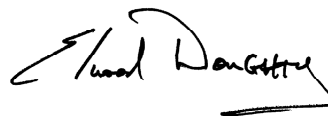
Transients: 10,000

Flight tube: -6.5 kV

Detector: MCP = 670 V, PMT = 755 V

Date of Manufacture: 07 JUNE 2011

Date of Expiration: 07 JUNE 2013

A handwritten signature in black ink, appearing to read 'Elwood Doughty'.

Elwood Doughty
QA Manager
Supelco, Inc.