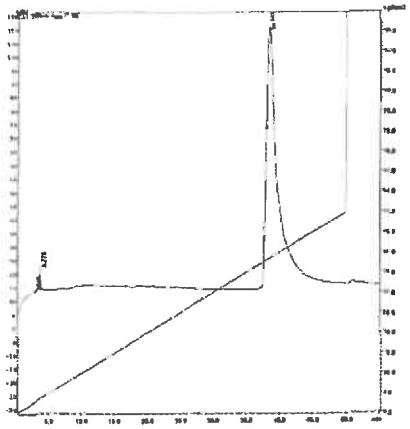
ATRX 1255-1289

CR-0399-152 Clare_09172014

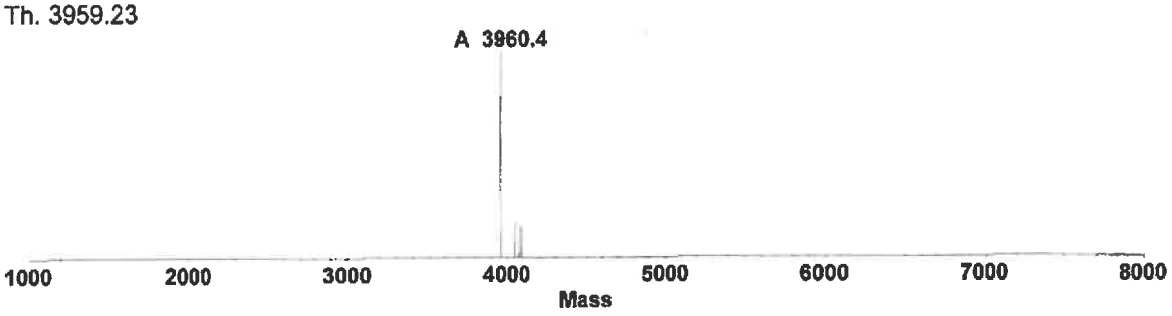
Th. MW. 3959.23,

cr-0399-152-p5-1 6.2mg

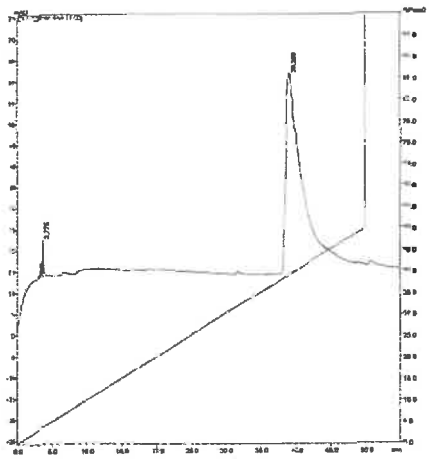
PVTVDDDDDDNDPENRIAKKMLLEEIKANLSSDED

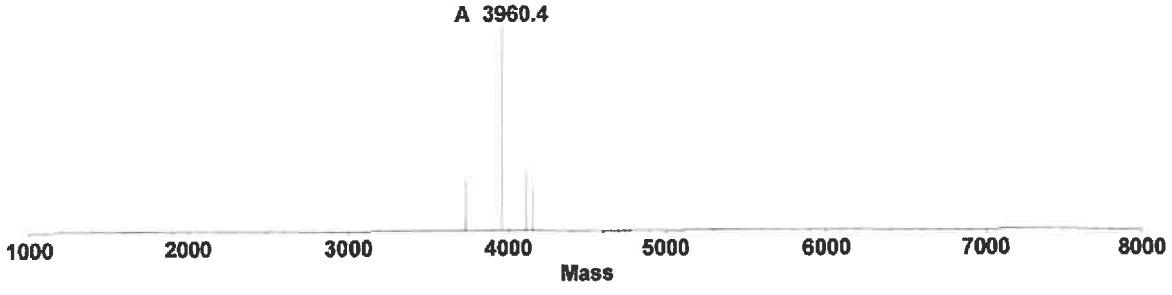


Th. 3959.23



cr-0399-152-p5-2 1.4mg



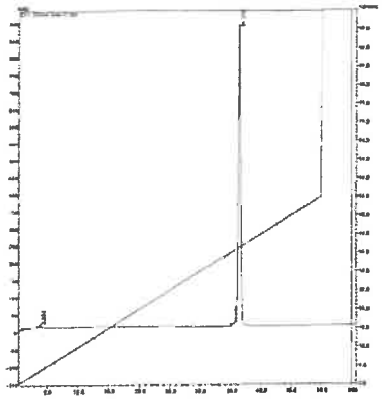


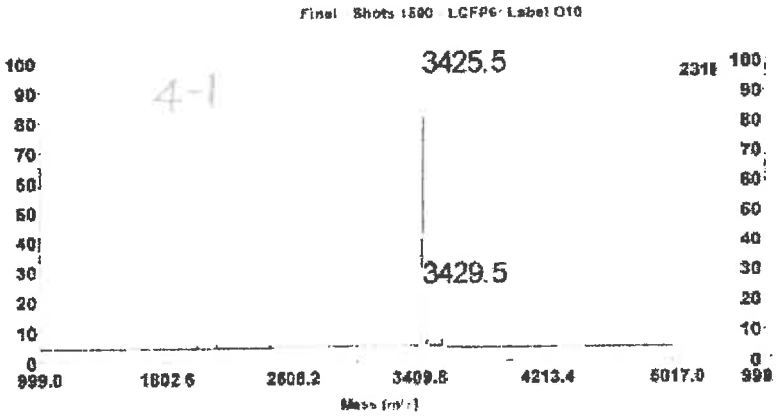
Clare-1-01192015-1 Th. MW 3425.78

ATRX 1255-1284

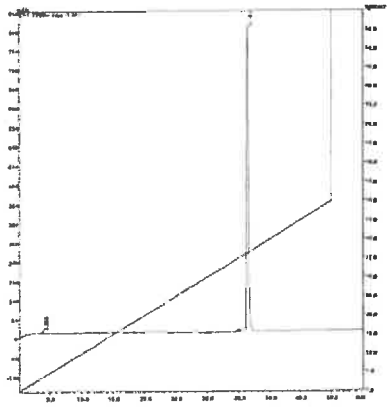
PVTVDDDDDDNDPENRIAKKMLLEEIKANL

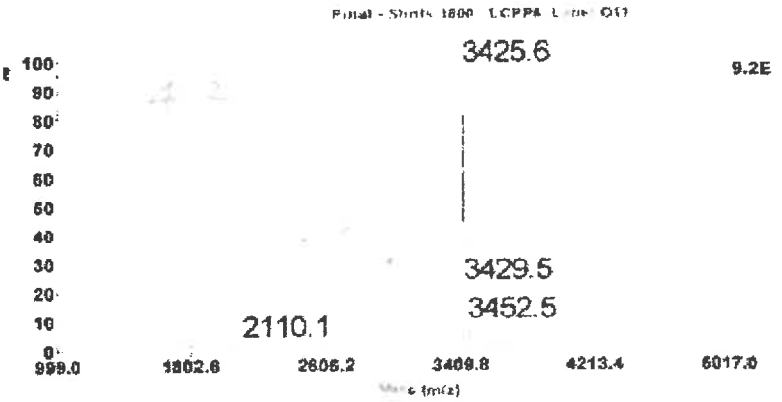
cr-0746-016-p4-1



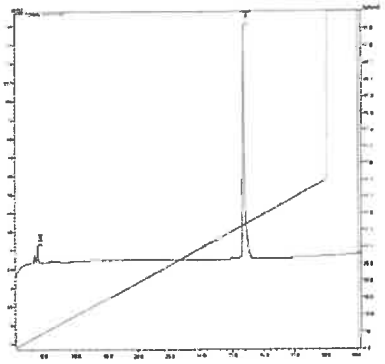


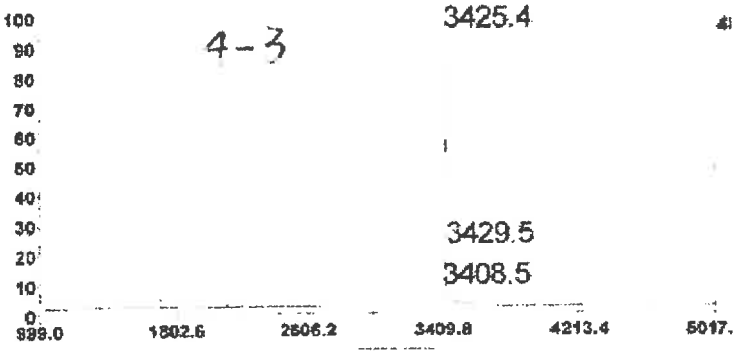
cr-0746—016-p4-2





cr-0746-016-p4-3





ATRX 1261-1290

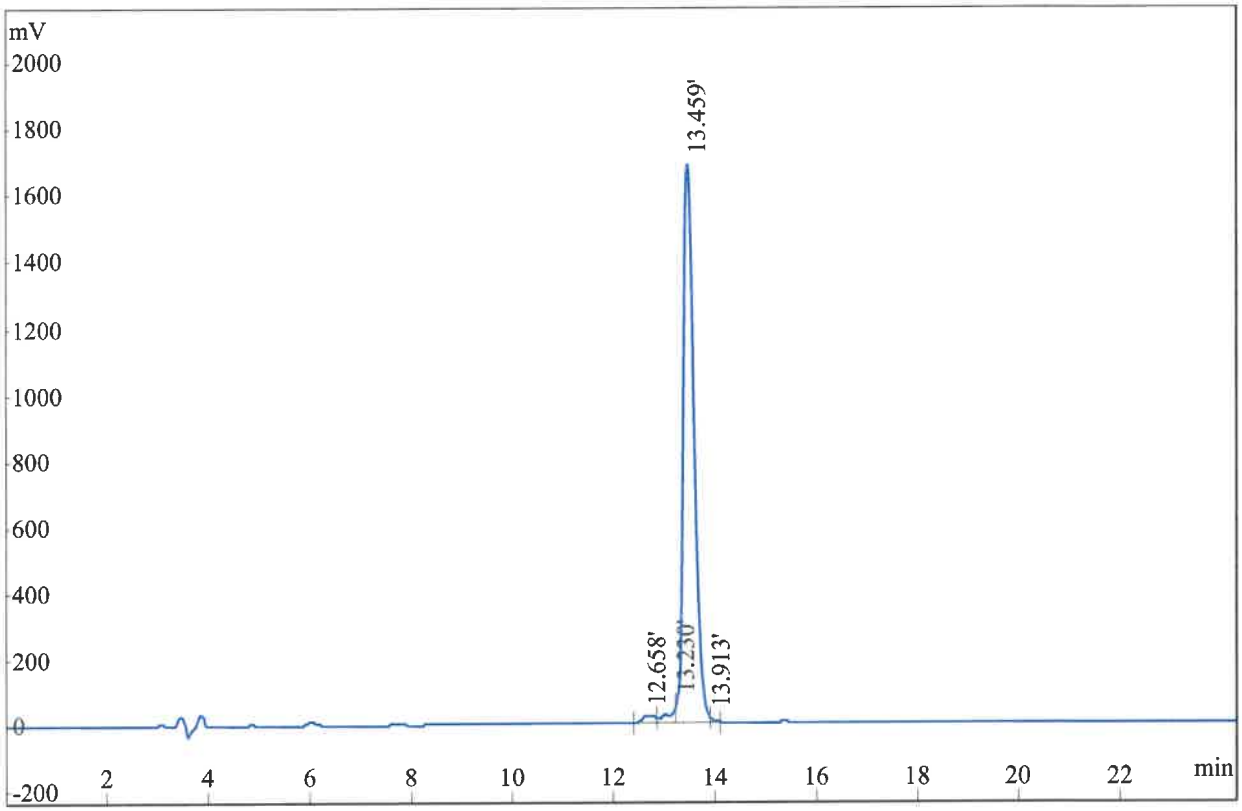
CHEMPEPTIDE LIMITED

Sequence: DDDDNDPENRIAKKMLLEEIKANLSSDEDG **Name**: ATRX6190

M.W [M+H$^+$]: 3390.62 **Purity**: 96.31% **Amount**: 9.5mg

HPLC Result

Lot. No.:	P141126-CP426467		
Column:	Gemini-NX 5μ C18 110A, 4.6*250mm		
Solvent A	A: 0.1% Trifluoroacetic Acid in 100% Acetonitrile		
Solvent B	B: 0.1% Trifluoroacetic Acid in 100% Water		
Gradient:		A	B
	0.0min	20%	80%
	25.0min	45%	55%
	25.1min	100%	0%
	30.0min	Stop	
Volume: 10μl	Wavelength: 220nm	Flow rate: 1.0ml/min	

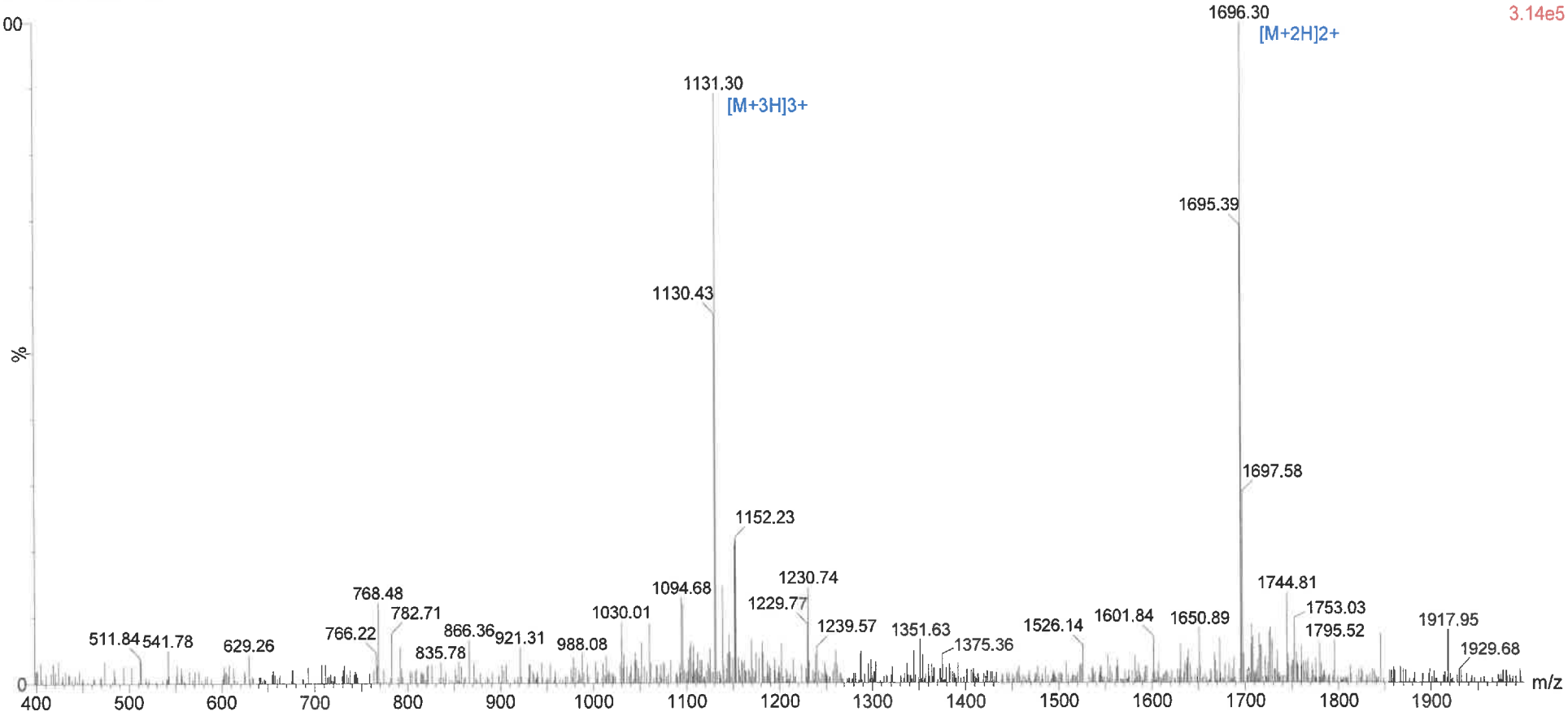


Rank	Time	Conc.	Area
1	12.658	1.4265	342298
2	13.230	2.0804	499201
3	13.459	96.3156	23111416
4	13.913	0.1775	42585
Total		100.0000	23995500

ATRX 1261-1290

CHEMPEPTIDE LIMITED

Mass Spectrometry



Sample Description		Instrument	Waters ZQ2000		
Analyzed date:	2014-12-2	Probe:	ESI	Probe Bias:	+4.5kv
Analyst:	He	Nebulizer Gas Flow:	1.5L/min	Detector:	1.5kv
Sample:	ATRX6190	CDL:	-20.0v	T. Flow:	0.2ml/min
M.W.:	3390.62	CDL Temp.:	250℃	B. Conc:	50%H2O/50%ACN
Lot. No.:	P141126-CP426467	Block Temp.:	200℃		

ATRX 1263-1290

CHEMPEPTIDE LIMITED

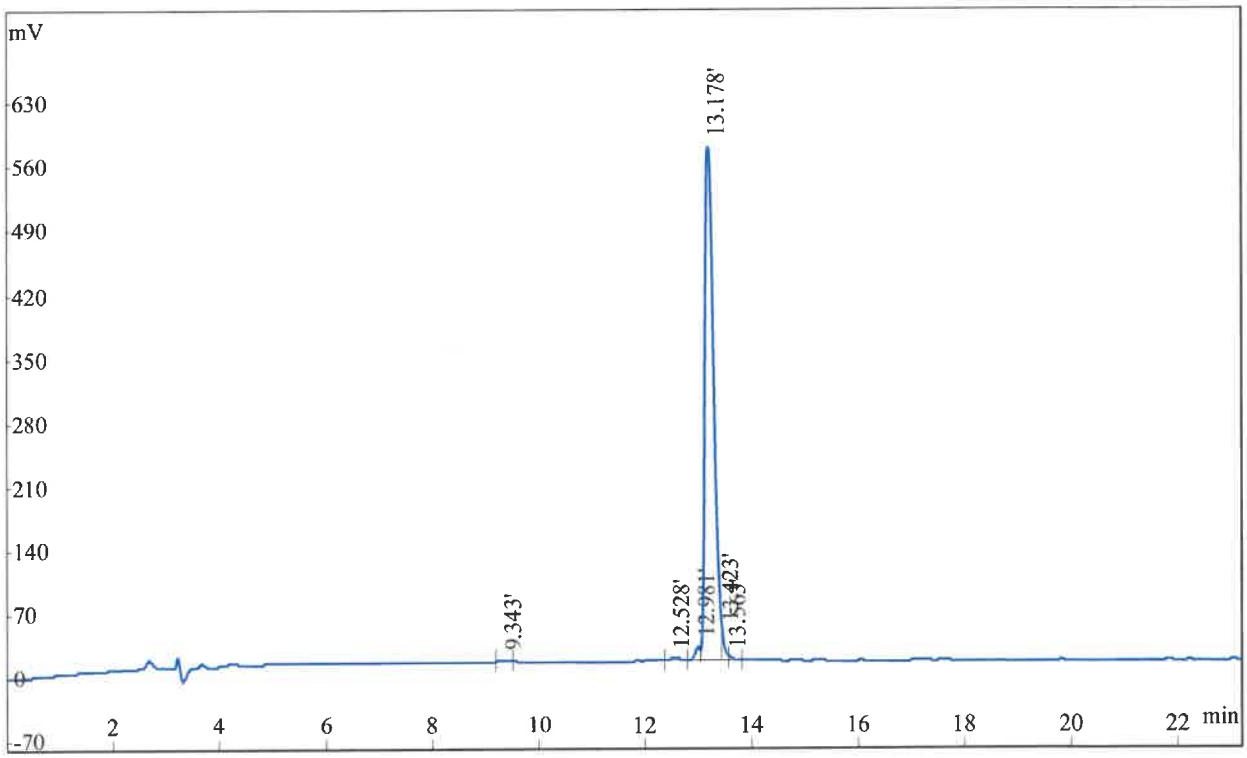
Sequence: DDNDPENRIAKKMLLEEIKANLSSDEDG

Name: ATRX6390

M.W [M+H$^+$]: 3160.44 **Purity**: 95.44% **Amount**: 9.3mg

HPLC Result

Lot. No.:	P141126-CP426468		
Column:	Gemini-NX 5μ C18 110A, 4.6*250mm		
Solvent A	A: 0.1% Trifluoroacetic Acid in 100% Acetonitrile		
Solvent B	B: 0.1% Trifluoroacetic Acid in 100% Water		
Gradient:		A	B
	0.0min	20%	80%
	25.0min	45%	55%
	25.1min	100%	0%
	30.0min	Stop	
Volume: 10μl	Wavelength: 220nm	Flow rate: 1.0ml/min	

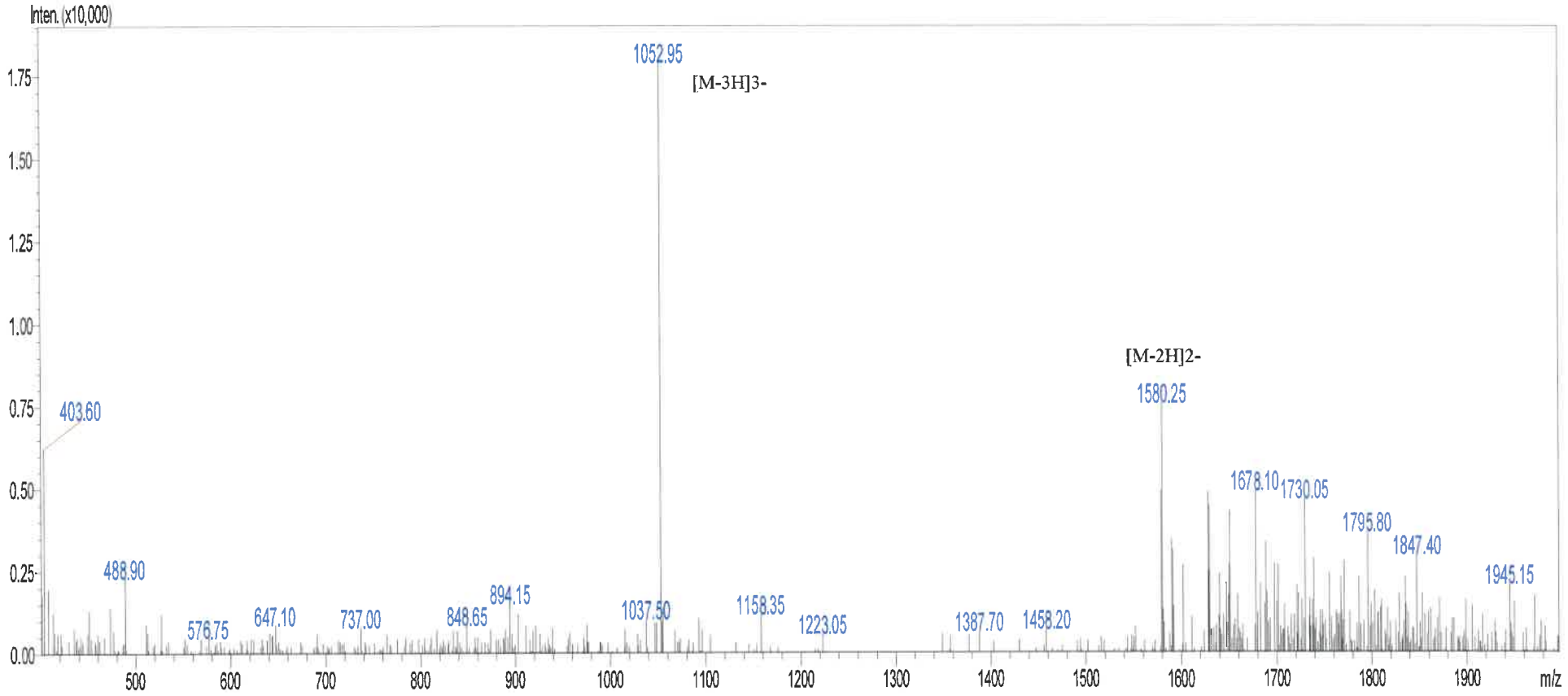


Rank	Time	Conc.	Area
1	9.343	0.3266	19906
2	12.528	0.7607	46361
3	12.981	1.5852	96614
4	13.178	95.4481	5817438
5	13.423	1.5965	97302
6	13.563	0.2829	17240
Total		100.0000	6094861

ATRX 1263-1290

Mass Spectrometry

CHEMPEPTIDE LIMITED



Sample Description		Instrument	SHIMADZU LCMS-2020		
Analyzed date:	2014-12-1	Probe:	ESI	Probe Bias:	+4.5kv
Analyst:	Xiong	Nebulizer Gas Flow:	1.5L/min	Detector:	1.5kv
Sample:	ATRX6390	CDL:	-20.0v	T. Flow:	0.2ml/min
M.W.:	3160.44	CDL Temp.:	250℃	B. Conc:	50%H2O/50%ACN
Lot. No.:	P141126-CP426468	Block Temp.:	200℃		

ATRX 1265-1290

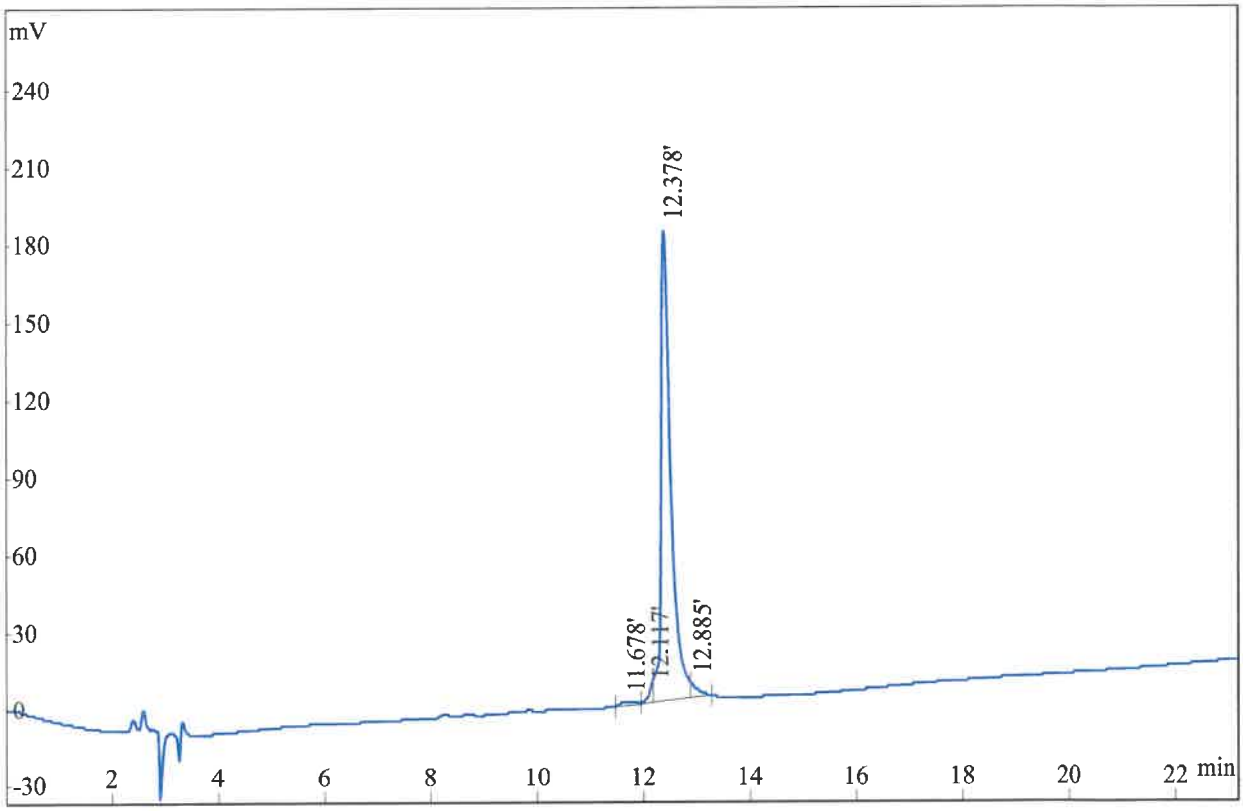
CHEMPEPTIDE LIMITED

Sequence: NDPENRIAKKMLLEEIKANLSSDEDG **Name:** ATRX6590

M.W [M+H$^+$]: 2930.27 **Purity:** 95.13% **Amount:** 9.5mg

HPLC Result

Lot. No.:	P141126-CP426469		
Column:	Gemini-NX 5μ C18 110A, 4.6*250mm		
Solvent A	A: 0.1% Trifluoroacetic Acid in 100% Acetonitrile		
Solvent B	B: 0.1% Trifluoroacetic Acid in 100% Water		
Gradient:		A	B
	0.0min	20%	80%
	25.0min	45%	55%
	25.1min	100%	0%
	30.0min	Stop	
Volume: 10μl	Wavelength: 220nm	Flow rate: 1.0ml/min	

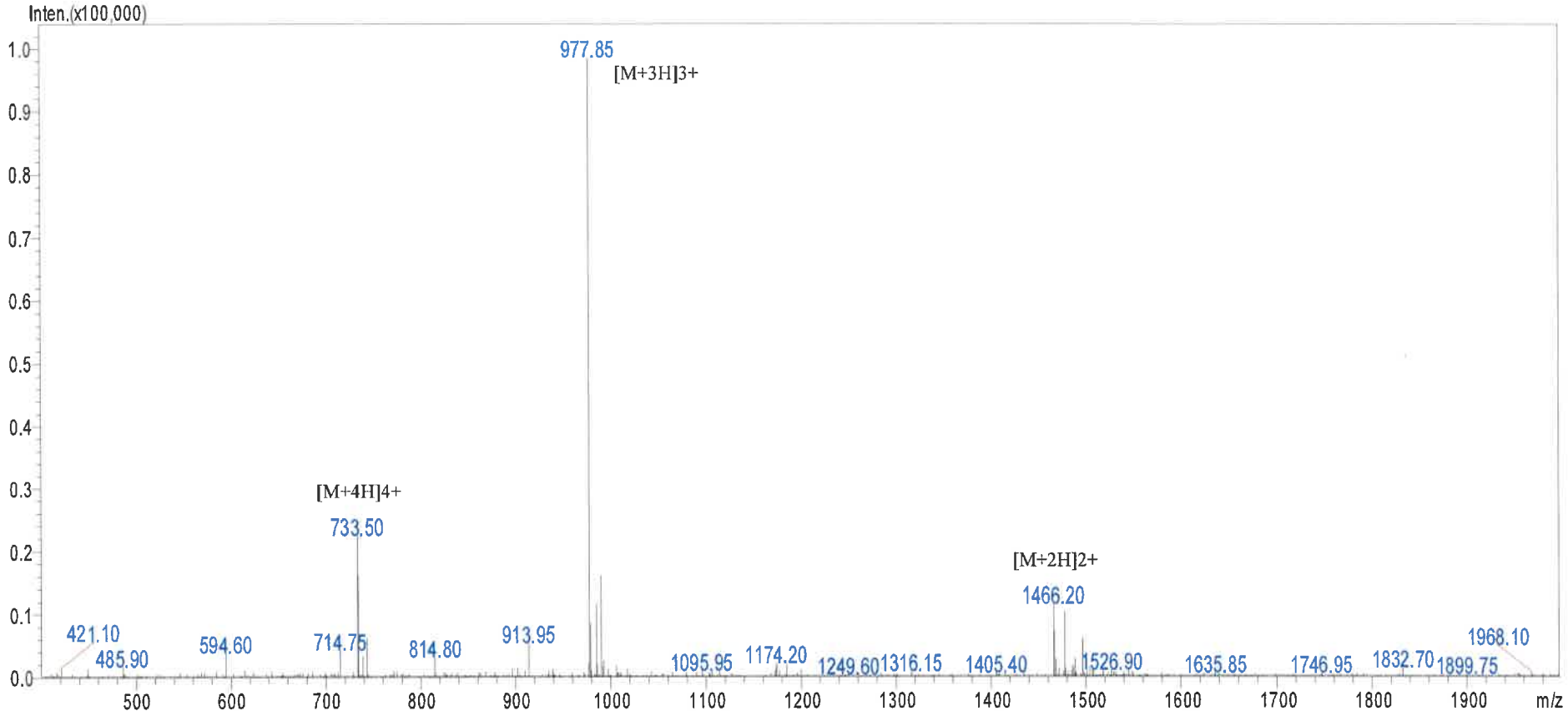


Rank	Time	Conc.	Area
1	11.678	0.9523	21572
2	12.117	1.7914	40581
3	12.378	95.1301	2154930
4	12.885	2.1262	48163
Total		100.0000	2265246

ATRX 1265-1290

CHEMPEPTIDE LIMITED

Mass Spectrometry



Sample Description		Instrument	SHIMADZU LCMS-2020		
Analyzed date:	2014-12-1	Probe:	ESI	Probe Bias:	+4.5kv
Analyst:	Xiong	Nebulizer Gas Flow:	1.5L/min	Detector:	1.5kv
Sample:	ATRX6590	CDL:	-20.0v	T. Flow:	0.2ml/min
M.W.:	2930.27	CDL Temp.:	250℃	B. Conc:	50%H2O/50%ACN
Lot. No.:	P141126-CP426469	Block Temp.:	200℃		

ATRX 1267-1290

CHEMPEPTIDE LIMITED

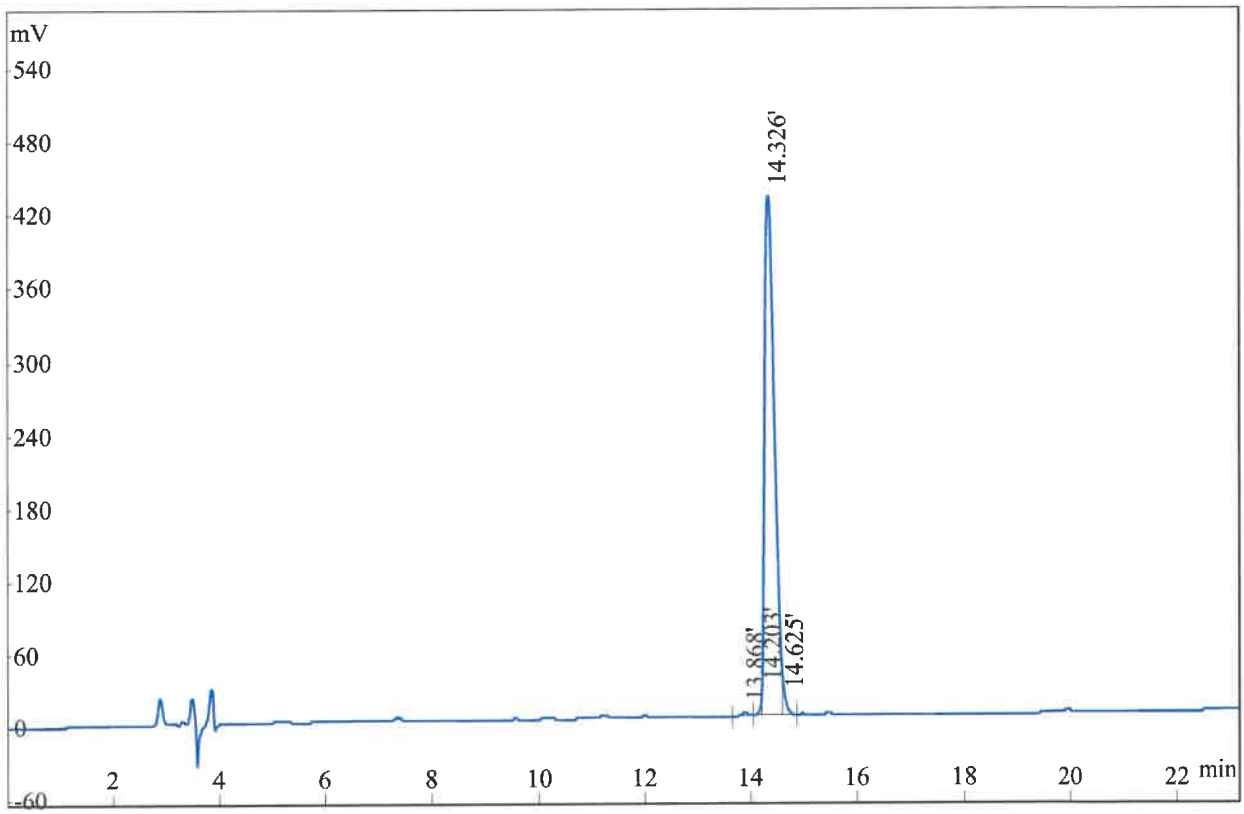
Sequence: PENRIAKKMLLEEIKANLSSDEDG

Name: ATRX6790

M.W [M+H$^+$]: 2701.07 **Purity**: 97.35% **Amount**: 9.6mg

HPLC Result

Lot. No.:	P141126-CP426470		
Column:	Gemini-NX 5μ C18 110A, 4.6*250mm		
Solvent A	A: 0.1% Trifluoroacetic Acid in 100% Acetonitrile		
Solvent B	B: 0.1% Trifluoroacetic Acid in 100% Water		
Gradient:		A	B
	0.0min	20%	80%
	25.0min	45%	55%
	25.1min	100%	0%
	30.0min	Stop	
Volume: 10μl	Wavelength: 220nm	Flow rate: 1.0ml/min	

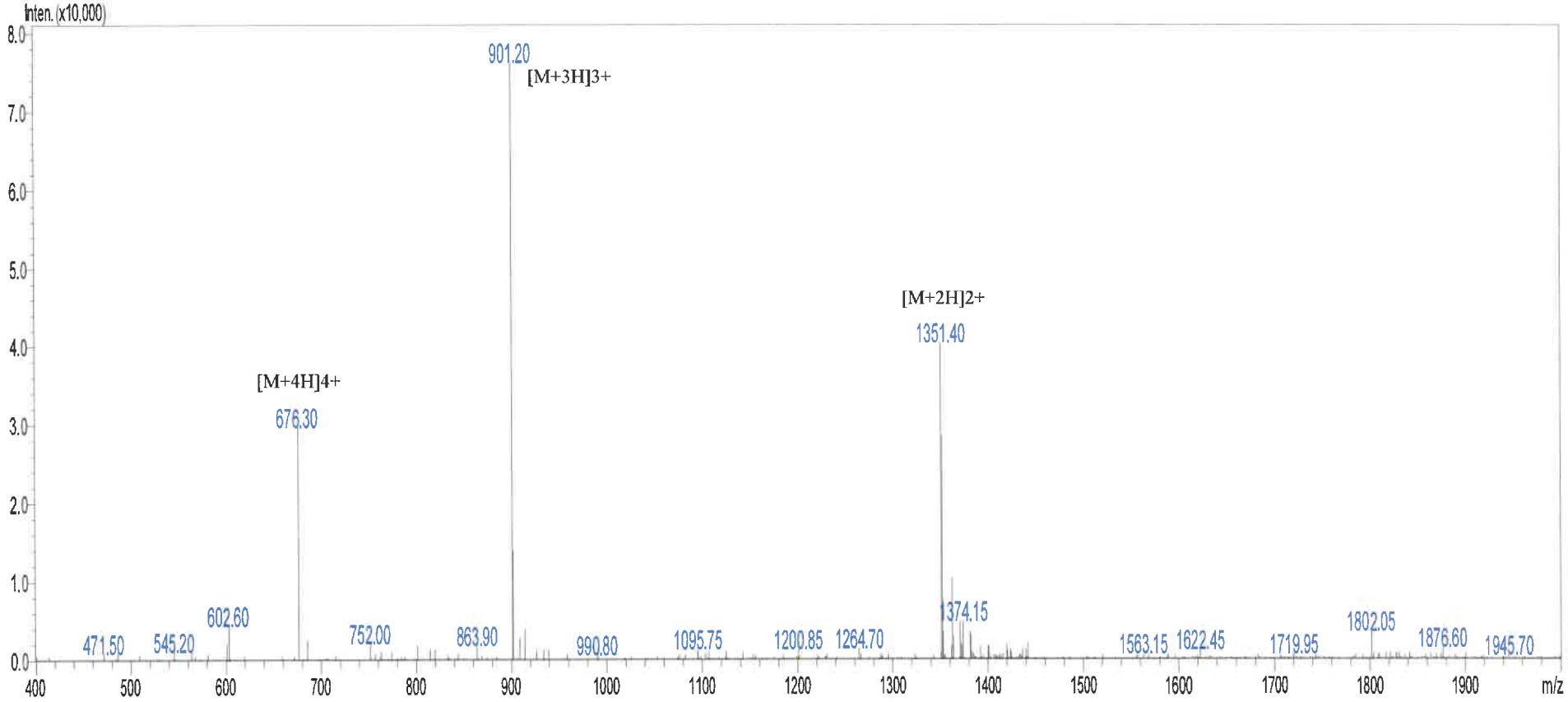


Rank	Time	Conc.	Area
1	13.868	0.3909	20035
2	14.203	0.6142	31478
3	14.326	97.3510	4988946
4	14.625	1.6439	84247
Total		100.0000	5124706

ATRX 1267-1290

Mass Spectrometry

CHEMPEPTIDE LIMITED

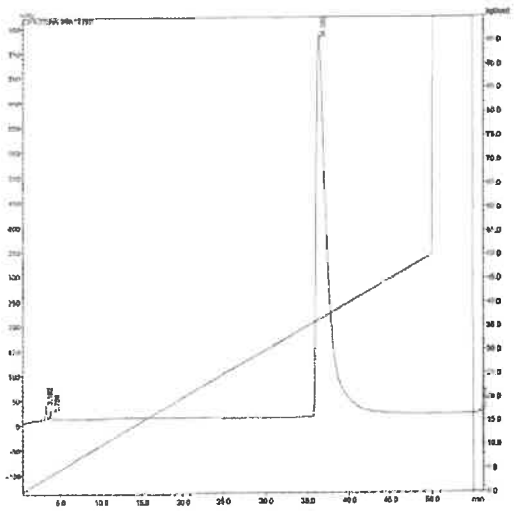


Sample Description		Instrument	SHIMADZU LCMS-2020		
Analyzed date:	2014-12-1	Probe:	ESI	Probe Bias:	+4.5kv
Analyst:	Xiong	Nebulizer Gas Flow:	1.5L/min	Detector:	1.5kv
Sample:	ATRX6790	CDL:	-20.0v	T. Flow:	0.2ml/min
M.W.:	2701.07	CDL Temp.:	250℃	B. Conc:	50%H2O/50%ACN
Lot. No.:	P141126-CP426470	Block Temp.:	200℃		

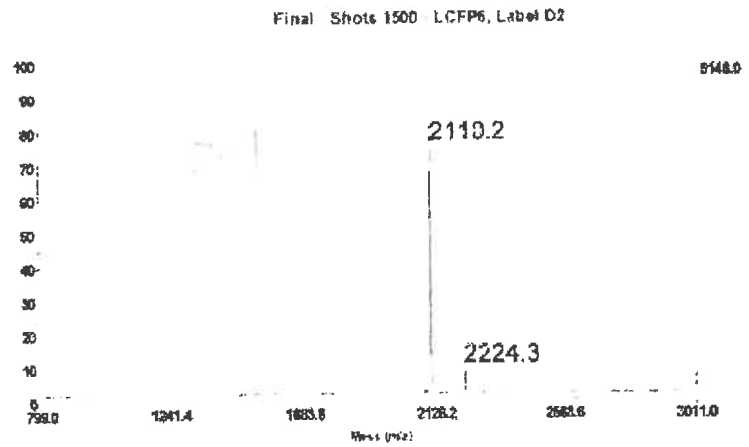
ATRX 1267-1284

Clare-10102014, PENRIAKKMLLEEIKANL-NH2

cr-0399-124-p2-1



Th. MH+: 2010.57



MIMOTOPES
The Peptide Company

Mimotopes Pty Ltd ABN 90 090 841 286

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Clayton Victoria 3168
Australia
Tel +61 3 9565 1111
Fax +61 3 9565 1199
mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

ATRX 1264-1285

Custom Synthesized Peptide

Order Number :	**27797**
Peptide Number :	2779701
Theoretical Molecular Weight :	2,541.90
Observed Molecular Weight :	MS Analysis detected molecular ions consistent with the parent
Sequence :	H-DNDPENRIAKKMLLEEIKANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.

Requested : 5mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)
1	9.5	93

Comments :
Amino Acid Code Sequence :
Asp-Asn-Asp-Pro-Glu-Asn-Arg-Ile-Ala-Lys-Lys-Met-Leu-Leu-Glu-Glu-Ile-Lys-Ala-Asn-Leu-Ser

Quality Assured by : _____ Monday, 24 October 2016

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

CONC DAXX = 97.5 µM.

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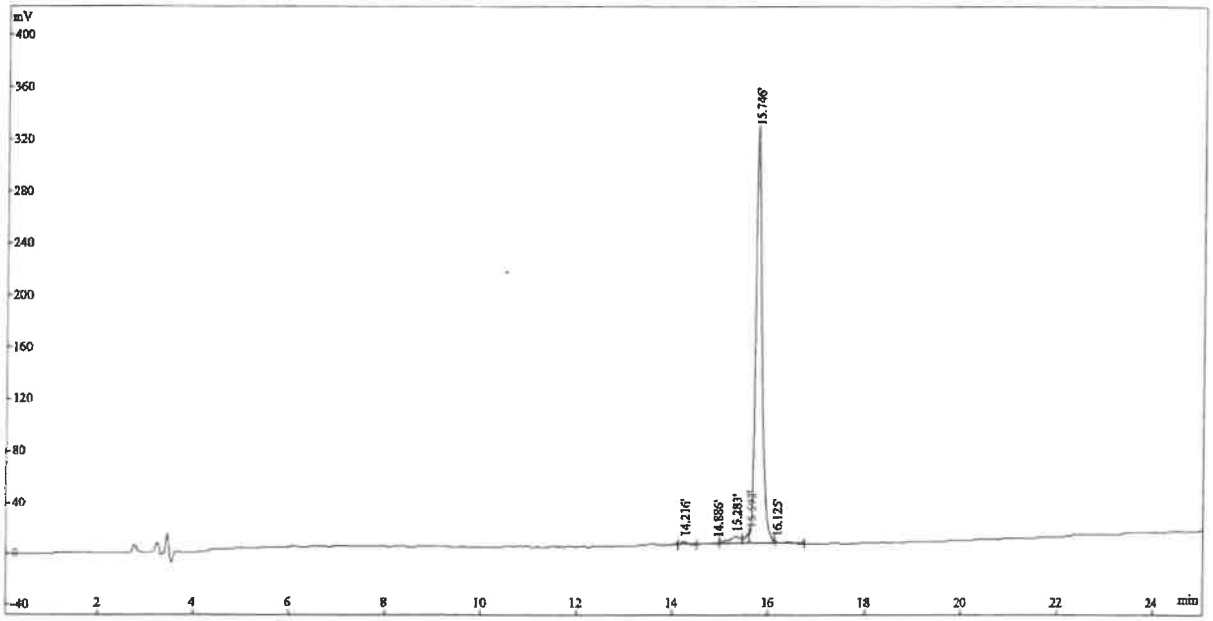
ANALYTICAL DATA

Product Name	2779701
Lot No	P2779701-JQ537508
Column	4.6×250mm, YMC-Triart C18
Solvent A	0.1% trifluoroacetic in 100% acetonitrile
Solvent B	0.1% trifluoroacetic in 100% water

Gradient

	A	B
0.01min	10%	90%
25min	67%	33%
25.1min	100%	0%
30min	STOP	

Flow rate	1.0 mL/min
Wavelength	214nm
Volume	5ul



Rank	Time	Conc.	Area	Height
1	14.216	0.6066	19280	2667
2	14.886	0.7783	24736	1795
3	15.283	3.483	110704	5601
4	15.592	1.688	53637	8454
5	15.746	92.53	2940776	326979
6	16.125	0.9064	28807	1831
Total		100	13762734	1361070

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Fax +61 3 9565 1199
mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

SPEP 1

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931501

Theoretical Molecular Weight : 2,738.12

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPEN(1151)IAK(1151)MLLEEIKANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	3.4	90	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility Information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-PntAla-Ile-Ala-Lys-PntAla-Met-Leu-Leu-Glu-Glu-Ile-Lys-Ala-Asn-Leu-Ser
Supplied as stapled peptide.
LCMS analysis the molecular ions consistent with the parent are found throughout the peak at 7.14 mins.

The reported purity is the sum under the peaks 11.52-12.32 observed in the HPLC trace.

Quality Assured by : _____ Monday, 30 April 2018

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

$-TAS = -0.571$

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mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

SPEP 2

Custom Synthesized Peptide

Order Number : 29315

Peptide Number : 2931502

Theoretical Molecular Weight : 2,778.12

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENR(1151)AKK(1151)LLEEIKANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	6.1	93	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate
2	2.2	98	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-PntAla-Ala-Lys-Lys-PntAla-Leu-Leu-Glu-Glu-Ile-Lys-Ala-Asn-Leu-Ser
Supplied as stapled peptide.

LCMS analysis of tube 2 indicates the molecular ions consistent with the parent are found throughout the peak at 6.34mins.

The reported purity is the sum under the two peaks observed in the HPLC trace.

Quality Assured by : _____ Friday, 27 April 2018

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

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mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

SPEP 3

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931503

Theoretical Molecular Weight : 2,765.18

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENRIAK(1151)MLL(1151)EIKANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	4.3	95	Soluble	7.5	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-Ile-Ala-Lys-PntAla-Met-Leu-Leu-PntAla-Glu-Ile-Lys-Ala-Asn-Leu-Ser
Supply as stapled peptide.

Quality Assured by : _____ Tuesday, 24 April 2018

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

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Mimotopes Pty Ltd ABN 90 090 841 286

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mimotopes@mimotopes.com
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Certificate of Analysis

SPEP 4

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931504

Theoretical Molecular Weight : 2,822.28

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENRIAKKMLL(1151)EIK(1151)NLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	3.2	94	Soluble	2.0	100% H2O

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-Ile-Ala-Lys-Lys-Met-Leu-Leu-PntAla-Glu-Ile-Lys-PntAla-Asn-Leu-Ser
Supplied as stapled peptide.

Quality Assured by : _____ Friday, 27 April 2018

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

MIMOTOPES
The Peptide Company

Mimotopes Pty Ltd ABN 90 090 841 286

Suite 1, 1st Floor
Unit 9, 677 Springvale Road
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Tel +61 3 9565 1111
Fax +61 3 9565 1199
mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

SPEP 5

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931505

Theoretical Molecular Weight : 2,822.28

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENR(1152)AKKMLL(1151)EIKANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine; (1152) in sequence means (R)-2-(7'-octenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	2.4	90	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-OctAla-Ala-Lys-Lys-Met-Leu-Leu-PntAla-Glu-Ile-Lys-Ala-Asn-Leu-Ser
Supplied as stapled peptide.

LCMS analysis indicates molecular ions consistent with the parent are found throughout the peak at 6.8mins.

The reported purity is the sum under the two peaks observed in the HPLC trace.

Quality Assured by : _____ Monday, 30 April 2018
C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

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mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

SPEP 6

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931506

Theoretical Molecular Weight : 2,808.21

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENRIAK(1152)MLLEEI(1151)ANLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine; (1152) in sequence means (R)-2-(7'-octenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
1	3.5	90	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate
2	3.7	91	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-Ile-Ala-Lys-OctAla-Met-Leu-Leu-Glu-Glu-Ile-PntAla-Ala-Asn-Leu-Ser
Supplied as stapled peptide.

LCMS analysis indicates molecular ions consistent with the parent are found throughout the peak at 7.5 and 7.8mins.

The reported purity is the sum under the peaks between 11.86 and 12.73 min the HPLC trace.

Quality Assured by : _____ Friday, 27 April 2018

C. Pham - Quality Assurance Department

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For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

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Certificate of Analysis

SPEP 7

Custom Synthesized Peptide

Order Number : **29315**

Peptide Number : 2931507

Theoretical Molecular Weight : 2,862.28

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : H-SDDNDPENRIAKK(1152)LLEEIK(1151)NLS-OH

At the N-terminus, H- means Free amine. At the C-terminus, -OH means Free acid.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.
(1151) in sequence means (S)-2-(4'-pentenyl) alanine; (1152) in sequence means (R)-2-(7'-octenyl) alanine

Requested : 1mg at 90% by HPLC

Supplied .

Tube	Mass (mg)	Minimum Purity (%)	Solubility Information Solubility	mg/mL	Buffer
	4.4	92	Soluble	6.0	0-20% Acetonitrile in 100Mm Ammonium Bicarbonate

* Solubility information provided was as used in the purification processes and is for information only. Many other solubilization conditions may be effective and we advise trying simpler methods first. (See 'A Guide to Handling and Storing Peptides').

Comments :
Amino Acid Code Sequence :
Ser-Asp-Asp-Asn-Asp-Pro-Glu-Asn-Arg-Ile-Ala-Lys-Lys-OctAla-Leu-Leu-Glu-Glu-Ile-Lys-PntAla-Asn-Leu-Ser
Supplied as stapled peptide.
LCMS analysis indicates molecular ions consistent with the parent are found throughout the peak at 6.8mins.

The reported purity is the sum under the two peaks observed in the HPLC trace.

Quality Assured by : _____ Friday, 27 April 2018

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

FAM-SPEP 7

High Quality Peptide

CERTIFICATE OF ANALYSIS

Product Name	Pep1
Lot No	JT-79065
Sequence	FAM-DNDPENRIAKK[(S)-2-(4'-pentenyl) alanine]LLEEIK[(R)-2-7-(7'-octenyl)alanine]NLS-NH2
Dissolution condition	15%ACN+85%H2O
Length	AA
Modification	N/A
Molecular Weight (MW)	2989.38
Storage	-20℃

Test Items	**Specifications**	**Results**
Purity by HPLC	90%	93.50%
Peptide Content	N/A	N/A
Moisture content	N/A	N/A
Acetic acid content	N/A	N/A
Appearance	yellow lyophilized powder	Conforms
Quantity	5mg	5.0mg

Certified by:
Quality Assurance Department

QC PASS Synpeptide Co.,Ltd

Date 01/16/2019

Note: this product is intended for research use only; not for diagnostic or human use.

Synpeptide Co., Ltd

Address: 320 Lvlin Road, Beicai, Pudong new area, Shanghai, China 201204

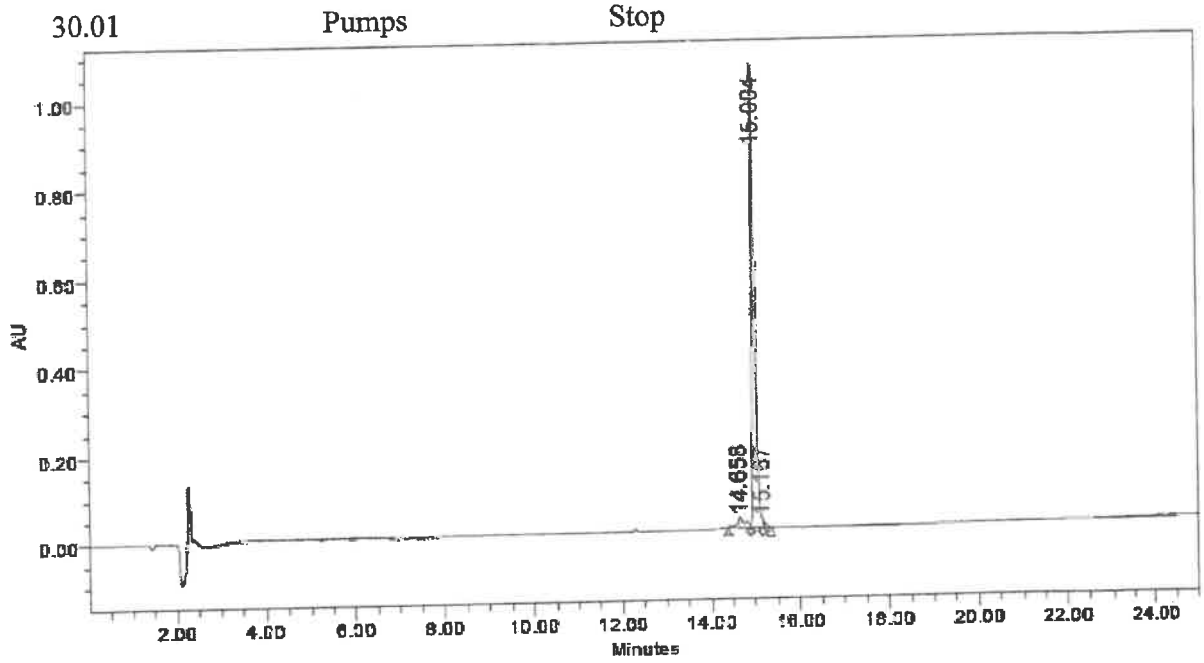
Tel: +86-21-50835580 Fax: +86-21-50835580 P/C: 201204 http://www.synpeptide.com

High Quality Peptide

Sample Information

Order ID	: Syn-79065
Name	: Pep1
Sequence	: FAM-DNDPENRIAKK[(S)-2-(4'-pentenyl) alanine]LLEEIK[(R)-2-7-(7'-octenyl)alanine]NLS-NH2
Lot No	: JT-79065
Pump A	: 0.1% Trifluoroacetic in 100% Water
Pump B	: 0.1% Trifluoroacetic in 100% Acetonrtrile
Total Flow	: 1ml/min
Wavelength	: 220nm
Analytial column type	: SHIMADZU Inertsil ODS-SP（4.6*250mm*5um）
Inj. Volume	: 30ul

Time	Module	Action	Value
0.00	Pumps	B.Conc	10
25.00	Pumps	B.Conc	70
25.01	Pumps	B.Conc	100
30.00	Pumps	B.Conc	100
30.01	Pumps	Stop	



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3	15.167	64027	1.20	17979

Synpeptide Co., Ltd

Address: 320 Lvlin Road, Beicai, Pudong new area, Shanghai, China 201204

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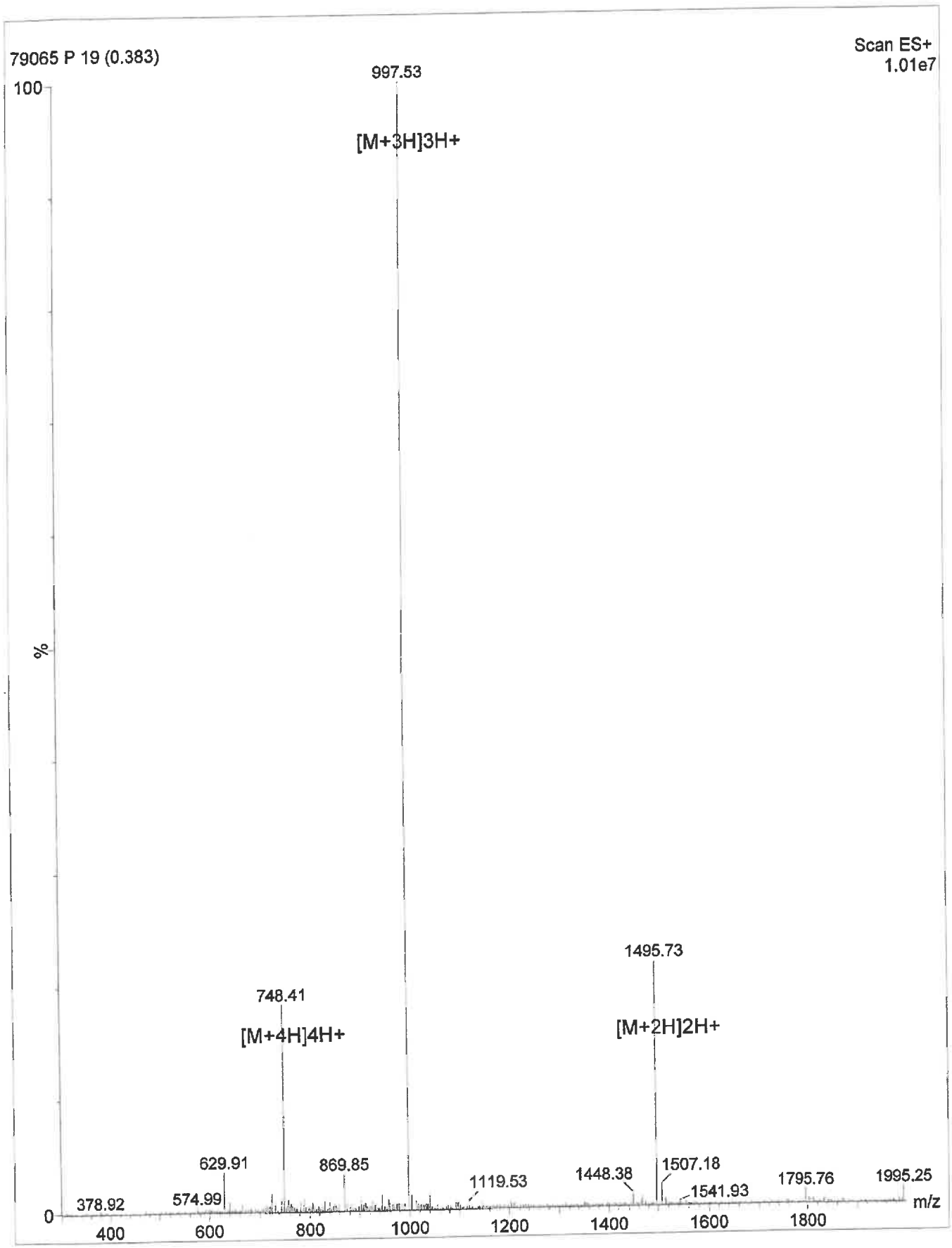
FAM-SPEP 7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1507.18
1541.93
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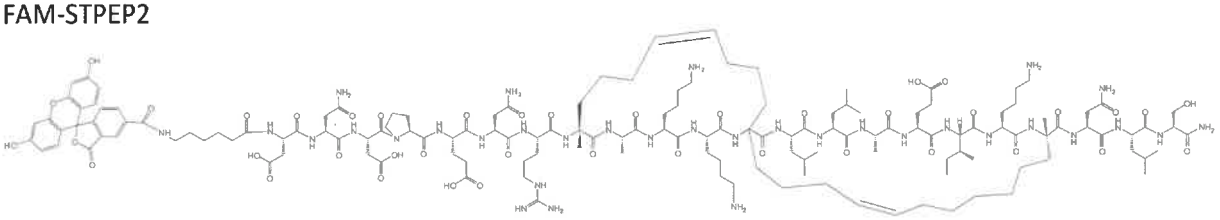
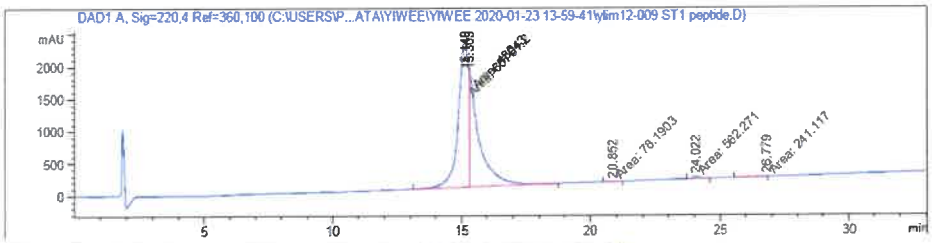
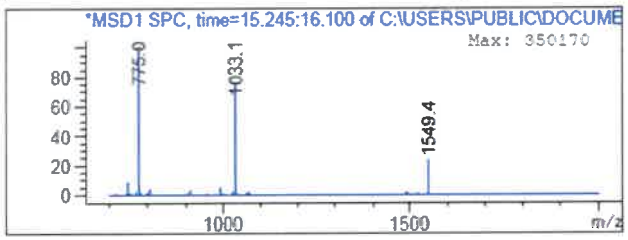
FAM-STPEP2

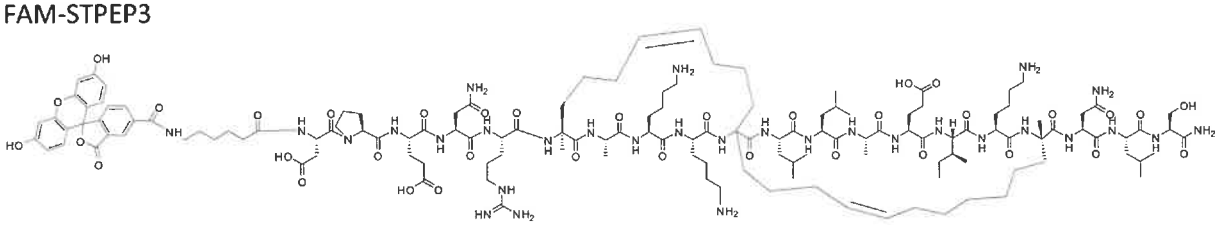


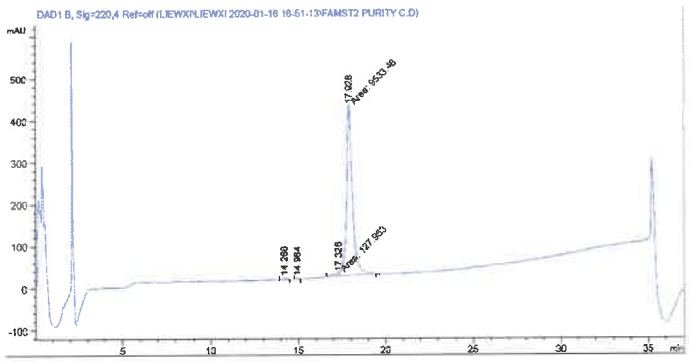


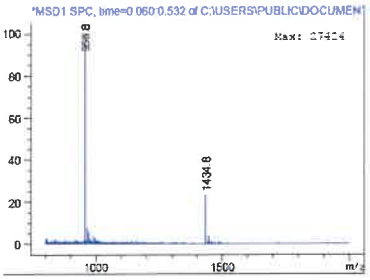


Peptide mass: 3094.64 Da; Purity: 99%

FAM-STPEP3

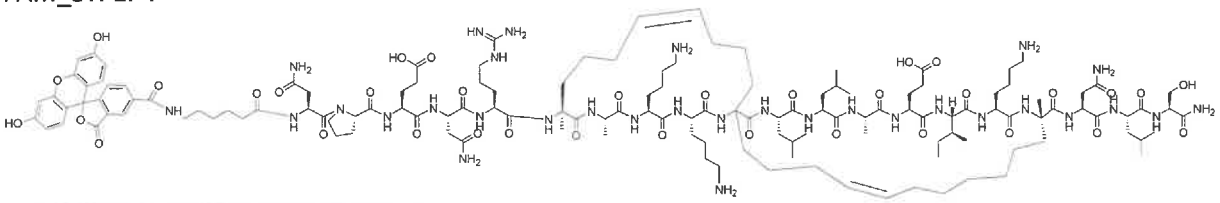


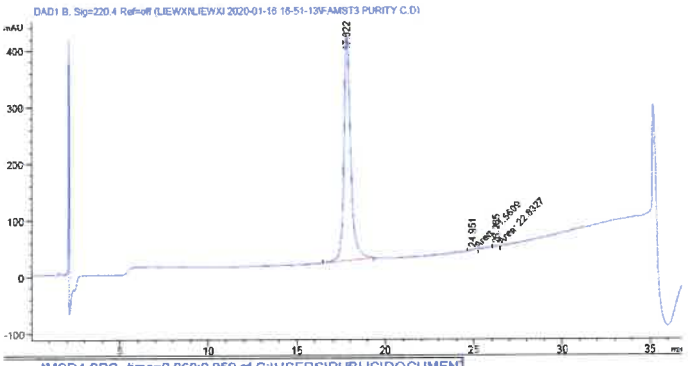


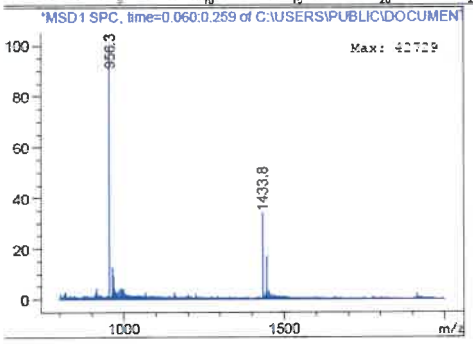


Peptide mass: 2865.57 Da; Purity: 97%

FAM_STPEP4

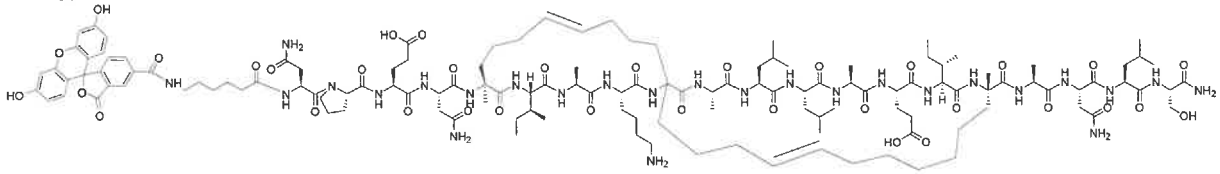


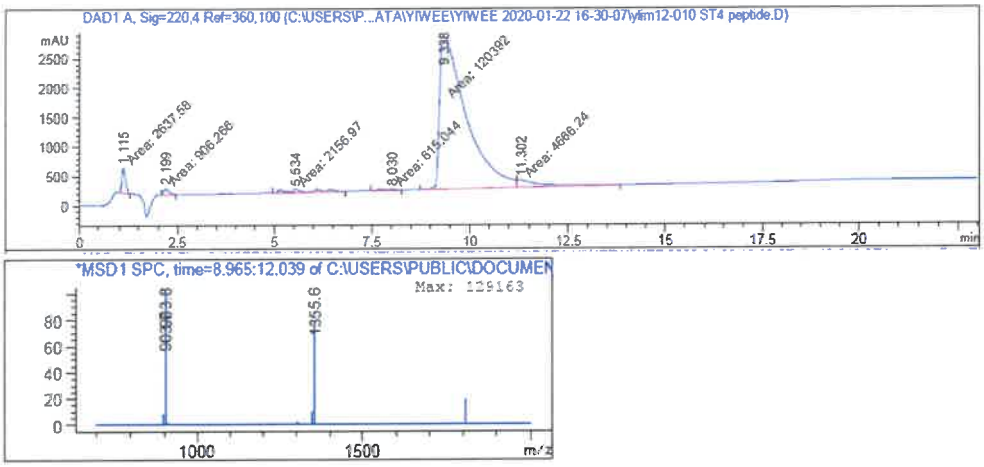




Peptide mass: 2864.58 Da; Purity: 99%

FAM_STPEP7





Peptide mass: 2707.45 Da; Purity: 91%

General information: RAMAGE resin was obtained from PCAS Biomatrix. Fmoc-amino acids, Hexafluorophosphate Azabenzotriazole Tetramethyl Uronium (HATU), and 1-Hydroxy-7-azabenzotriazole (HOAt) were obtained from Advanced Chemtech (Louisville, KY). 5-carboxy fluorescein was purchased from Beijing Okeanos Tech (Beijing, China). Trifluoroacetic acid (TFA) and N, N-Diisopropylethylamine (DIPEA) was purchased from Tokyo Chemical Industry (Tokyo, Japan) while all other solvents and reagents were obtained from Fisher Scientific (Loughborough, United Kingdom). All reagents were used as received.

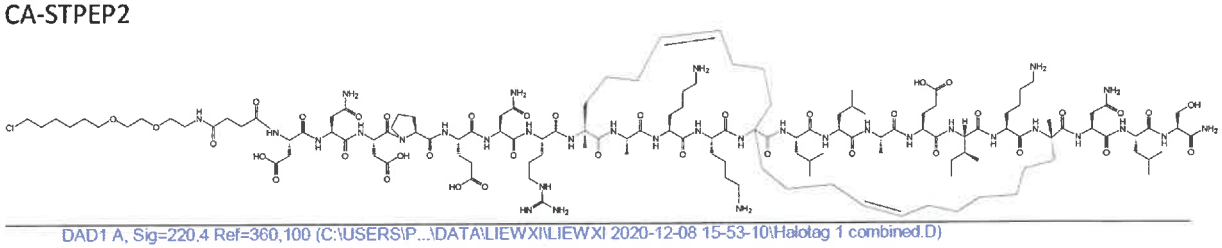
Solid-phase peptide synthesis: The linear peptide was synthesized on the CEM peptide synthesizer. 1 M OxymaPure with 0.1 M DIPEA in DMF was used as the coupling agent and 0.5 M DIC in DMF was the activating agent. Fmoc deprotection was done with 20% Piperidine in DMF. Following ring closing metathesis, 5-carboxy fluorescein was coupled onto the N-terminus manually with pre-activated solutions (7 min) of 2.8 eq. HATU, 3 eq. HOAt, and 6 eq. DIPEA for 1 h.

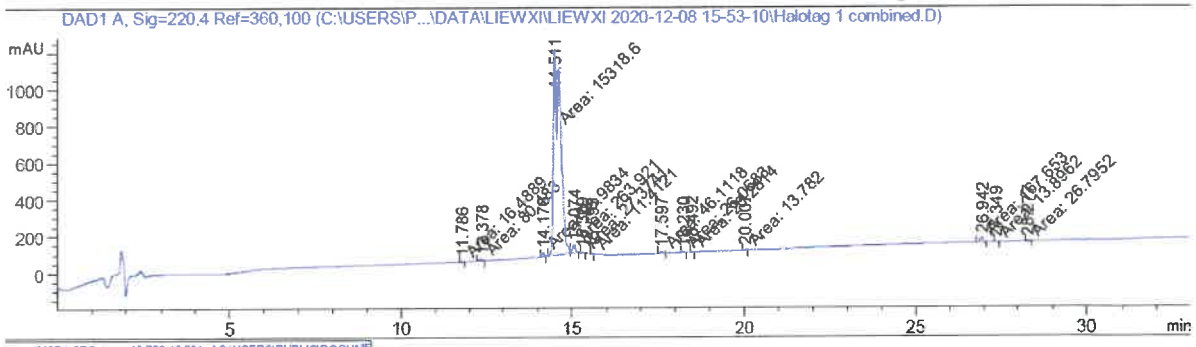
Ring closing metathesis: 0.2 equiv. Grubbs I catalyst was dissolved in DCE (5 mg/mL) was bubbled in the resin for four times for two hours each.

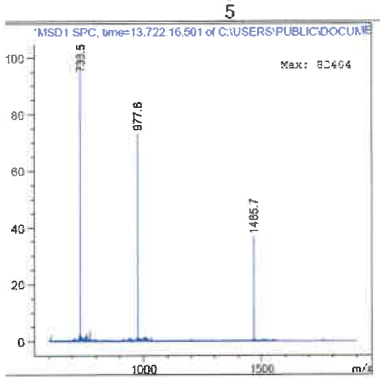
Cleavage: Following synthesis, the peptide resin was shrunk and dried with washes of methanol and diethyl ether. It was cleaved from the resin with a cleavage cocktail of TFA/Tips/H2O (95:2.5:2.5) for 2 h. The resin was filtered off and peptide precipitated in diethyl ether (50 mL). The peptide was re-dissolved in a mixture of ACN/H2O (1:1) and lyophilised.

Peptide purification and analysis: The dried peptide was re-dissolved in acetonitrile and water (1:1) and purified *via* reverse-phase HPLC using an Agilent 1260 Infinity system fitted with a Phenomenex® preparative column (Jupiter C12, 4 µm, Proteo 90 Å, 250 x 10 mm). Eluents used were 0.1% aqueous TFA in water and 0.1% TFA in acetonitrile. Peptide purity and molecular weight were confirmed *via* UPLC-MS using an Agilent 1260 Infinity II system fitted with a Phenomenex® analytical column (Aeris 1.7 µm, Peptide XB-C18 100 LC Column, 150 x 2.1 mm). Eluents used were 0.1% aqueous formic acid in water and 0.1% formic acid in acetonitrile.

CA-STPEP2

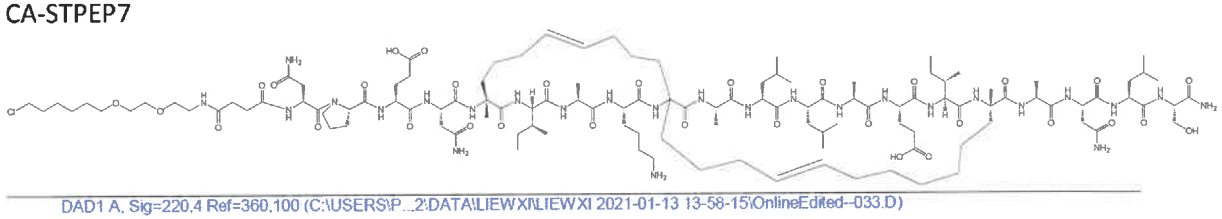


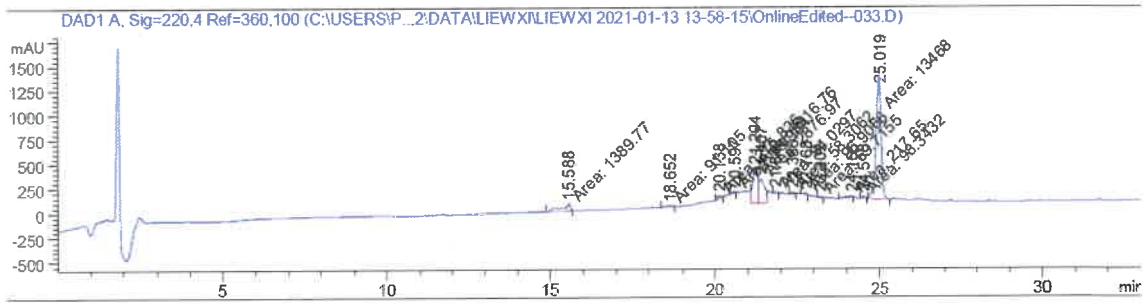


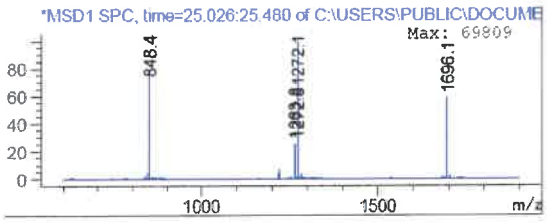


Peptide mass: 2930.91 Da; Purity: 97%

CA-STPEP7







Peptide mass: 2543.52 Da; Purity: 60%

General information: RAMAGE resin was obtained from PCAS Biomatrix. Fmoc-amino acids, Hexafluorophosphate Azabenzotriazole Tetramethyl Uronium (HATU), and 1-Hydroxy-7-azabenzotriazole (HOAt) were obtained from Advanced Chemtech (Louisville, KY). Halotag was purchased from Beijing Okeanos Tech (Beijing, China). Trifluoroacetic acid (TFA) and N, N-Diisopropylethylamine (DIPEA) was purchased from Tokyo Chemical Industry (Tokyo, Japan) while all other solvents and reagents were obtained from Fisher Scientific (Loughborough, United Kingdom). All reagents were used as received.

Solid-phase peptide synthesis: The linear peptide was synthesized on the CEM peptide synthesizer. 1 M OxymaPure with 0.1 M DIPEA in DMF was used as the coupling agent and 0.5 M DIC in DMF was the activating agent. Fmoc deprotection was done with 20% Piperidine in DMF. Following ring closing metathesis, Halotag was coupled onto the N-terminus manually with pre-activated solutions (7 min) of 2.8 eq. HATU, 3 eq. HOAt, and 6 eq. DIPEA for 1 h.

Ring closing metathesis: 0.2 equiv. Grubbs I catalyst was dissolved in DCE (5 mg/mL) was bubbled in the resin for four times for two hours each.

Cleavage: Following synthesis, the peptide resin was shrunk and dried with washes of methanol and diethyl ether. It was cleaved from the resin with a cleavage cocktail of TFA/Tips/H2O (95:2.5:2.5) for 2 h. The resin was filtered off and peptide precipitated in diethyl ether (50 mL). The peptide was re-dissolved in a mixture of ACN/H2O (1:1) and lyophilised.

Peptide purification and analysis: The dried peptide was re-dissolved in acetonitrile and water (1:1) and purified *via* reverse-phase HPLC using an Agilent 1260 Infinity system fitted with a Phenomenex® preparative column (Jupiter C12, 4 µm, Proteo 90 Å, 250 x 10 mm). Eluents used were 0.1% aqueous TFA in water and 0.1% TFA in acetonitrile. Peptide purity and molecular weight were confirmed *via* UPLC-MS using an Agilent 1260 Infinity II system fitted with a Phenomenex® analytical column (Aeris 1.7 µm, Peptide XB-C18 100 LC Column, 150 x 2.1 mm). Eluents used were 0.1% aqueous formic acid in water and 0.1% formic acid in acetonitrile.

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Australia
Tel +61 3 9565 1111
Fax +61 3 9565 1199
mimotopes@mimotopes.com
www.mimotopes.com

Certificate of Analysis

P53

Custom Synthesized Peptide

Order Number : **32113**

Peptide Number : 3211301

Theoretical Molecular Weight : 2,312.52

Observed Molecular Weight : MS Analysis detected molecular ions consistent with the parent

Sequence : Ac-AMDDLMLSPDDIEQWFTED-NH2

At the N-terminus, Ac- means acetyl. At the C-terminus, -NH2 means Amide.
Sequence is in standard single letter code (unless otherwise specified), amino terminus is on the left.

Requested : 5mg at 90% by HPLC

Supplied :

Tube	Mass (mg)	Minimum Purity (%)
1	5.1	90

Comments :
Amino Acid Code Sequence :
Ala-Met-Asp-Asp-Leu-Met-Leu-Ser-Pro-Asp-Asp-Ile-Glu-Gln-Trp-Phe-Thr-Glu-Asp

Quality Assured by : _____ Thursday, 25 June 2020

C. Pham - Quality Assurance Department

For any technical enquiries please contact: peptide_support_group@mimotopes.com
For Material Safety Data information please email :
mimotopes@mimotopes.com, requesting "Custom Synthesized Peptide" MSDS

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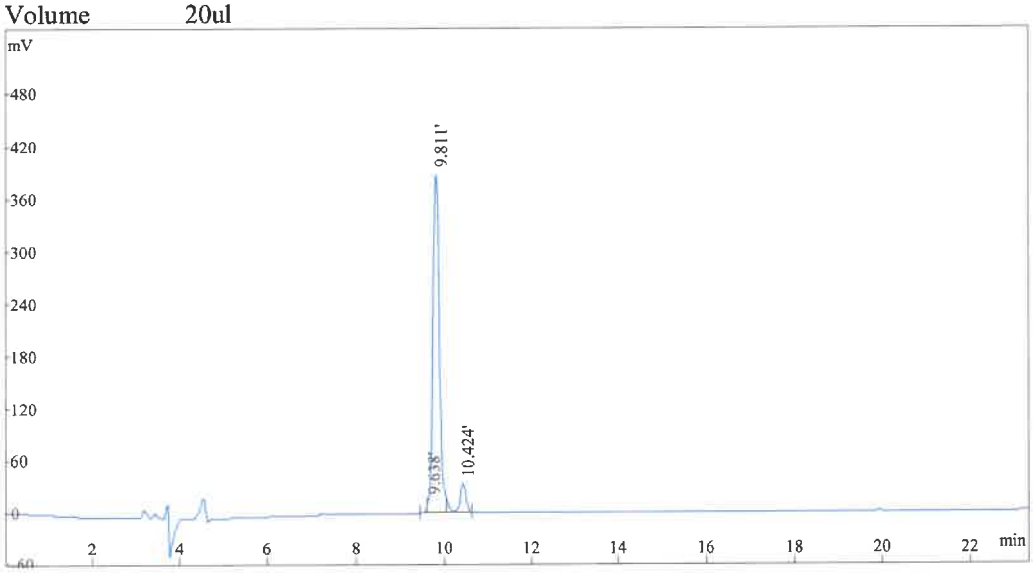
ANALYTICAL DATA

P53

Product Name	3211301
Lot No	P3211301-HS807598
Column	Gemini-NX 5μ C18 110A, 4.6*250mm
Solvent A	0.1%Trifluoroacetic in 100% Acetonitrile
Solvent B	0.1%Trifluoroacetic in 100% Water
Gradient	A B
	0.01min 30% 70%
	25min 70% 30%
	25.01min 100% 0%
	30min Stop
Flow rate	1.0ml/min
Wavelength	214nm
Volume	20ul



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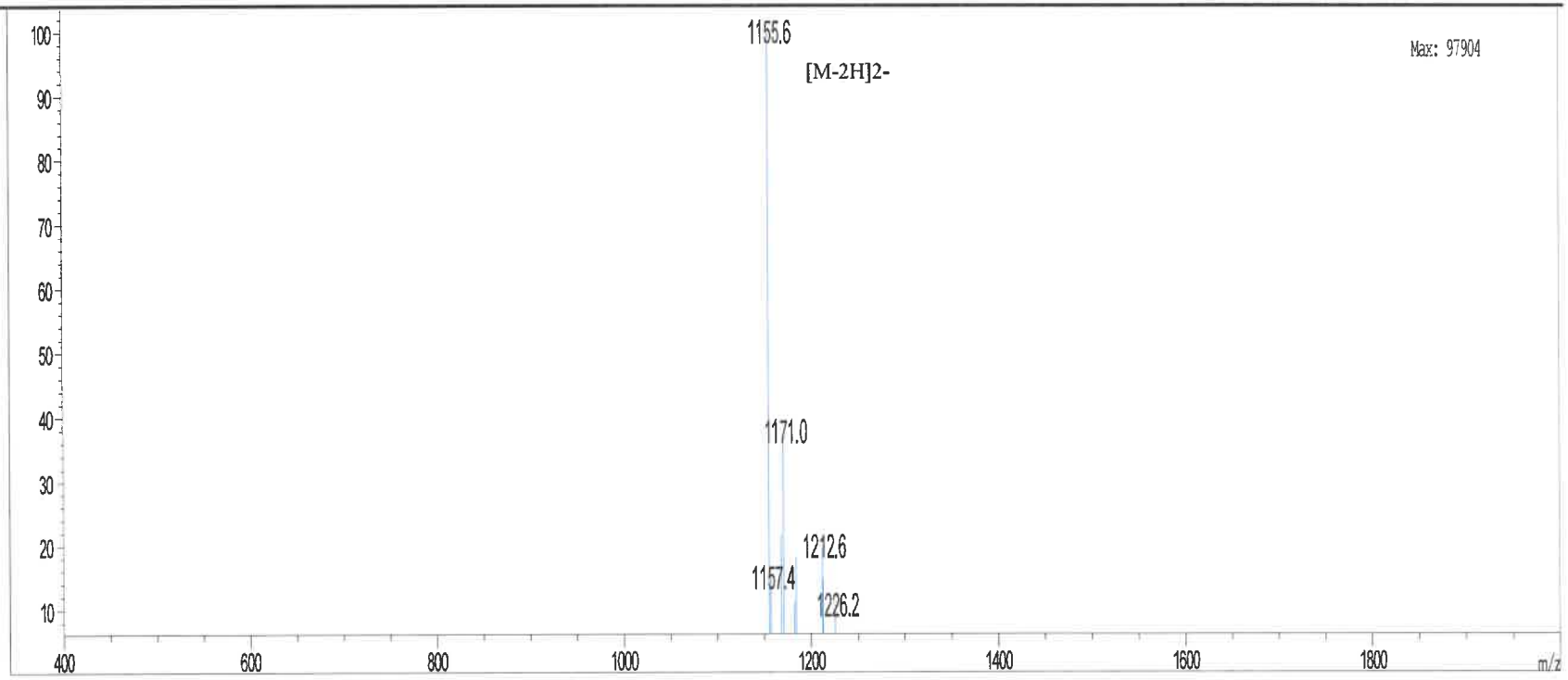
Total		100	3959317	437019

MIMOTOPES
The Peptide Company

ANALYTICAL DATA

P53



Data Acquired : 12/06/2020 14:16:21 PM
Injection Volume : 1
Sample Name : 3211301
Mw : 2312.48
Lot No. : P3211301-HS807598

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Nebulizer Gas Flow :1.5L/min Detector :2.0kv
CDL :-20.0v T.Flow :0.2ml/min
CDL Temp :250℃ B.conc :50%H2O/50%ACN
Block Temp :200℃