

RSC Advances

Structural Location determines functional roles of the basic amino acids of KR-12, the smallest antimicrobial peptide from human cathelicidin LL-37

Biswajit Mishra, Raquel F. Epand, Richard M. Epand, and Guangshun Wang

SUPPLEMENTAL INFORMATION for peptide quality

Three pages are provided for each peptide: 1) data sheet; 2) HPLC chromatogram; and 3) mass spectrum.

The corresponding peptide names are below:

Peptide name	Cat#	Lot #
KR-12	D180	79788
KR-12A18	D181	79789
KR-12A19	D182	79790
KR-12A23	D183	79791
KR-12A25	D184	79792
KR-12A29	D185	79793
KR-12A18A19	D186	79794
KR-12K	D187	79797
KR-12R	D188	79798

These data indicate that all the peptides have purity > 95% based on HPLC.



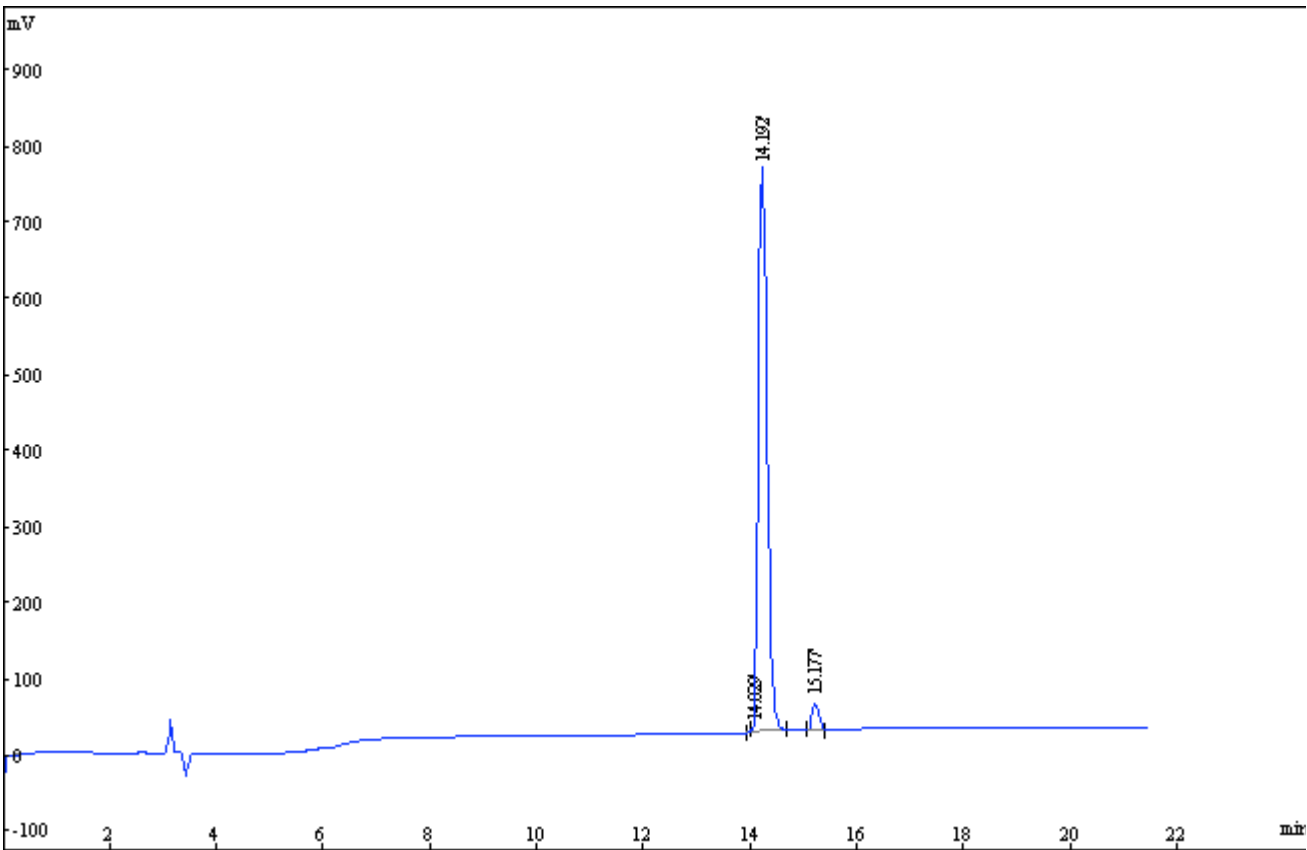
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6203 Wood Lake Center Dr., Bldg. 2, San Antonio, TX 78244, USA
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PEPTIDE DATA SHEET

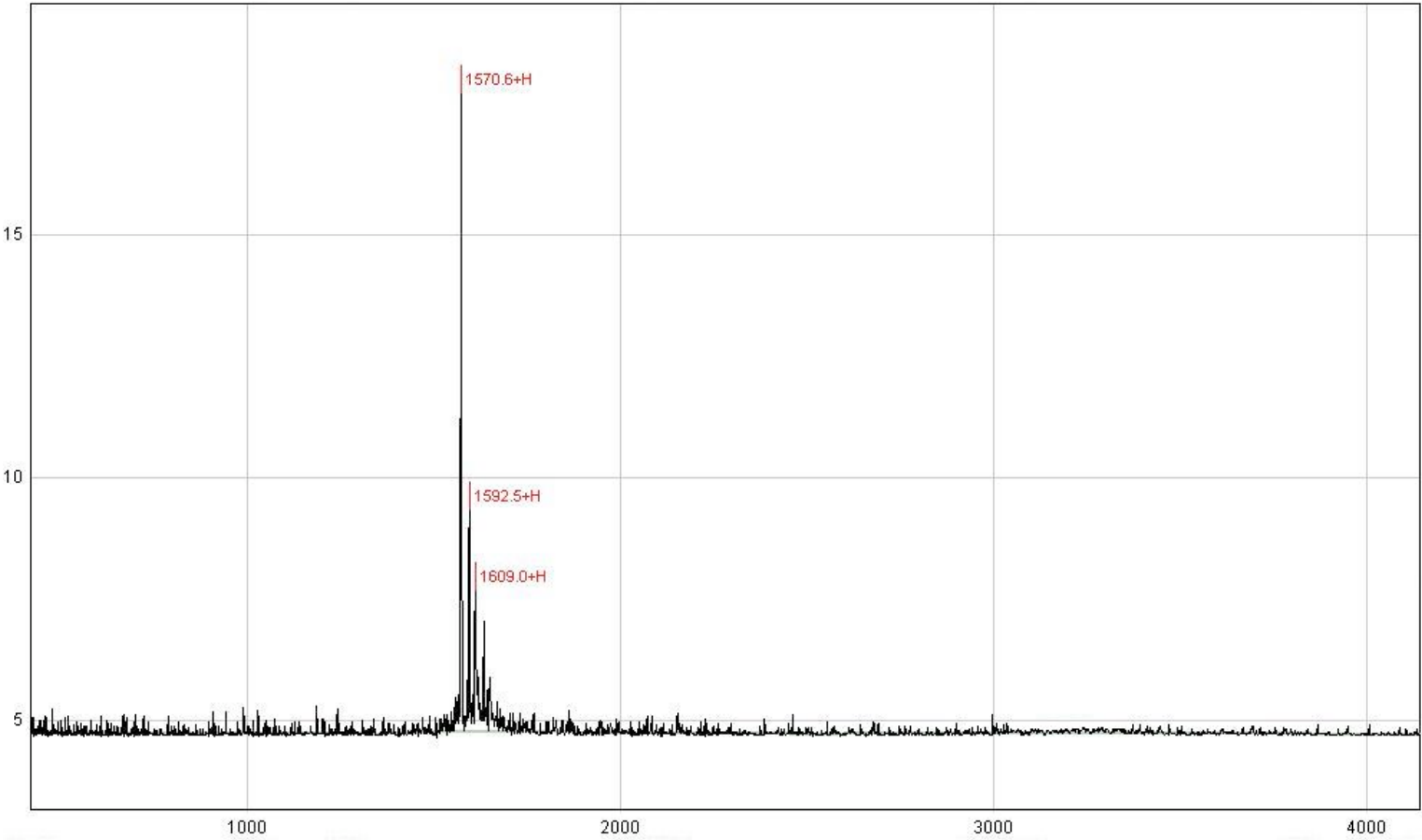
LOT NO:	79788
NAME:	Peptide D180
SEQUENCE:	KRIVQRIKDFLR-amidation
EXPECTED MASS:	1570.9 ± 1.0
AVERAGE MASS:	1570.6
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	22mg
PURITY:	96.01%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79788
Analyzed:27/01/11 21:20 Vail Number: 79788
Reported:30/01/11 13:56 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79788\ 79788.hw:



No.	RT	Area%	Area
1	14.029	0.1271	11455
2	14.192	96.01	8650231
3	15.177	3.862	347957
Total		100	9009643





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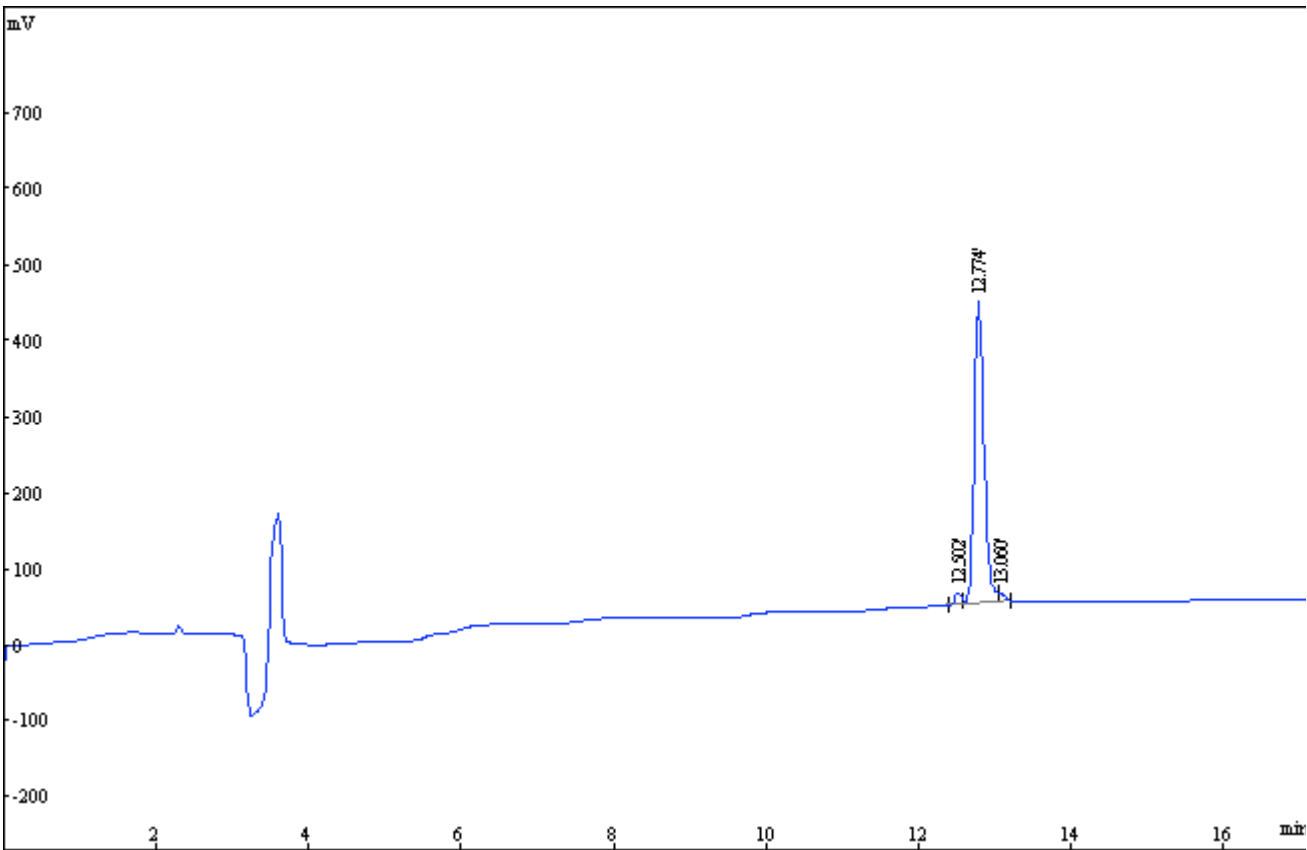
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PEPTIDE DATA SHEET

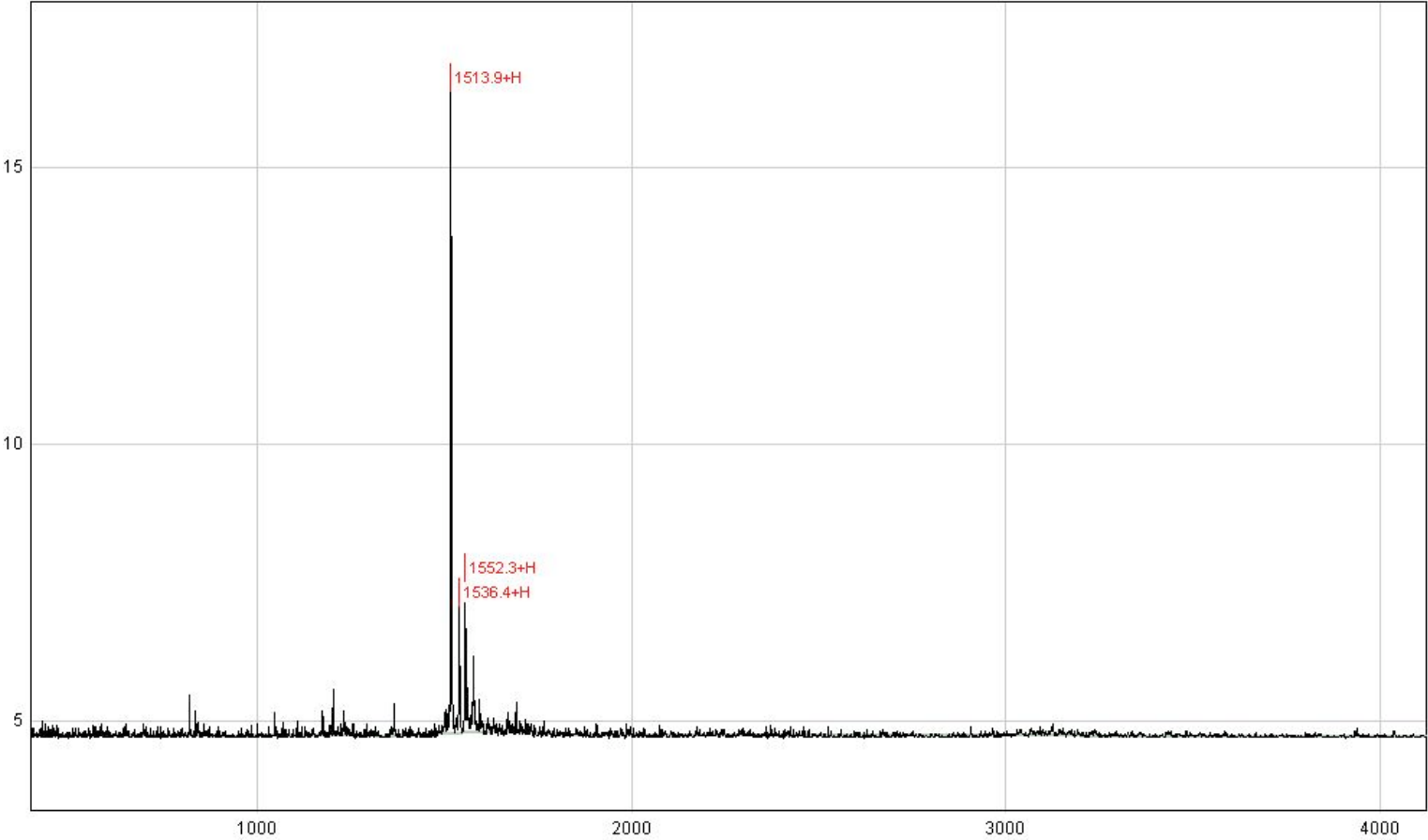
LOT NO:	79789
NAME:	Peptide D181
SEQUENCE:	ARIVQRIKDFLR-amidation
EXPECTED MASS:	1513.8 ± 1.0
AVERAGE MASS:	1513.9
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	95.53%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79789
Analyzed:30/01/11 12:28 Vail Number: 79789
Reported:30/01/11 13:46 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 10:90 t=30.0mins 100:0
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79789\ 79789.hw:



No.	RT	Area%	Area
1	12.502	3.092	115617
2	12.774	95.53	3571838
3	13.060	1.372	51301
Total		100	3738756





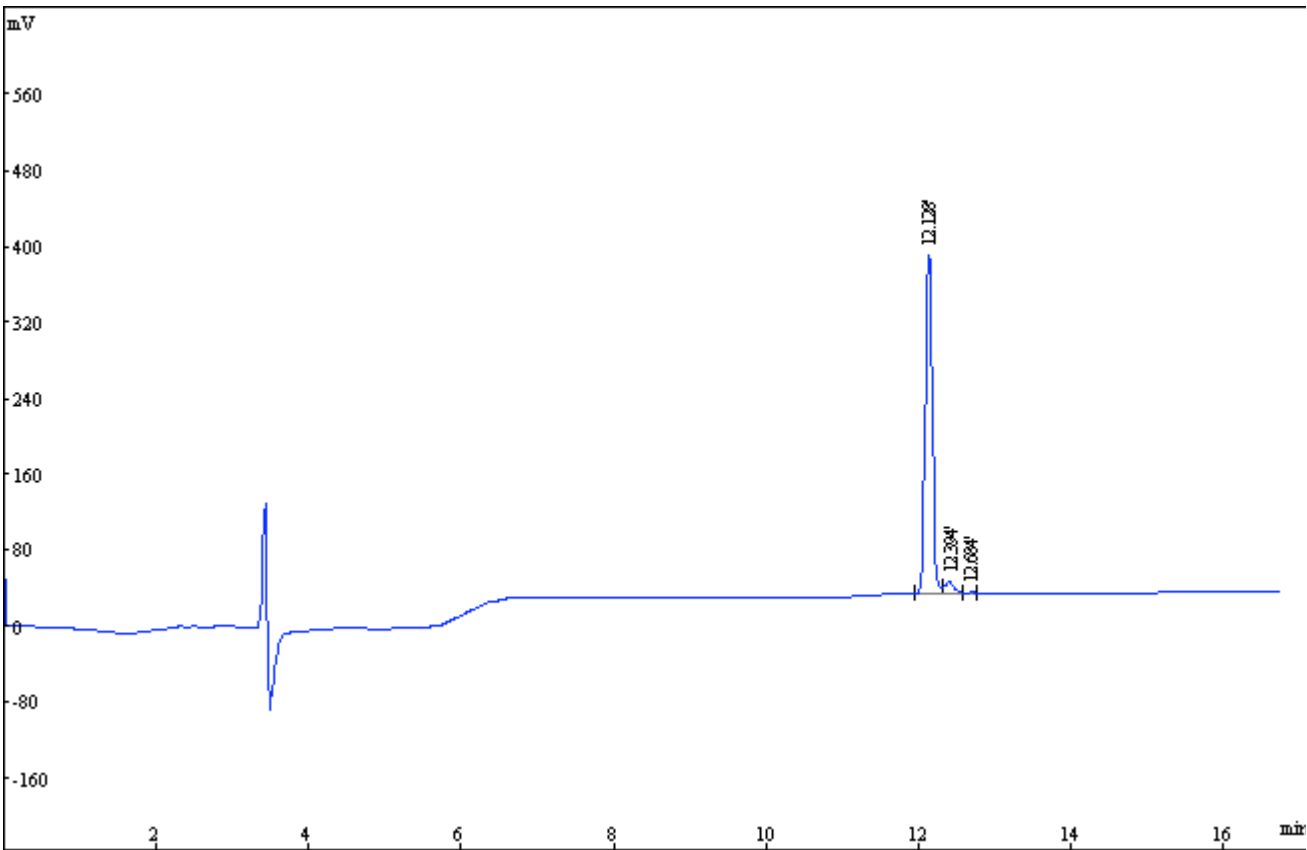
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PEPTIDE DATA SHEET

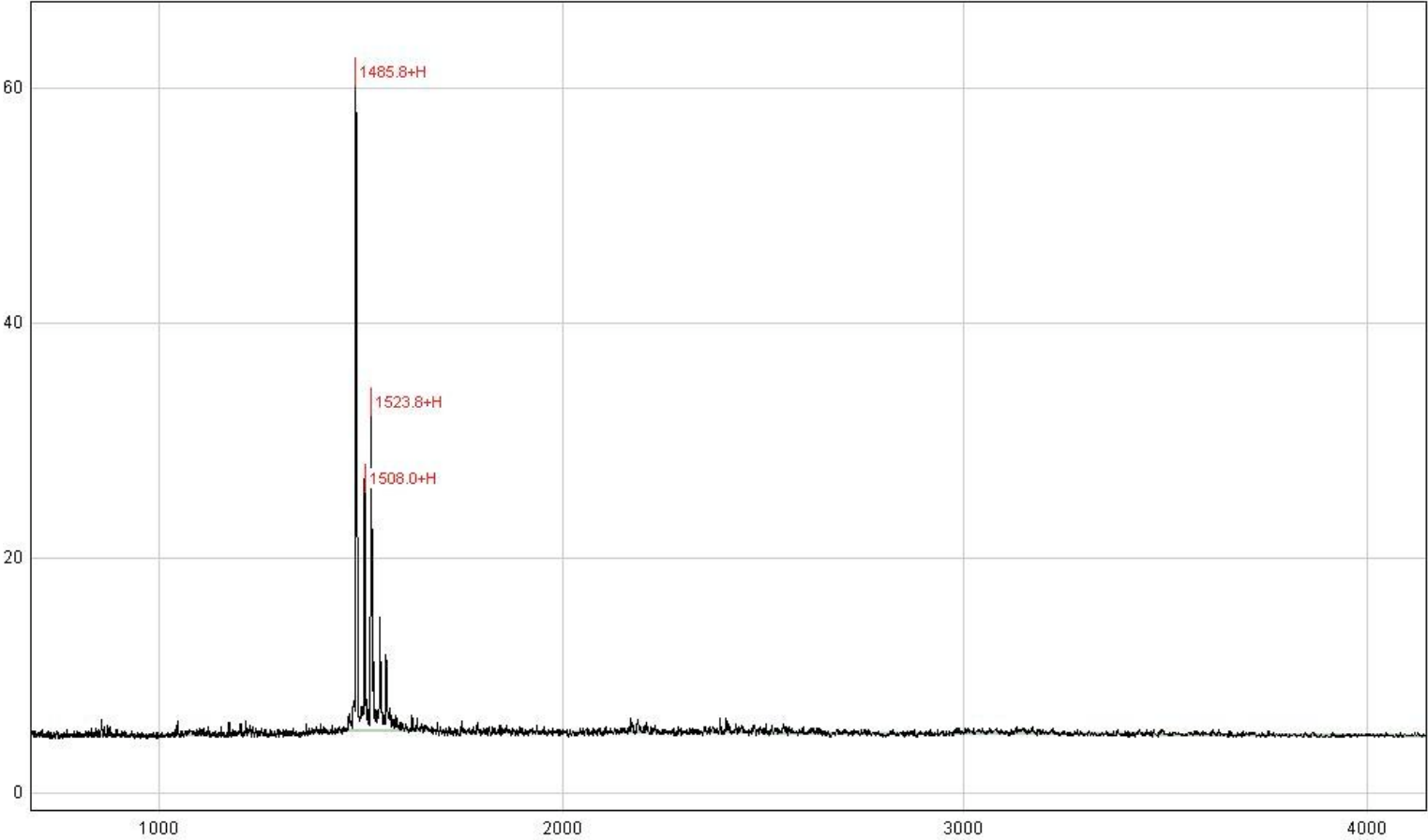
LOT NO:	79790
NAME:	Peptide D182
SEQUENCE:	KAIVQRIKDFLR-amidation
EXPECTED MASS:	1485.8 ± 1.0
AVERAGE MASS:	1485.8
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	95.12%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79790
Analyzed:28/01/11 11:04 Vail Number: 79790
Reported:30/01/11 13:46 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 10:90 t=30.0mins 100:0
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79790\ 79790.hw:



No.	RT	Area%	Area
1	12.128	95.12	2363576
2	12.394	4.439	110312
3	12.684	0.4483	11140
Total		100	2485028





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PEPTIDE DATA SHEET

LOT NO: 79791

NAME: Peptide D183

SEQUENCE: KRIVQAIKDFLR-amidation

EXPECTED MASS: 1485.8 ± 1.0

AVERAGE MASS: 1485.8

SOULUBILITY: Not tested

AMOUNT DELIVERED: 19mg

PURITY: 96.69%

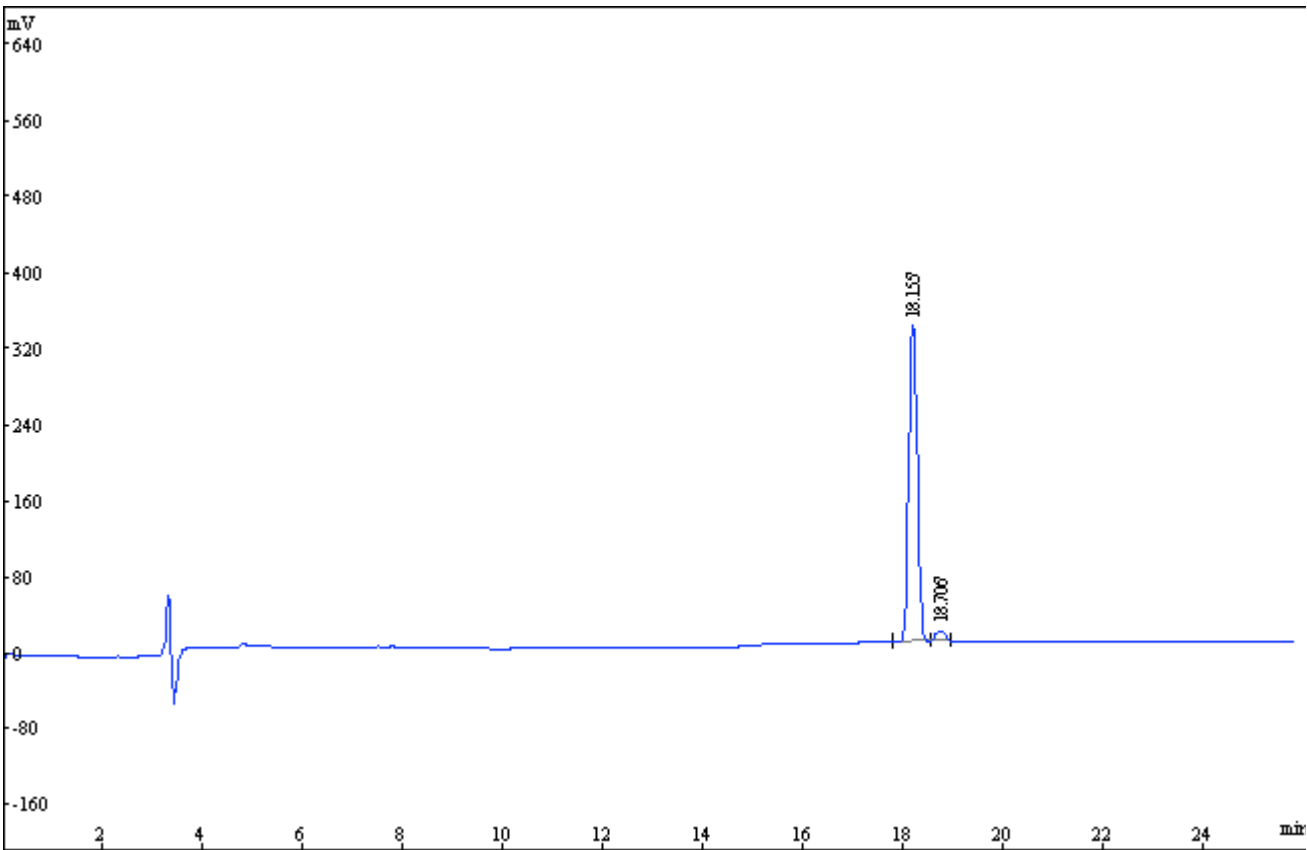
COMMENTS: white to off-white powder or lumps

DATE: 01/30/2011

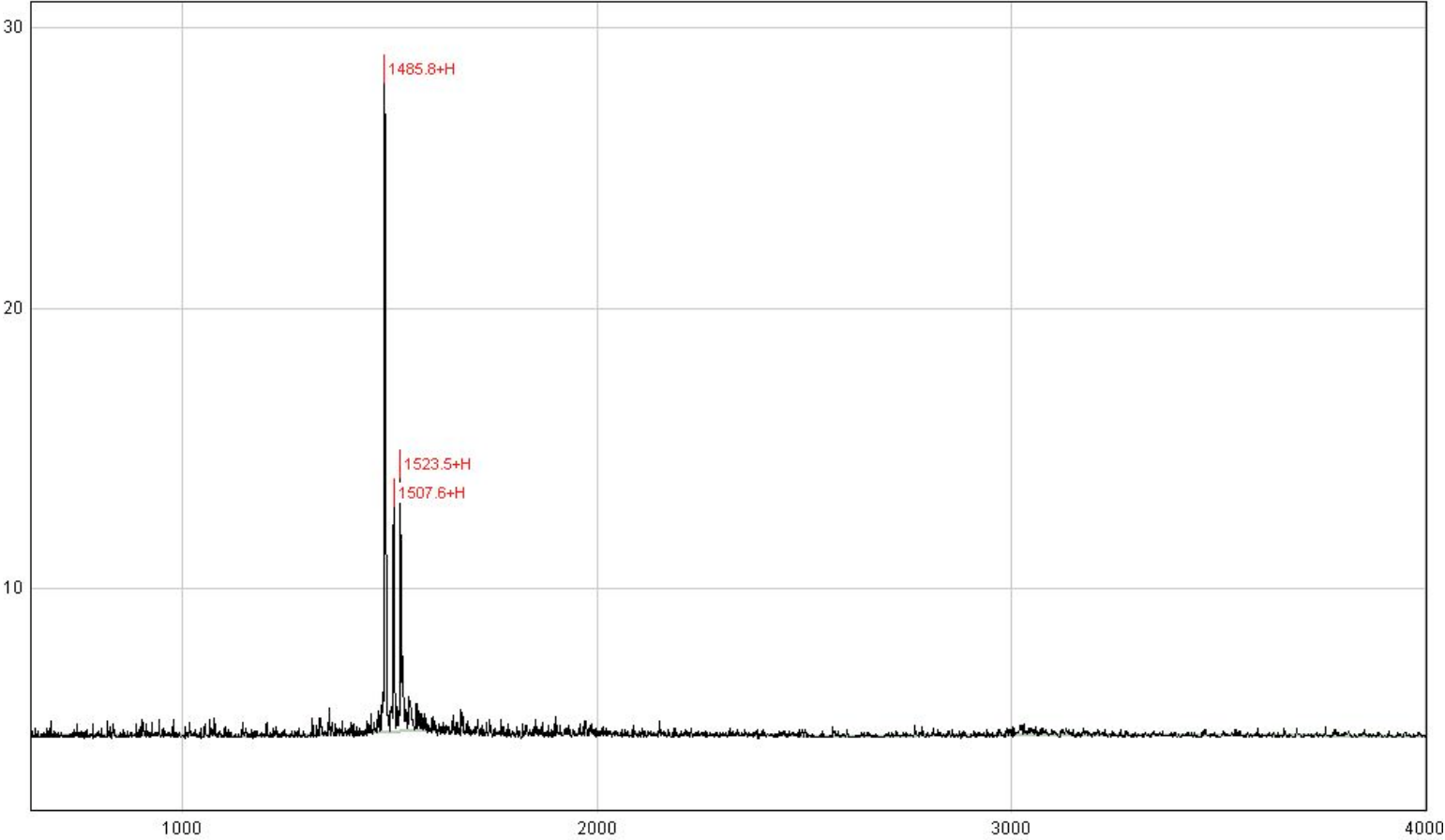
VERIFIED BY: Chen.Y.F

Customer Peptide HPLC Report

Sample name: 79791
Analyzed:27/01/11 21:35 Vail Number: 79791
Reported:30/01/11 13:51 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79791\ 79791.hw:



No.	RT	Area%	Area
1	18.155	96.69	3972389
2	18.706	3.316	136215
Total		100	4108604





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PEPTIDE DATA SHEET

LOT NO: 79792

NAME: Peptide D184

SEQUENCE: KRIVQRIADFLR-amidation

EXPECTED MASS: 1513.8 ± 1.0

AVERAGE MASS: 1513.9

SOULUBILITY: Not tested

AMOUNT DELIVERED: 19mg

PURITY: 97.25%

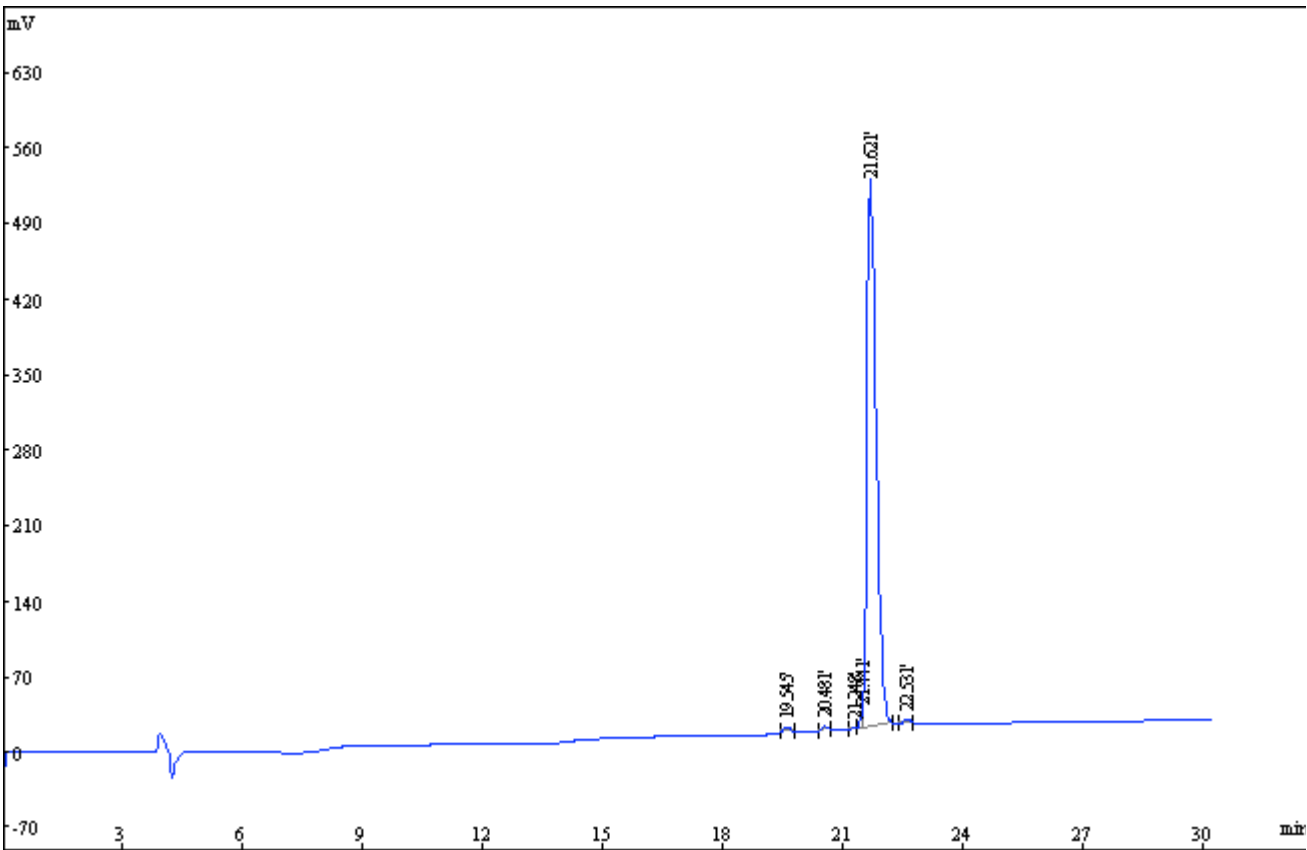
COMMENTS: white to off-white powder or lumps

DATE: 01/30/2011

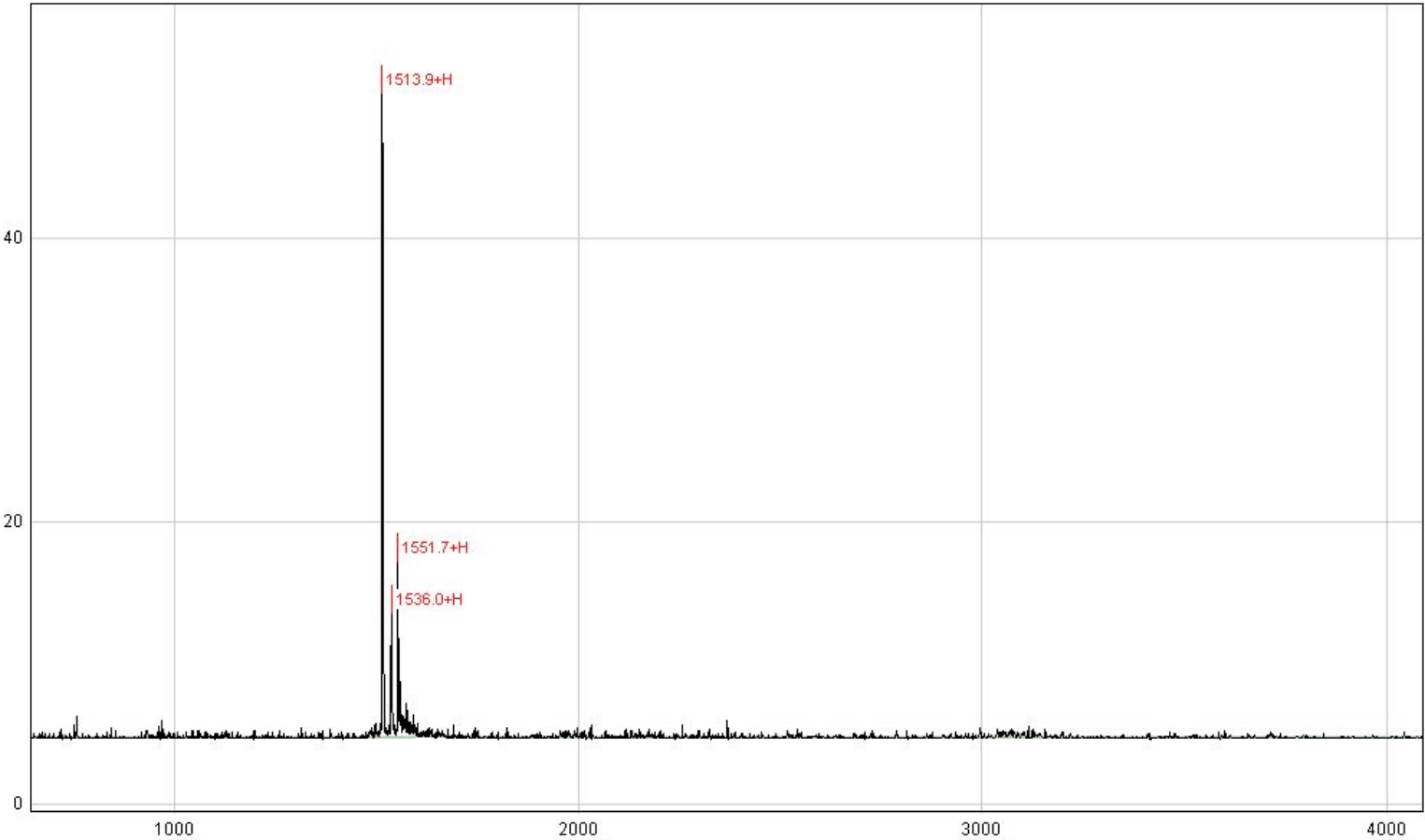
VERIFIED BY: Chen.Y.F

Customer Peptide HPLC Report

Sample name: 79792
Analyzed:27/01/11 20:00 Vail Number: 79792
Reported:30/01/11 13:58 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79792\ 79792.hw:



No.	RT	Area%	Area
1	19.545	0.6103	51701
2	20.481	0.4838	40981
3	21.248	0.2128	18025
4	21.441	0.9726	82391
5	21.621	97.25	8238844
6	22.531	0.4681	39659
Total		100	8471601





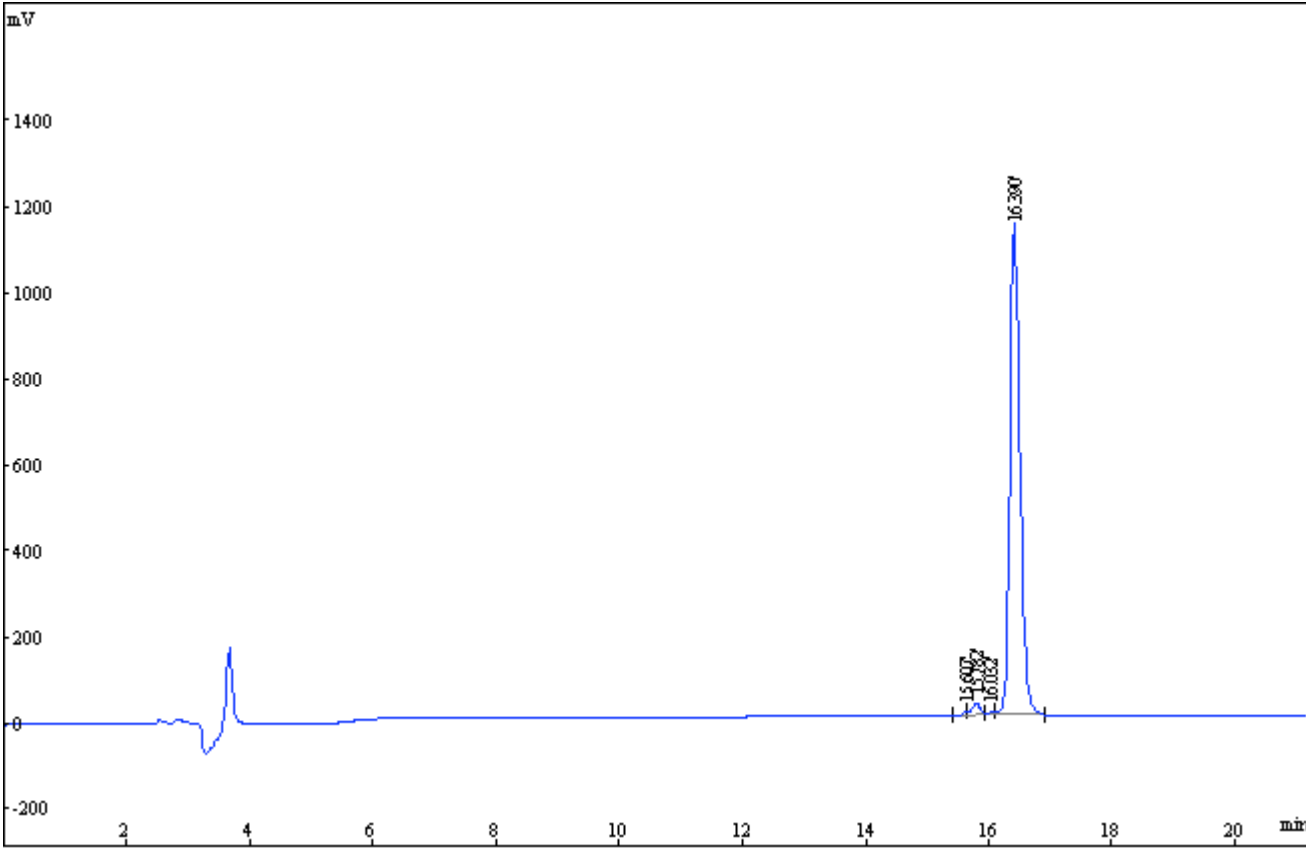
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PEPTIDE DATA SHEET

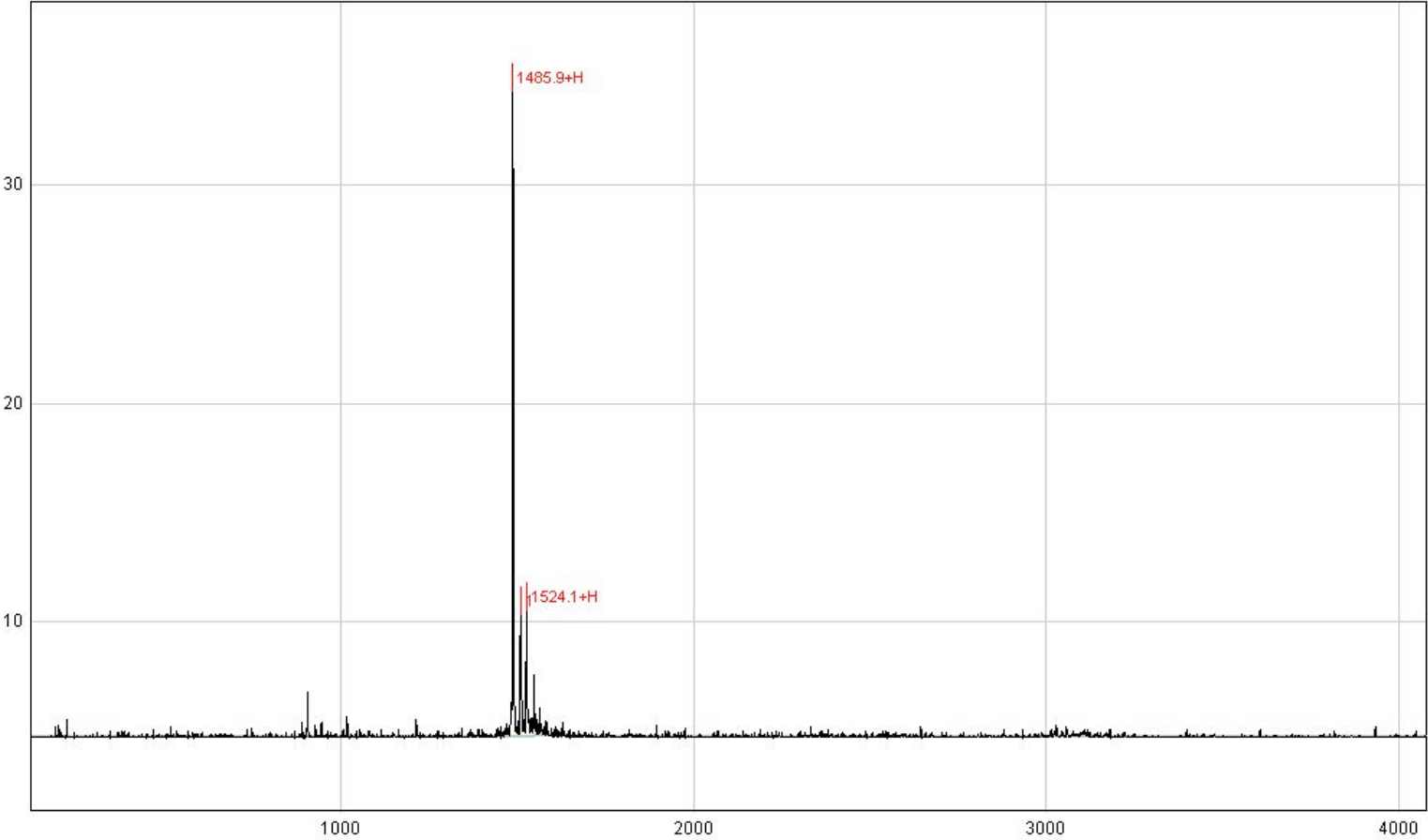
LOT NO:	79793
NAME:	Peptide D185
SEQUENCE:	KRIVQRIKDFLA-amidation
EXPECTED MASS:	1485.8 ± 1.0
AVERAGE MASS:	1485.9
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	96.97%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79793
Analyzed:30/01/11 10:31 Vail Number: 79793
Reported:30/01/11 13:44 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79793\ 79793.hw:



No.	RT	Area%	Area
1	15.607	0.5158	69159
2	15.782	2.046	274278
3	16.032	0.4756	63770
4	16.390	96.97	13000168
Total		100	13407375





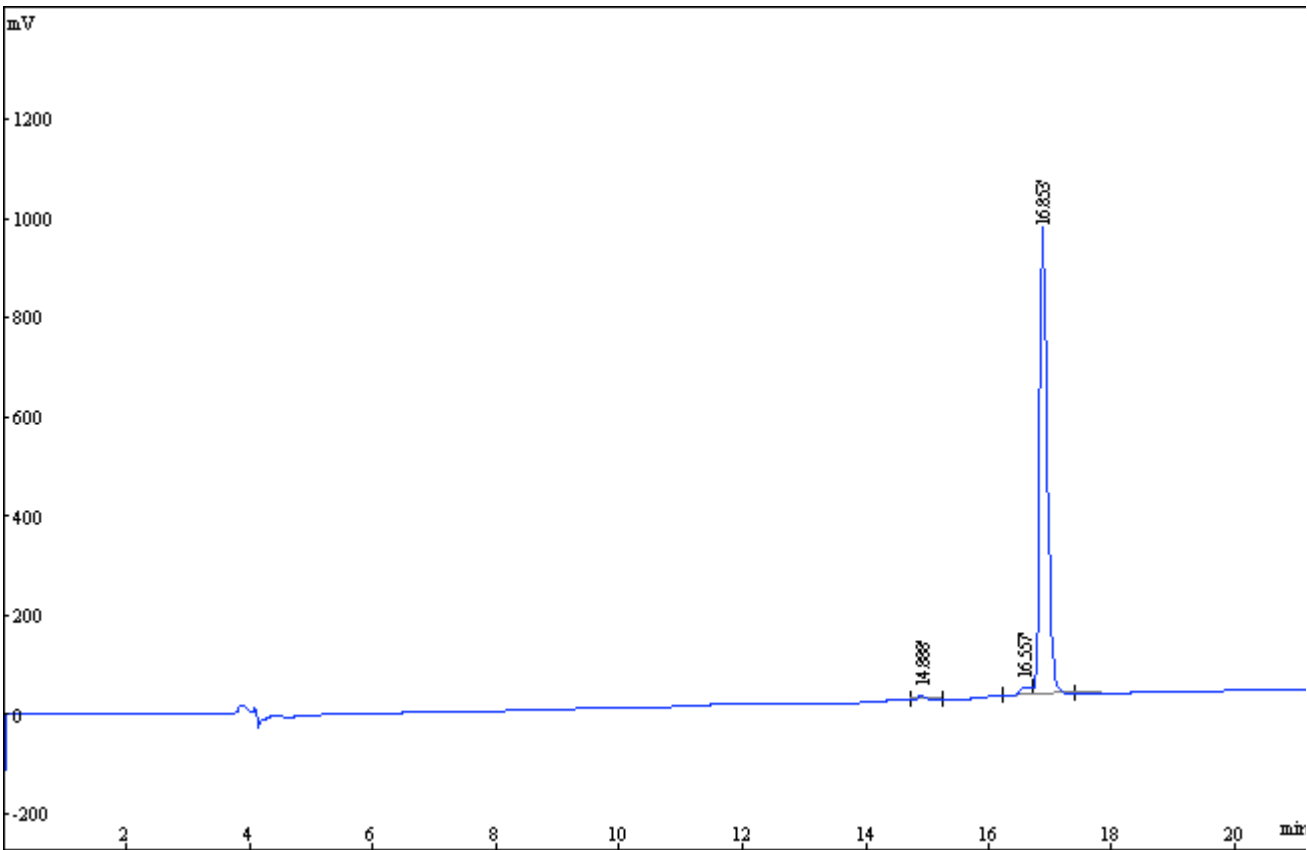
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PEPTIDE DATA SHEET

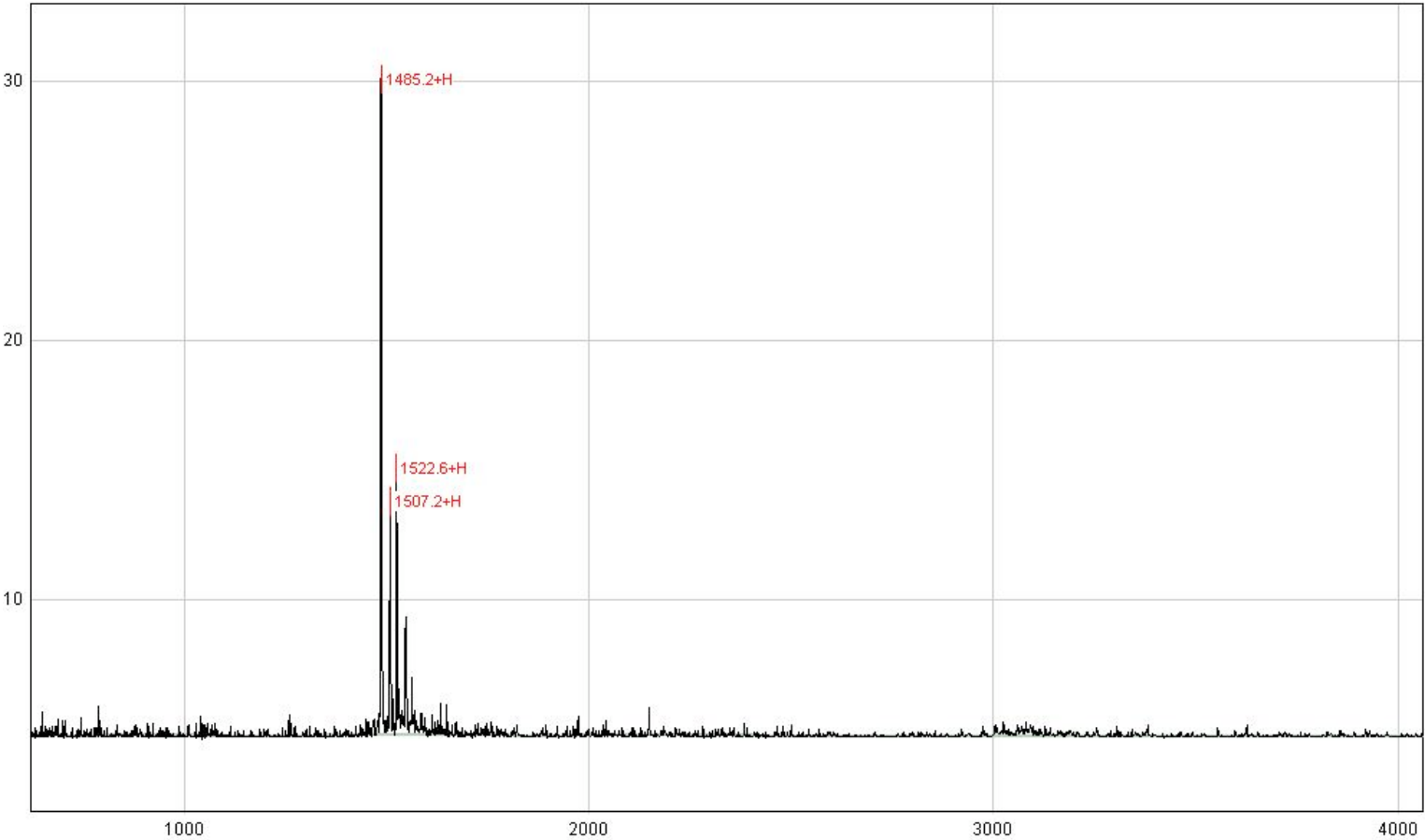
LOT NO:	79794
NAME:	Peptide D186
SEQUENCE:	AQIVQRIKDFLR-amidation
EXPECTED MASS:	1485.7 ± 1.0
AVERAGE MASS:	1485.2
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	96.52%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79794
Analyzed:28/01/11 09:25 Vail Number: 79794
Reported:30/01/11 13:57 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 10:90 t=30.0mins 100:0
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79794\ 79794.hw:



No.	RT	Area%	Area
1	14.888	0.7461	63019
2	16.557	2.734	230960
3	16.853	96.52	8152398
Total		100	8446377





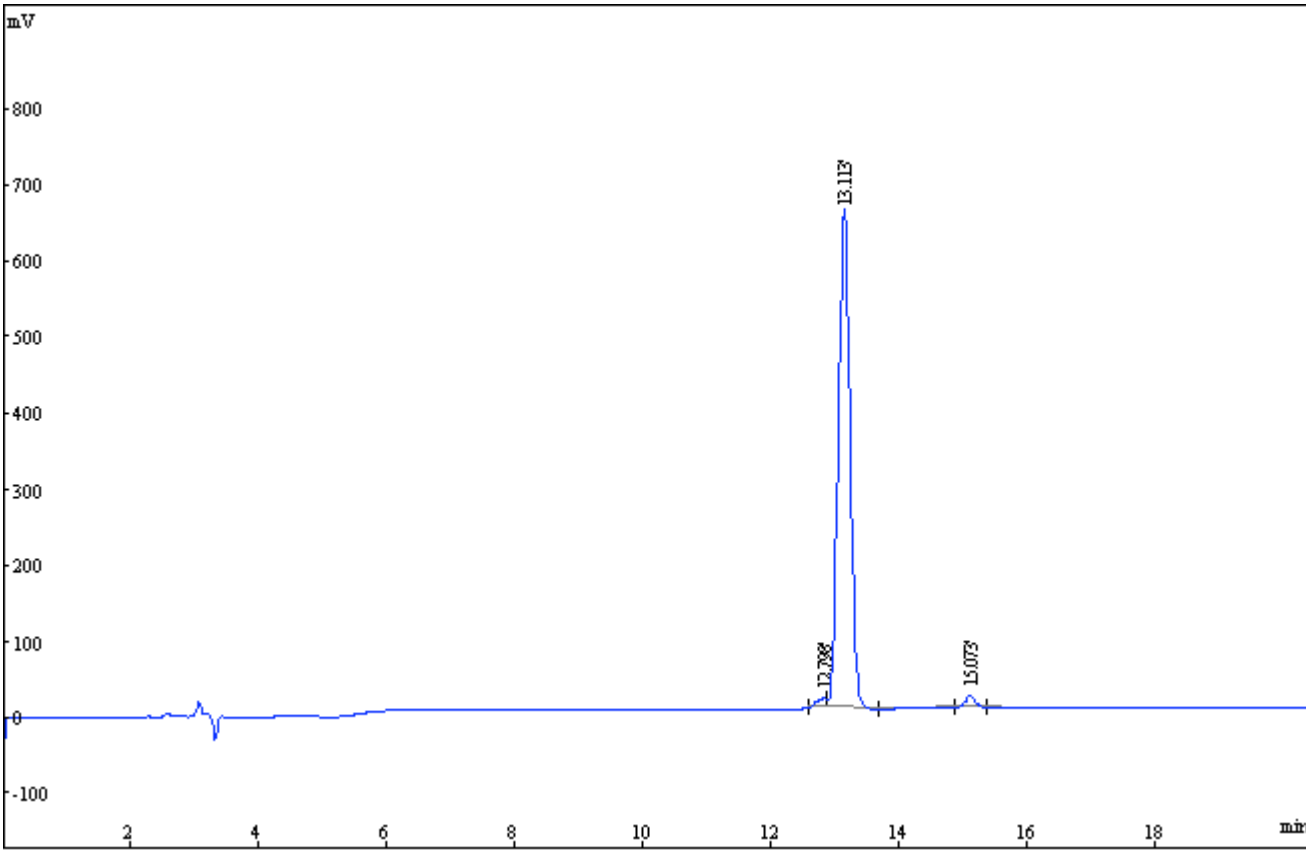
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PEPTIDE DATA SHEET

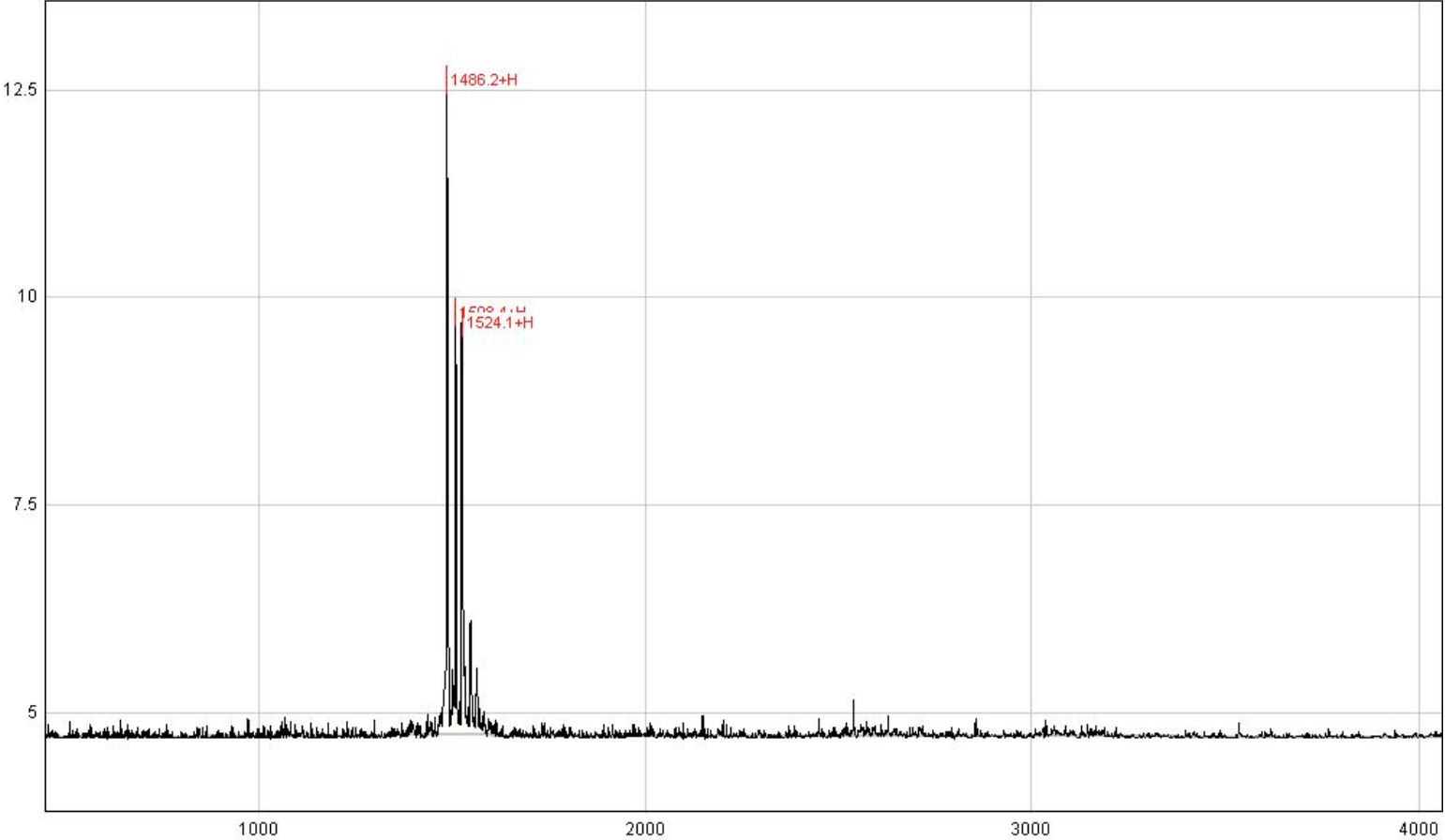
LOT NO:	79797
NAME:	Peptide D187
SEQUENCE:	KKIVQKIKDFLK-amidation
EXPECTED MASS:	1486.8 ± 1.0
AVERAGE MASS:	1486.2
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	96.43%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79797
Analyzed:28/01/11 13:07 Vail Number: 79797
Reported:30/01/11 13:55 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79797\ 79797.hw:



No.	RT	Area%	Area
1	12.798	1.624	140838
2	13.113	96.43	8362358
3	15.073	1.952	169313
Total		100	8672509





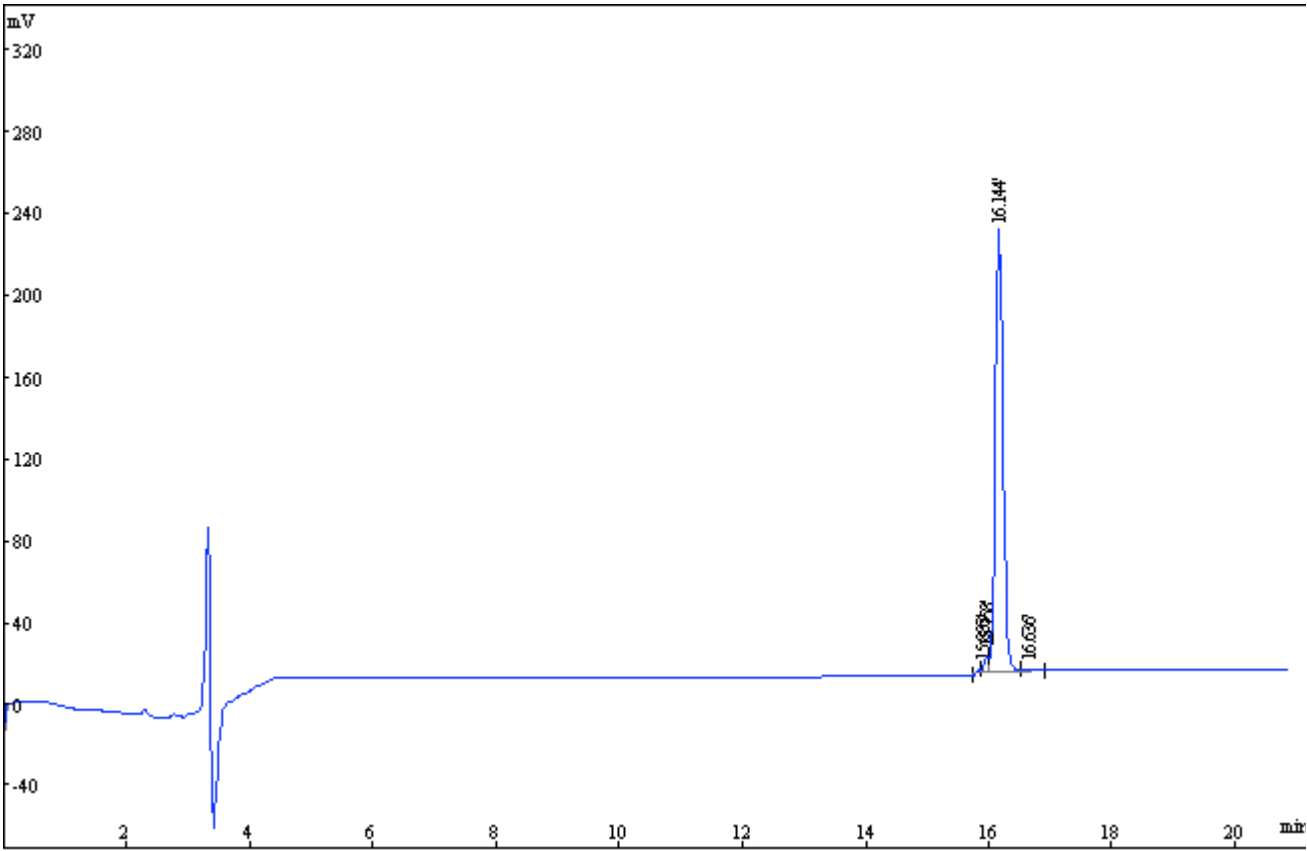
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PEPTIDE DATA SHEET

LOT NO:	79798
NAME:	Peptide D188
SEQUENCE:	RRIVQRIRDFLR-amidation
EXPECTED MASS:	1626.9 ± 1.0
AVERAGE MASS:	1627
SOULUBILITY:	Not tested
AMOUNT DELIVERED:	19mg
PURITY:	95.64%
COMMENTS:	white to off-white powder or lumps
DATE:	01/30/2011
VERIFIED BY:	<u>Chen.Y.F</u>

Customer Peptide HPLC Report

Sample name: 79798
Analyzed:27/01/11 23:26 Vail Number: 79798
Reported:30/01/11 13:50 Volume:20.0ul
Column Type: 250*4.6mm Kromasil C18 5u
Solvent A:0.1%TFA acetonitrile Solvent B:0.1%TFA Water
Method: Gradient A:B, t=0.0mins 15:85 t=30.0mins 55:45
Wavelength: 220nm
Data Path: D:\HPLC\custom peptide\GS\ 79798\ 79798.hw:



No.	RT	Area%	Area
1	15.883	0.5139	10279
2	15.958	2.392	47837
3	16.144	95.64	1912901
4	16.636	1.461	29215
Total		100	2000232

