BIOSYNTHESIS
COMMITTED TO BIOMIC RESEARCH

Solutions for CROs and CMOs

Post Office Box 28
Lewisville, Texas 75067-0028
800.227.0627 | 972.420.8505 (Intl.)
972.420.0442 (f)

www.biosyn.com

Certificate of Analysis

Peptide Sequence (N-terminus to C-terminus):

[Acetyl] WQEWERKVDFLEENITALLEEAQIQQEKNMYELQ [Amide]

Peptide Name:	Cat # 9774 SIVmac251 C34 Peptide	**Lot No.:**	**P3062-1**
Client Project No.:	Lot 150279		
Modification(s):	N/A	**Qty:**	10 mg
Additional Instructions(s):	20 x 0.5 mg	**Counter-ion:**	Trifluoroacetate

Quality Control Specifications

Format: White Powder

Mass Spectrometry Analysis: Voyager-DE RP

Calculated Mass:	MW	=	4323.84
Observed Mass:	MH -	=	4323.32

Purity Level Analysis: RP-HPLC

Guaranteed Purity:	>80%
Observed Purity:	>97%

Amino Acid Analysis: Yes

Endotoxin Services:

Endotoxin Testing:	No
Endotoxin Removal:	No

Solubility Test: No

Other Data: No

General Solubility Guidelines

Peptides shorter than 5 residues are usually soluble in water or aqueous buffer, unless the entire sequence consists of hydrophobic amino acids such as W, L, I, F, M, V, Y.

Hydrophilic peptides containing >25% charged residues like D, K, R, H, E and <25% hydrophobic amino acids are usually soluble in water or aqueous buffer.

Hydrophobic peptides containing ≥50% hydrophobic residues may be insoluble or only partly soluble in aqueous solutions. In this case, we recommend using organic solvents like DMSO. In such cases dissolve the peptide in the smallest possible volume of 100% DMSO and subsequently add water/buffer until the desired concentration is achieved. If DMSO interferes with your experimental system, DMF (dimethylformamide) or acetonitrile can serve as alternative solvents.

Peptides containing a very high (>75%) proportion of D, E, H, K, N, Q, R, S, T, Y are capable of building intermolecular hydrogen bonds (cross-linking), thus forming gels in aqueous solutions. These peptides should either be treated according to instructions for hydrophobic peptides (see above) or by changing the pH value if possible.

Note: Peptides containing the amino acids Cys, Met, and Trp are susceptible to oxidation; therefore, oxygen-free solvents should be used.

Handling Storage

All Bio-Synthesis peptides are supplied lyophilized. Peptide containing vial should be tightly capped at all time. Repeated freeze-thaw cycles should be avoided for lyophilized peptides or peptide in solutions.

The lyophilized peptide and peptide solutions should be stored at –20 °C when not in use. For long-term storage (over one year), it is recommended that peptides be stored at –80 °C.

Prepared by: Lan Nguyen **Approved by:** Moussa Bazzani **Date:** 9/28/2015

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Amino Acid Analysis Data Sheet

Sequence	[Acetyl] WQEWERKVDFLEENITALLEEAQIQQEKNMYELQ [Amide]
Lot#	P3062-1
Name	Cat # 9774 SIVmac251 C34 Peptide
Mol Wt	4323.84
Amount injected	1000ngs
Amount Recovered	901.2ngs
% Pep. Recovery	90.12%

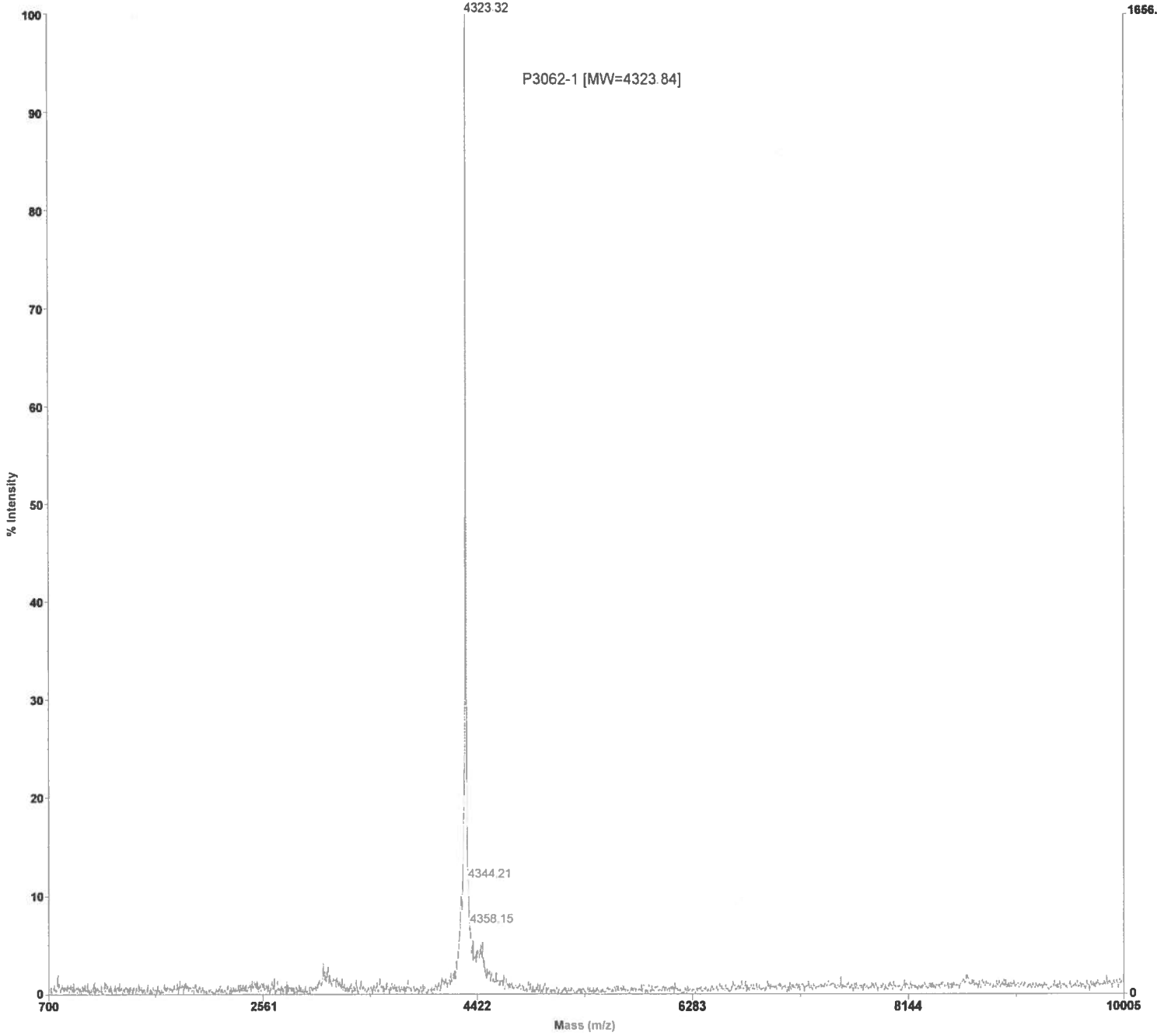
AA	AA in sequence	AA found in pmoles	M W	Amt in ngs	Ave. AA in pmoles	Experimental AA found
D/N	3	662.697	114.1	75.614	220.90	3.0
S	0	0.000	87.08	0.000	0.00	0.0
E/Q	13	2926.984	128.13	375.034	225.15	13.1
G	0	0.000	57.05	0.000	0.00	0.0
H	0	0.000	137.14	0.000	0.00	0.0
R	1	220.990	156.19	34.516	220.99	1.0
T	1	201.307	101.11	20.354	201.31	0.9
A	2	421.511	71.08	29.961	210.76	1.9
P	0	0.000	97.12	0.000	0.00	0.0
C	0	0.000	103.14	0.000	0.00	0.0
Y	1	205.923	163.18	33.603	205.92	0.9
V	1	199.878	99.13	19.814	199.88	0.9
M	1	214.199	131.2	28.103	214.20	1.0
K	2	416.818	128.18	53.428	208.41	1.9
I	2	399.478	113.16	45.205	199.74	1.8
L	4	880.535	113.16	99.641	220.13	3.9
F	1	223.484	147.18	32.892	223.48	1.0
W	2	0.000	186.22	0.000	0.00	0.0
			Pep. Recovered	848.165		
			Trp adjusted	901.153		

Performed by: R Marchini *10/12/2015*

Verified by: Marisa Bazzani *10/12/2015*

Applied Biosystems Voyager System 1054

Voyager Spec #1=>BC=>NF1.0=>BC=>SM9[BP = 4323.7, 1657]



Mode of operation:	Linear
Extraction mode:	Delayed
Polarity:	Negative
Acquisition control:	Manual
Accelerating voltage:	20000 V
Grid voltage:	94%
Guide wire 0:	0.05%
Extraction delay time:	400 nsec
Acquisition mass range:	700 -- 10000 Da
Number of laser shots:	100/spectrum
Laser intensity:	1432
Laser Rep Rate:	3.0 Hz
Calibration type:	Default
Calibration matrix:	a-Cyano-4-hydroxycinnamic acic
Low mass gate:	Off
Digitizer start time:	17.262
Bin size:	2 nsec
Number of data points:	23838
Vertical scale:	200 mV
Vertical offset:	0%
Input bandwidth:	500 MHz
Sample well:	13
Plate ID:	100 WELL PLATE
Serial number:	1054
Instrument name:	Voyager-DE
Plate type filename:	C:\VOYAGER\100 well plate.plt
Lab name:	PE Biosystems
Absolute x-position:	12006
Absolute y-position:	41406.7
Relative x-position:	258.483
Relative y-posititon:	-820.761
Shots in spectrum:	26
Source pressure:	5.436e-007
Mirror pressure:	0
TC2 pressure:	0.00984
TIS gate width:	30
TIS flight length:	940

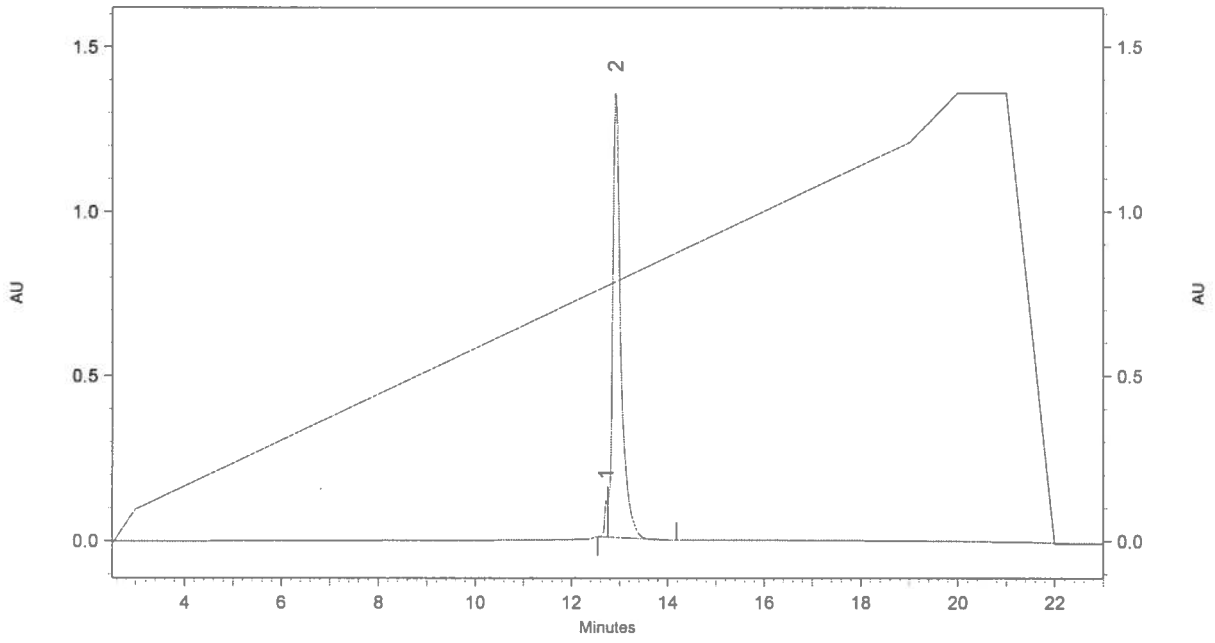
Acquired: 14:25:00, September 22, 2015

Printed: 14:26, September 22, 2015

C:\VOYAGER\Data\pep2015\P3062-1_0003.dat

HPLC REPORT

Sample ID: P3062-1
Method: D:\32Karat\Methods\Monolithic_1.met
File Name: D:\32Karat\Projects\Default\Data\P3062-1
Column: Monlithic C18, 100X3mm, 120A, Flow Rate: 1ml min.
Wavelength: 220nm
HPLC ID# CD-069



Pk #	Retention Time	Area	Area Percent
1	12.717	408944	2.535
2	12.917	15721083	97.465

Totals		16130027	100.000