

KSL-W ANALOGUES, PEPTIDE CONJUGATES AND TRYPTOPHAN-CONTAINING CYCLIC PEPTIDES WITH ACTIVITY AGAINST PLANT PATHOGENS

Cristina Camó Marín

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Doctoral thesis

**KSL-W ANALOGUES, PEPTIDE CONJUGATES AND TRYPTOPHAN-
CONTAINING CYCLIC PEPTIDES WITH ACTIVITY AGAINST PLANT
PATHOGENS**

Cristina Camó Marín

2019

Doctoral Programme in Chemistry

Supervised by:

Dr. Marta Planas Grabuleda

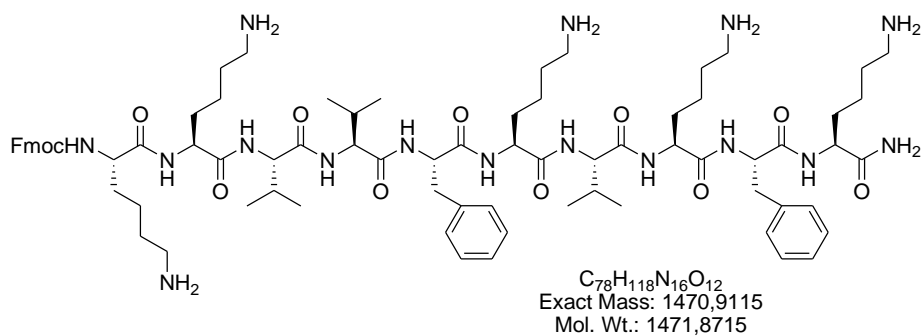
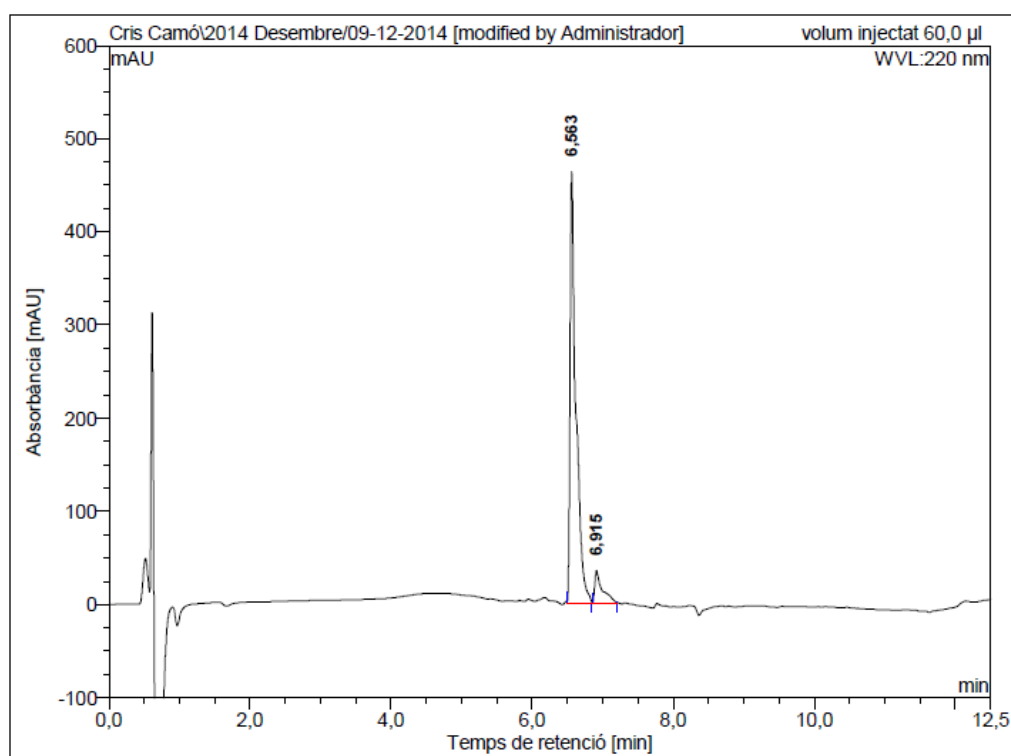
Dr. Lidia Feliu Soley

Tutor:

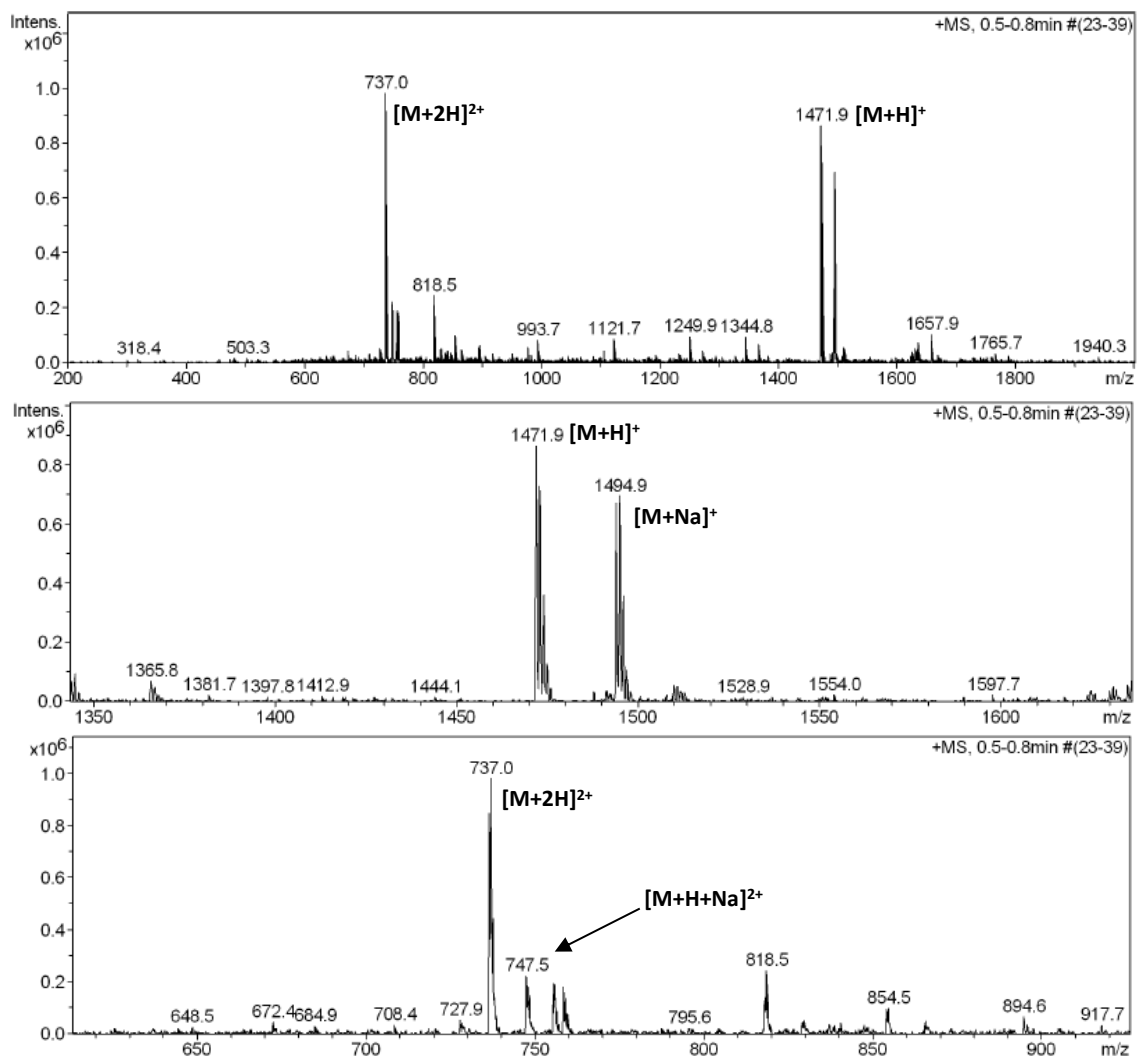
Dr. Marta Planas Grabuleda

This manuscript has been presented to opt for the doctoral degree from
the University of Girona

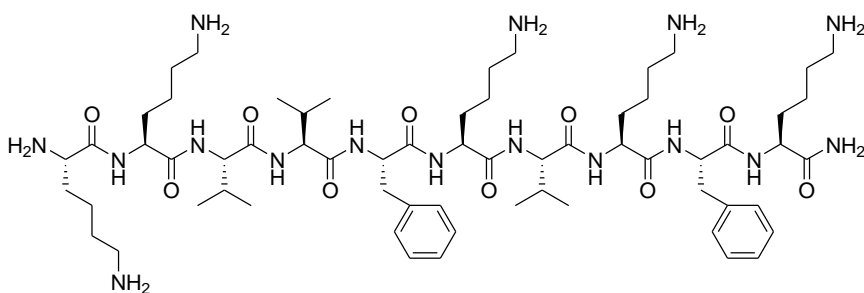
Selected peptides

Fmoc-Lys-Lys-Val-Val-Phe-Lys-Val-Lys-Phe-Lys-NH₂ (CC-3) KSLHPLC ($\lambda = 220$ nm) (CC-3-90)

| No. | Temps retenció min | alçada mAU | Àrea mAU*min | Àrea relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,56 | 462,514 | 44,767 | 91,32 |
| 2 | 6,92 | 34,612 | 4,254 | 8,68 |
| Total: | | 497,126 | 49,021 | 100,00 |

ESI-MS (m/z) (CC-3-90)

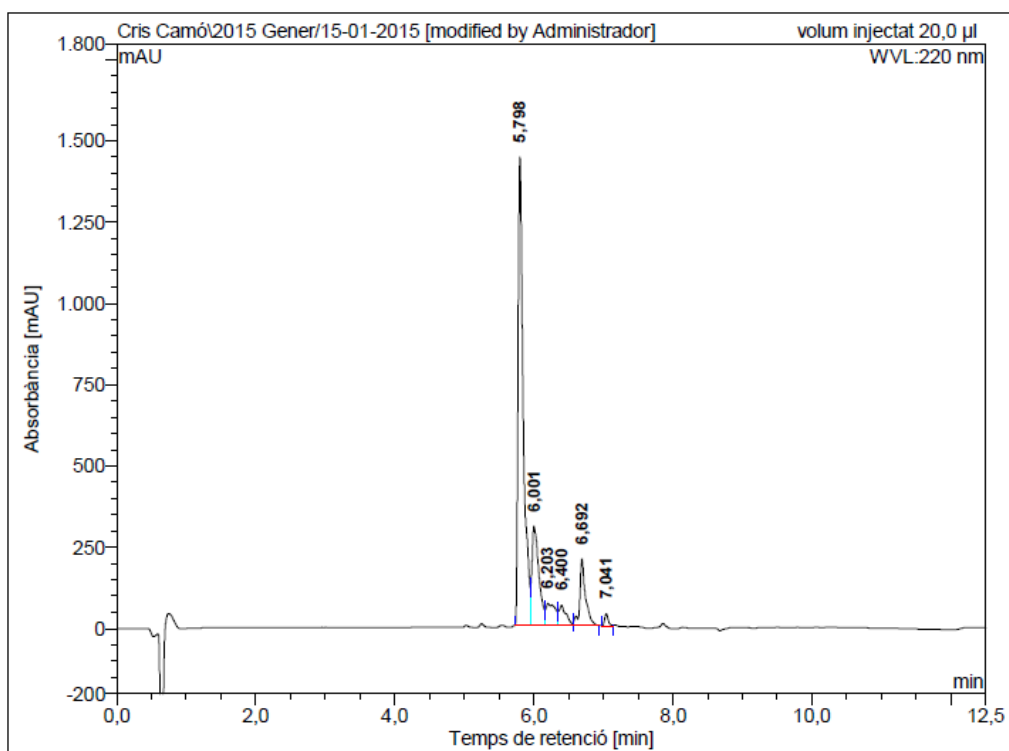
| |
|-------------------------|
| $[M+H]^+ = 1471.9$ |
| $[M+Na]^+ = 1494.9$ |
| $[M+2H]^{2+} = 737.0$ |
| $[M+H+Na]^{2+} = 747.5$ |

Lys-Lys-Val-Val-Phe-Lys-Val-Lys-Phe-Lys-NH₂ (KSL) CC-3

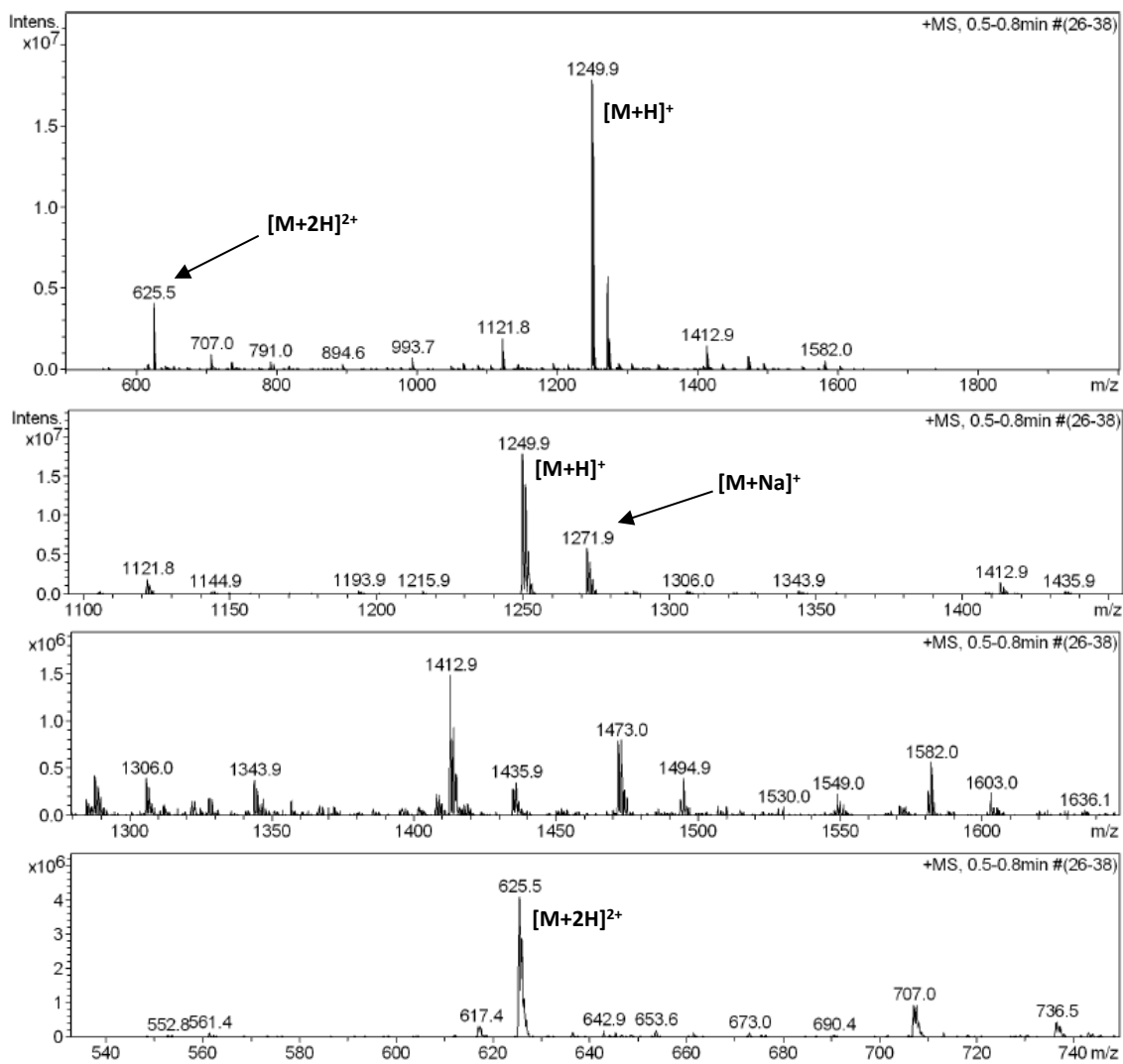
C₆₃H₁₀₈N₁₆O₁₀
 Exact Mass: 1248,8434
 Mol. Wt.: 1249,6328

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-3 impur)

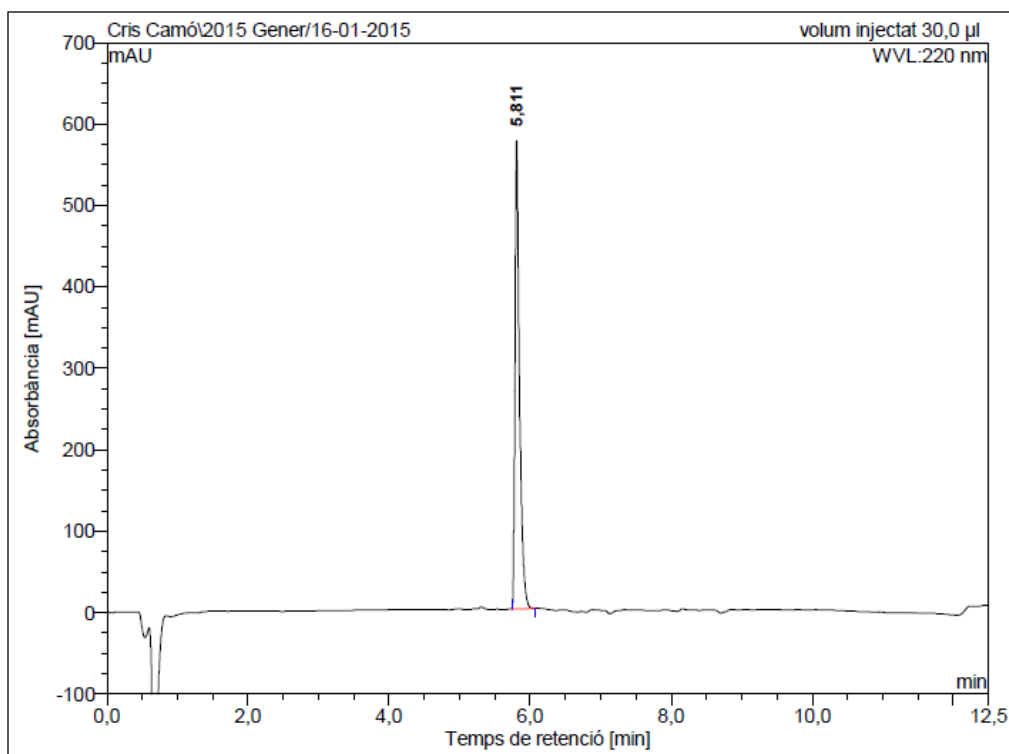


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,80 | 1440,730 | 124,687 | 62,03 |
| 2 | 6,00 | 305,390 | 36,062 | 17,94 |
| 3 | 6,20 | 67,870 | 11,039 | 5,49 |
| 4 | 6,40 | 62,188 | 7,354 | 3,66 |
| 5 | 6,69 | 205,086 | 19,632 | 9,77 |
| 6 | 7,04 | 37,671 | 2,243 | 1,12 |
| Total: | | 2118,934 | 201,018 | 100,00 |

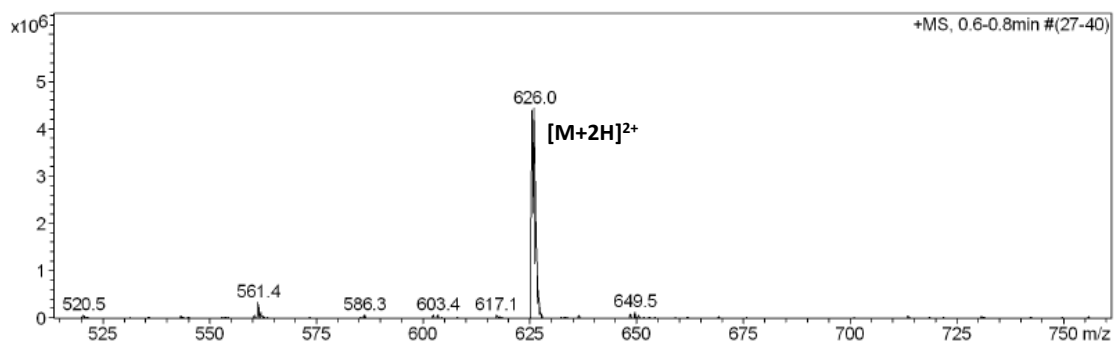
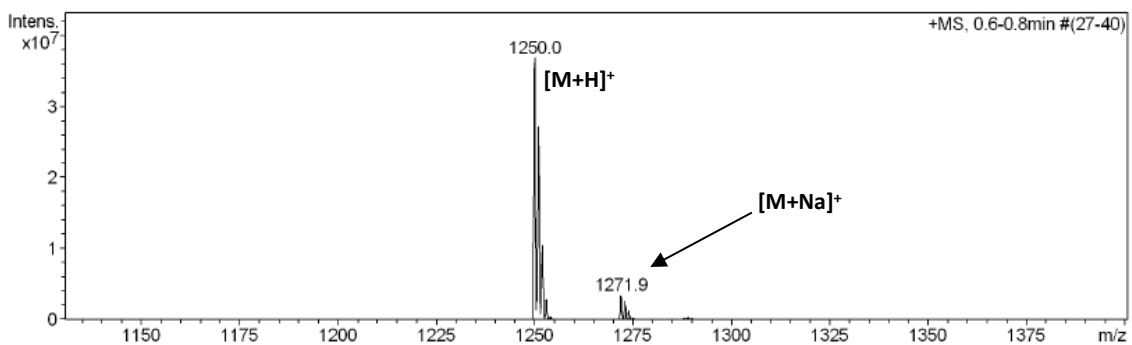
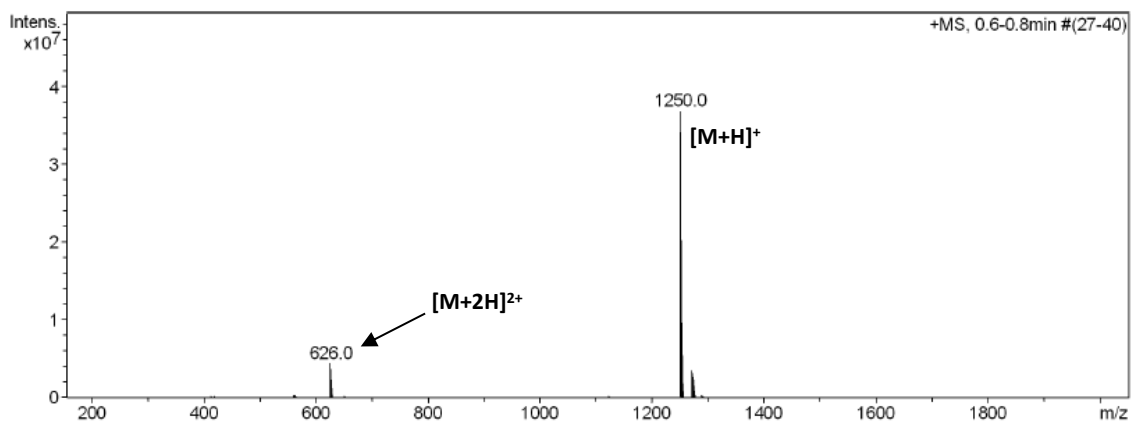
ESI-MS (m/z) (CC-3-111)

| |
|-----------------------|
| $[M+H]^+ = 1249.9$ |
| $[M+Na]^+ = 1271.9$ |
| $[M+2H]^{2+} = 625.5$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (Coinjecció CC-3 tub 5-9)

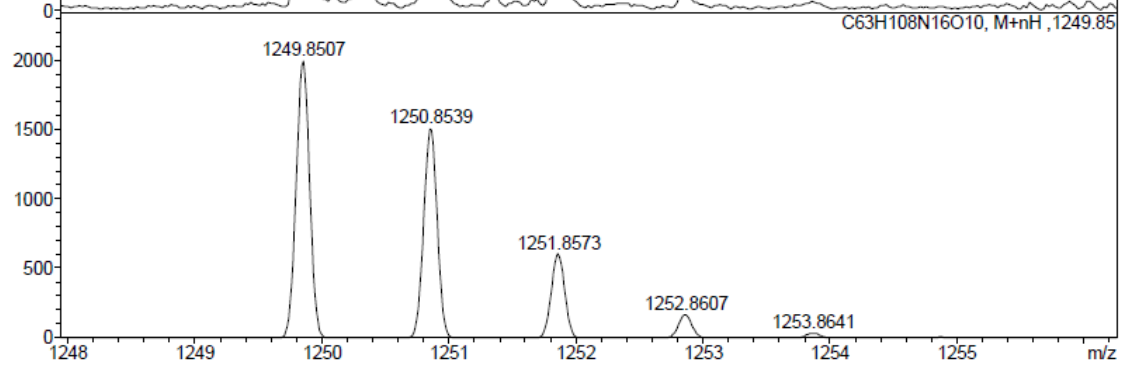
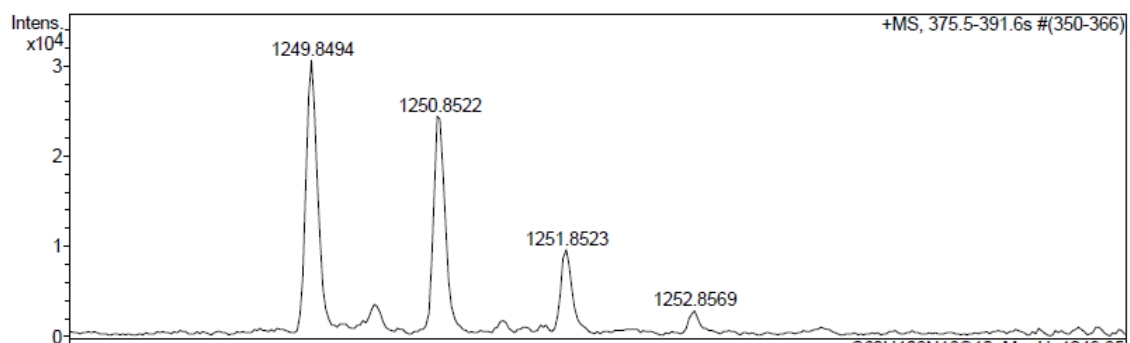
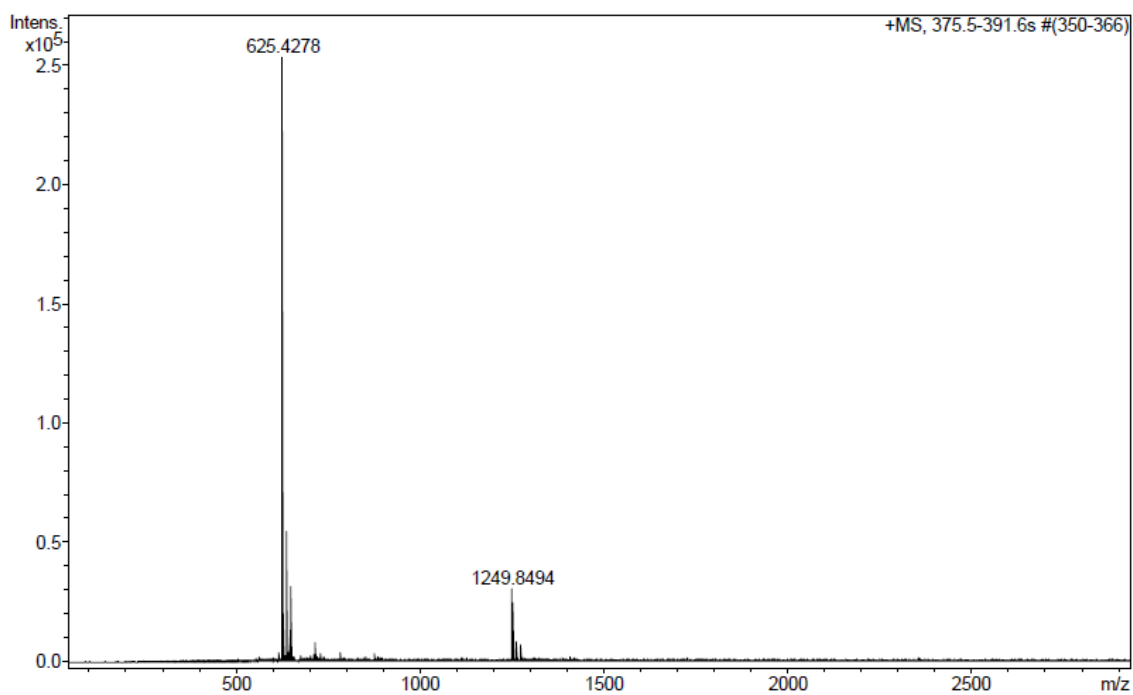
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,81 | 574,559 | 42,526 | 100,00 |
| Total: | | 574,559 | 42,526 | 100,00 |

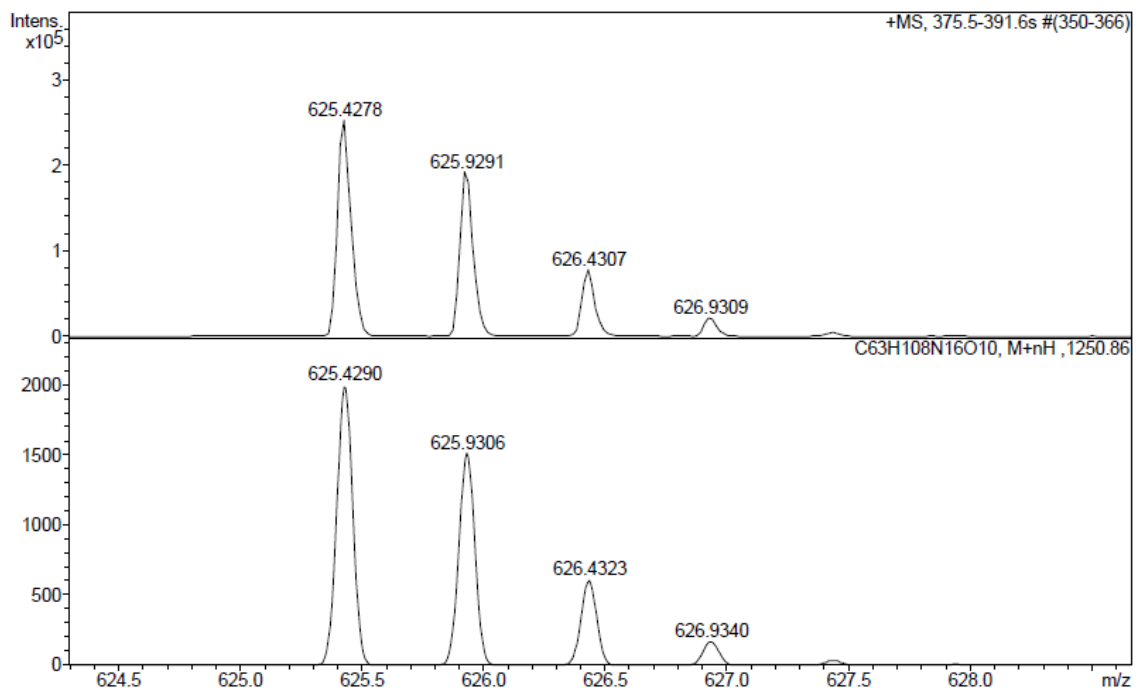
ESI-MS (m/z) (CC-3 tub 9)

$$[M+H]^+ = 1250.0$$

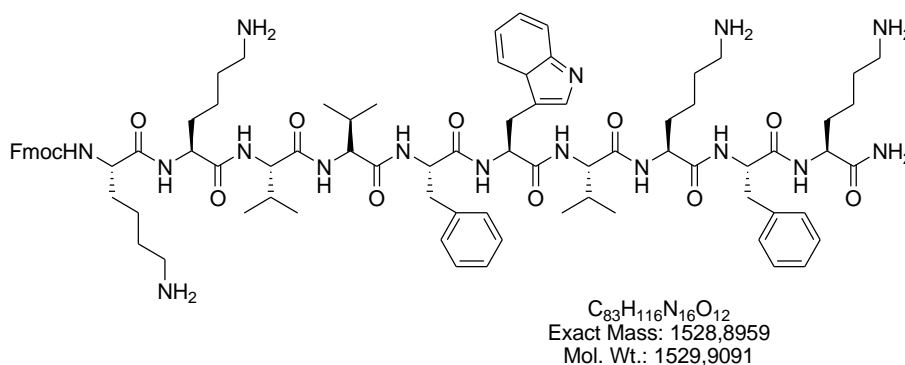
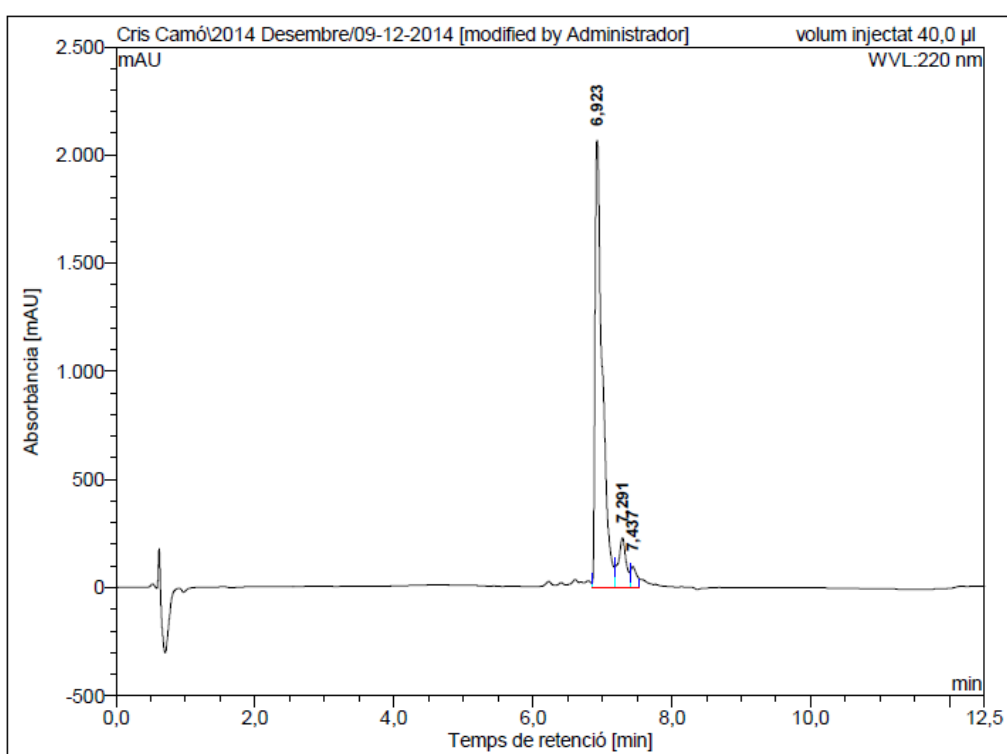
$$[M+Na]^+ = 1271.9$$

$$[M+2H]^{2+} = 626.0$$

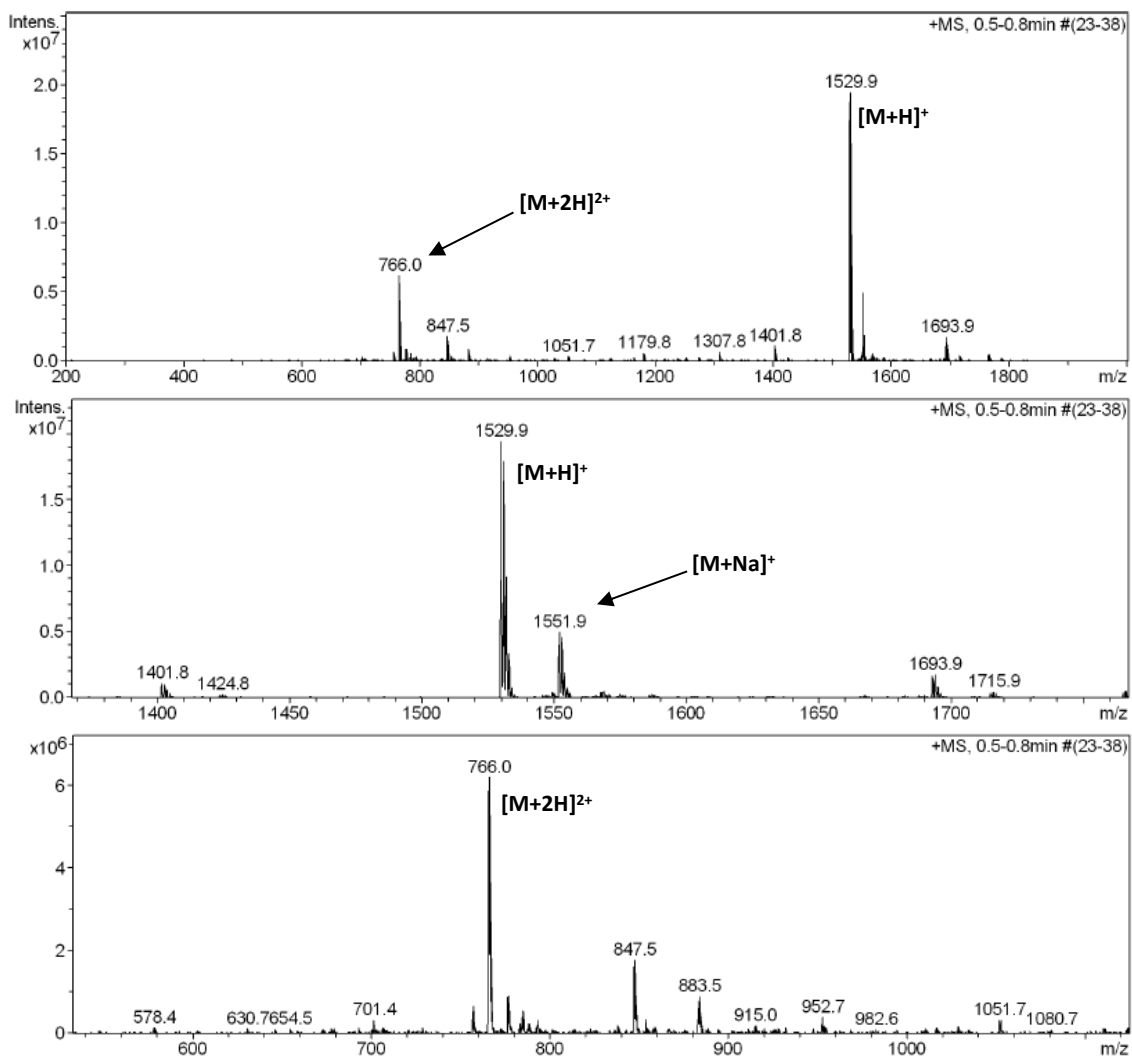
HRMS (ESI) (m/z) (CC-3 tubs 5-9 KSL)



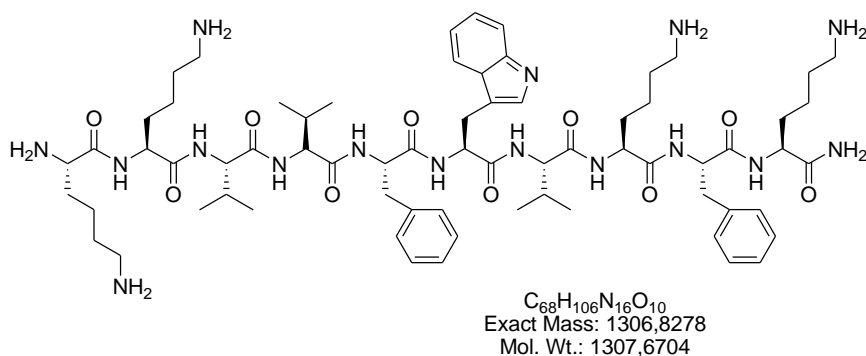
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₃ H ₁₀₉ N ₁₆ O ₁₀ | 1249.8507 | 1249.8494 |
| [M+2H] ²⁺ | C ₆₃ H ₁₁₀ N ₁₆ O ₁₀ | 625.4290 | 625.4278 |

Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (KSLW) CC-4HPLC ($\lambda = 220$ nm) (CC-4-90)

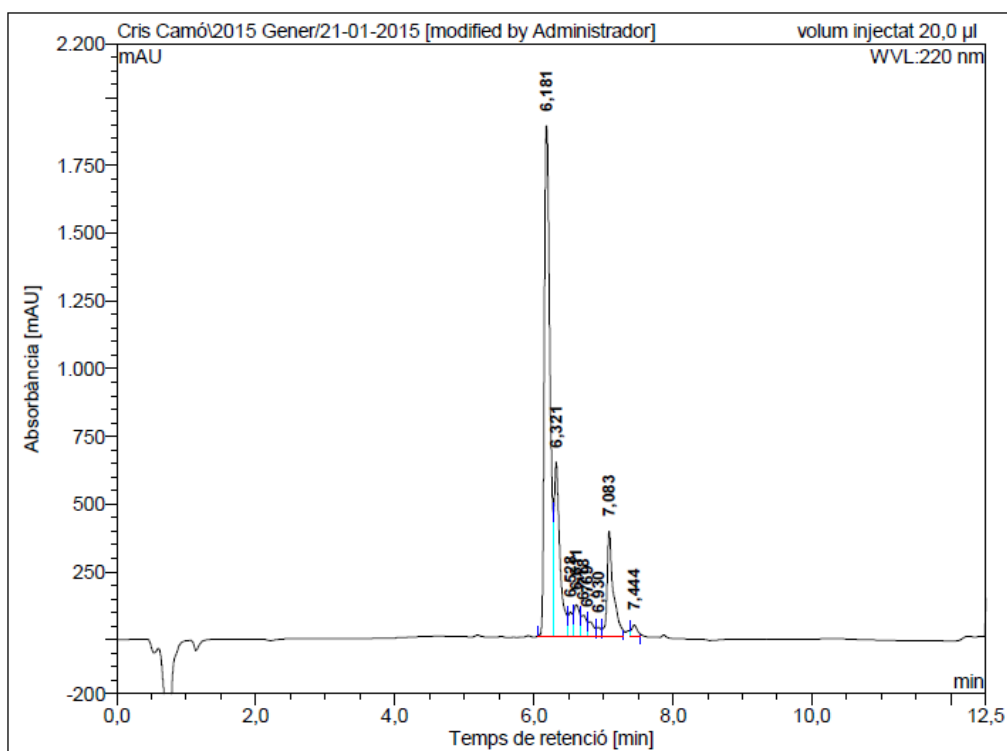
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,92 | 2068,259 | 251,087 | 85,86 |
| 2 | 7,29 | 232,679 | 30,977 | 10,59 |
| 3 | 7,44 | 99,324 | 10,362 | 3,54 |
| Total: | | 2400,263 | 292,426 | 100,00 |

ESI-MS (m/z) (CC-4-90)

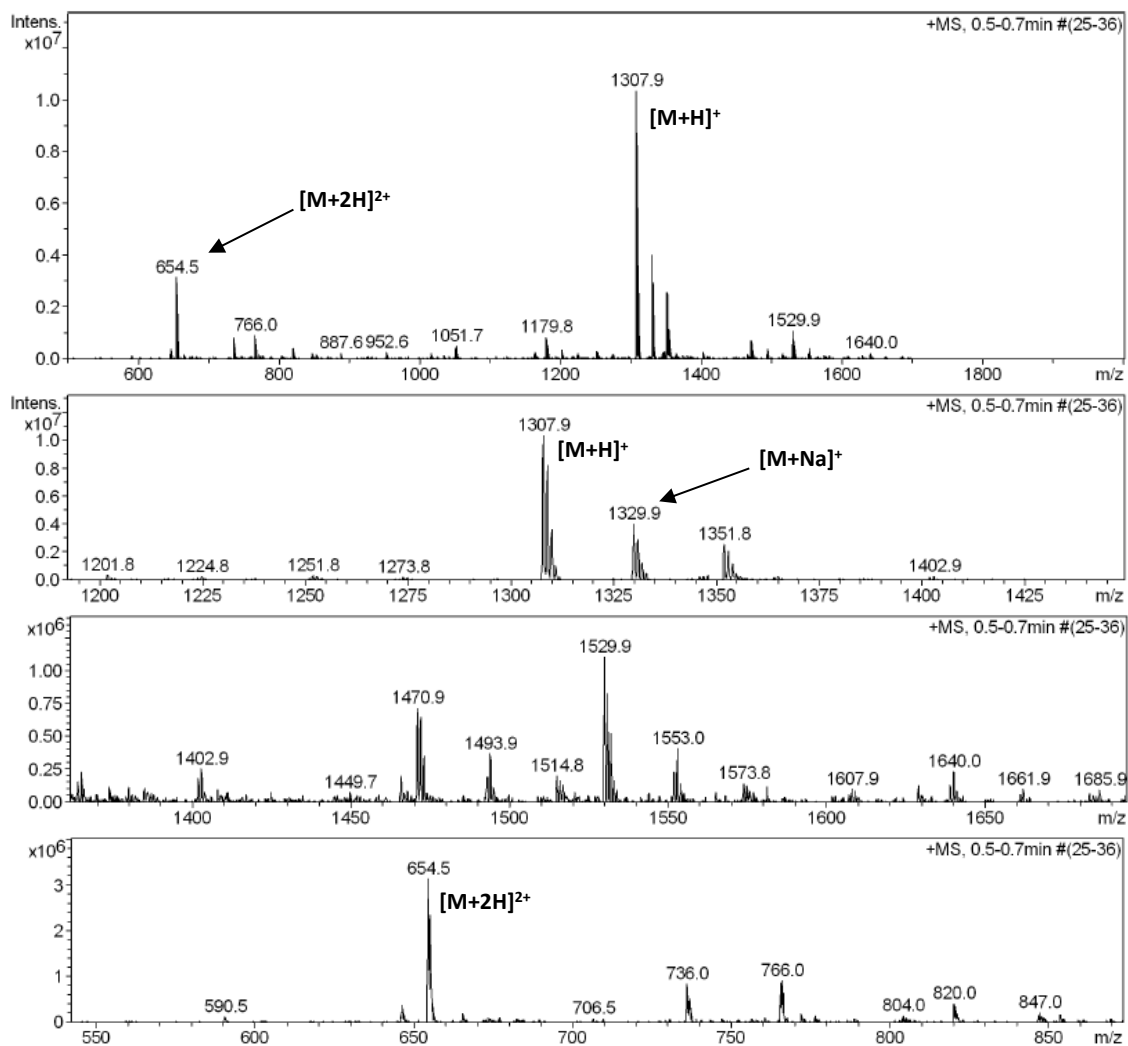
| |
|-----------------------|
| $[M+H]^+ = 1529.9$ |
| $[M+Na]^+ = 1551.9$ |
| $[M+2H]^{2+} = 766.0$ |

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**KSLW**) CC-4

IMPURE PRODUCT

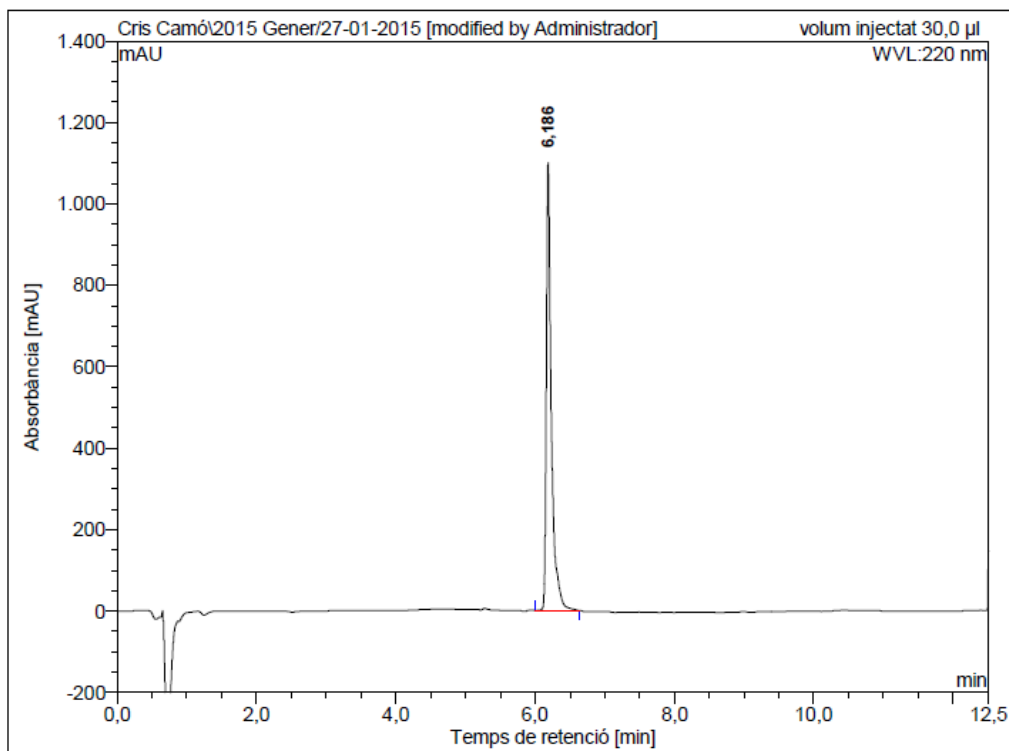
HPLC ($\lambda = 220$ nm) (CC-4 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 1882,194 | 175,121 | 55,41 |
| 2 | 6,32 | 642,853 | 65,124 | 20,61 |
| 3 | 6,53 | 87,690 | 5,876 | 1,86 |
| 4 | 6,61 | 115,565 | 11,764 | 3,72 |
| 5 | 6,72 | 76,773 | 5,951 | 1,88 |
| 6 | 6,77 | 52,782 | 5,730 | 1,81 |
| 7 | 6,93 | 32,344 | 2,599 | 0,82 |
| 8 | 7,08 | 386,647 | 39,924 | 12,63 |
| 9 | 7,44 | 41,485 | 3,952 | 1,25 |
| Total: | | 3318,332 | 316,041 | 100,00 |

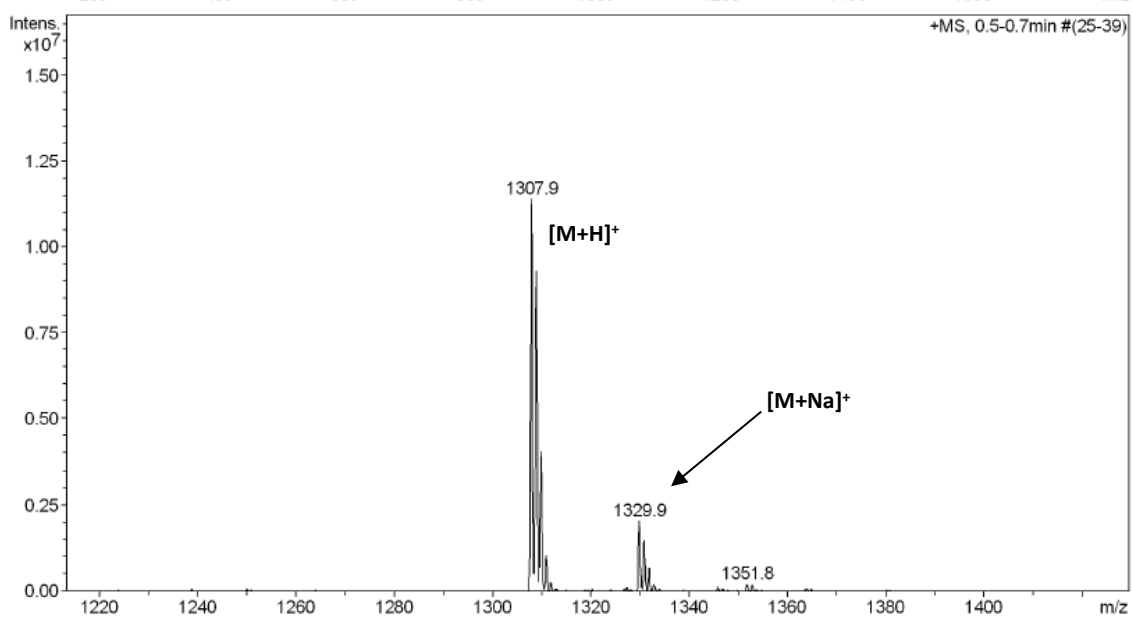
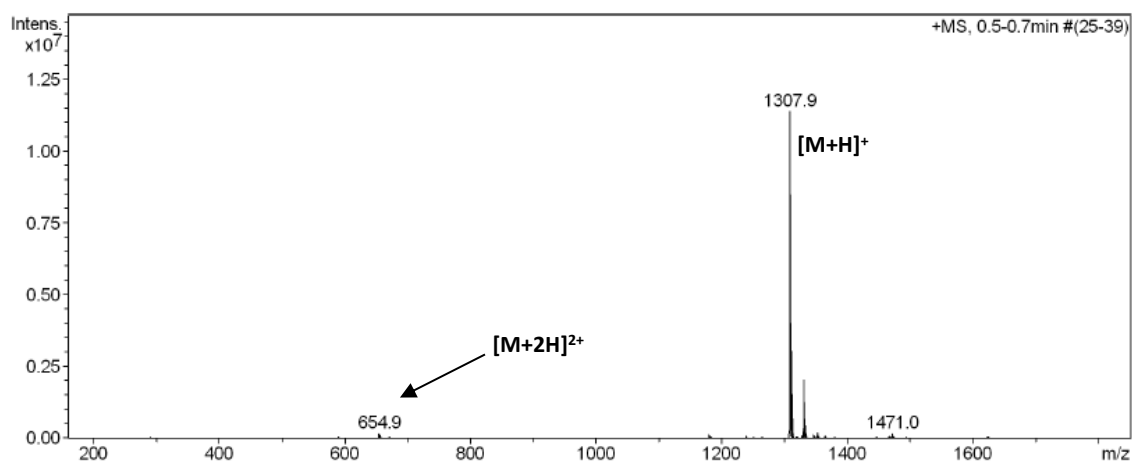
ESI-MS (m/z) (CC-4-111)

| |
|-----------------------|
| $[M+H]^+ = 1307.9$ |
| $[M+Na]^+ = 1329.9$ |
| $[M+2H]^{2+} = 654.5$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (Coinjecció CC-4 tub 6-9)

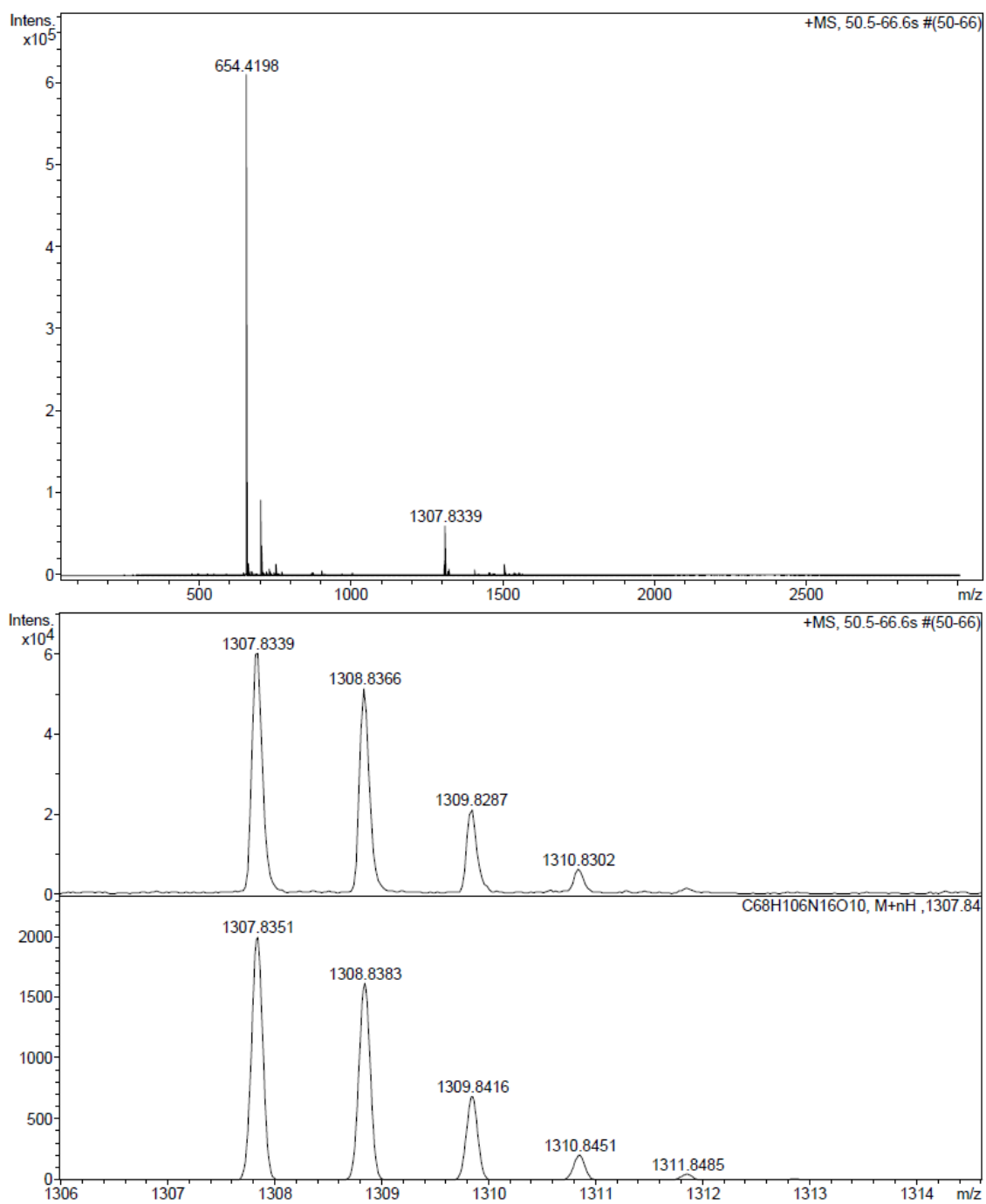
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,19 | 1100,137 | 91,328 | 100,00 |
| Total: | | 1100,137 | 91,328 | 100,00 |

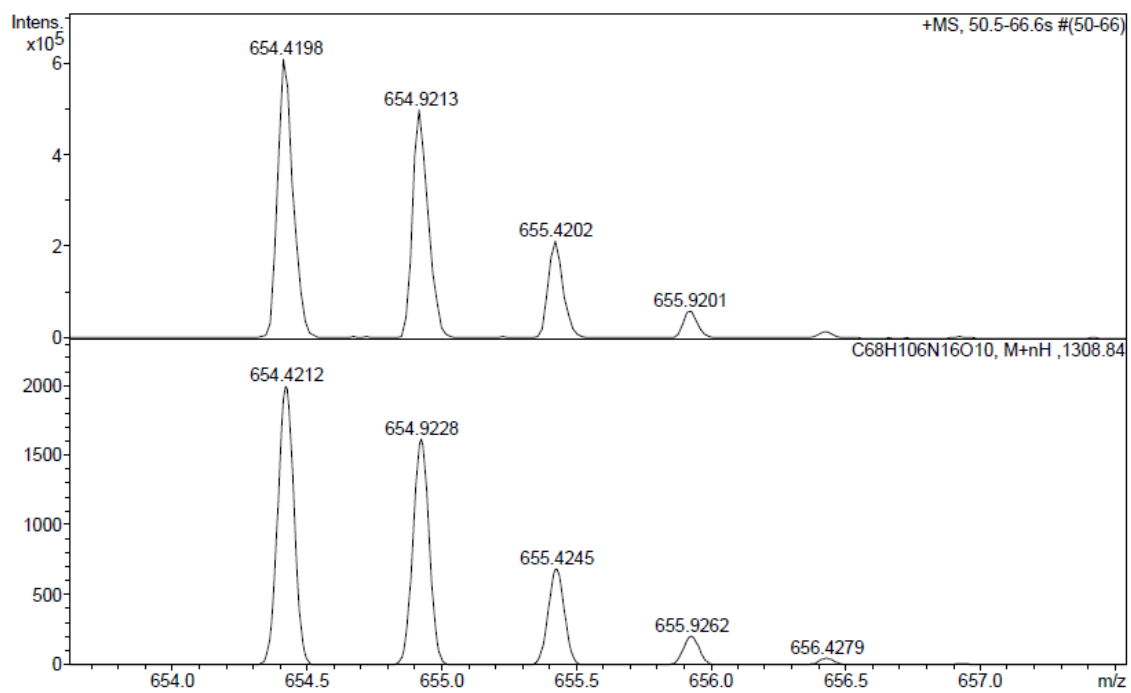
ESI-MS (m/z) (CC-4 tub 9)

$$[M+H]^+ = 1307.9$$

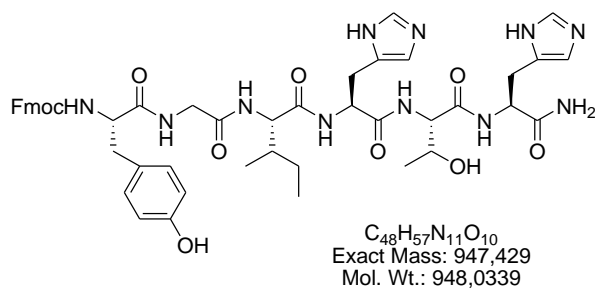
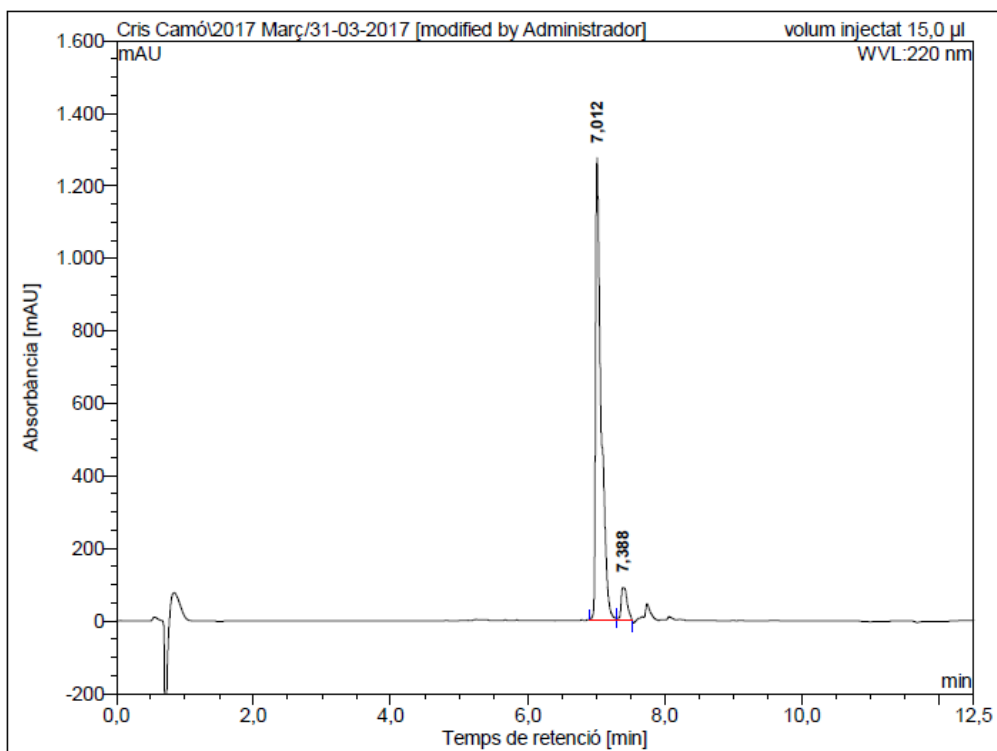
$$[M+Na]^+ = 1329.9$$

$$[M+2H]^{2+} = 654.9$$

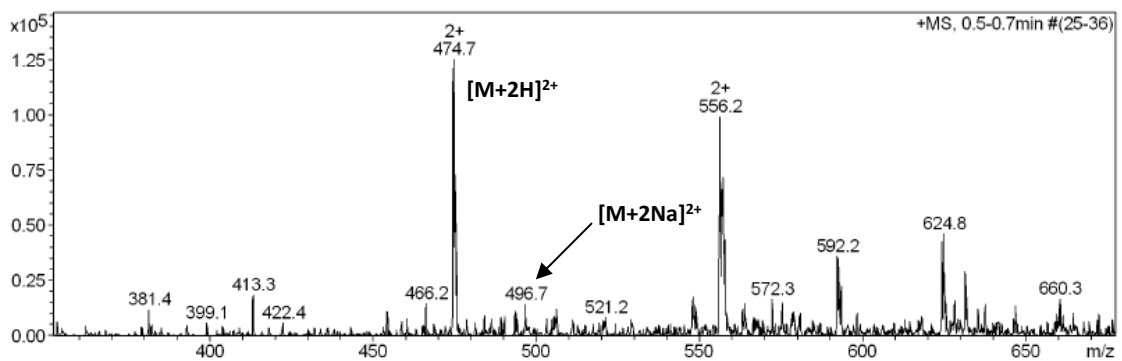
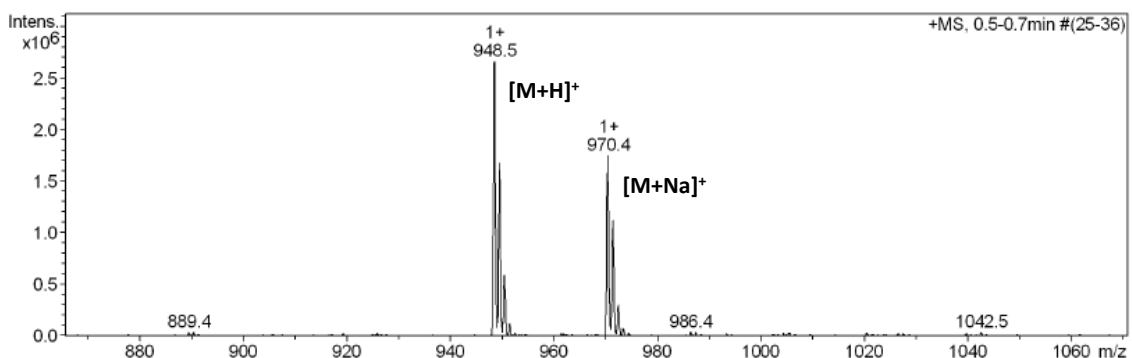
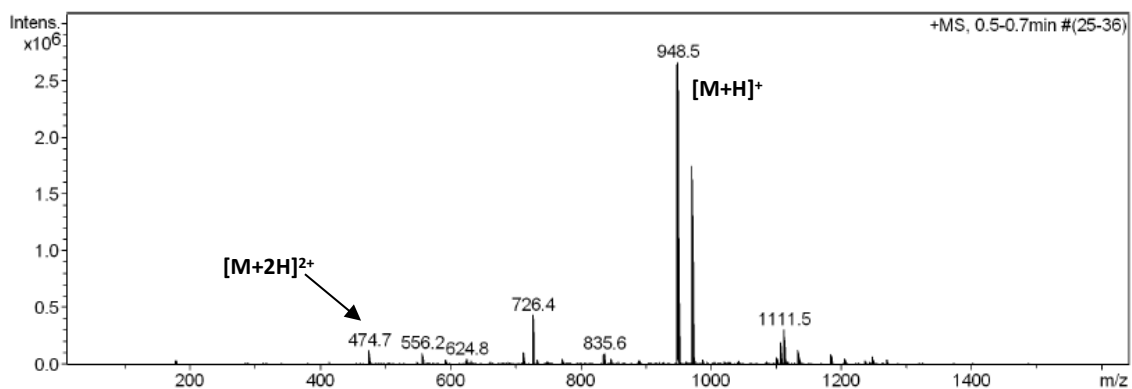
HRMS (ESI) (m/z) (MM-1.2)



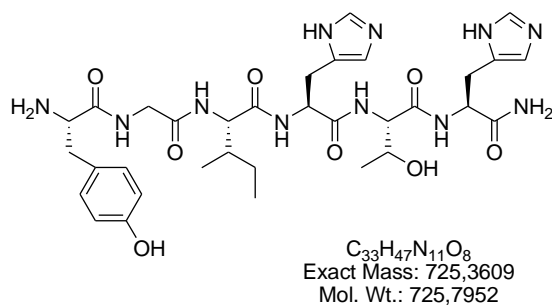
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8339 |
| [M+2H] ²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4198 |

Fmoc-Tyr-Gly-Ile-His-Thr-His-NH₂ (**Pip-1**) CC-6HPLC ($\lambda = 220$ nm) (CC-6.1-1015)

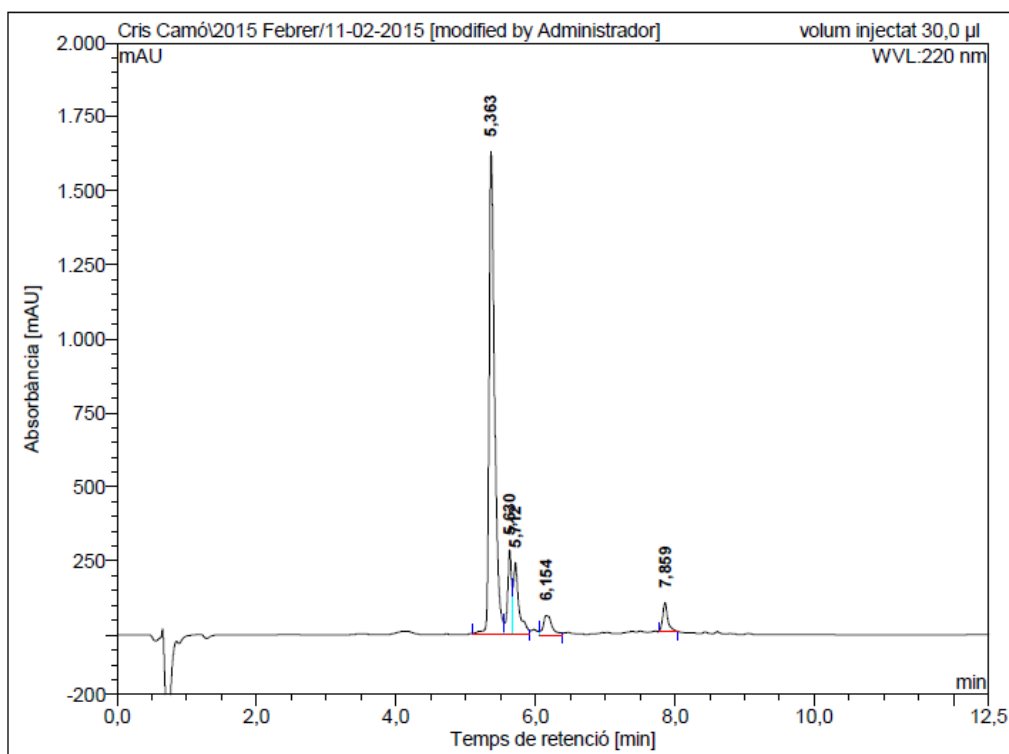
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,01 | 1275,014 | 118,237 | 92,93 |
| 2 | 7,39 | 88,804 | 8,990 | 7,07 |
| Total: | | 1363,818 | 127,227 | 100,00 |

ESI-MS (m/z) (CC-6.1-1015)

| |
|------------------------|
| $[M+H]^+ = 948.5$ |
| $[M+Na]^+ = 970.4$ |
| $[M+2H]^{2+} = 474.7$ |
| $[M+2Na]^{2+} = 496.7$ |

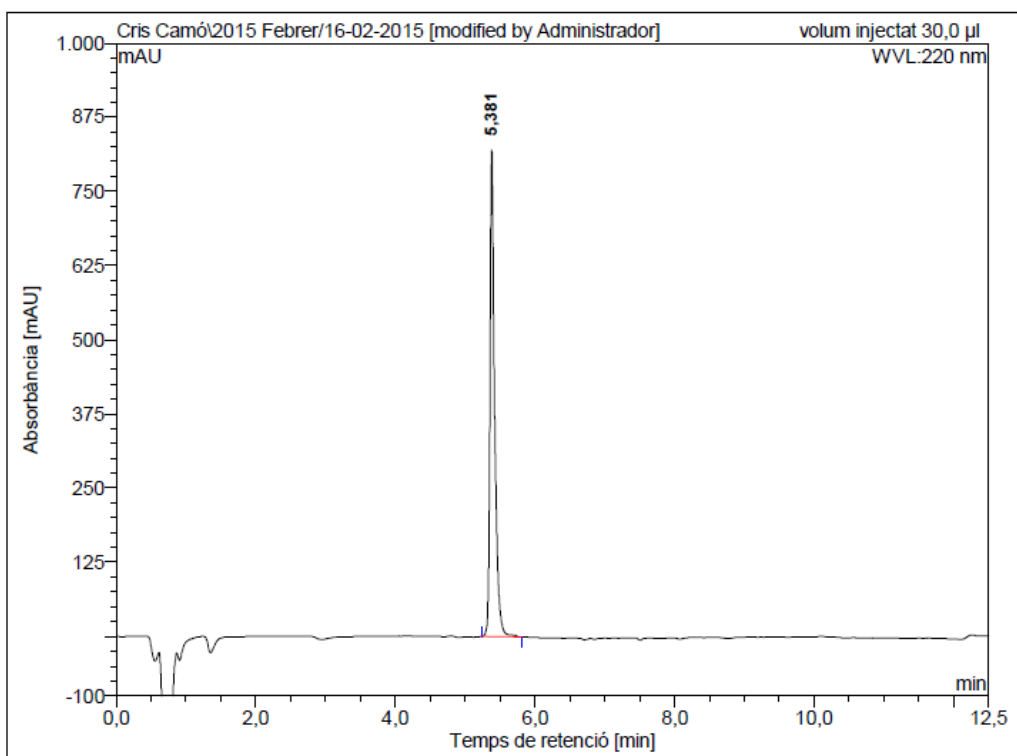
Tyr-Gly-Ile-His-Thr-His-NH₂ (**Pip-1**) CC-6

IMPURE PRODUCT

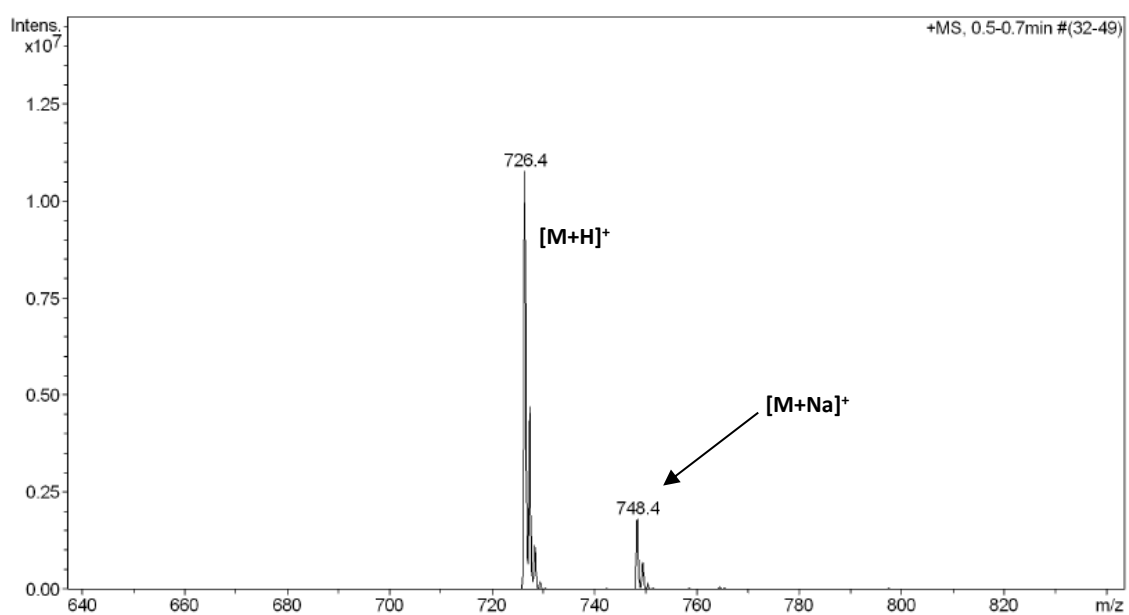
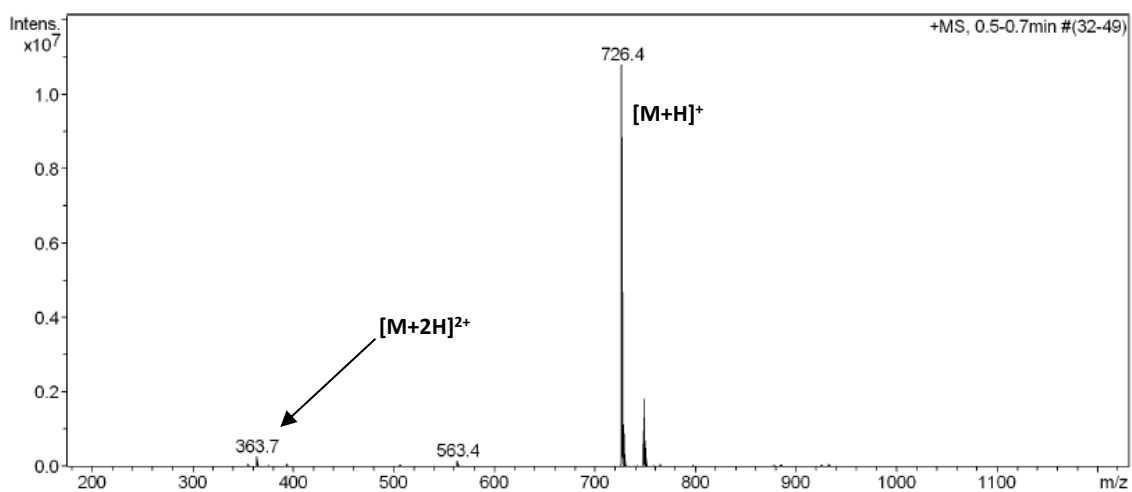
HPLC ($\lambda = 220$ nm) (CC-6 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,36 | 1630,683 | 151,349 | 71,82 |
| 2 | 5,63 | 285,646 | 18,461 | 8,76 |
| 3 | 5,71 | 243,692 | 23,296 | 11,05 |
| 4 | 6,15 | 64,340 | 9,348 | 4,44 |
| 5 | 7,86 | 98,468 | 8,283 | 3,93 |
| Total: | | 2322,829 | 210,736 | 100,00 |

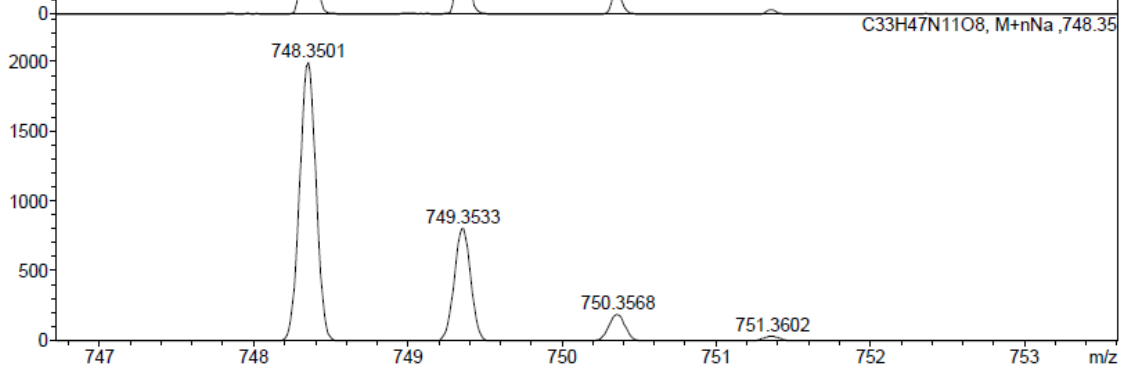
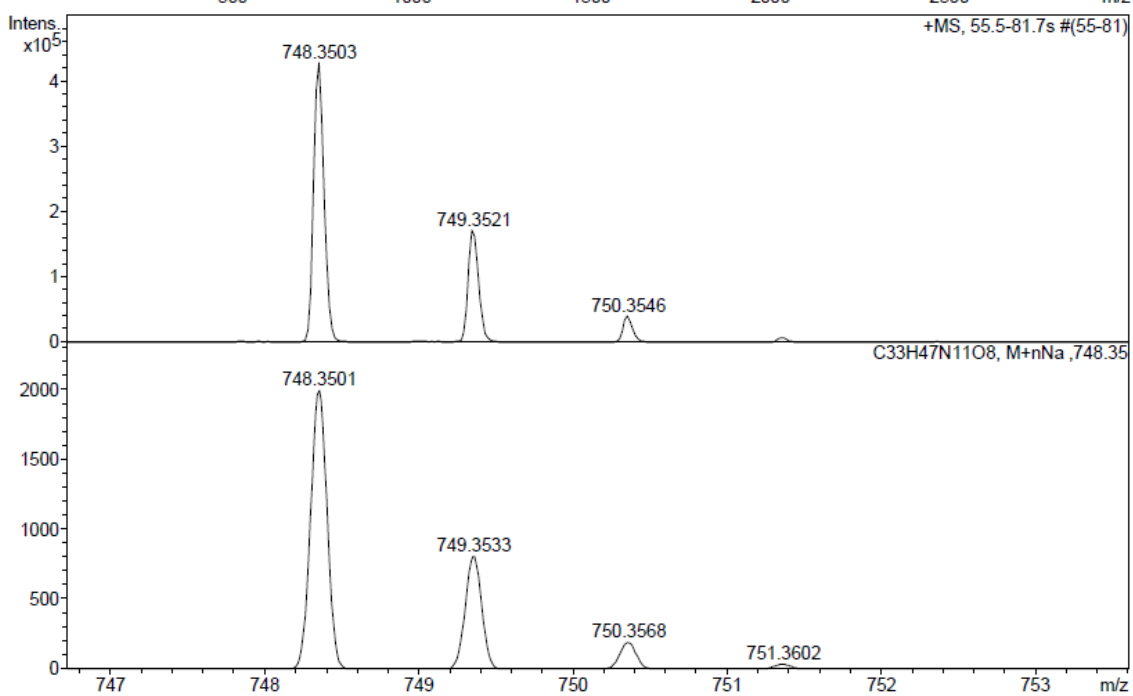
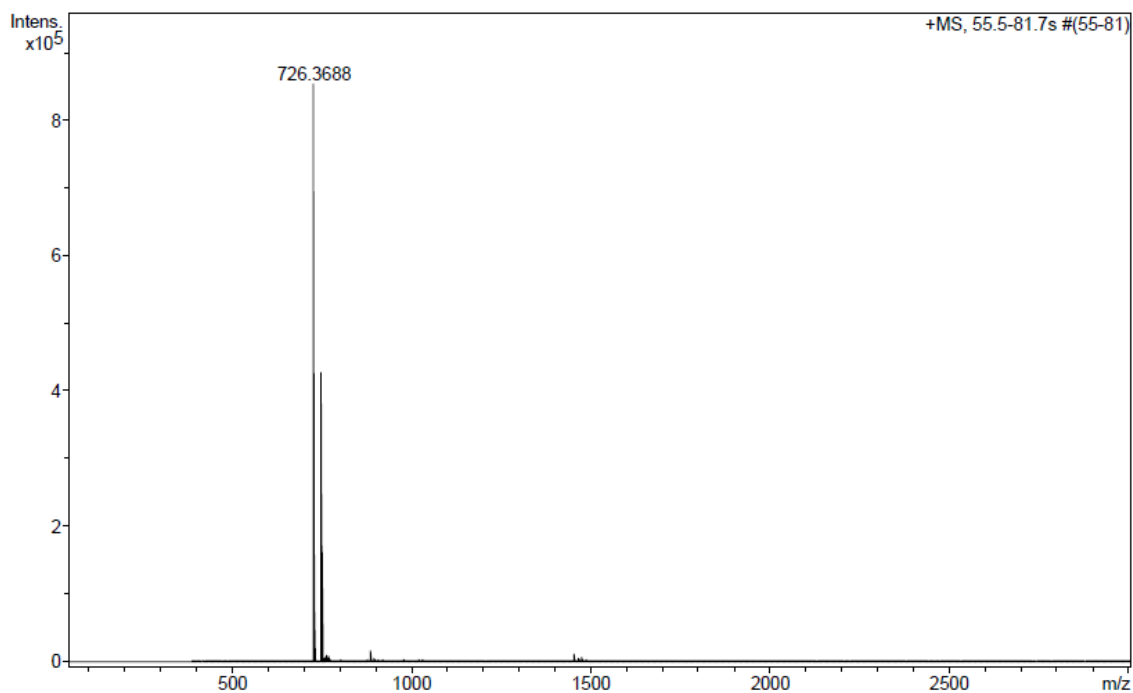
PURE PRODUCT

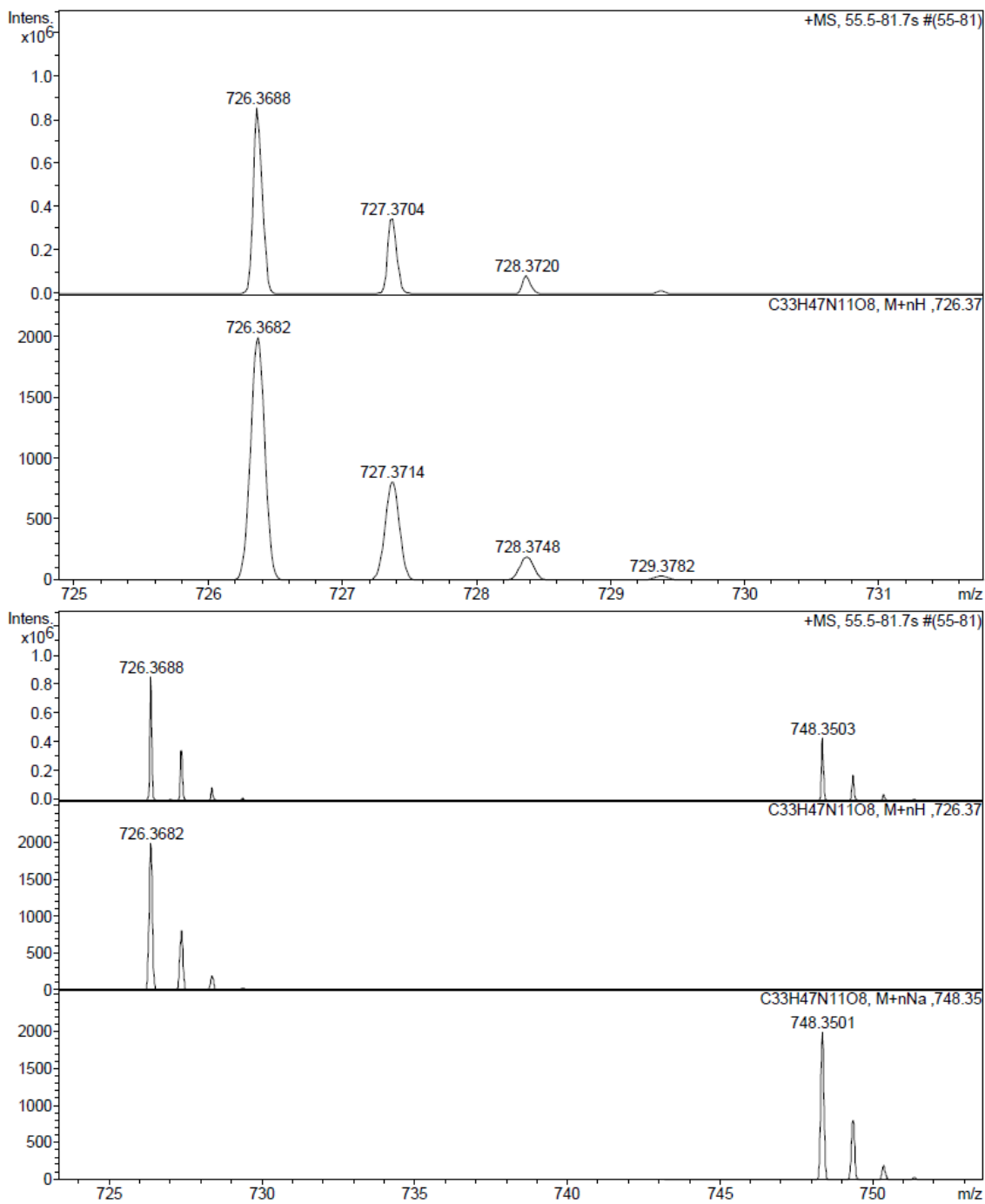
HPLC ($\lambda = 220 \text{ nm}$) (CC-6 tub 10)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,38 | 819,997 | 63,911 | 100,00 |
| Total: | | 819,997 | 63,911 | 100,00 |

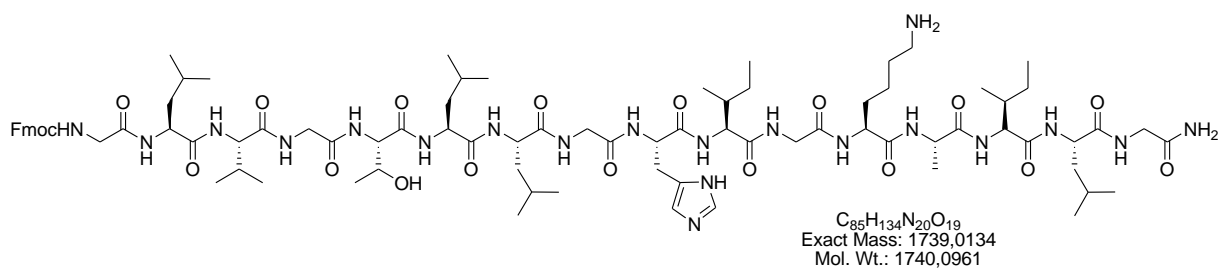
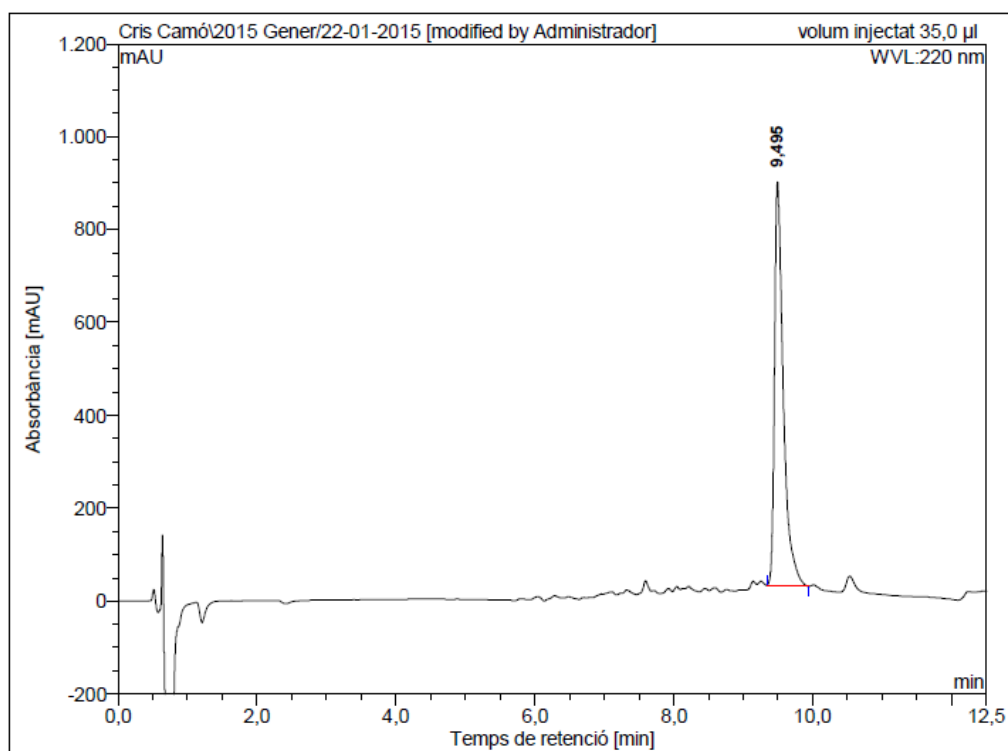
ESI-MS (m/z) (CC-6 tub 8)

| |
|------------------------------|
| [M+H] ⁺ = 726.4 |
| [M+Na] ⁺ = 748.4 |
| [M+2H] ²⁺ = 363.7 |

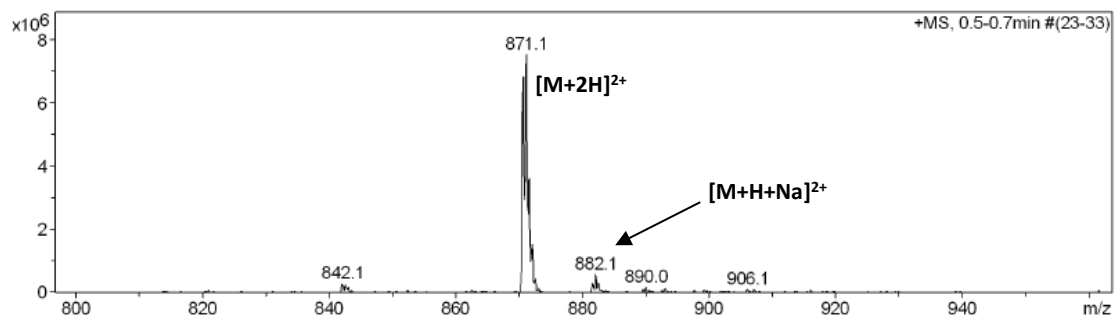
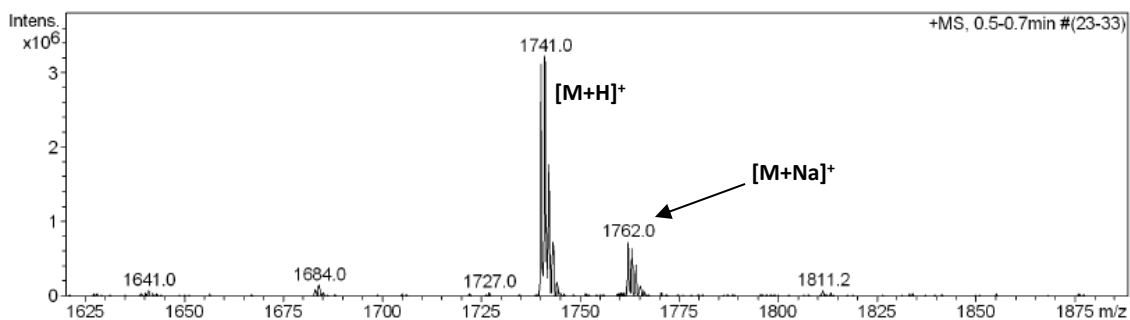
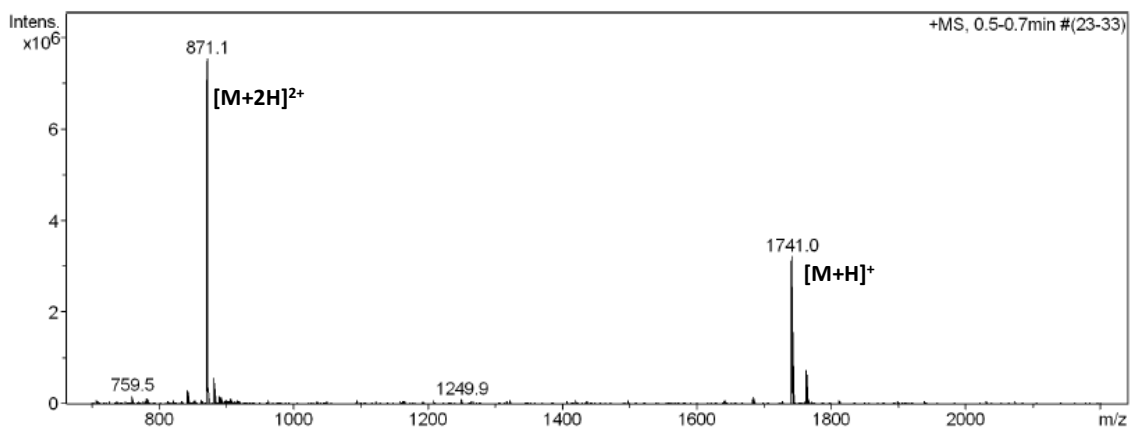
HRMS (ESI) (m/z) (CC-6.1 prova columna tubs 33-49)



| | Molecular formula | Calculated | Found |
|---------------------|---|------------|----------|
| [M+Na] ⁺ | C ₃₃ H ₄₇ N ₁₁ O ₈ Na | 748.3501 | 748.3503 |
| [M+H] ⁺ | C ₃₃ H ₄₈ N ₁₁ O ₈ | 726.3682 | 726.3688 |

Fmoc-Gly-Leu-Val-Gly-Thr-Leu-Leu-Gly-His-Ile-Gly-Lys-Ala-Ile-Leu-Gly-NH₂ (**Frenatin 2.1S**) CC-7HPLC ($\lambda = 220$ nm) (CC-7-143)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 9,49 | 871,089 | 128,565 | 100,00 |
| Total: | | 871,089 | 128,565 | 100,00 |

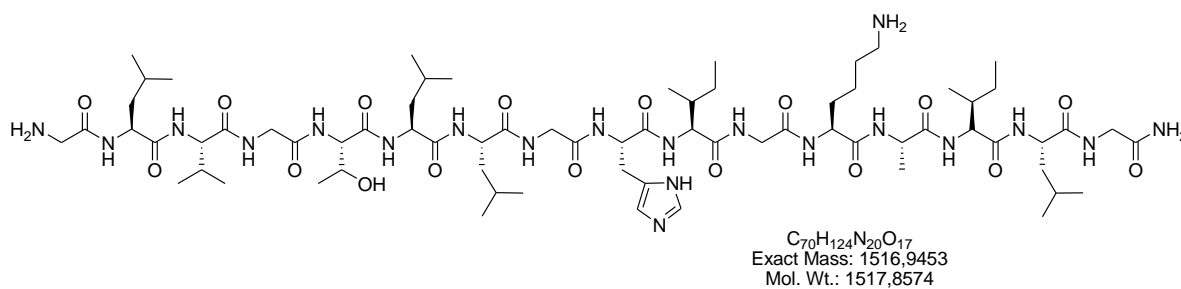
ESI-MS (m/z) (CC-7-143)

$$[M+H]^+ = 1741.0$$

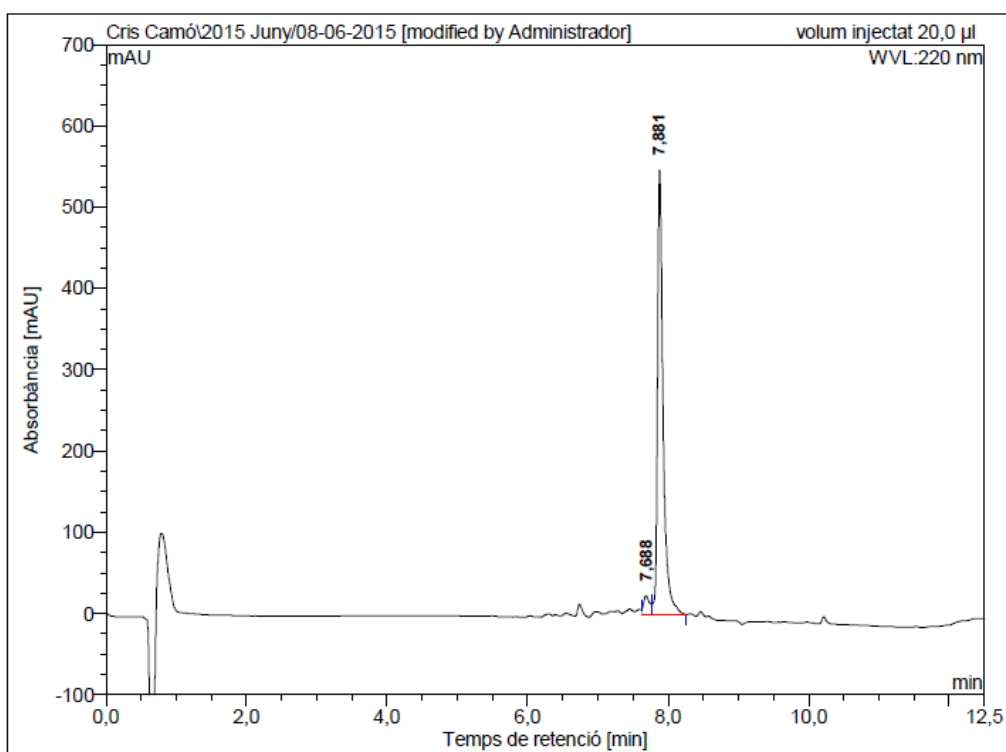
$$[M+Na]^+ = 1762.0$$

$$[M+2H]^{2+} = 871.1$$

$$[M+H+Na]^{2+} = 882.1$$

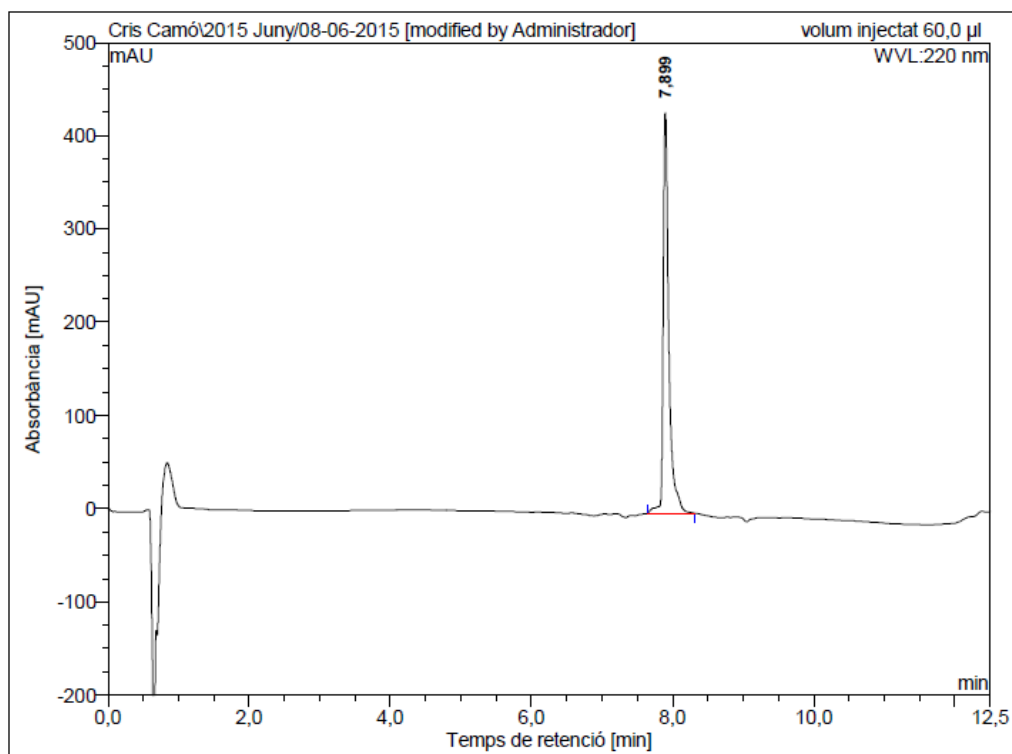
Gly-Leu-Val-Gly-Thr-Leu-Leu-Gly-His-Ile-Gly-Lys-Ala-Ile-Leu-Gly-NH₂ (**Frenatin 2.1S**) CC-7

IMPURE PRODUCT

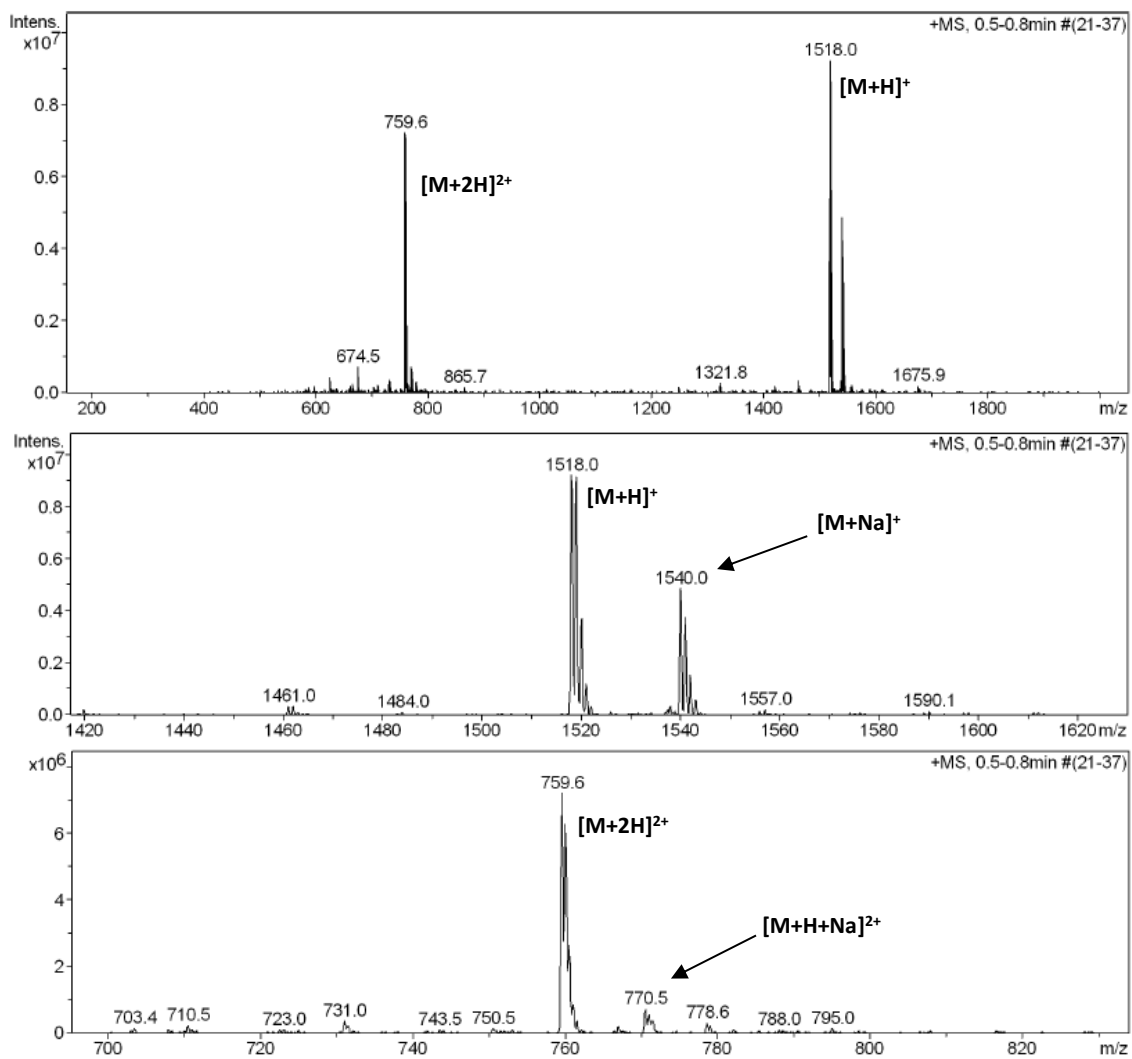
HPLC ($\lambda = 220 \text{ nm}$) (CC-7-292 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,69 | 23,100 | 2,452 | 4,63 |
| 2 | 7,88 | 546,437 | 50,559 | 95,37 |
| Total: | | 569,538 | 53,011 | 100,00 |

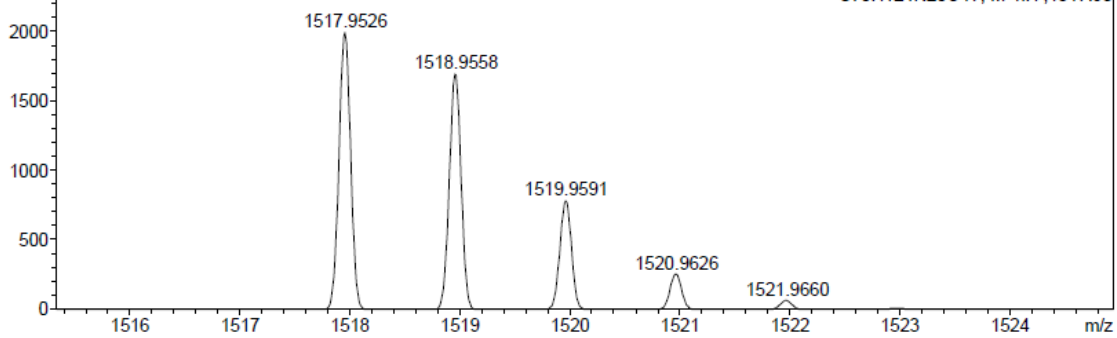
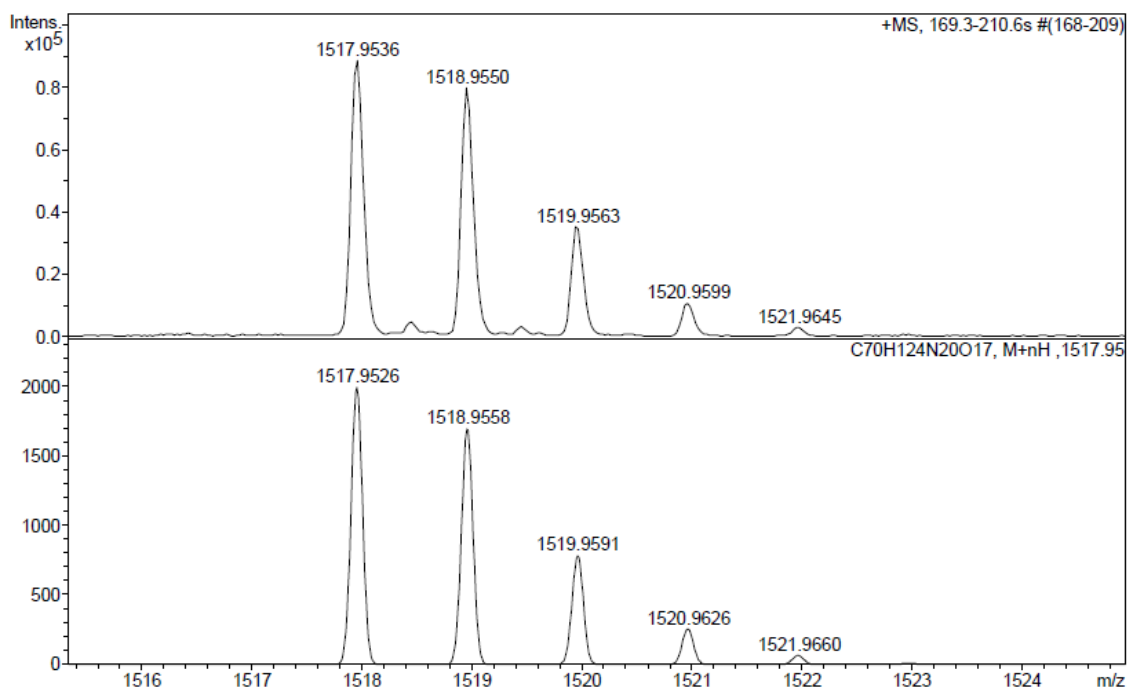
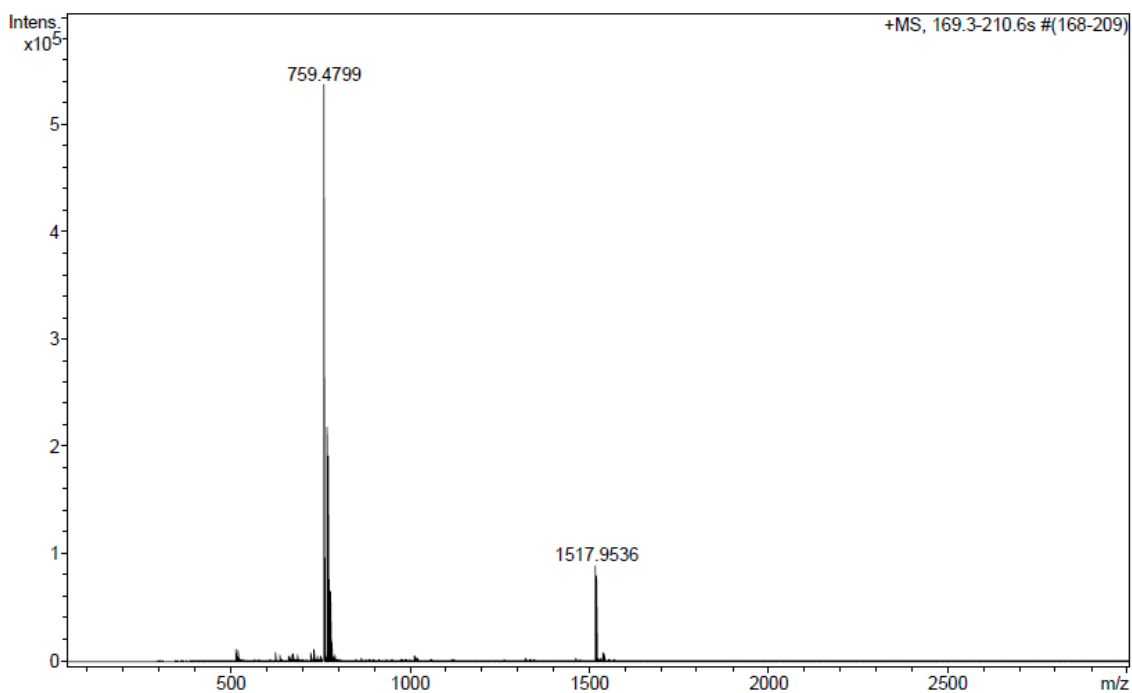
PURE PRODUCT

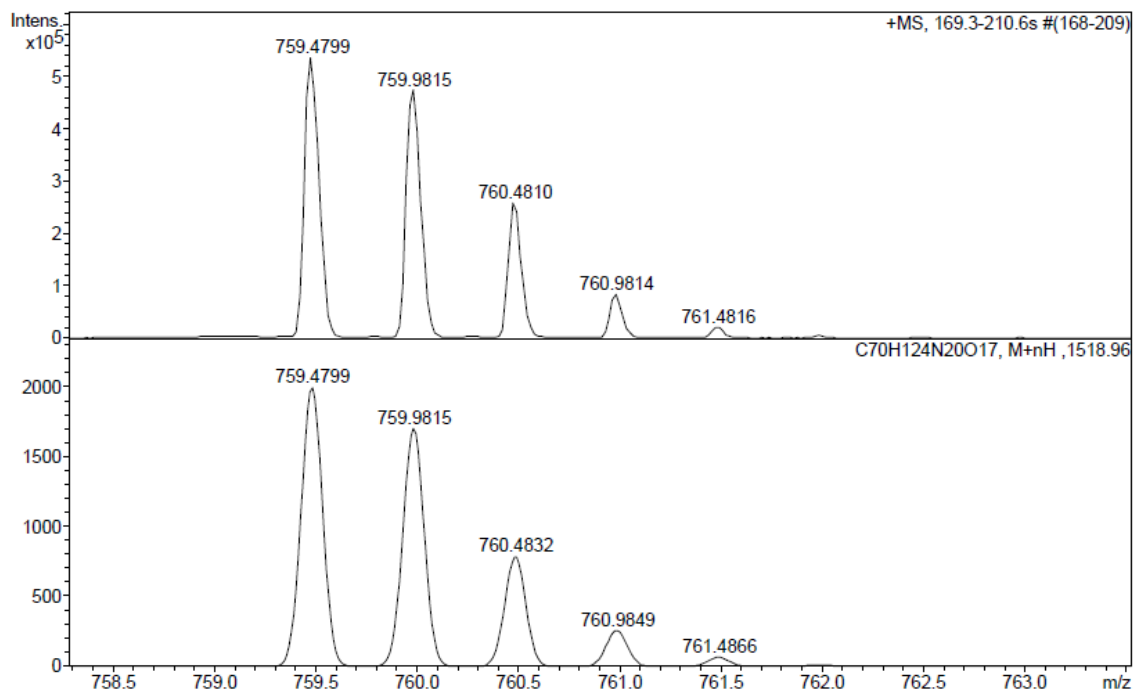
HPLC ($\lambda = 220 \text{ nm}$) (CC-7-292 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,90 | 429,392 | 39,554 | 100,00 |
| Total: | | 429,392 | 39,554 | 100,00 |

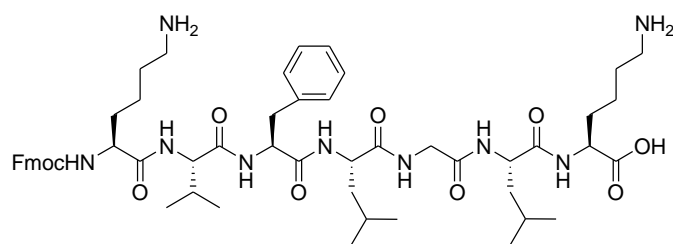
ESI-MS (m/z) (CC-7-146)

| |
|-------------------------|
| $[M+H]^+ = 1518.0$ |
| $[M+Na]^+ = 1540.0$ |
| $[M+2H]^{2+} = 759.6$ |
| $[M+H+Na]^{2+} = 770.5$ |

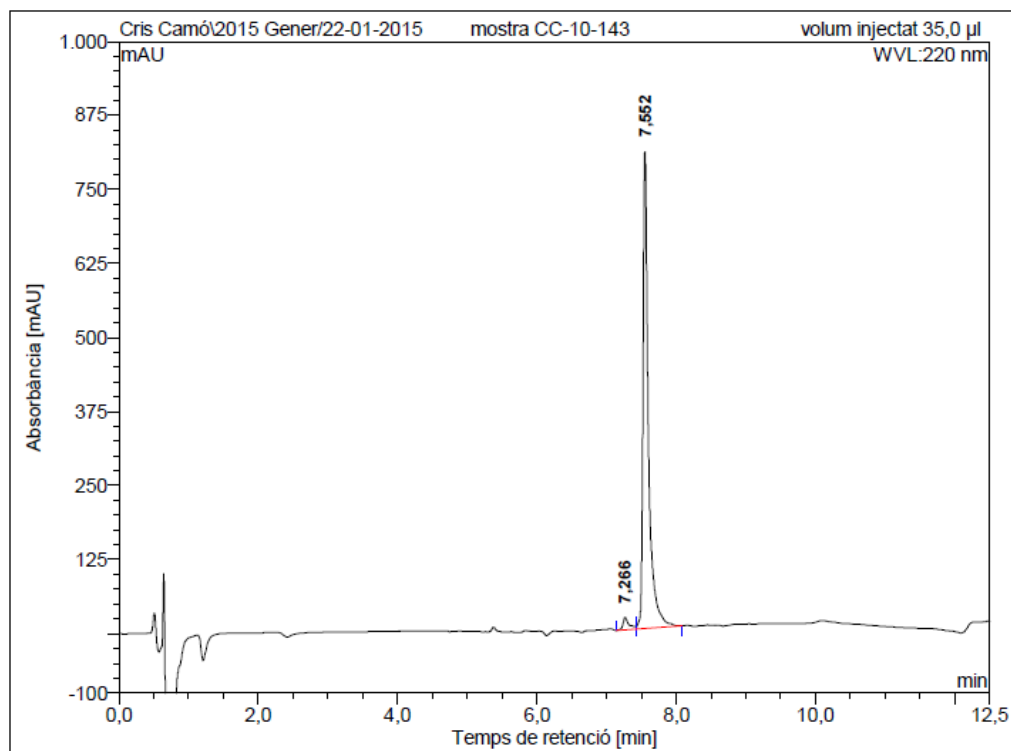
HRMS (ESI) (m/z) (CC-7-292 tubs 14-16)



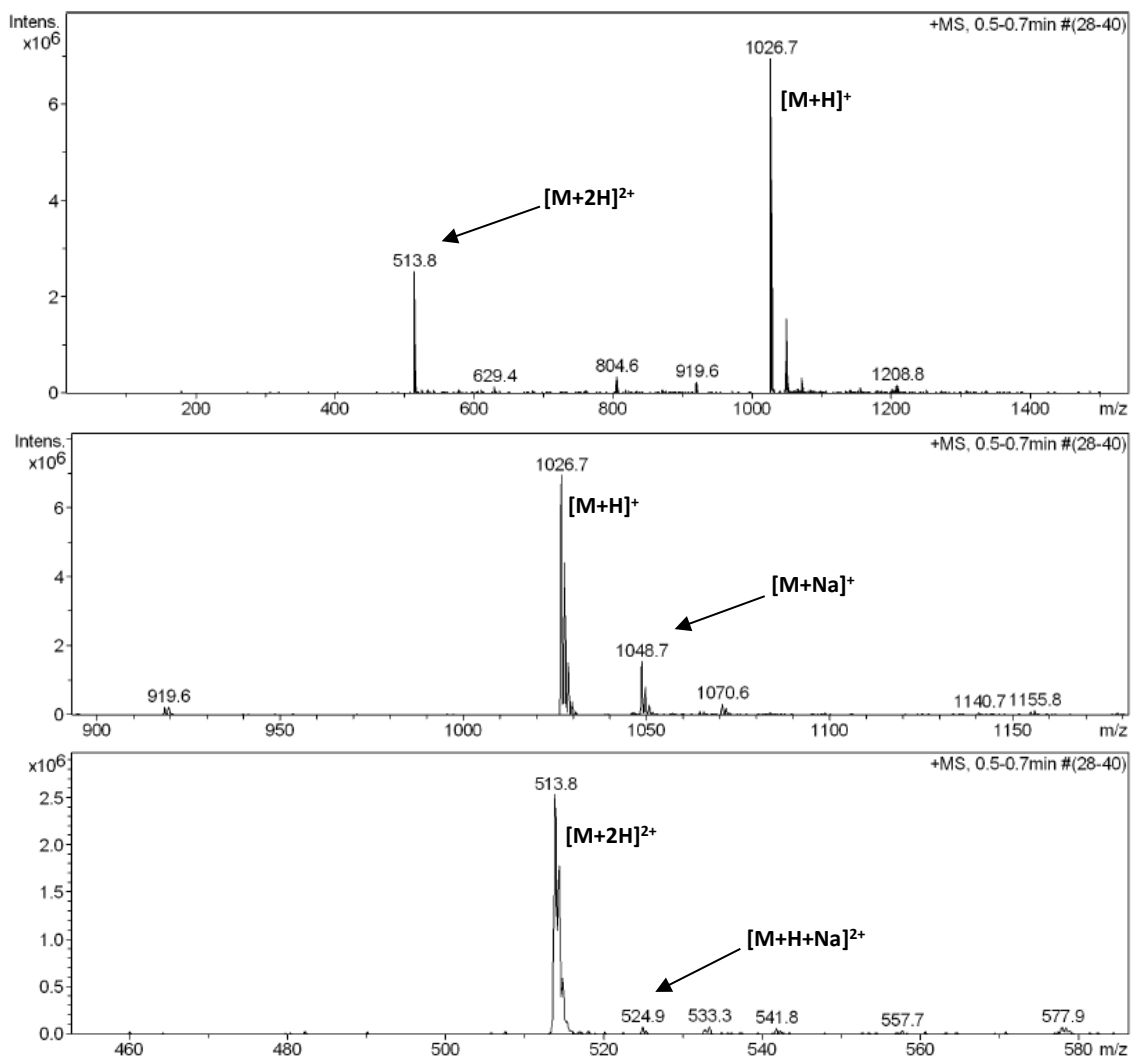
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₇₀ H ₁₂₅ N ₂₀ O ₁₇ | 1517.9526 | 1517.9536 |
| [M+2H]²⁺ | C ₇₀ H ₁₂₆ N ₂₀ O ₁₇ | 759.4799 | 759.4799 |

Fmoc-Lys-Val-Phe-Leu-Gly-Leu-Lys-OH (**JCpep7**) CC-10

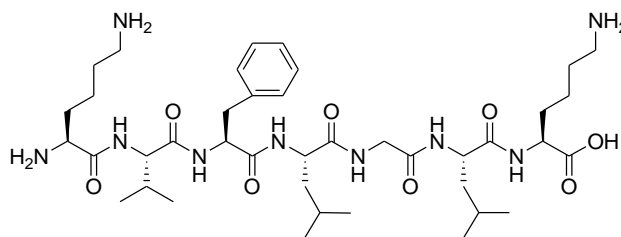
$C_{55}H_{79}N_9O_{10}$
Exact Mass: 1025,595
Mol. Wt.: 1026,2701

HPLC ($\lambda = 220 \text{ nm}$) (CC-10-143)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,27 | 20,794 | 2,046 | 2,75 |
| 2 | 7,55 | 804,957 | 72,475 | 97,25 |
| Total: | | 825,751 | 74,521 | 100,00 |

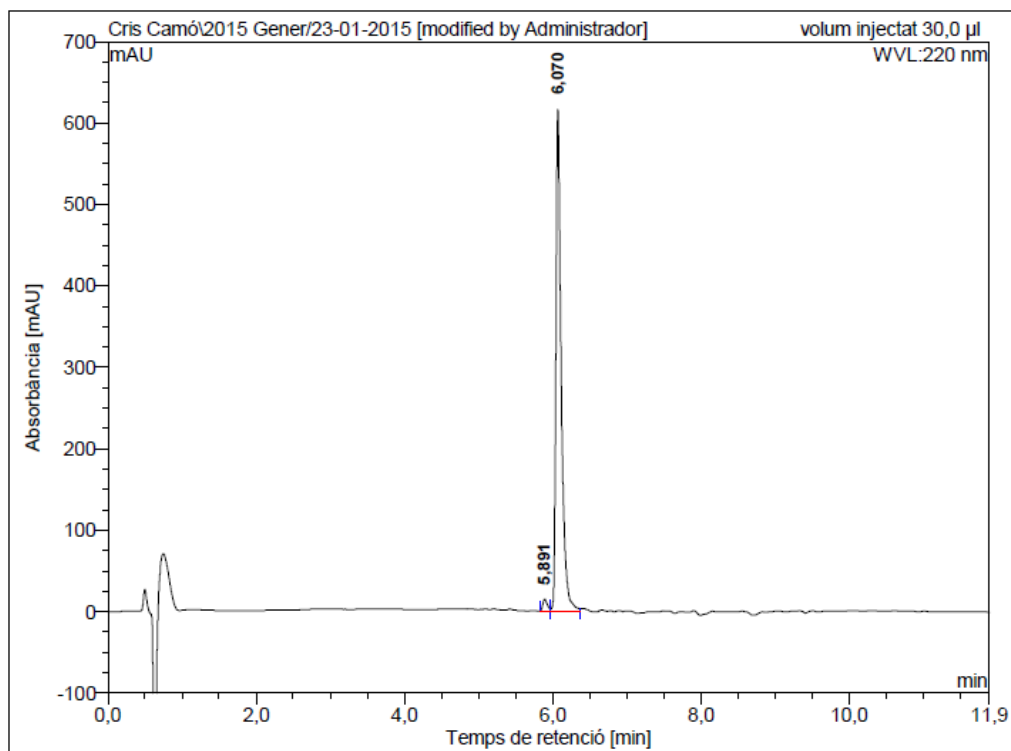
ESI-MS (m/z) (CC-10-143)

| |
|-------------------------|
| $[M+H]^+ = 1026.7$ |
| $[M+Na]^+ = 1048.7$ |
| $[M+2H]^{2+} = 513.8$ |
| $[M+H+Na]^{2+} = 524.9$ |

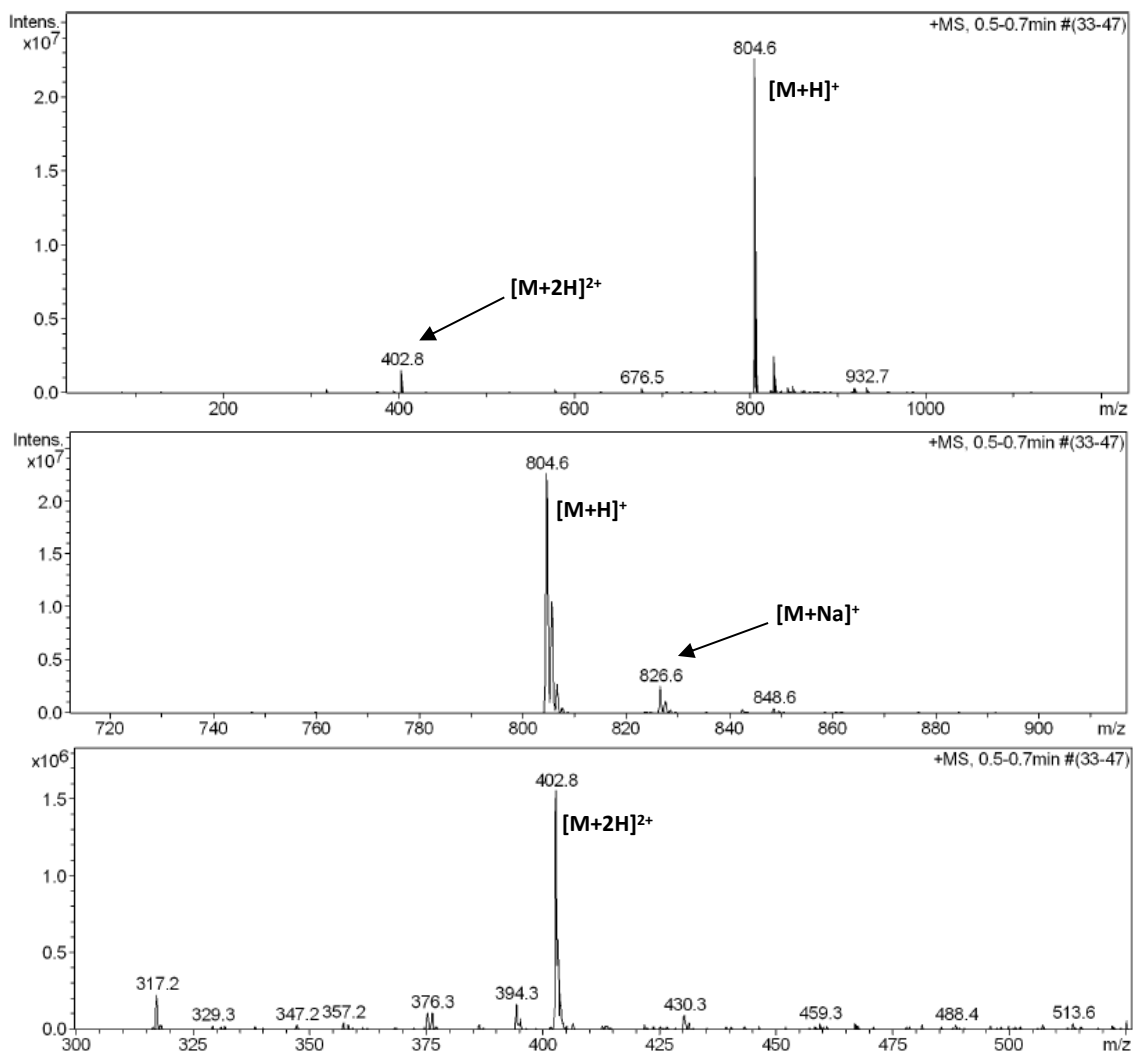
Lys-Val-Phe-Leu-Gly-Leu-Lys-OH (**JCpep7**) CC-10

$C_{40}H_{69}N_9O_8$
 Exact Mass: 803,5269
 Mol. Wt.: 804,0314

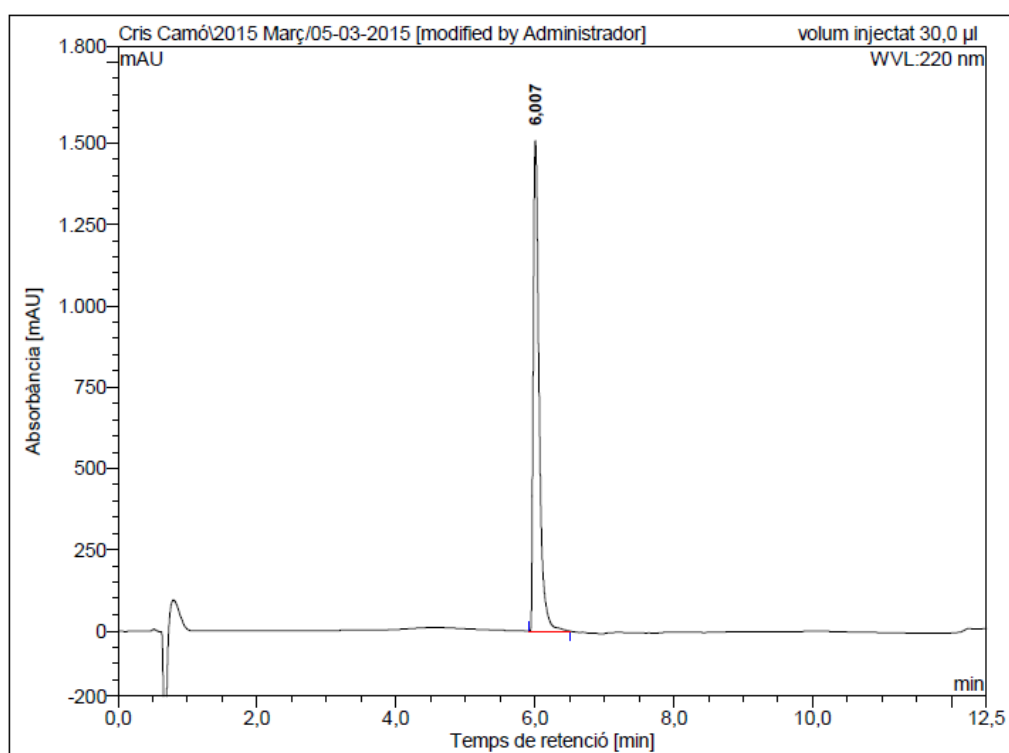
IMPURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-10-144)

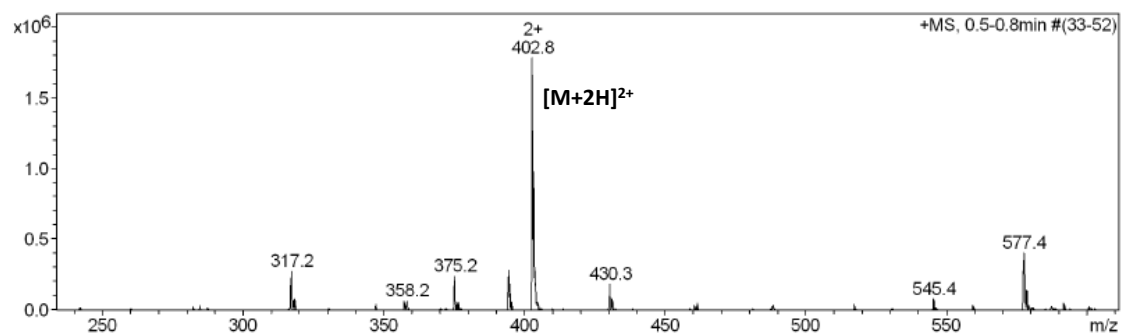
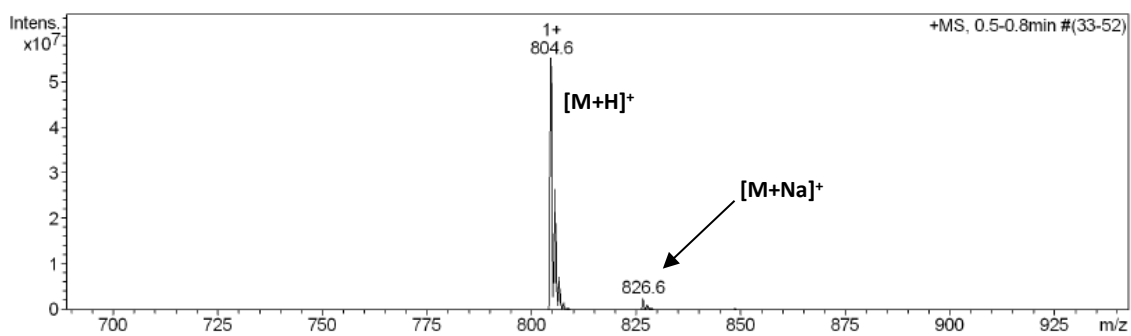
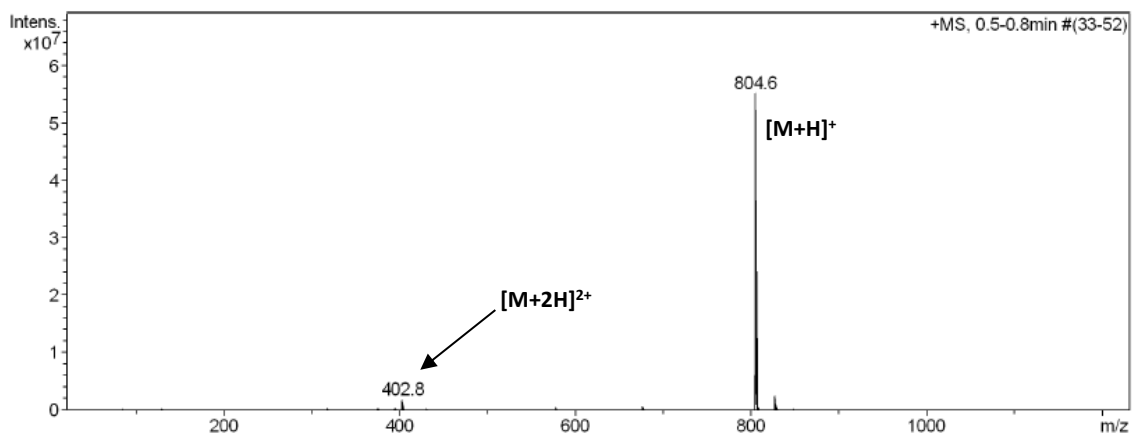
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,89 | 15,064 | 1,089 | 2,08 |
| 2 | 6,07 | 616,142 | 51,322 | 97,92 |
| Total: | | 631,205 | 52,411 | 100,00 |

ESI-MS (m/z) (CC-10-144) $[M+H]^+ = 804.6$ $[M+Na]^+ = 826.6$ $[M+2H]^{2+} = 402.8$

PURE PRODUCT

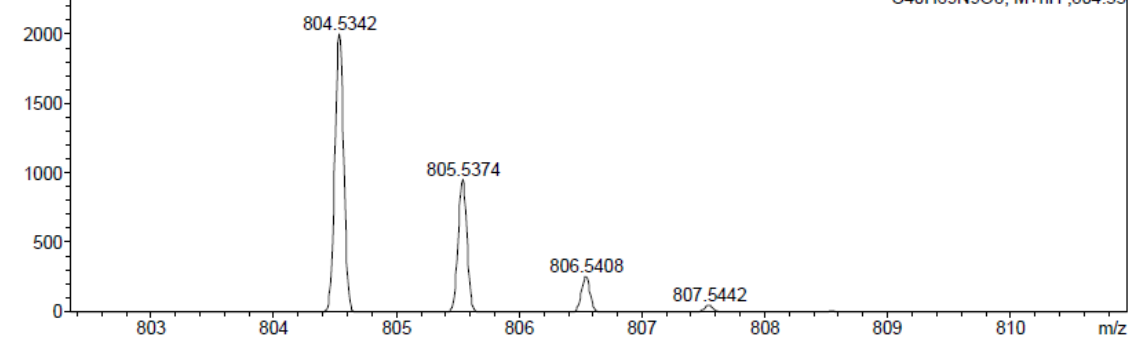
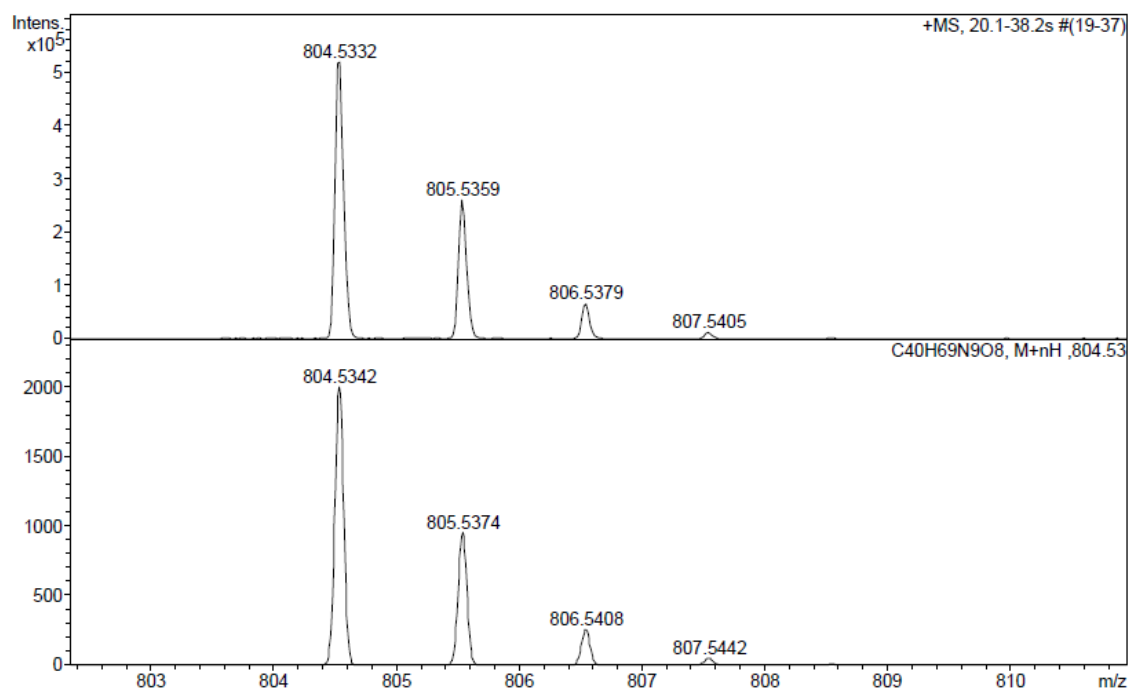
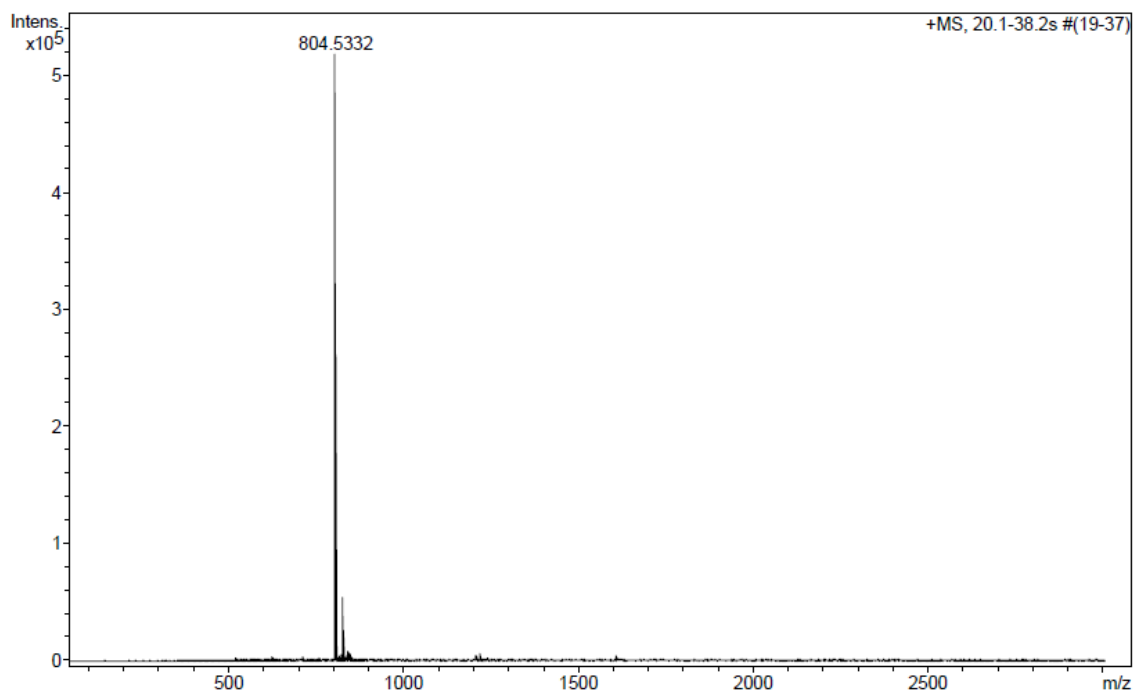
HPLC ($\lambda = 220 \text{ nm}$) (CC-10-188 tub 11)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,01 | 1507,206 | 147,770 | 100,00 |
| Total: | | 1507,206 | 147,770 | 100,00 |

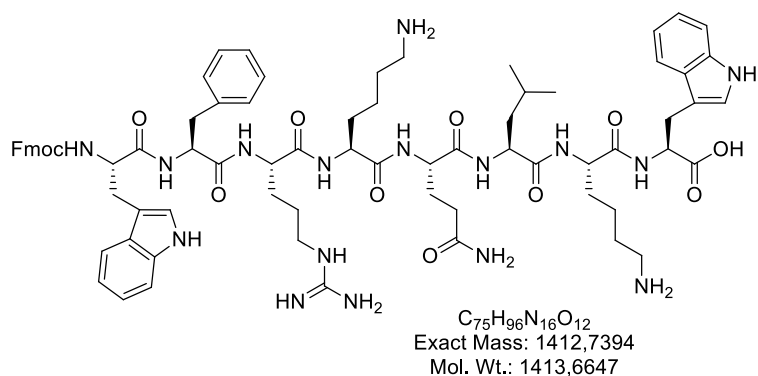
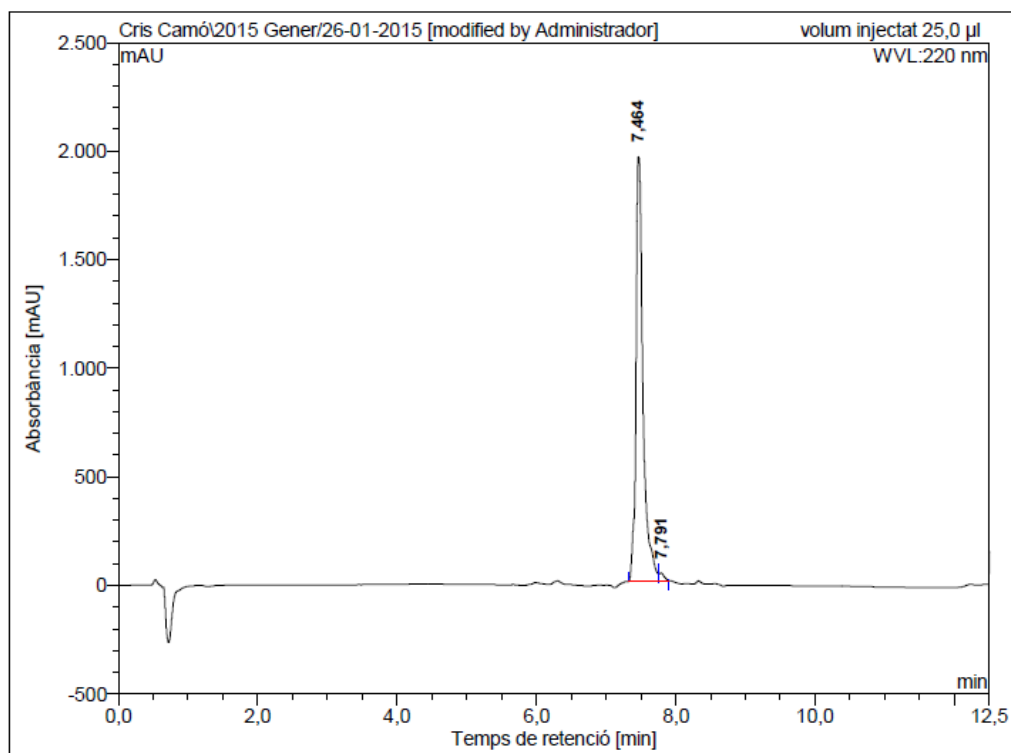
ESI-MS (m/z) (CC-10-188 tub 11)

| |
|-----------------------|
| $[M+H]^+ = 804.6$ |
| $[M+Na]^+ = 826.6$ |
| $[M+2H]^{2+} = 402.8$ |

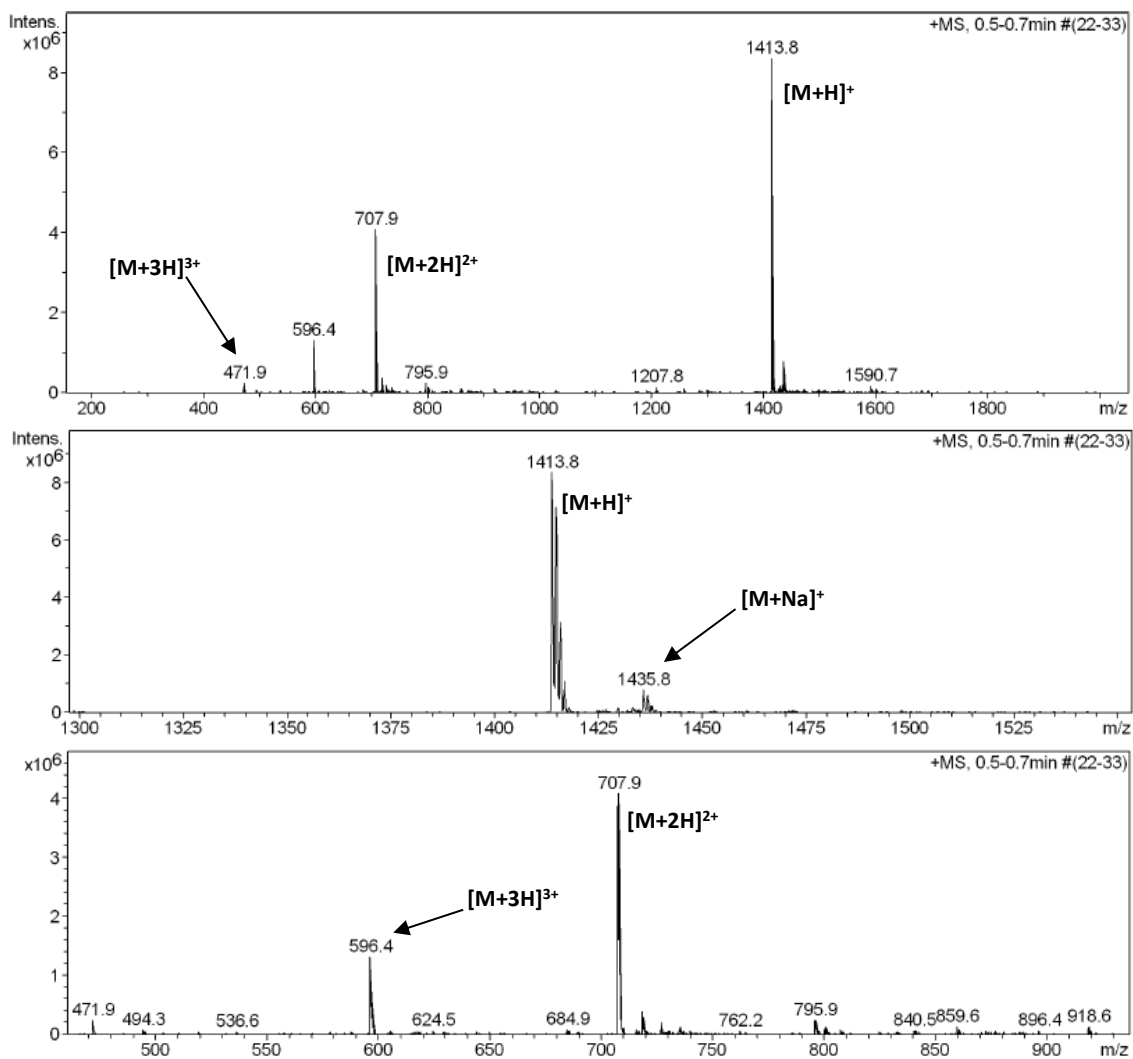
HRMS (ESI) (m/z)



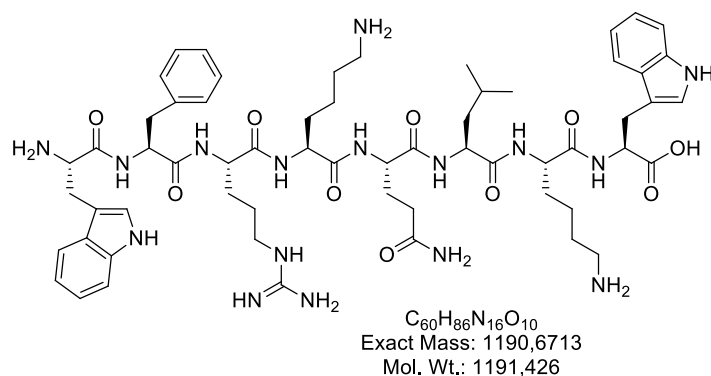
| | Molecular formula | Calculated | Found |
|--------------------|---|------------|----------|
| [M+H] ⁺ | C ₄₀ H ₇₀ N ₉ O ₈ | 804.5342 | 804.5332 |

Fmoc-Trp-Phe-Arg-Lys-Gln-Leu-Lys-Trp-OH (**L10**) (CC-12)HPLC ($\lambda = 220$ nm) (CC-12-147)

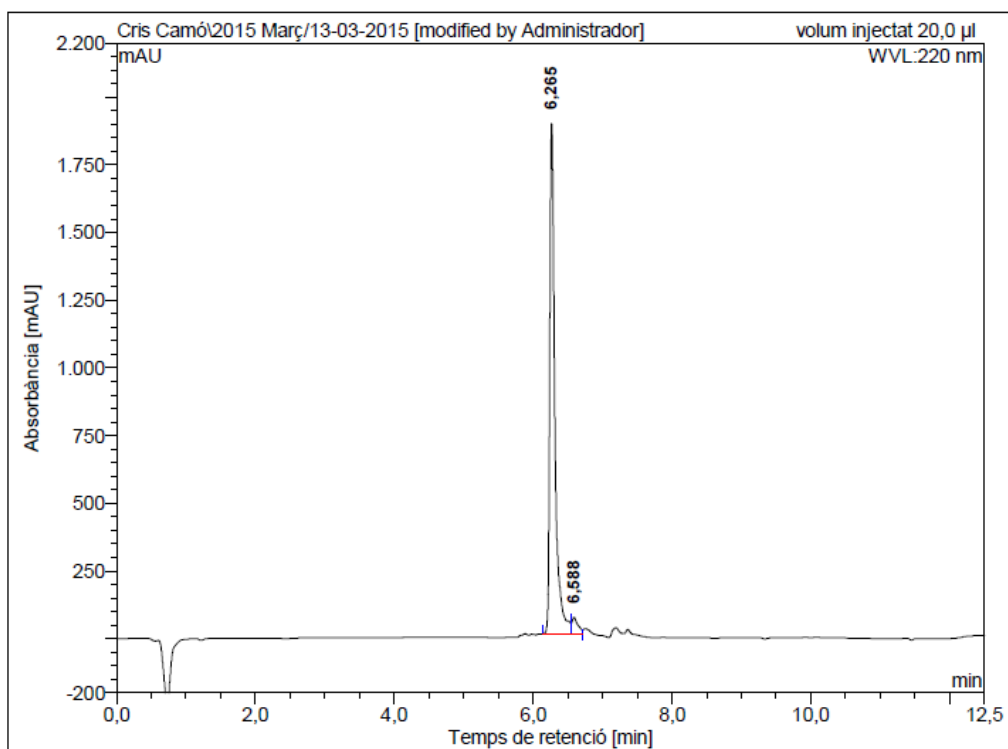
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,46 | 1956,064 | 230,177 | 98,40 |
| 2 | 7,79 | 39,046 | 3,749 | 1,60 |
| Total: | | 1995,110 | 233,926 | 100,00 |

ESI-MS (m/z) (CC-12-147)

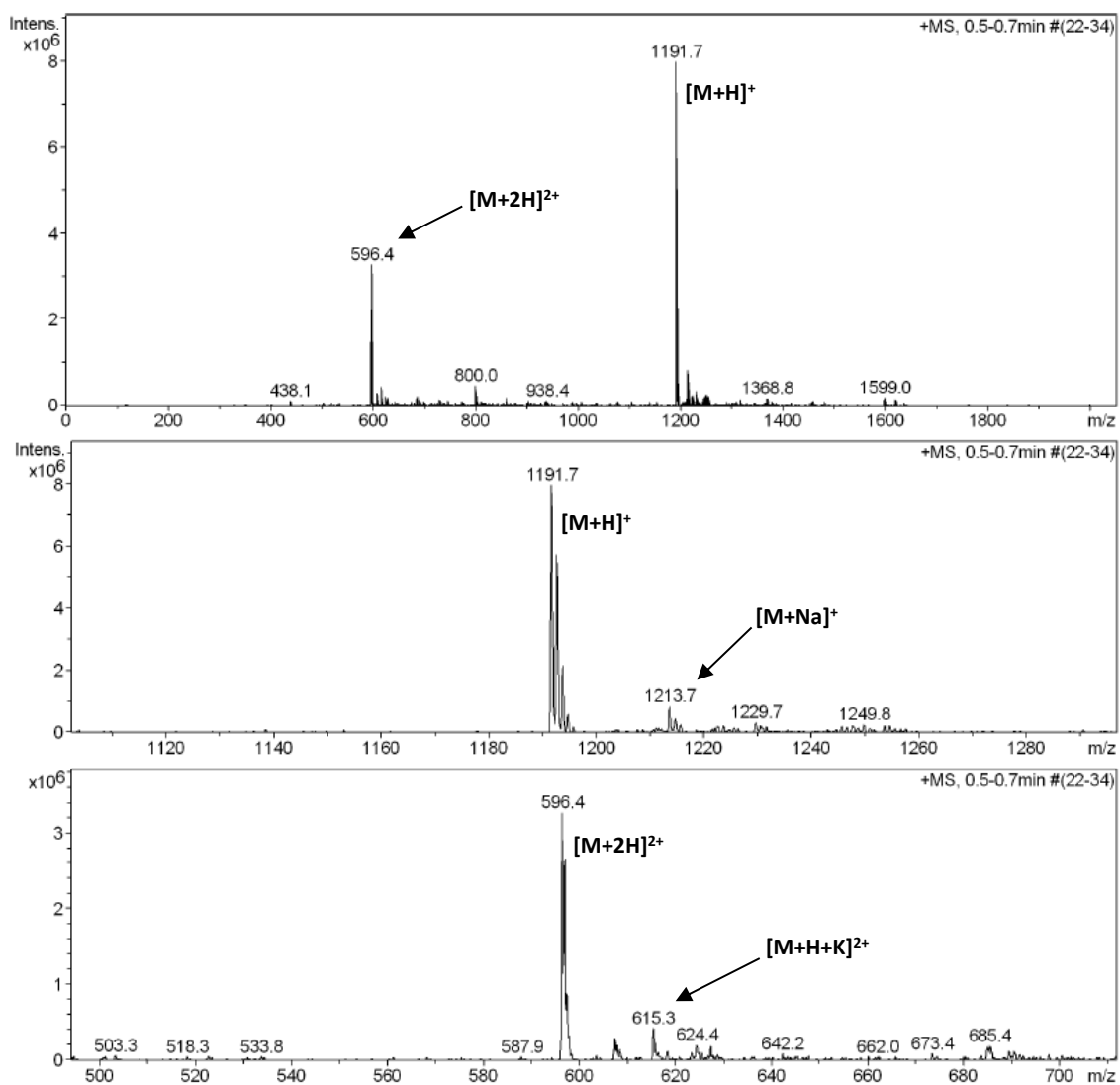
| |
|-----------------------|
| $[M+H]^+ = 1413.8$ |
| $[M+Na]^+ = 1435.8$ |
| $[M+2H]^{2+} = 707.9$ |
| $[M+3H]^{3+} = 471.9$ |

Trp-Phe-Arg-Lys-Gln-Leu-Lys-Trp-OH (**L10**) (CC-12)

IMPURE PRODUCT

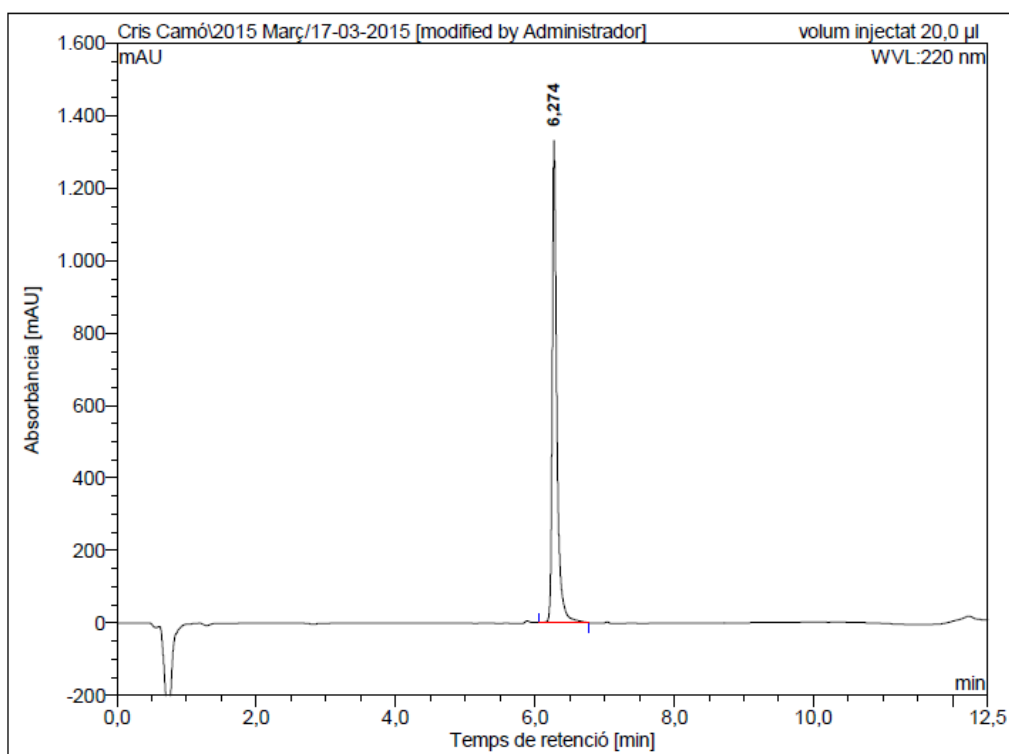
HPLC ($\lambda = 220$ nm) (CC-12-195 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1884,391 | 162,501 | 96,15 |
| 2 | 6,59 | 63,026 | 6,512 | 3,85 |
| Total: | | 1947,417 | 169,012 | 100,00 |

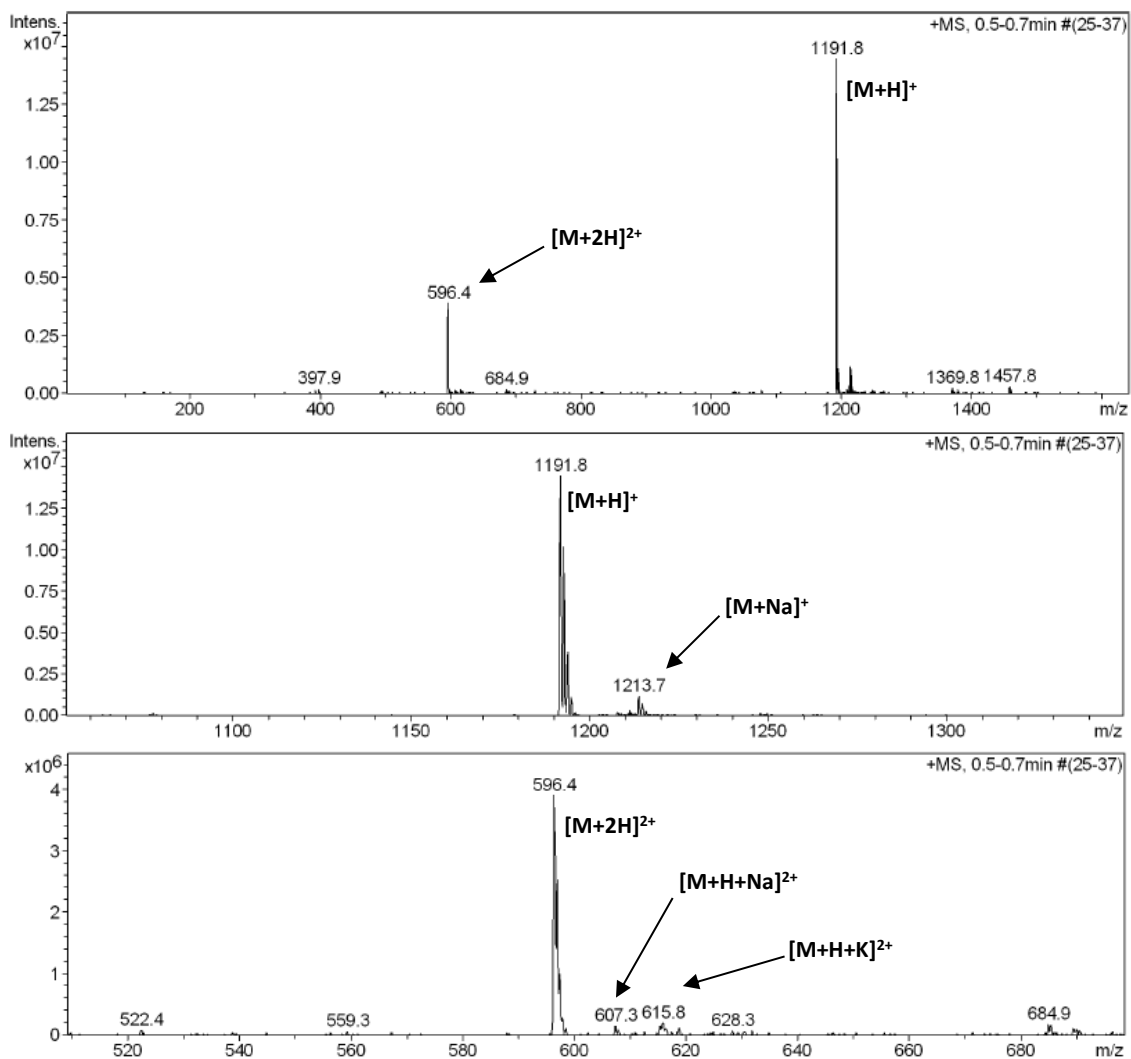
ESI-MS (m/z) (CC-12 cleavage 2)

| |
|------------------------|
| $[M+H]^+ = 1191.7$ |
| $[M+Na]^+ = 1213.7$ |
| $[M+2H]^{2+} = 596.4$ |
| $[M+H+K]^{2+} = 615.3$ |

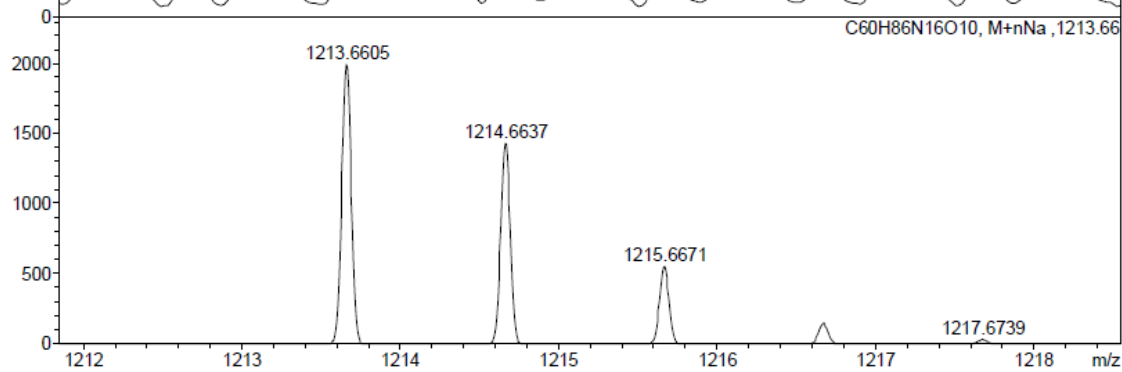
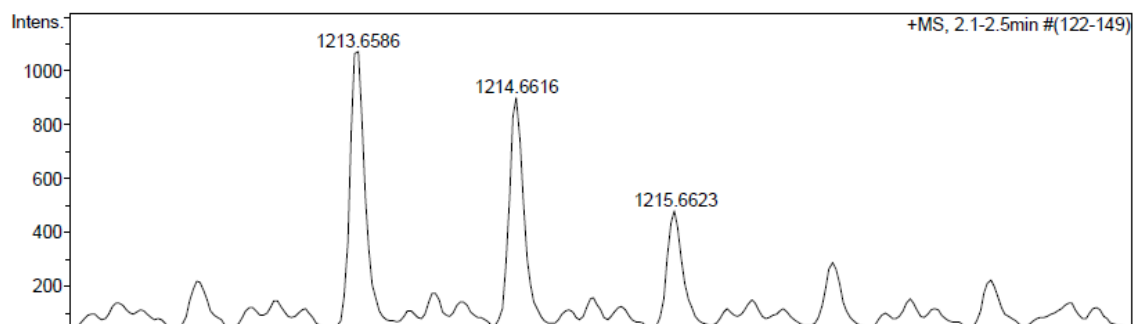
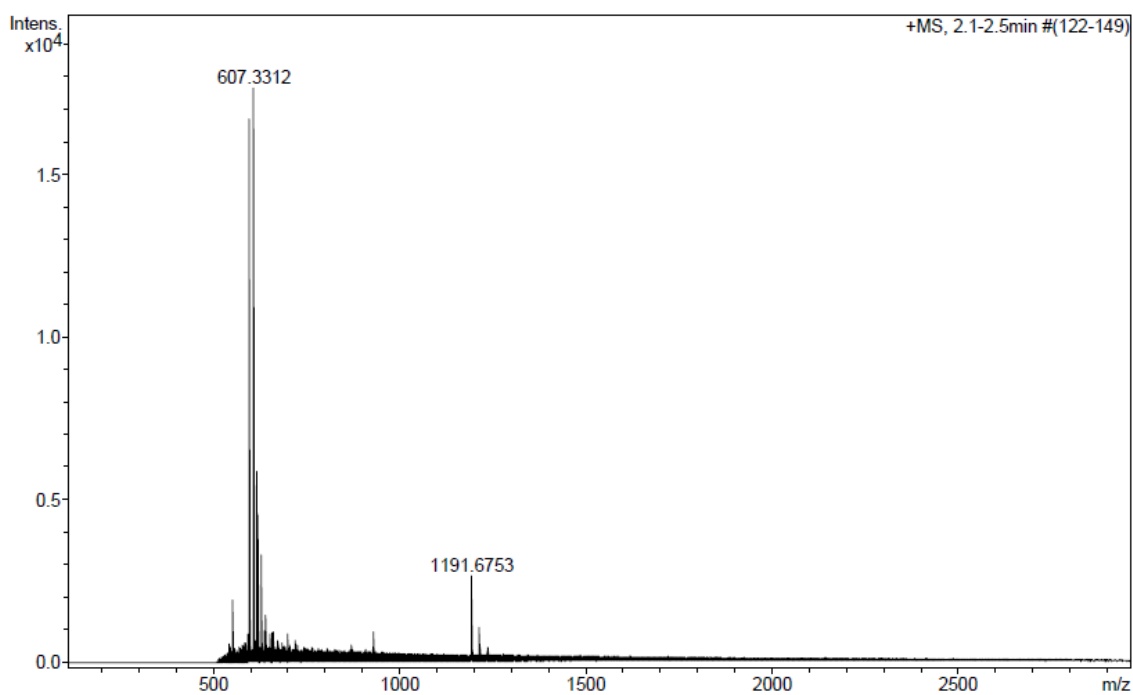
PURE PRODUCT

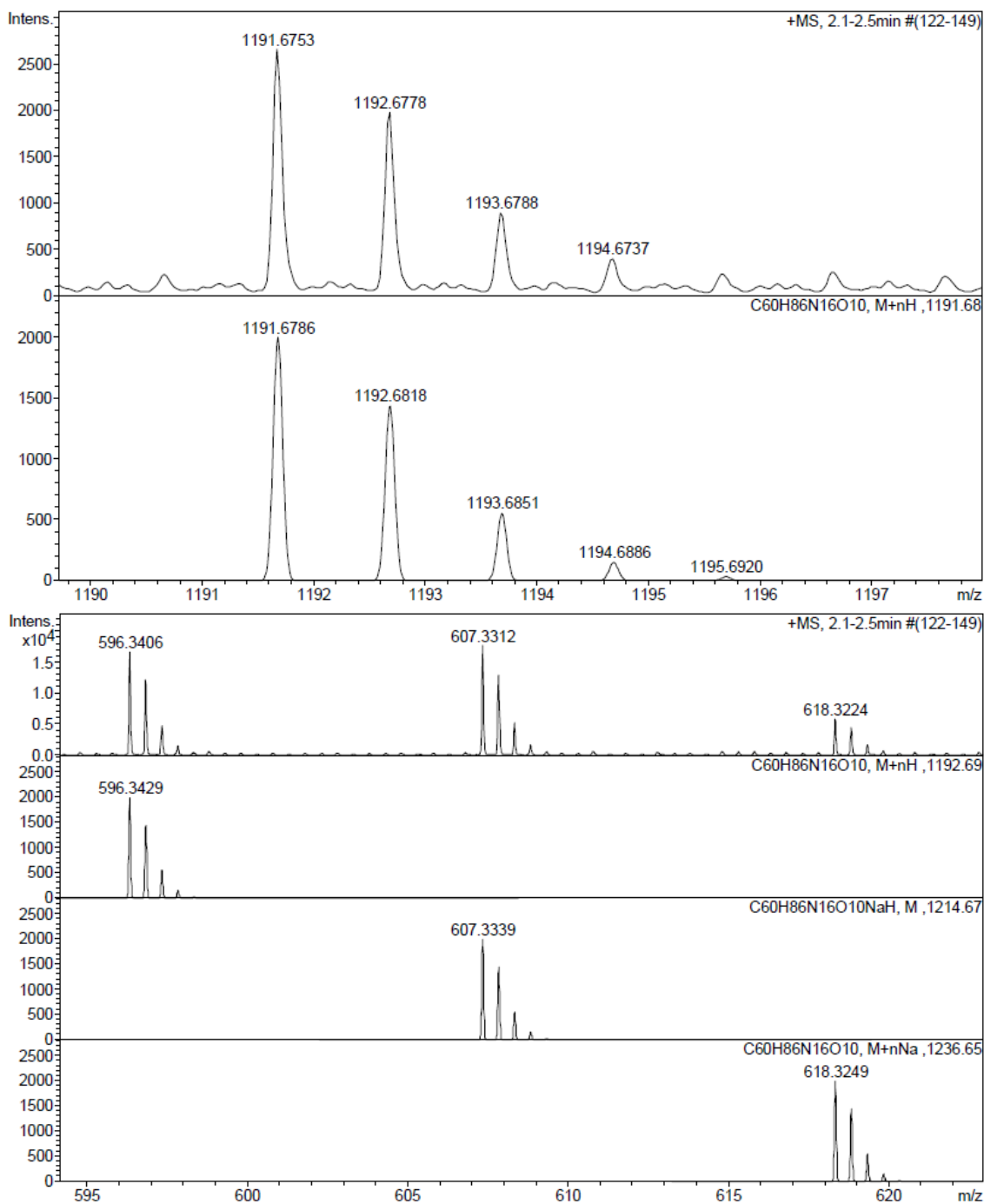
HPLC ($\lambda = 220 \text{ nm}$) (CC-12-195 tub 13)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,27 | 1332,022 | 102,620 | 100,00 |
| Total: | | 1332,022 | 102,620 | 100,00 |

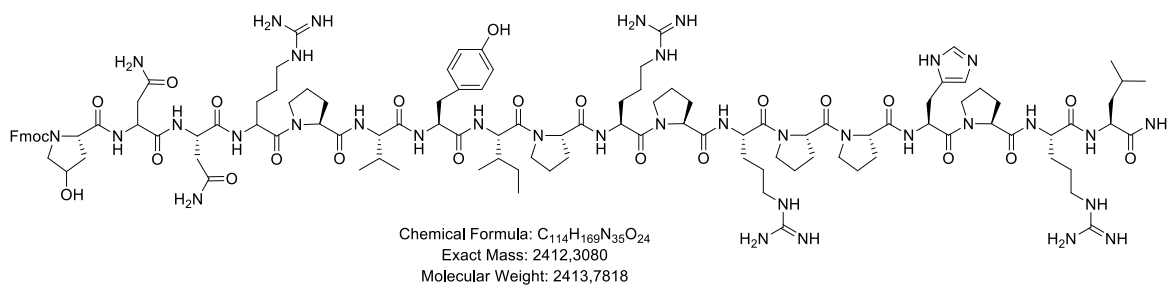
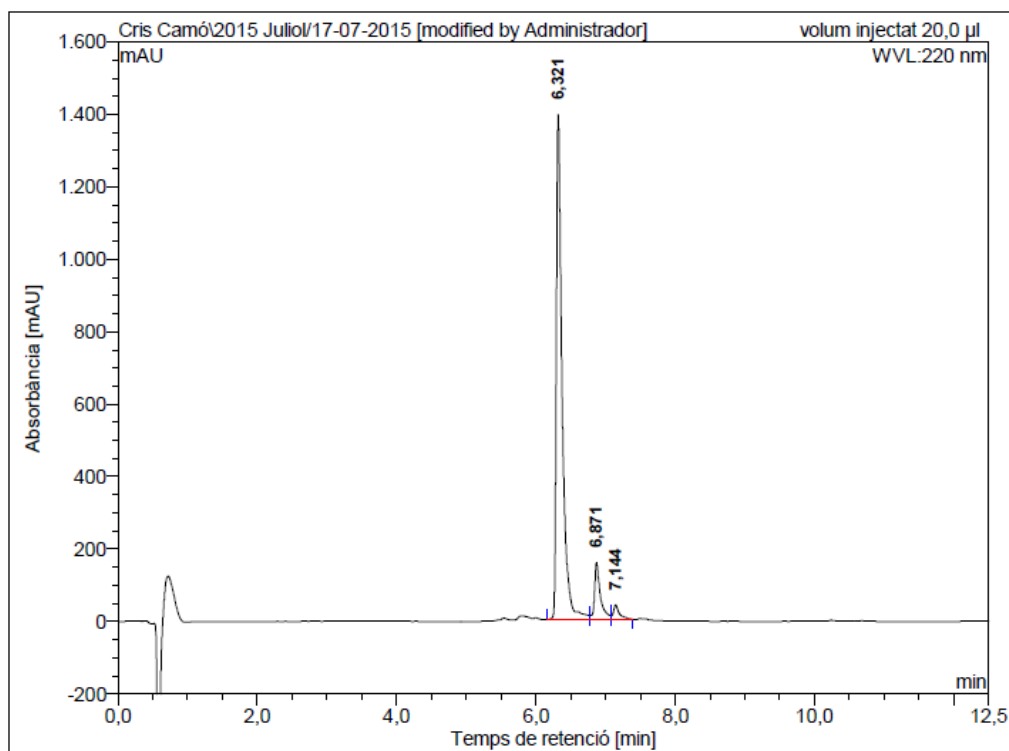
ESI-MS (m/z) (CC-12-148)

| |
|-------------------------|
| $[M+H]^+ = 1191.8$ |
| $[M+Na]^+ = 1213.7$ |
| $[M+2H]^{2+} = 596.4$ |
| $[M+H+Na]^{2+} = 607.3$ |
| $[M+H+K]^{2+} = 615.8$ |

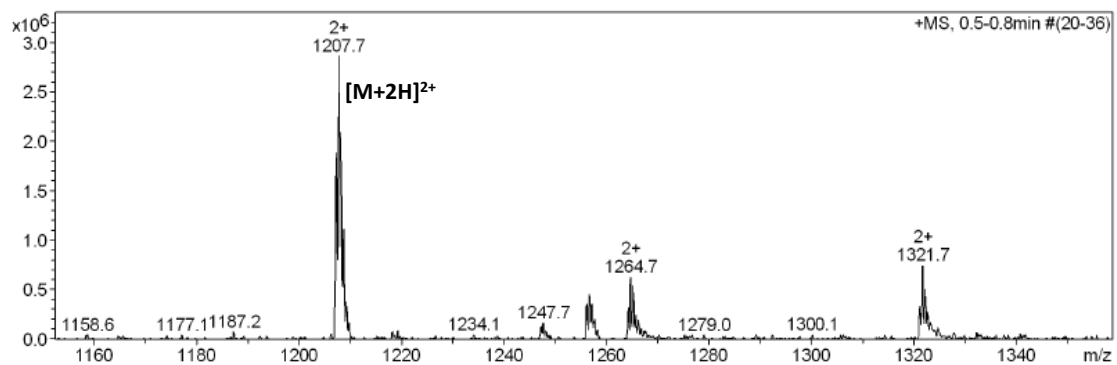
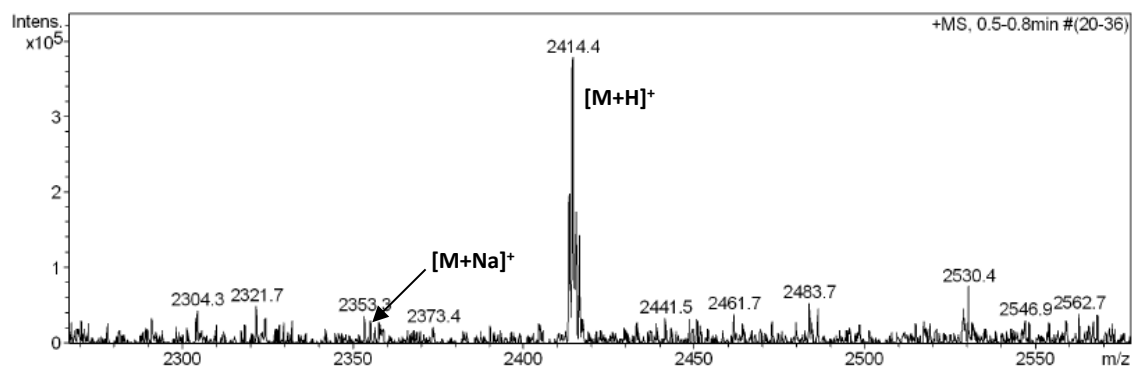
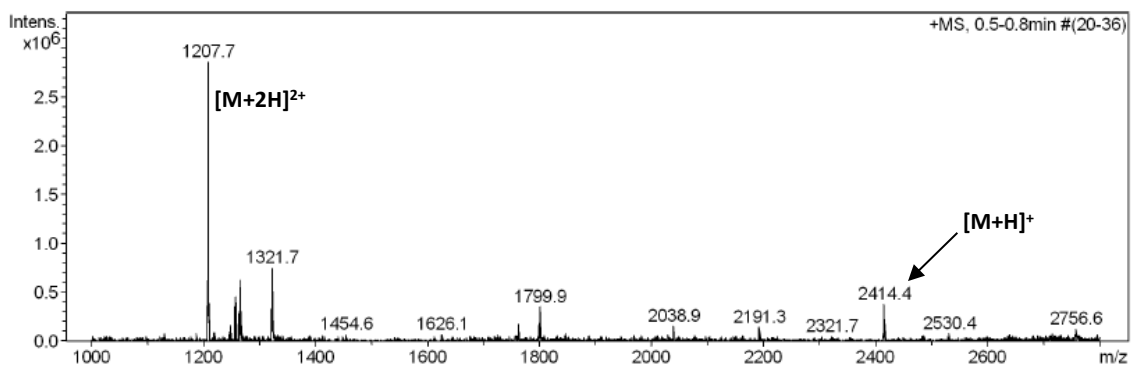
HRMS (ESI) (m/z) (L10) CC-12

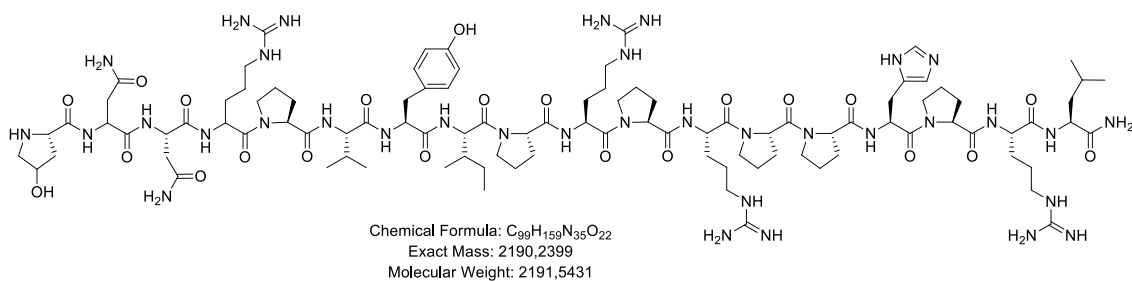
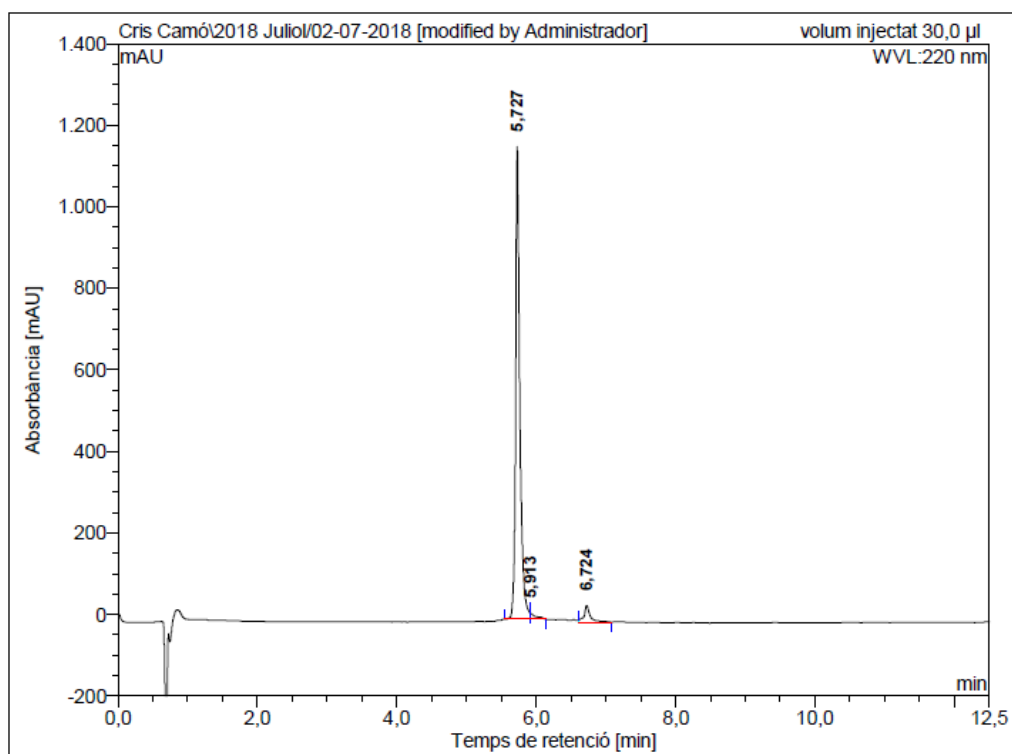


| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+Na] ⁺ | C ₆₀ H ₈₆ N ₁₆ O ₁₀ Na | 1213.6605 | 1213.6586 |
| [M+H] ⁺ | C ₆₀ H ₈₇ N ₁₆ O ₁₀ | 1191.6786 | 1191.6753 |
| [M+2H] ²⁺ | C ₆₀ H ₈₈ N ₁₆ O ₁₀ | 596.3429 | 596.3406 |
| [M+H+Na] ²⁺ | C ₆₀ H ₈₇ N ₁₆ O ₁₀ Na | 607.3339 | 607.3312 |
| [M+2H] ²⁺ | C ₆₄ H ₈₆ N ₁₆ O ₁₀ Na ₂ | 618.3249 | 618.3224 |

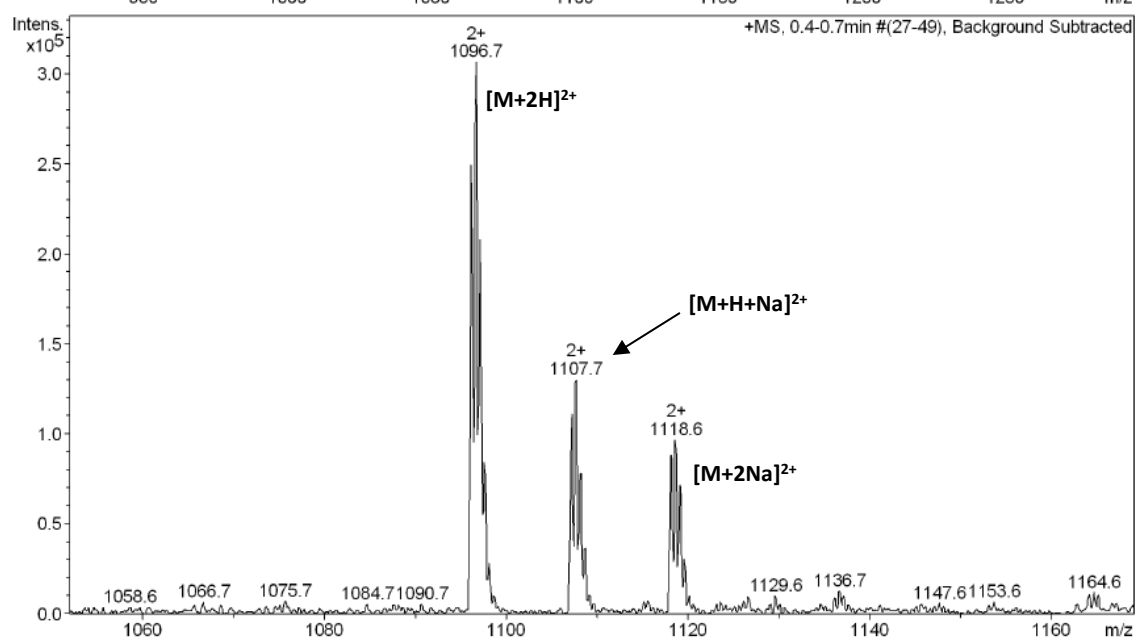
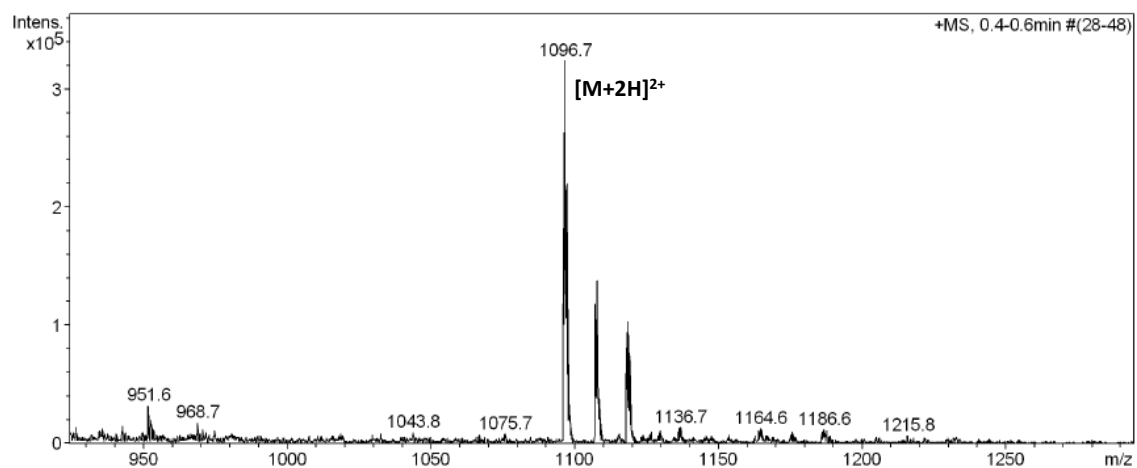
Fmoc-Hyp-Asn-Asn-Arg-Pro-Val-Tyr-Ile-Pro-Arg-Pro-Arg-Pro-Pro-His-Pro-Arg-Leu-NH₂HPLC ($\lambda = 220$ nm) (CC-13-324)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,32 | 1394,581 | 135,872 | 87,38 |
| 2 | 6,87 | 157,355 | 15,511 | 9,97 |
| 3 | 7,14 | 40,948 | 4,115 | 2,65 |
| Total: | | 1592,884 | 155,497 | 100,00 |

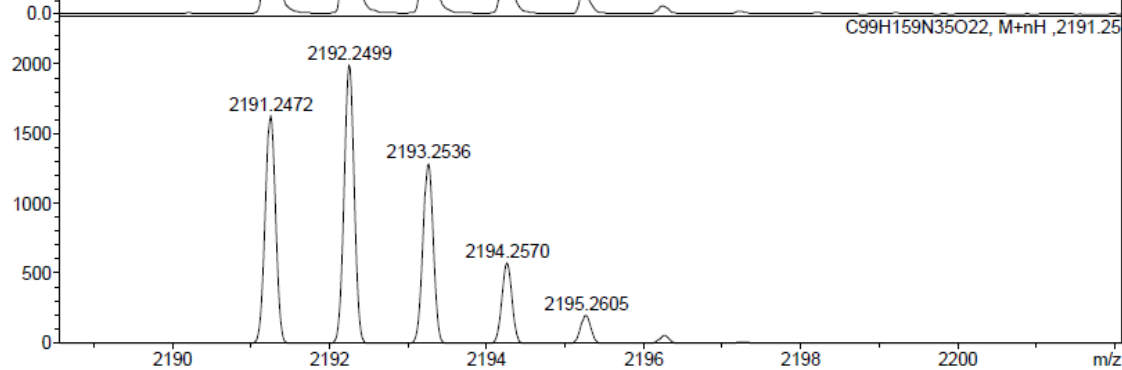
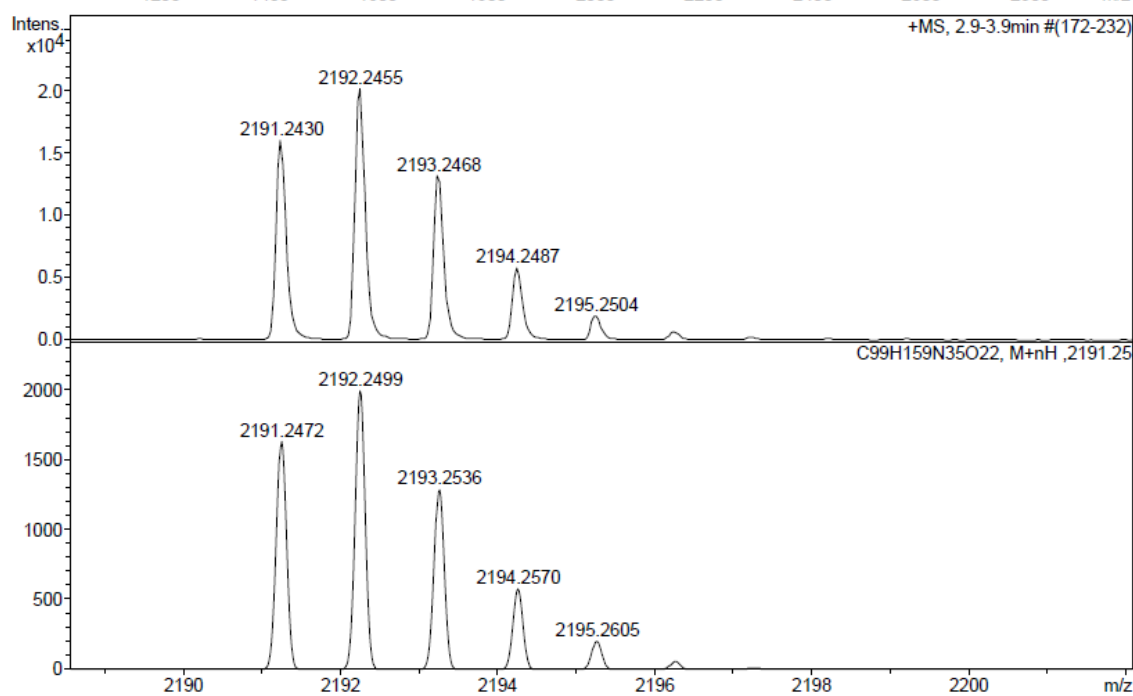
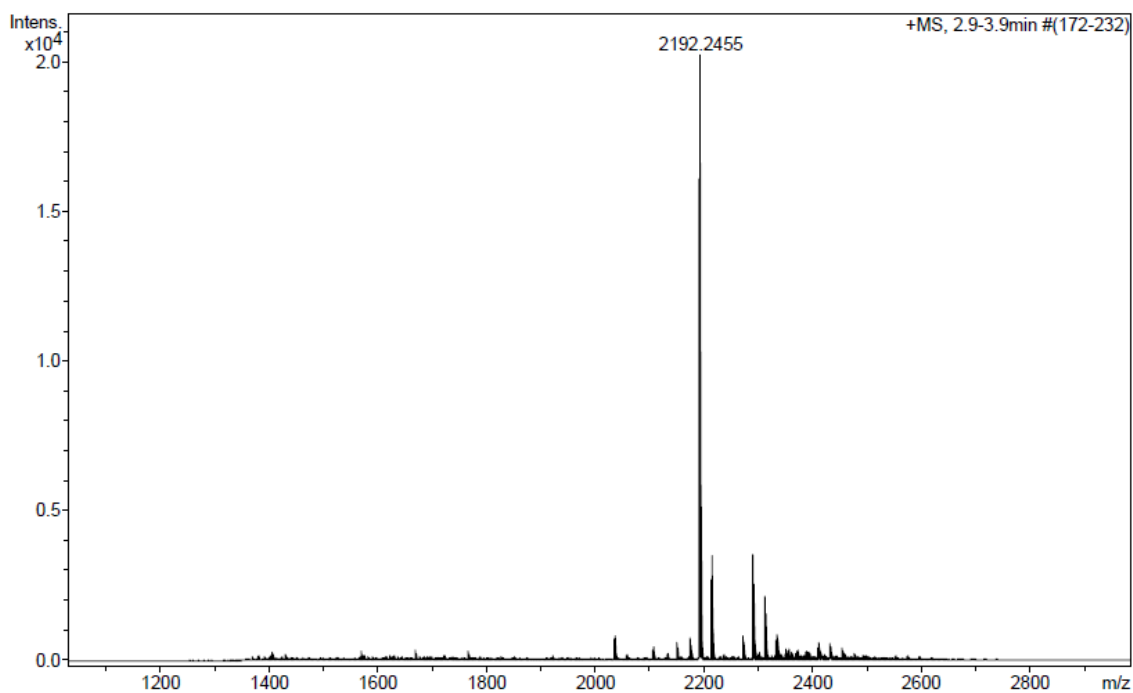
ESI-MS (m/z) (CC-13-324) $[M+H]^+ = 2414.4$ $[M+2H]^{2+} = 1207.7$

dGu-Hyp-Asn-Asn-Arg-Pro-Val-Tyr-Ile-Pro-Arg-Pro-Arg-Pro-Pro-His-Pro-Arg-Leu-NH₂ (**dGu-Api88**) CC-13HPLC ($\lambda = 220 \text{ nm}$) (CC-13)

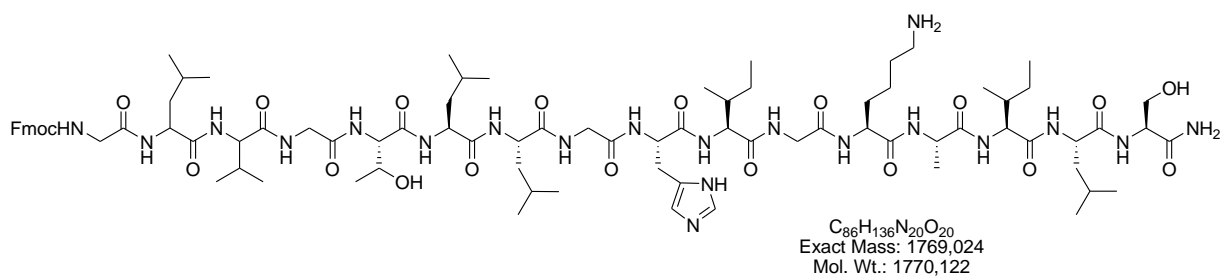
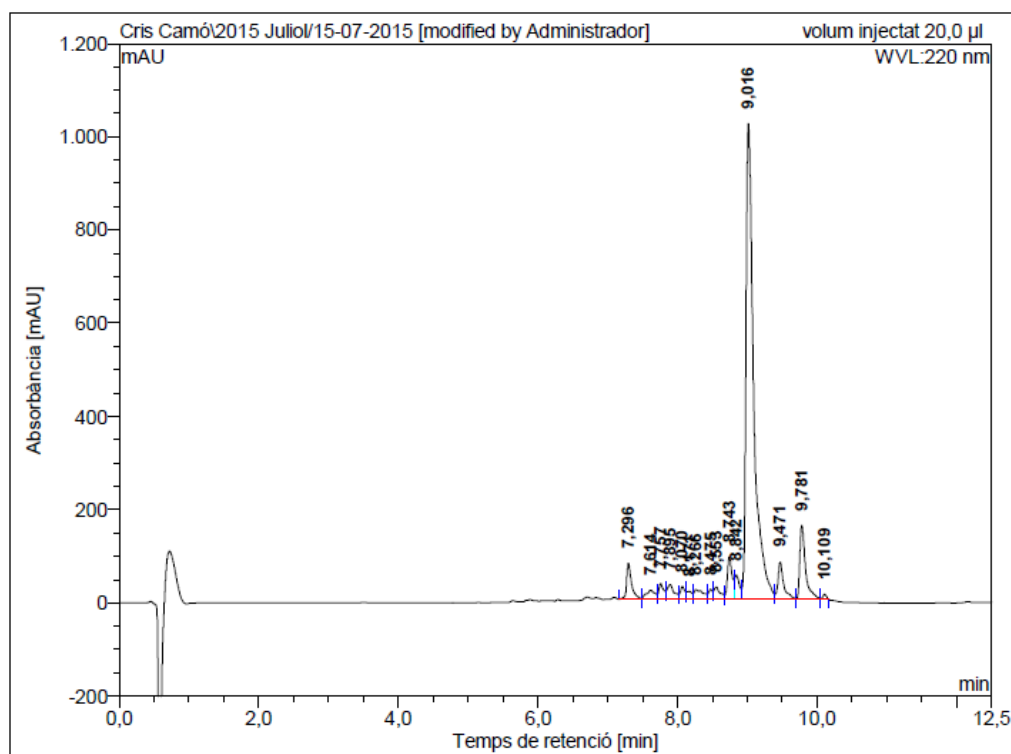
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,73 | 1159,972 | 81,558 | 93,36 |
| 2 | 5,91 | 15,622 | 1,568 | 1,79 |
| 3 | 6,72 | 40,550 | 4,237 | 4,85 |
| Total: | | 1216,144 | 87,362 | 100,00 |

ESI-MS (m/z) (CC-13)

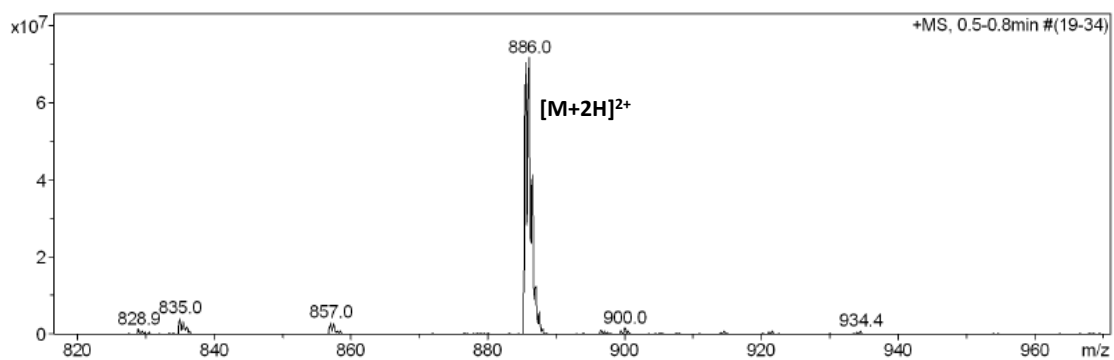
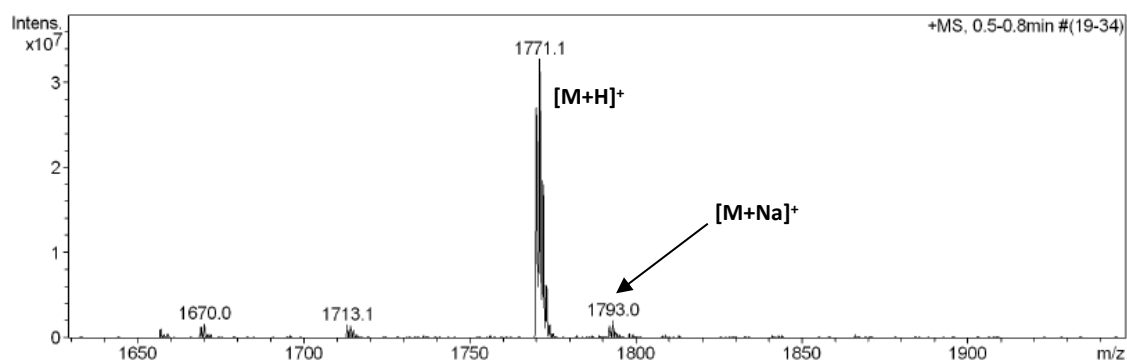
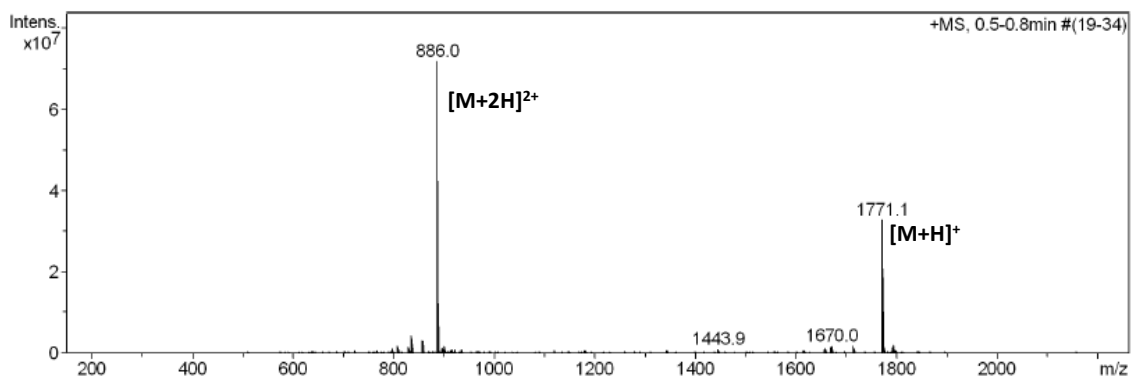
| |
|--------------------------|
| $[M+2H]^{2+} = 1096.7$ |
| $[M+H+Na]^{2+} = 1107.7$ |
| $[M+2Na]^{2+} = 1118.6$ |

HRMS (ESI) (m/z) (dGu-Api88) CC-13

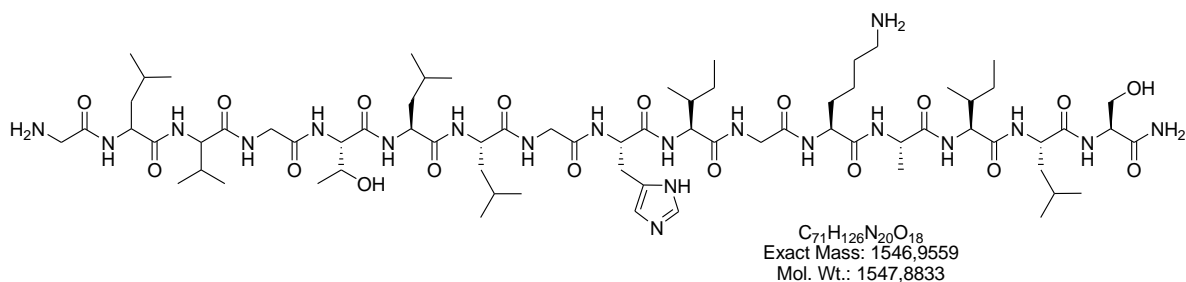
| | Molecular formula | Calculated | Found |
|-----------|--|------------|-----------|
| $[M+H]^+$ | C ₉₉ H ₁₆₀ N ₃₅ O ₂₂ | 2191.2472 | 2191.2430 |

Fmoc-Gly-Leu-Val-Gly-Thr-Leu-Leu-Gly-His-Ile-Gly-Lys-Ala-Ile-Leu-Ser-NH₂ (**Frenatin 2.2S**) CC-14HPLC ($\lambda = 220$ nm) (CC-14-320)

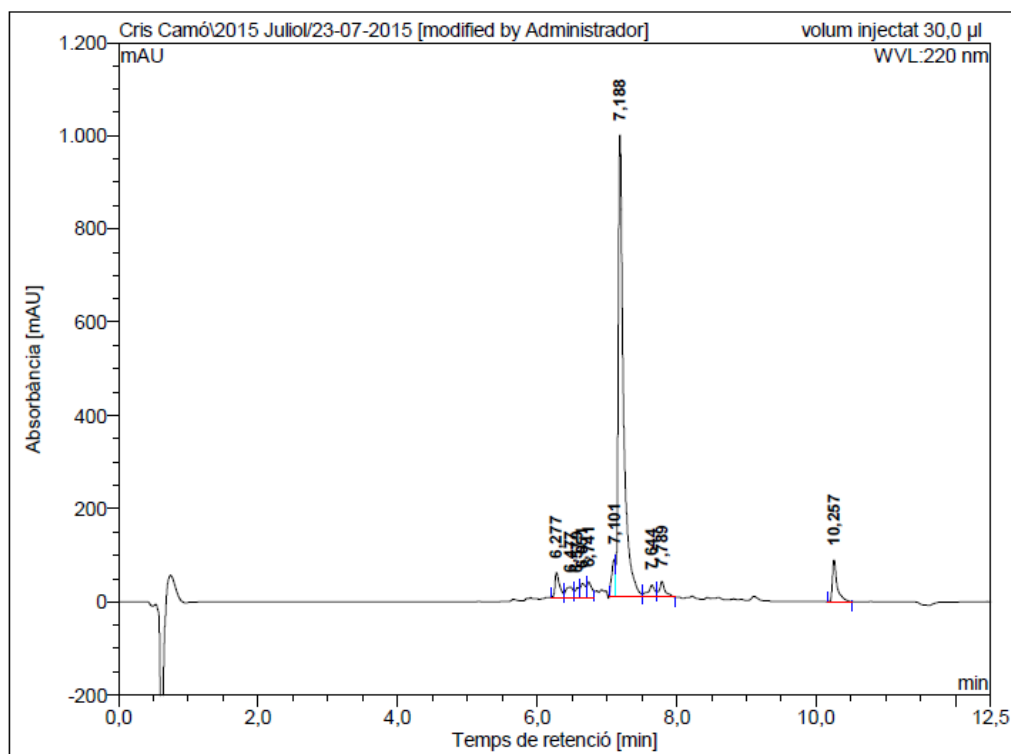
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,30 | 77,175 | 6,188 | 3,22 |
| 2 | 7,61 | 19,124 | 2,655 | 1,38 |
| 3 | 7,76 | 32,739 | 2,609 | 1,36 |
| 4 | 7,90 | 30,737 | 3,636 | 1,89 |
| 5 | 8,07 | 26,230 | 2,049 | 1,07 |
| 6 | 8,17 | 16,204 | 1,327 | 0,69 |
| 7 | 8,27 | 20,187 | 3,189 | 1,66 |
| 8 | 8,47 | 20,777 | 1,316 | 0,69 |
| 9 | 8,55 | 25,800 | 2,686 | 1,40 |
| 10 | 8,74 | 90,131 | 6,884 | 3,58 |
| 11 | 8,84 | 51,646 | 4,404 | 2,29 |
| 12 | 9,02 | 1019,475 | 132,287 | 68,89 |
| 13 | 9,47 | 79,147 | 7,409 | 3,86 |
| 14 | 9,78 | 158,026 | 14,843 | 7,73 |
| 15 | 10,11 | 10,012 | 0,558 | 0,29 |
| Total: | | 1677,410 | 192,039 | 100,00 |

ESI-MS (m/z) (CC-14-320)

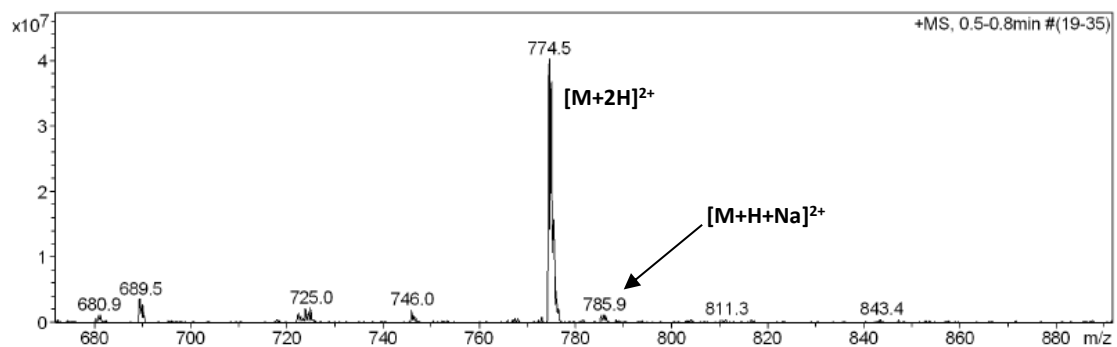
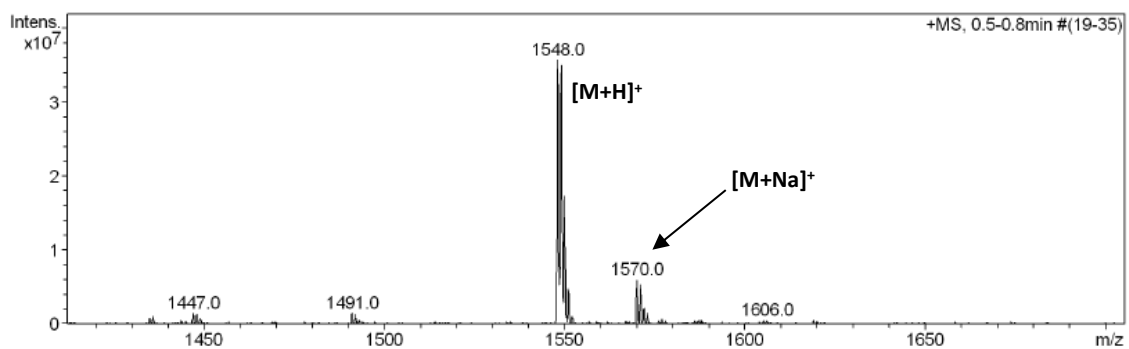
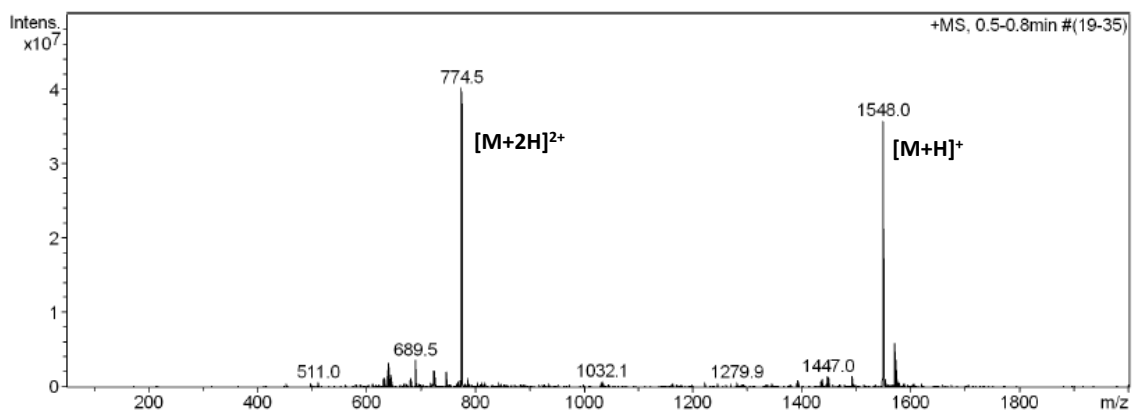
| |
|-----------------------|
| $[M+H]^+ = 1771.1$ |
| $[M+Na]^+ = 1793.0$ |
| $[M+2H]^{2+} = 886.0$ |

Gly-Leu-Val-Gly-Thr-Leu-Leu-Gly-His-Ile-Gly-Lys-Ala-Ile-Leu-Ser-NH₂ (**Frenatin 2.2S**) CC-14

IMPURE PRODUCT

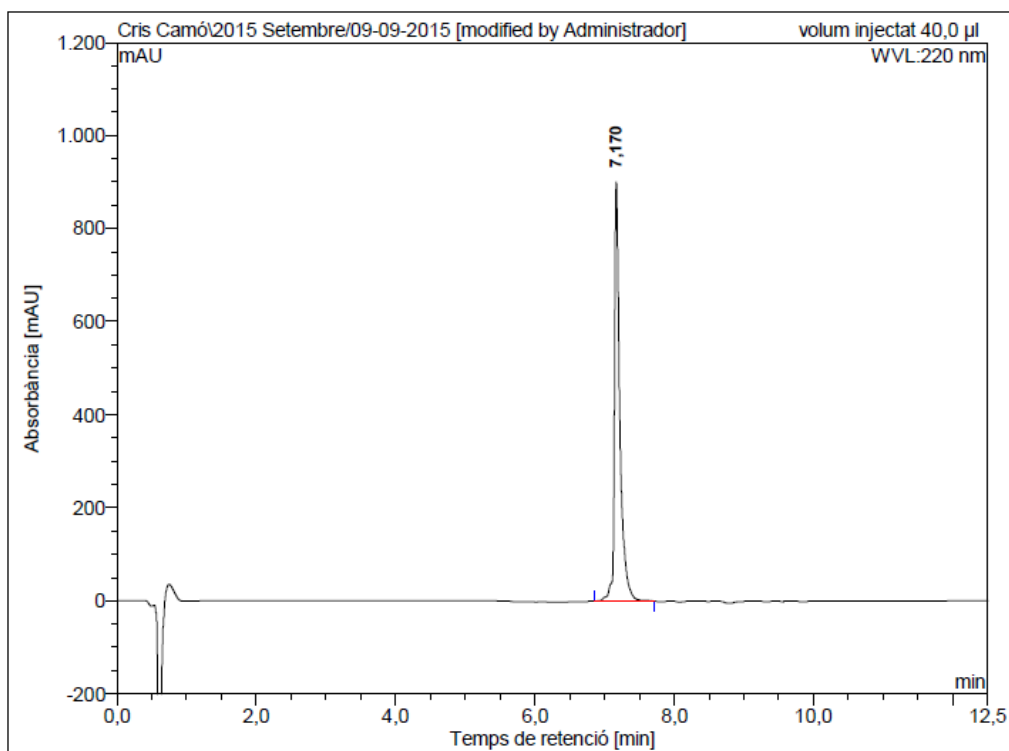
HPLC ($\lambda = 220$ nm) (CC-14-334 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,28 | 53,629 | 4,088 | 3,44 |
| 2 | 6,48 | 22,528 | 2,771 | 2,33 |
| 3 | 6,58 | 21,296 | 1,322 | 1,11 |
| 4 | 6,65 | 30,283 | 2,447 | 2,06 |
| 5 | 6,74 | 33,026 | 2,843 | 2,39 |
| 6 | 7,10 | 80,565 | 5,062 | 4,26 |
| 7 | 7,19 | 991,100 | 87,264 | 73,44 |
| 8 | 7,64 | 25,858 | 3,003 | 2,53 |
| 9 | 7,79 | 33,651 | 3,193 | 2,69 |
| 10 | 10,26 | 89,412 | 6,833 | 5,75 |
| Total: | | 1381,348 | 118,827 | 100,00 |

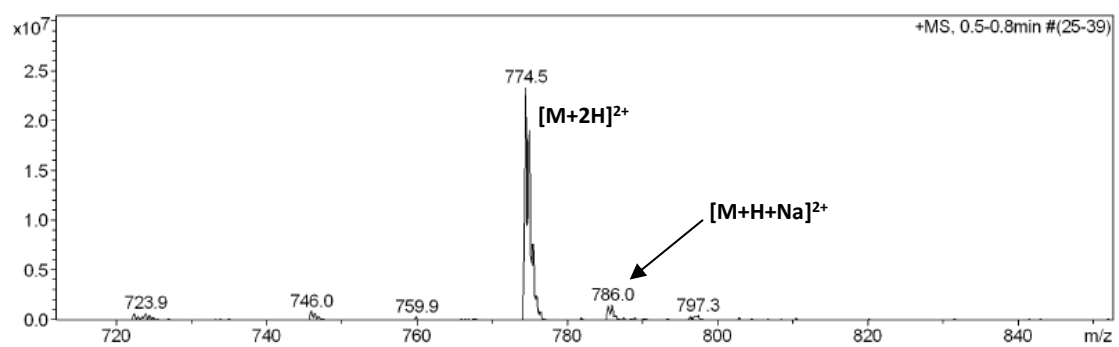
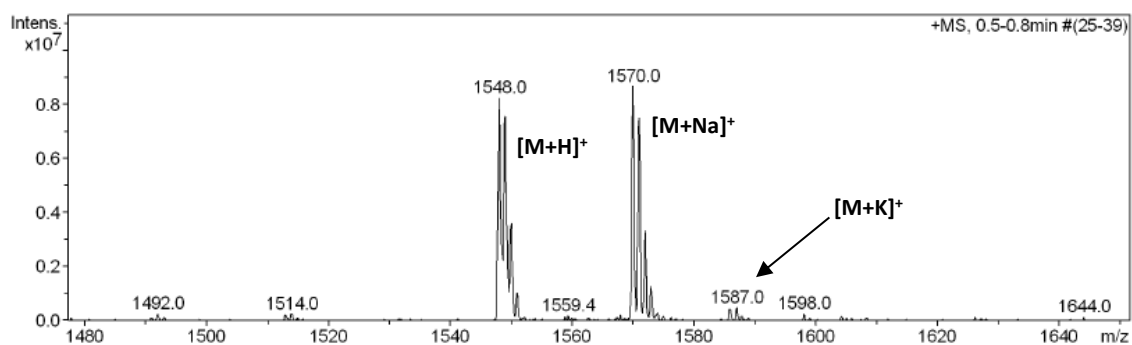
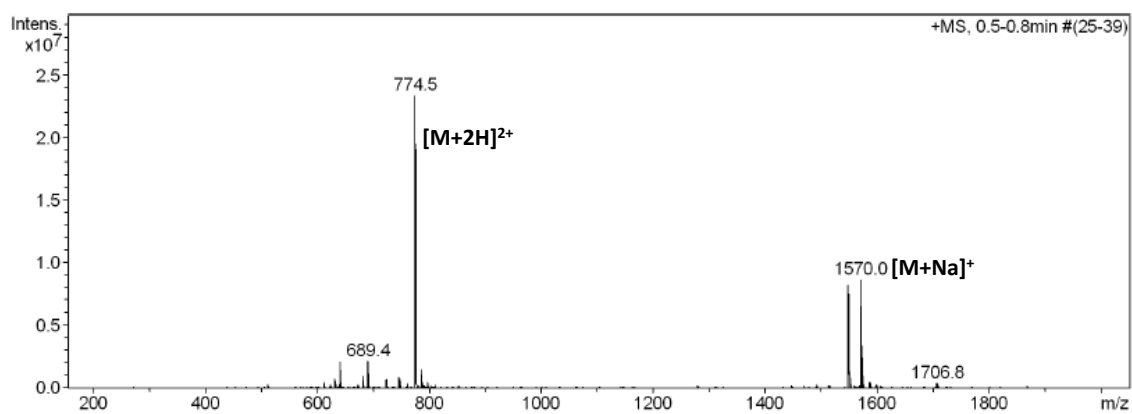
ESI-MS (m/z) (CC-14-323)

| |
|-------------------------|
| $[M+H]^+ = 1548.0$ |
| $[M+Na]^+ = 1570.0$ |
| $[M+2H]^{2+} = 774.5$ |
| $[M+H+Na]^{2+} = 785.9$ |

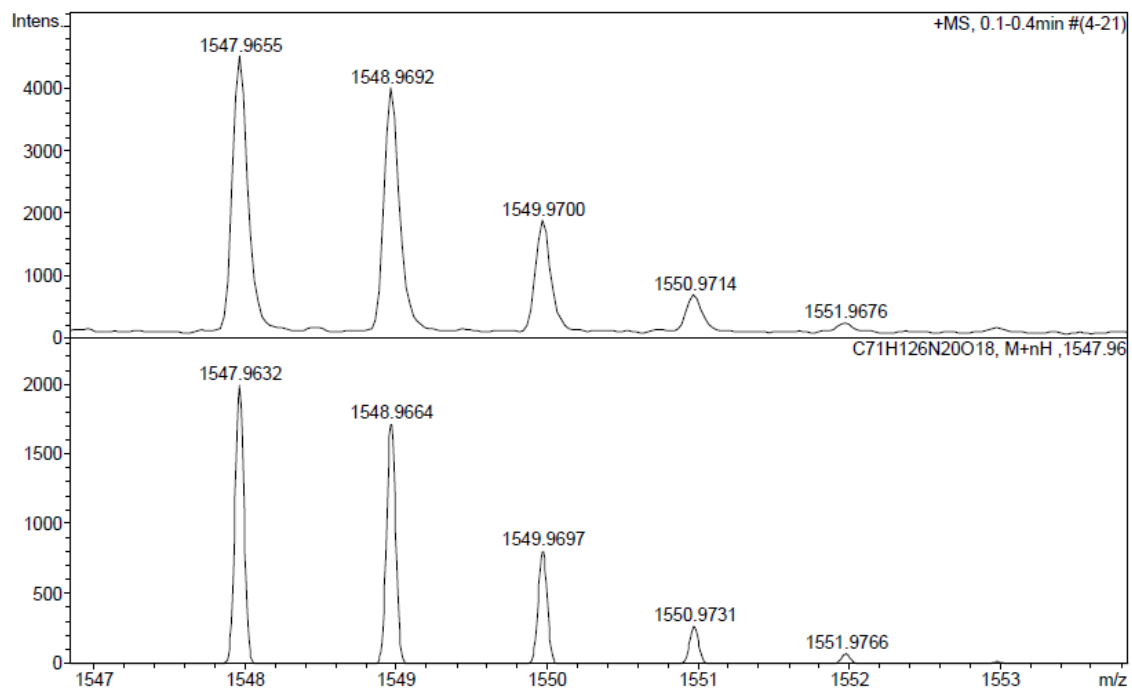
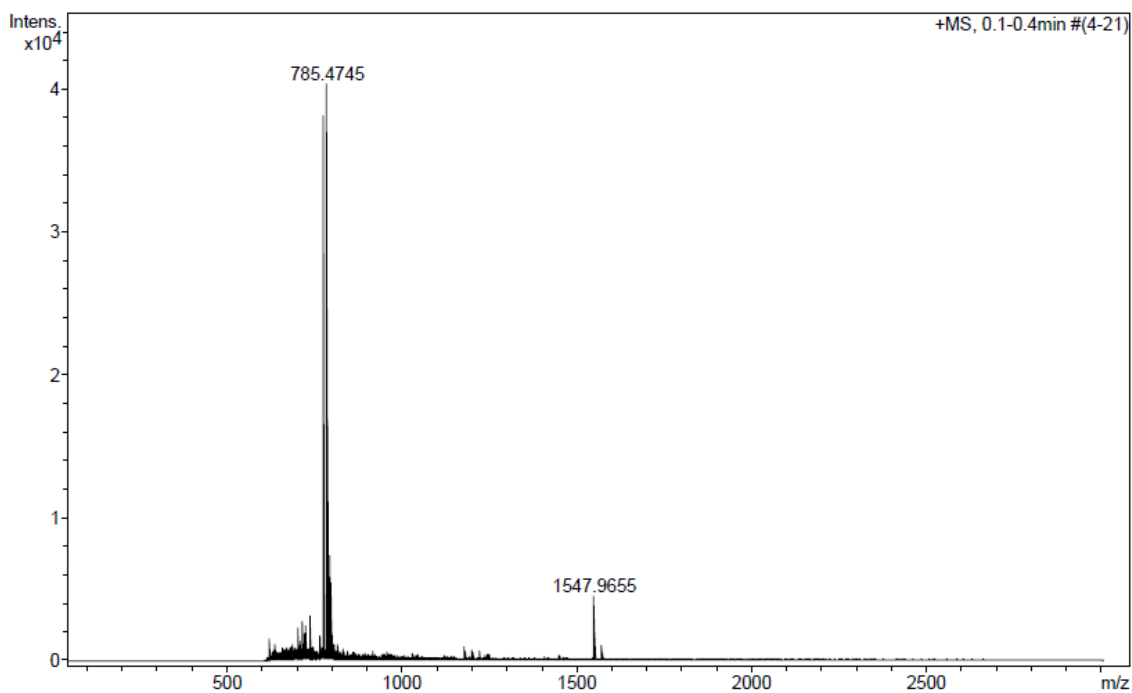
PURE PRODUCT

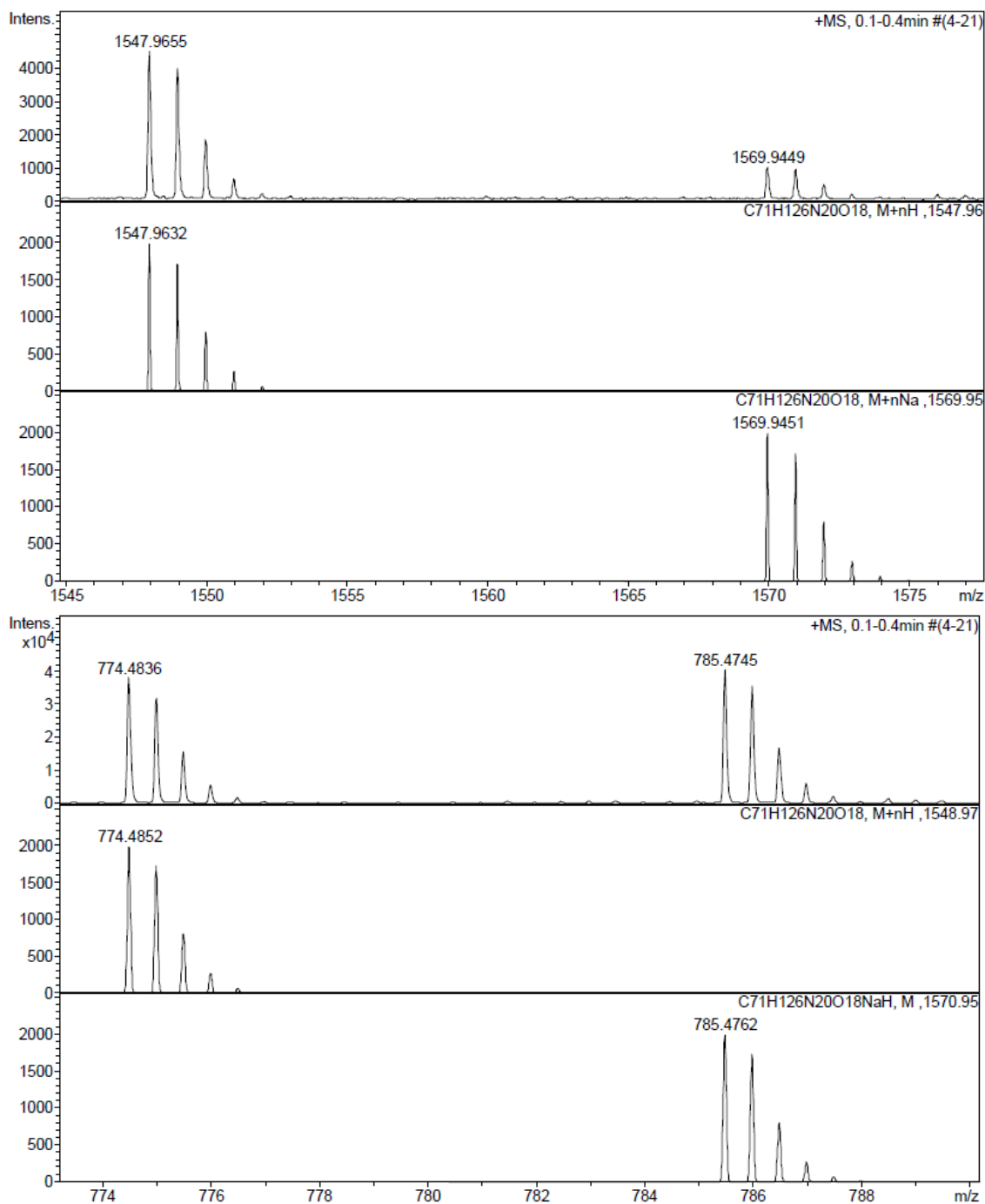
HPLC ($\lambda = 220 \text{ nm}$) (CC-14-342 tub 19)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,17 | 900,994 | 82,027 | 100,00 |
| Total: | | 900,994 | 82,027 | 100,00 |

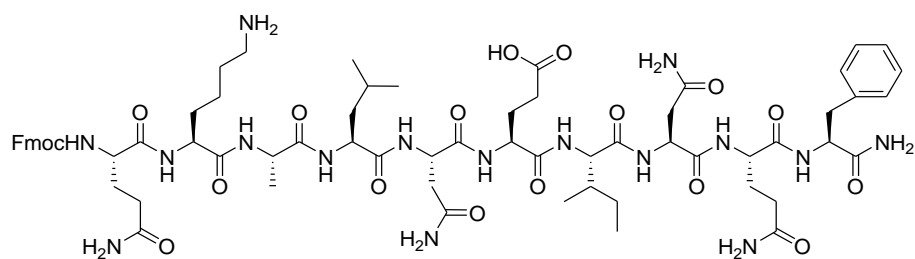
ESI-MS (m/z) (CC-14-342 tub 19)

| |
|-------------------------|
| $[M+H]^+ = 1548.0$ |
| $[M+Na]^+ = 1570.0$ |
| $[M+K]^+ = 1587.0$ |
| $[M+2H]^{2+} = 774.5$ |
| $[M+H+Na]^{2+} = 786.0$ |

HRMS (ESI) (m/z) (Frenatin 2.2S) CC-14

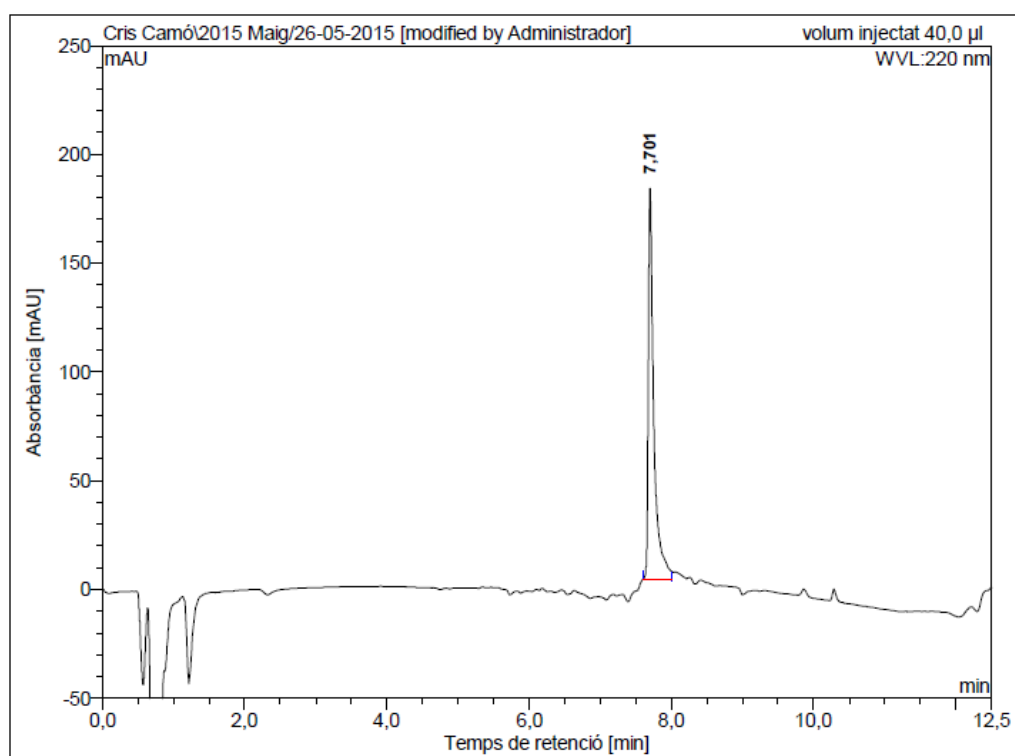


| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+H] ⁺ | C ₇₁ H ₁₂₇ N ₂₀ O ₁₈ | 1547.9632 | 1547.9655 |
| [M+Na] ⁺ | C ₇₁ H ₁₂₆ N ₂₀ O ₁₈ Na | 1569.9451 | 1569.9449 |
| [M+2H] ²⁺ | C ₇₁ H ₁₂₈ N ₂₀ O ₁₈ | 774.4852 | 774.4836 |
| [M+H+Na] ²⁺ | C ₇₁ H ₁₂₇ N ₂₀ O ₁₈ Na | 785.4762 | 785.4745 |

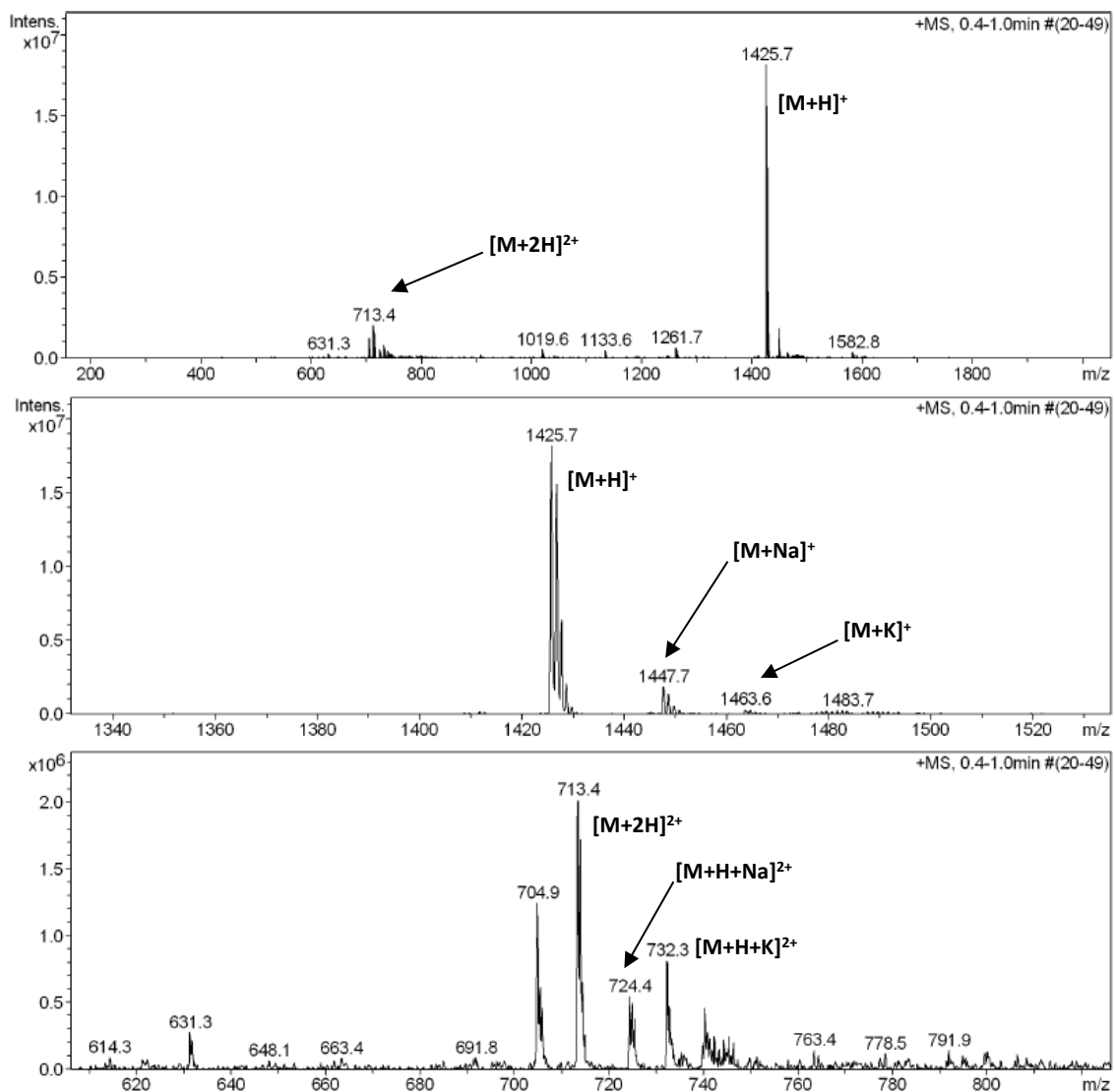
Fmoc-Gln-Lys-Ala-Leu-Asn-Glu-Ile-Asn-Gln-Phe-NH₂ (p10) CC-15

C₆₈H₉₆N₁₆O₁₈
 Exact Mass: 1424,7089
 Mol. Wt.: 1425,5862

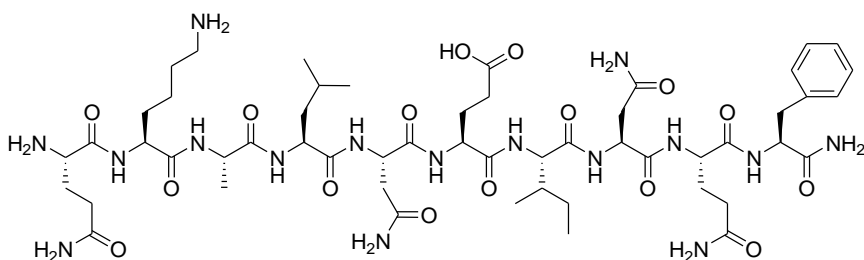
HPLC (λ = 220 nm) (CC-15-264)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,70 | 179,707 | 16,163 | 100,00 |
| Total: | | 179,707 | 16,163 | 100,00 |

ESI-MS (m/z) (CC-15-264)

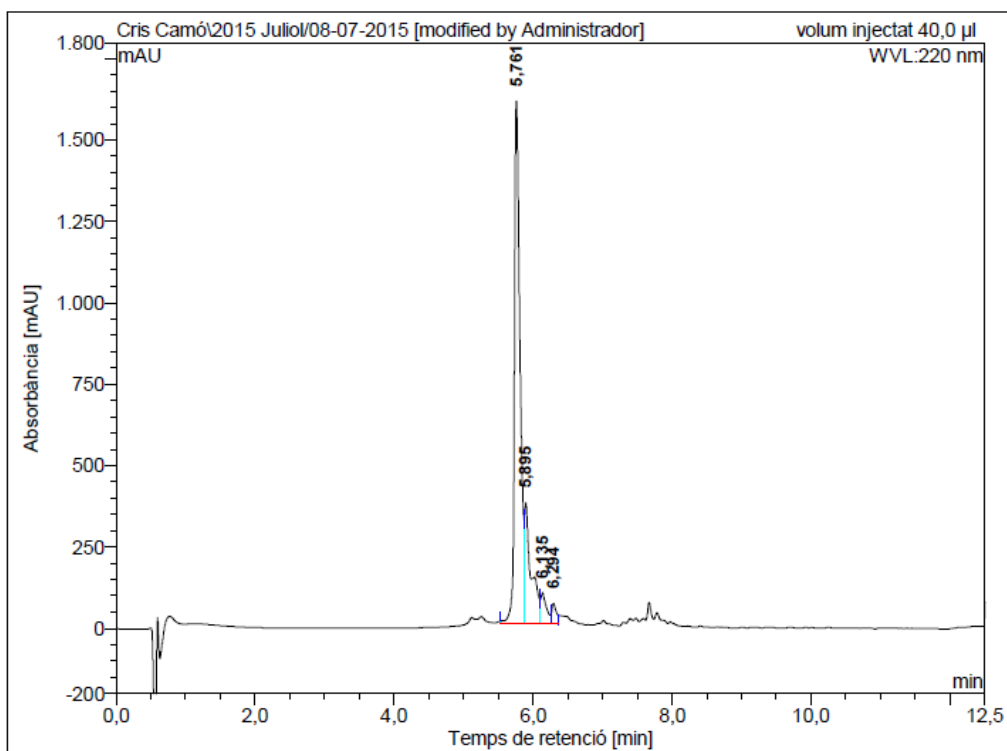
| |
|--------------------------------|
| [M+H] ⁺ = 1425.7 |
| [M+Na] ⁺ = 1447.7 |
| [M+K] ⁺ = 1463.3 |
| [M+2H] ²⁺ = 713.4 |
| [M+H+Na] ²⁺ = 724.4 |
| [M+H+K] ²⁺ = 732.3 |

Gln-Lys-Ala-Leu-Asn-Glu-Ile-Asn-Gln-Phe-NH₂ (p10) CC-15

C₅₃H₈₆N₁₆O₁₆
Exact Mass: 1202,6408
Mol. Wt.: 1203,3475

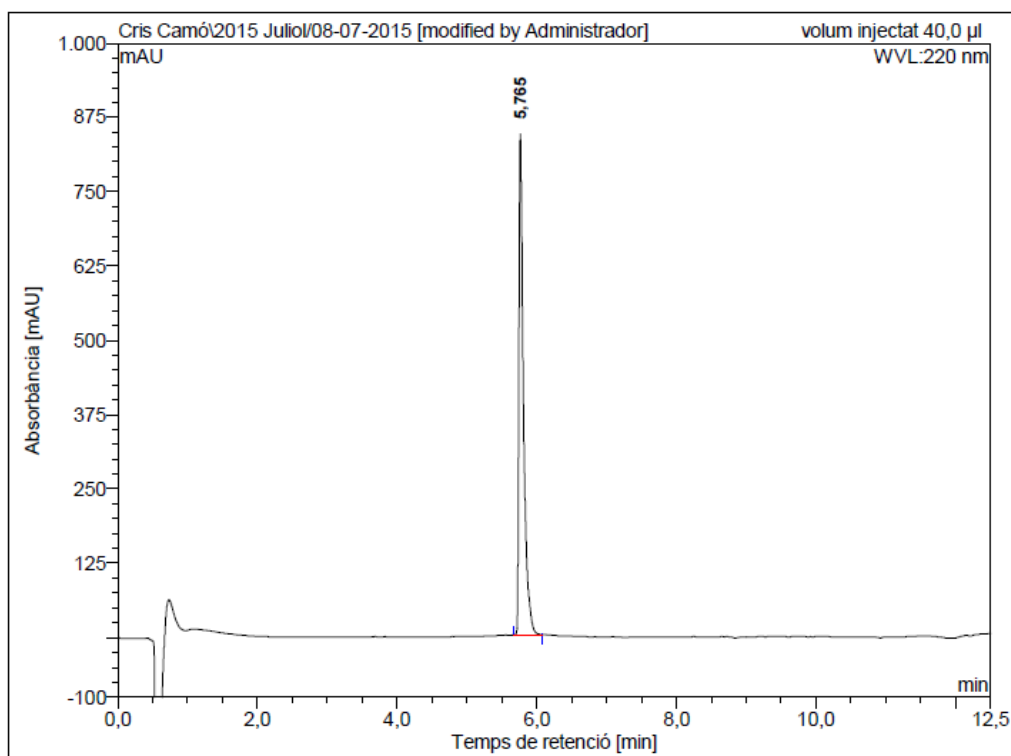
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-15-310 impur)

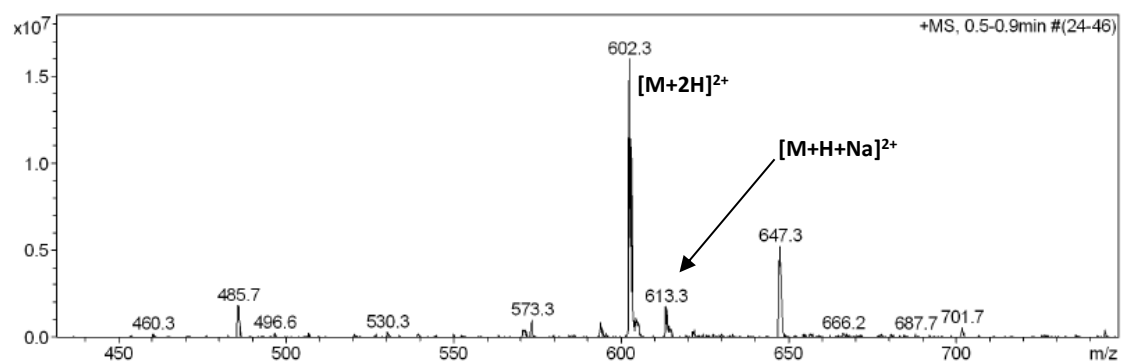
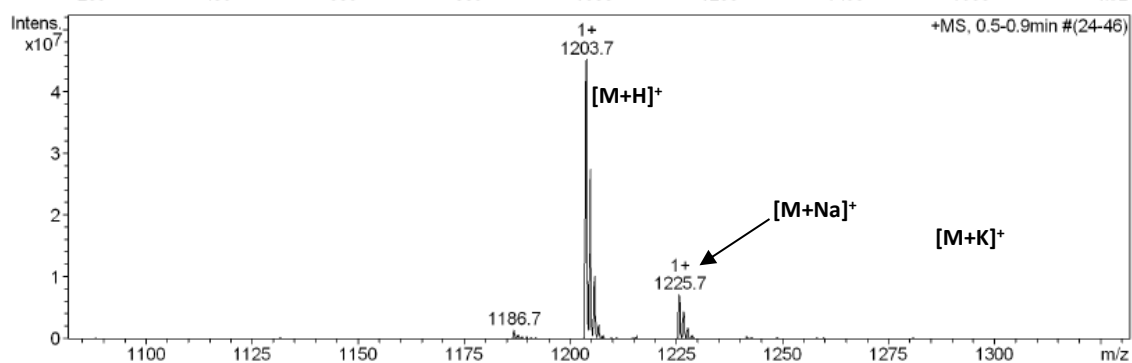
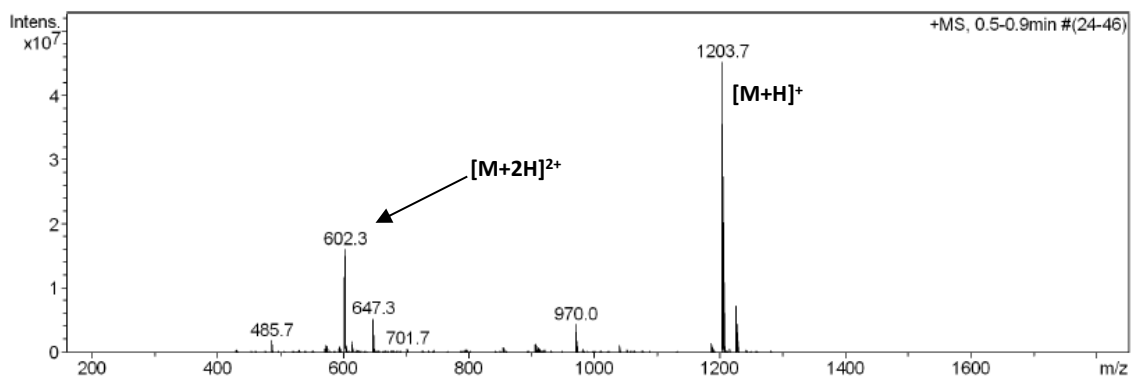


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,76 | 1605,640 | 150,119 | 72,60 |
| 2 | 5,89 | 371,845 | 41,480 | 20,06 |
| 3 | 6,13 | 95,203 | 10,155 | 4,91 |
| 4 | 6,29 | 62,972 | 5,024 | 2,43 |
| Total: | | 2135,661 | 206,778 | 100,00 |

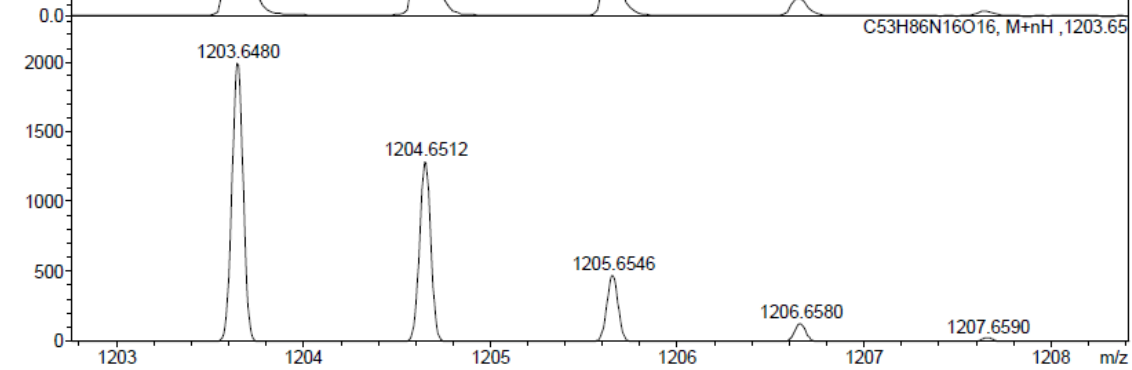
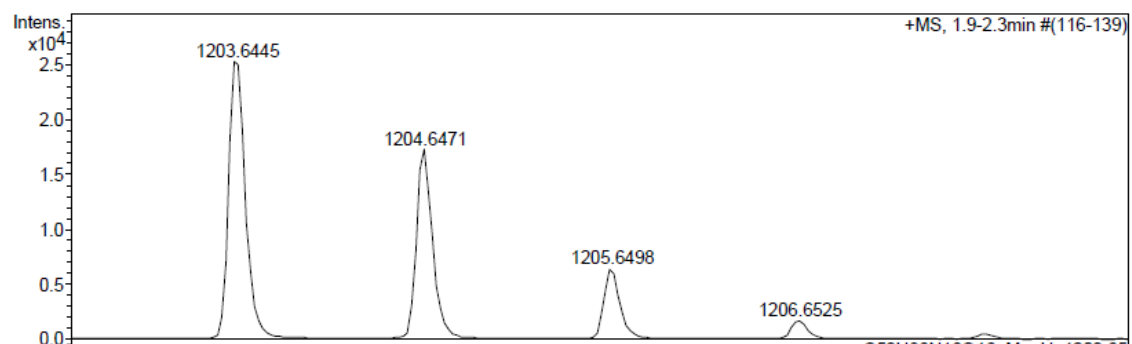
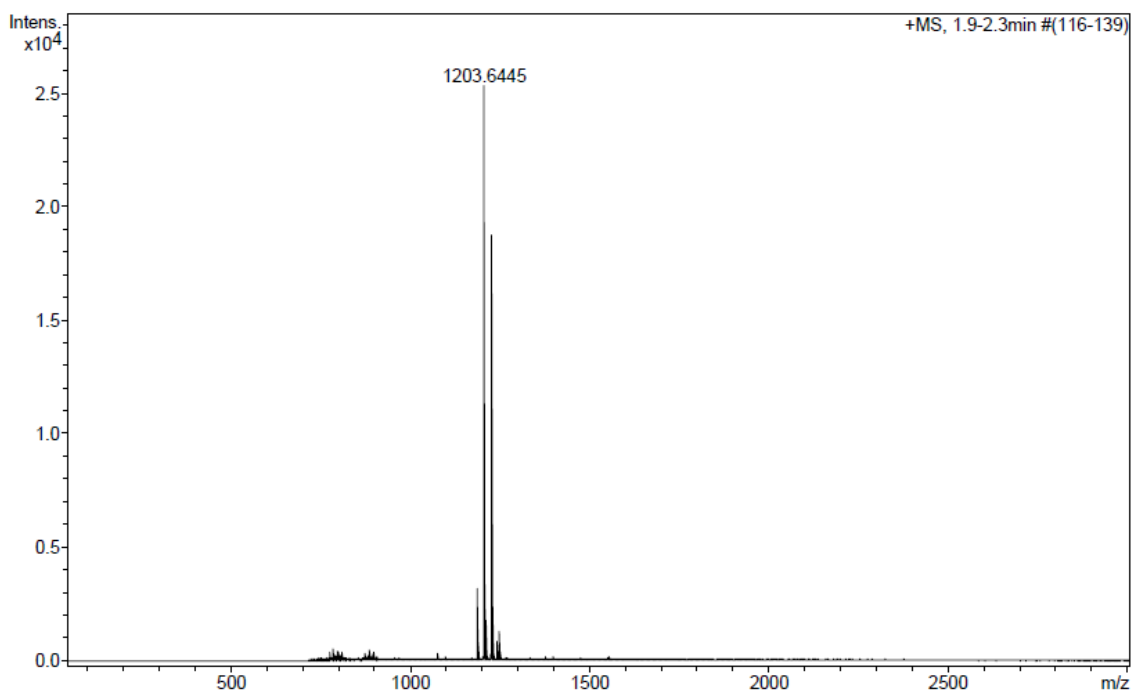
PURE PRODUCT

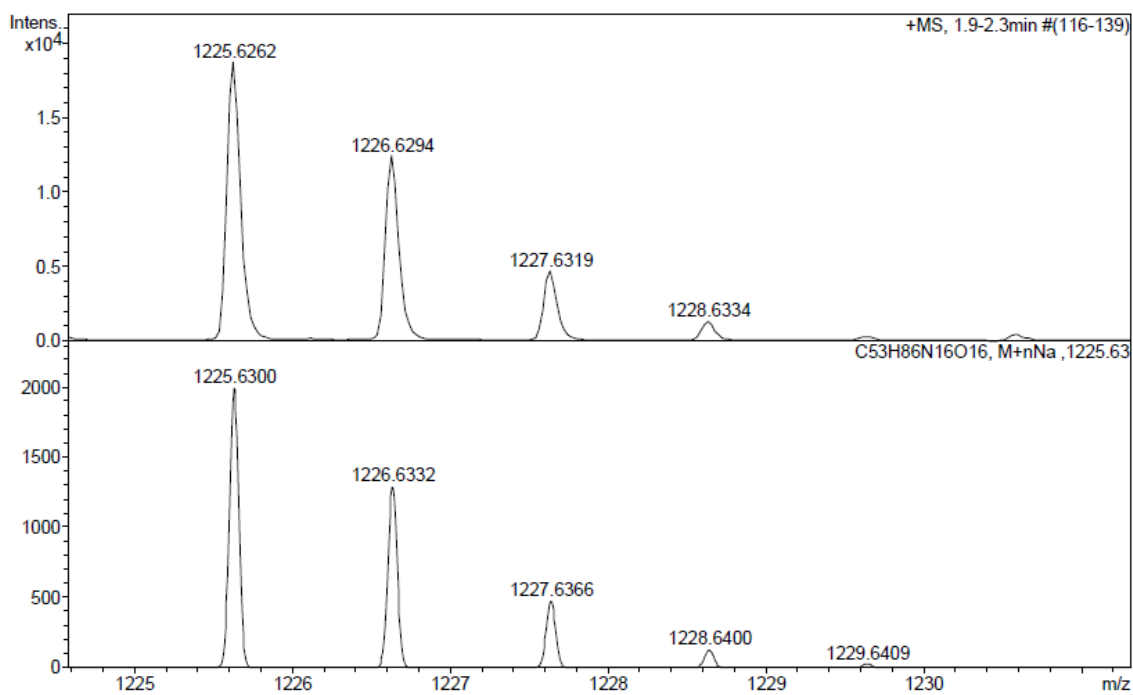
HPLC ($\lambda = 220 \text{ nm}$) (CC-15-310 tub 9)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,76 | 842,997 | 64,440 | 100,00 |
| Total: | | 842,997 | 64,440 | 100,00 |

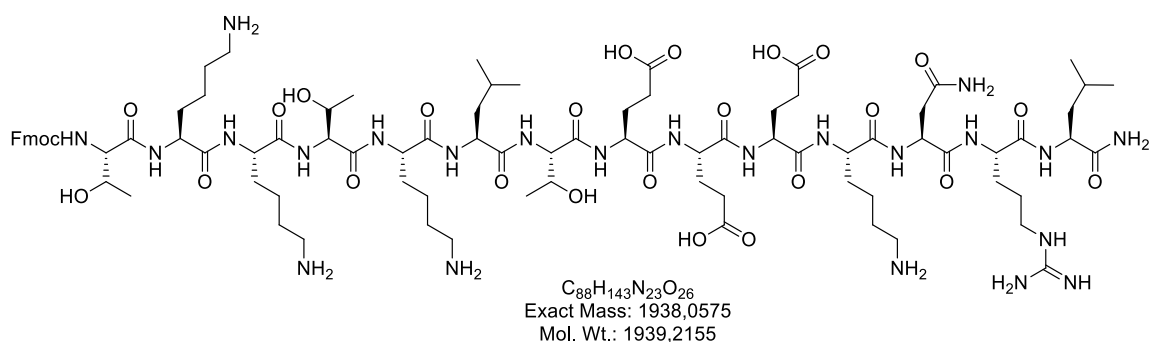
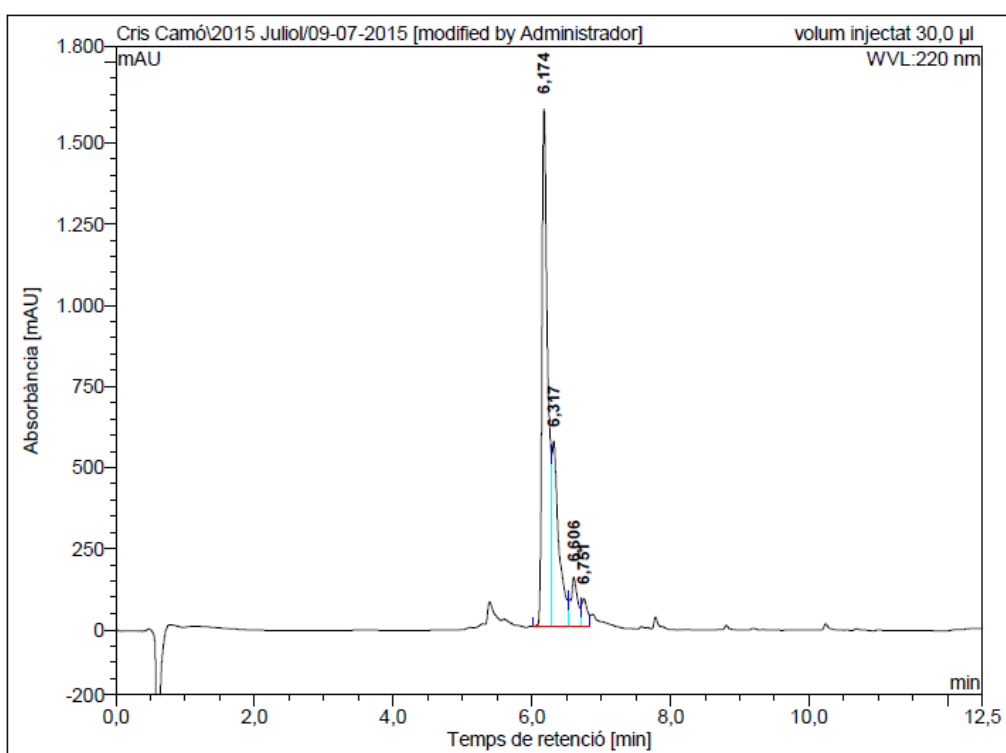
ESI-MS (m/z) (CC-15-310 tub 9)

| |
|-------------------------|
| $[M+H]^+ = 1203.7$ |
| $[M+Na]^+ = 1225.7$ |
| $[M+2H]^{2+} = 602.3$ |
| $[M+H+Na]^{2+} = 613.3$ |

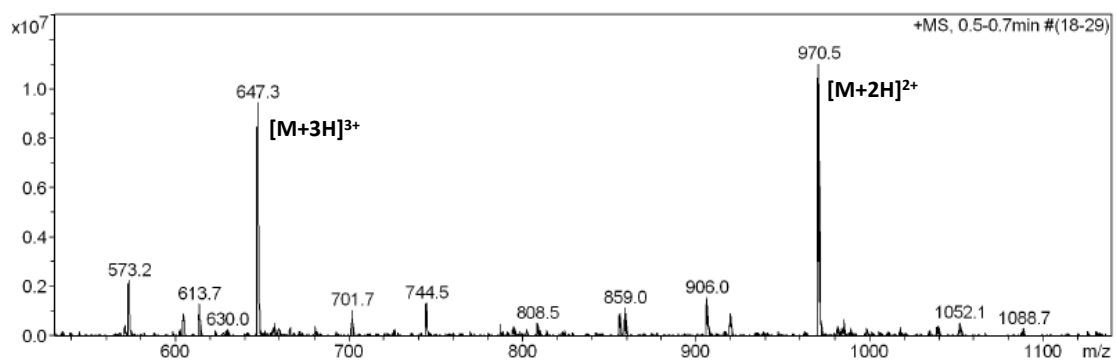
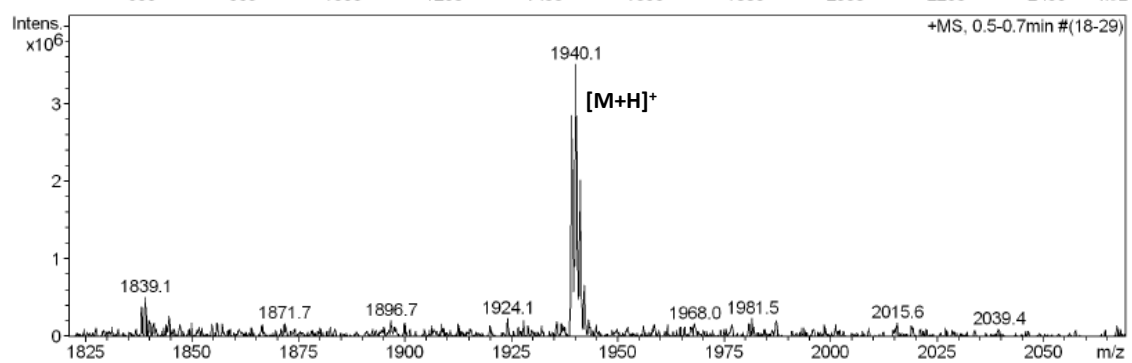
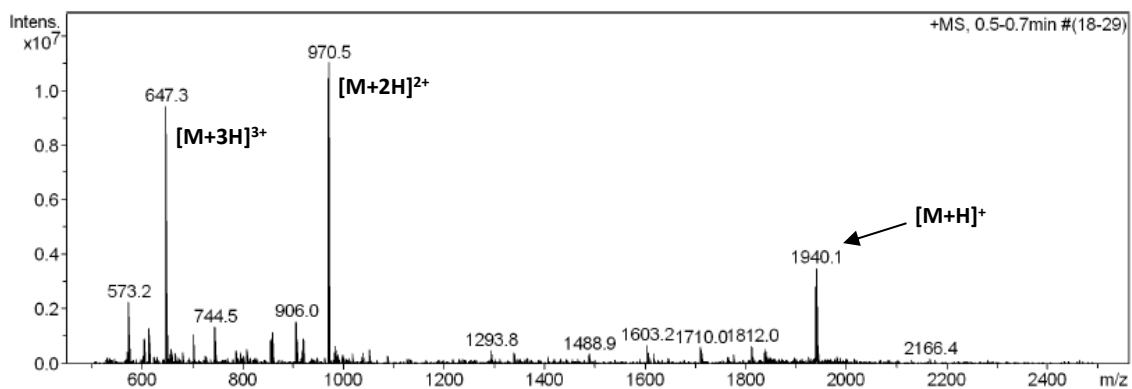
HRMS (ESI) (m/z) (p10) (CC-15)



| | Molecular formula | Calculated | Found |
|---------------------|--|------------|-----------|
| [M+H] ⁺ | C ₅₃ H ₈₇ N ₁₆ O ₁₆ | 1203.6480 | 1203.6445 |
| [M+Na] ⁺ | C ₅₃ H ₈₆ N ₁₆ O ₁₆ Na | 1225.6300 | 1225.6262 |

Fmoc-Thr-Lys-Lys-Thr-Lys-Leu-Thr-Glu-Glu-Lys-Asn-Arg-Leu-NH₂ (p14) CC-16HPLC ($\lambda = 220$ nm) (CC-16-315)

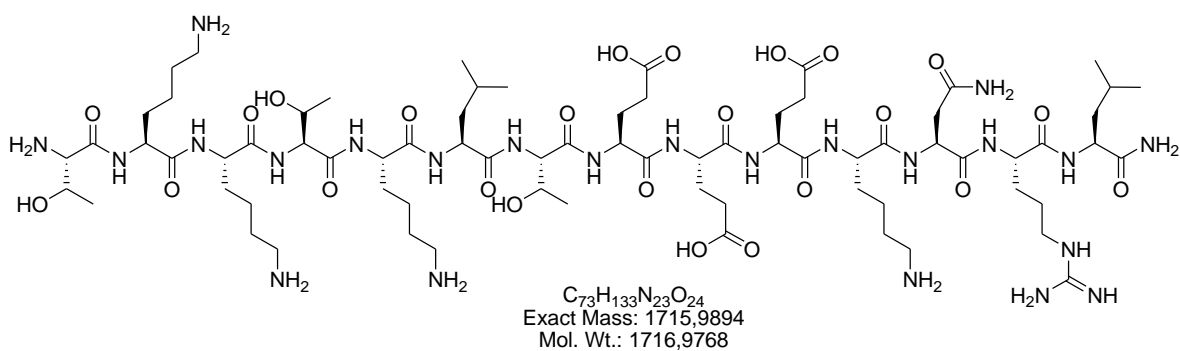
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,17 | 1594,760 | 156,717 | 63,27 |
| 2 | 6,32 | 571,977 | 64,952 | 26,22 |
| 3 | 6,61 | 152,594 | 17,872 | 7,22 |
| 4 | 6,75 | 85,815 | 8,145 | 3,29 |
| Total: | | 2405,146 | 247,687 | 100,00 |

ESI-MS (m/z) (CC-16-315)

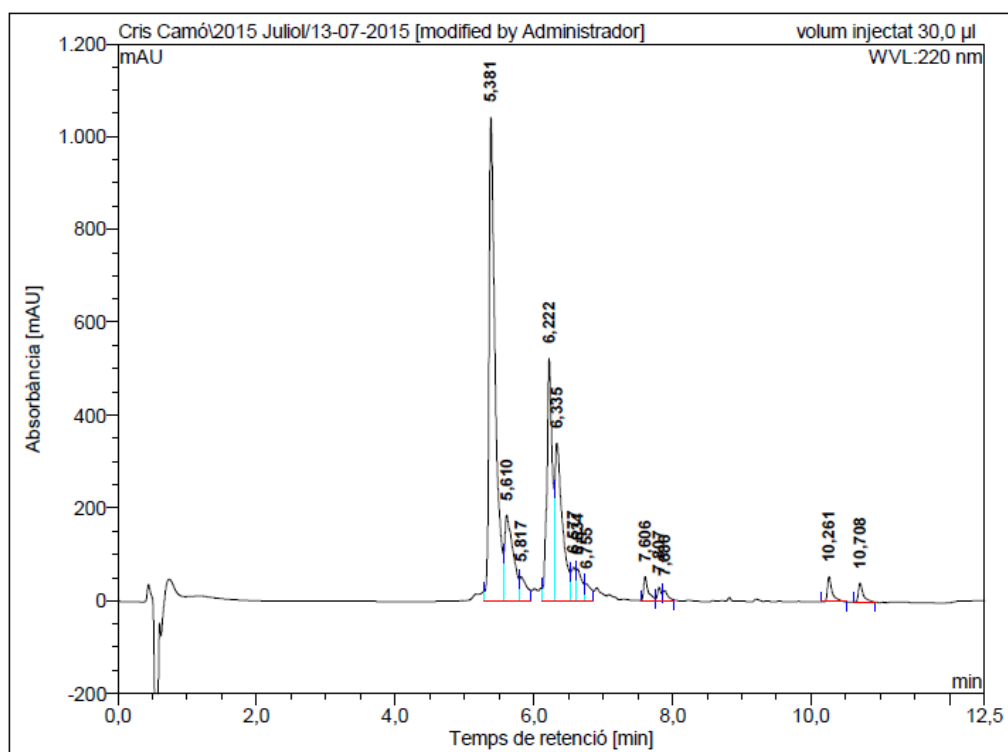
$$[M+H]^+ = 1940.1$$

$$[M+2H]^{2+} = 970.5$$

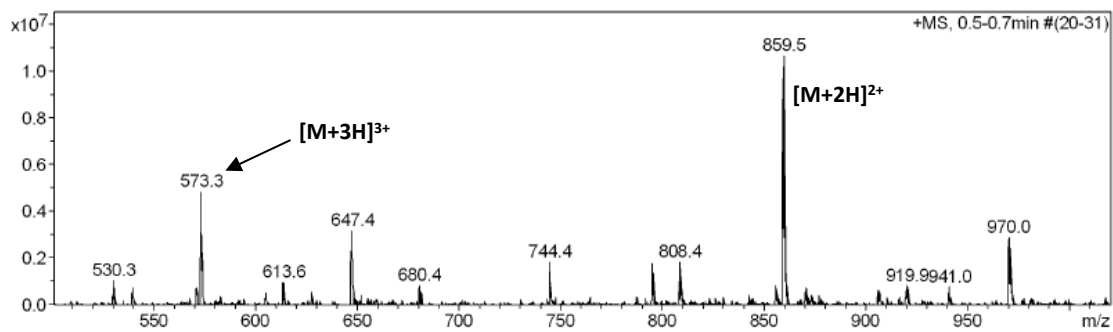
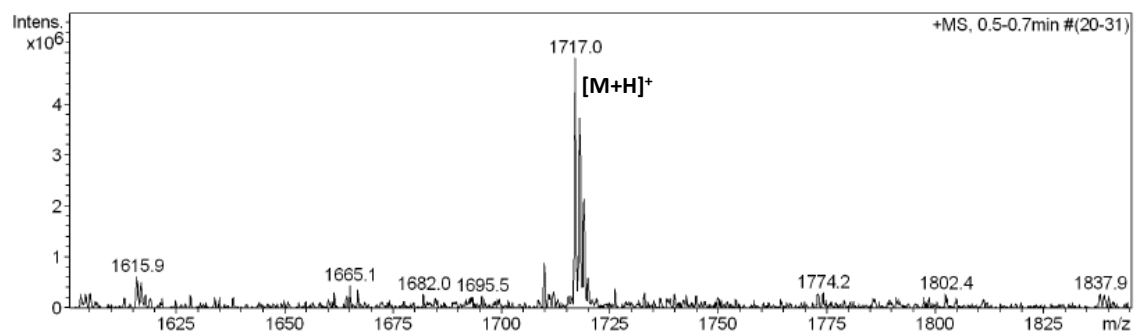
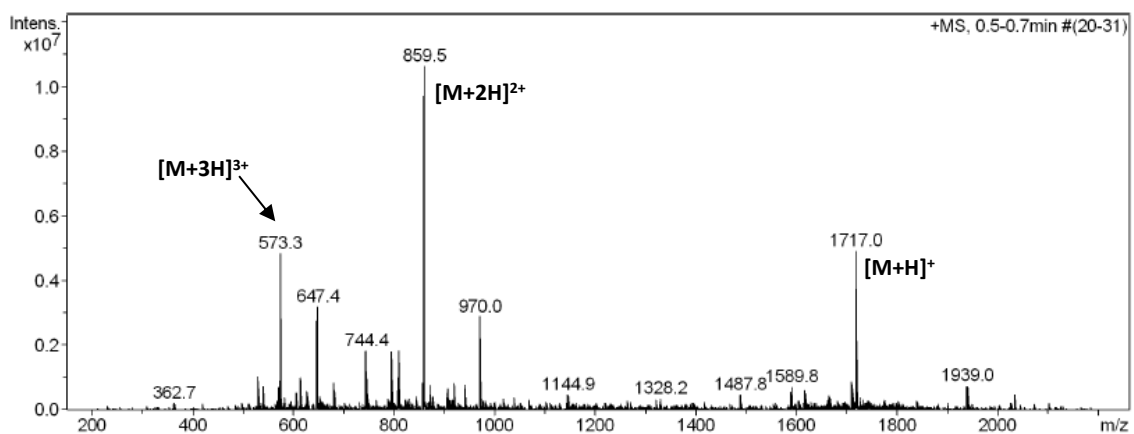
$$[M+3H]^{3+} = 647.3$$

Thr-Lys-Lys-Thr-Lys-Leu-Thr-Glu-Glu-Glu-Lys-Asn-Arg-Leu-NH₂ (p14) CC-16

IMPURE PRODUCT

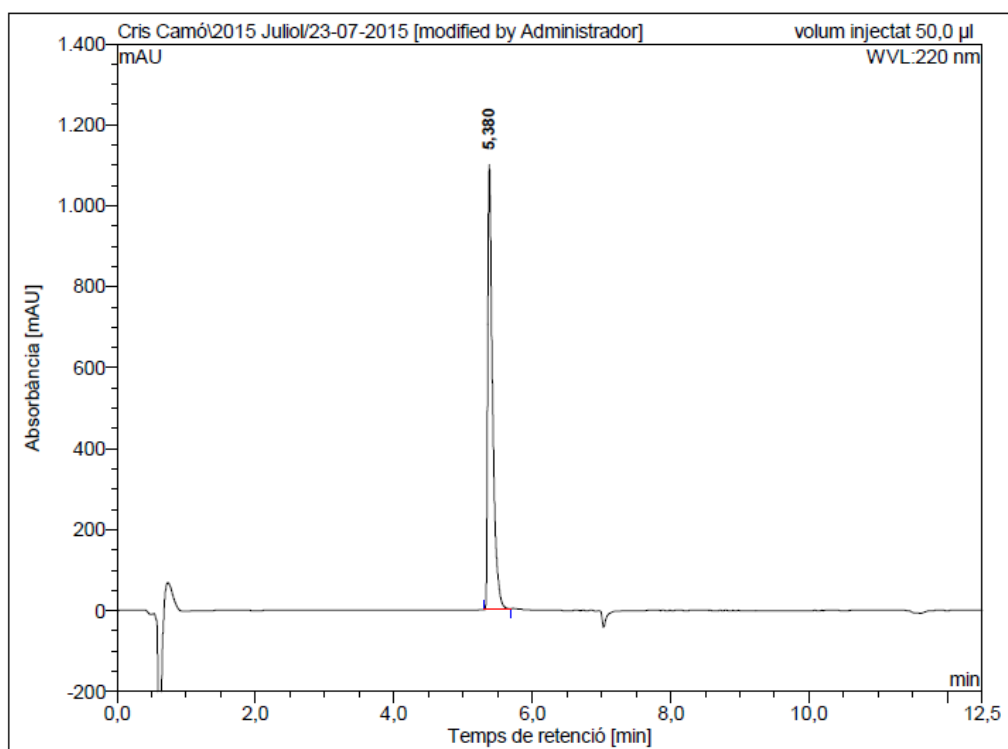
HPLC ($\lambda = 220 \text{ nm}$) (CC-16-317)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,38 | 1041,591 | 108,935 | 41,74 |
| 2 | 5,61 | 184,582 | 26,374 | 10,11 |
| 3 | 5,82 | 51,470 | 6,159 | 2,36 |
| 4 | 6,22 | 520,873 | 45,484 | 17,43 |
| 5 | 6,34 | 338,653 | 43,341 | 16,61 |
| 6 | 6,58 | 71,738 | 5,533 | 2,12 |
| 7 | 6,63 | 67,854 | 6,174 | 2,37 |
| 8 | 6,75 | 36,468 | 4,005 | 1,53 |
| 9 | 7,61 | 51,252 | 3,888 | 1,49 |
| 10 | 7,81 | 28,208 | 1,576 | 0,60 |
| 11 | 7,89 | 21,313 | 1,867 | 0,72 |
| 12 | 10,26 | 54,186 | 4,300 | 1,65 |
| 13 | 10,71 | 41,299 | 3,337 | 1,28 |
| Total: | | 2509,487 | 260,974 | 100,00 |

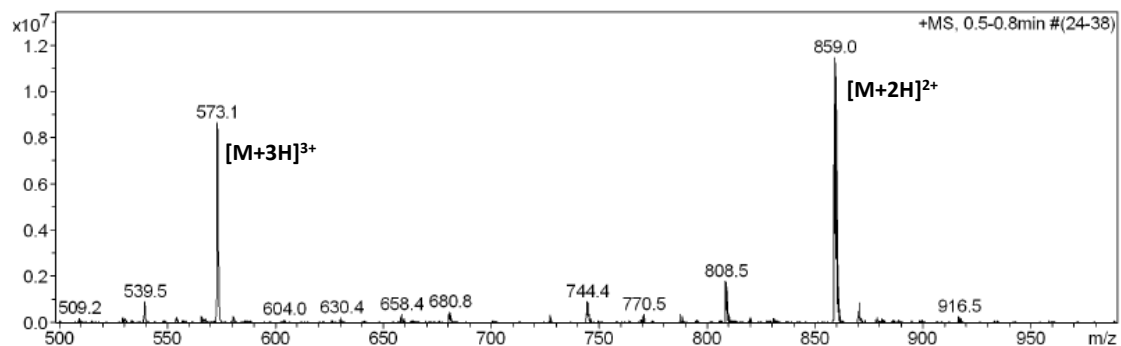
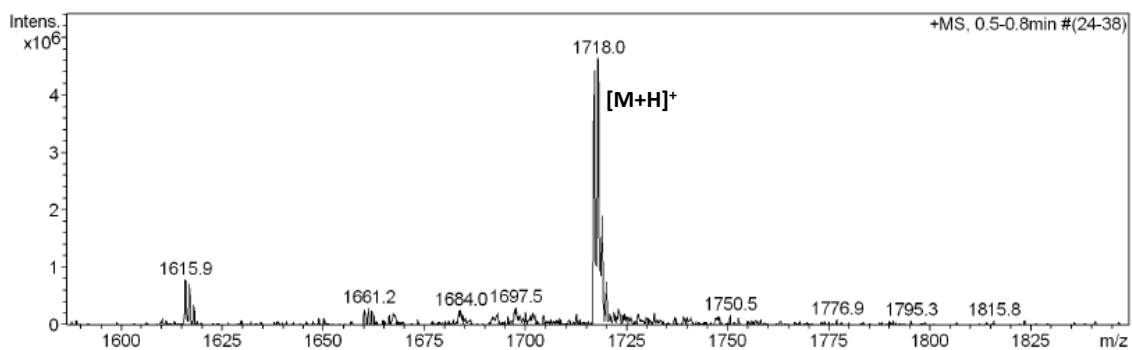
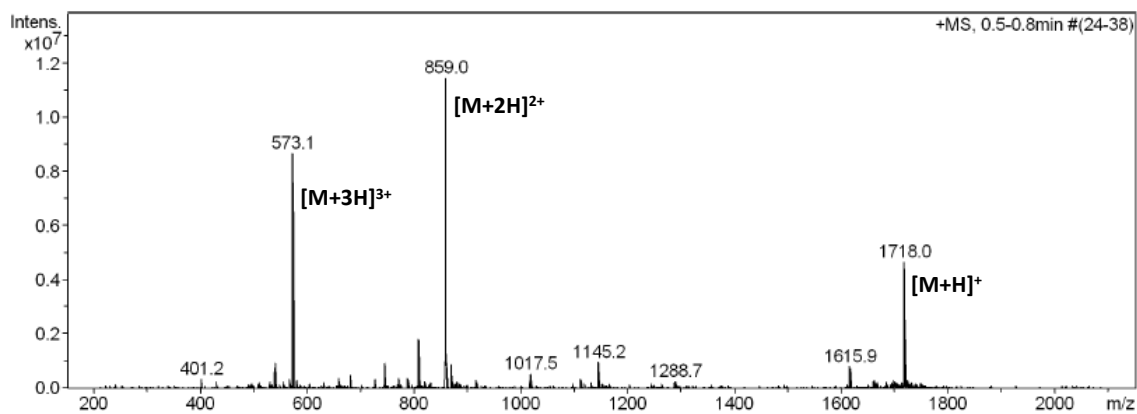
ESI-MS (m/z) (CC-16-317)

| |
|-----------------------|
| $[M+H]^+ = 1717.0$ |
| $[M+2H]^{2+} = 859.5$ |
| $[M+3H]^{3+} = 573.3$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-16-336 tub 7)

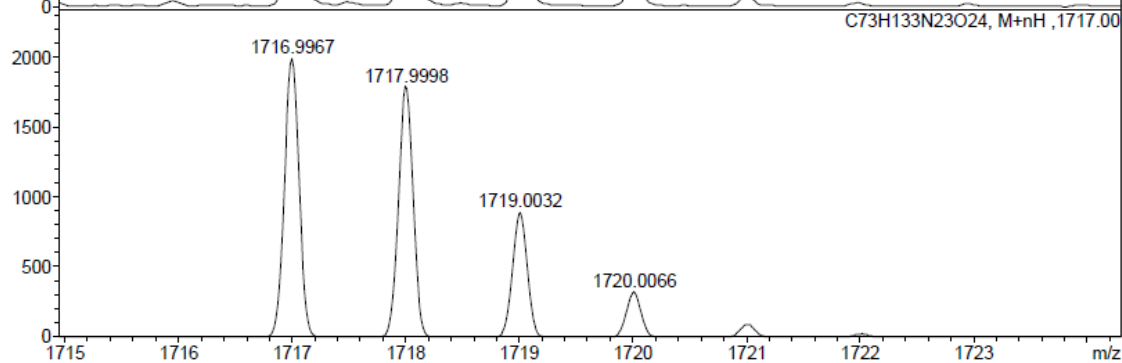
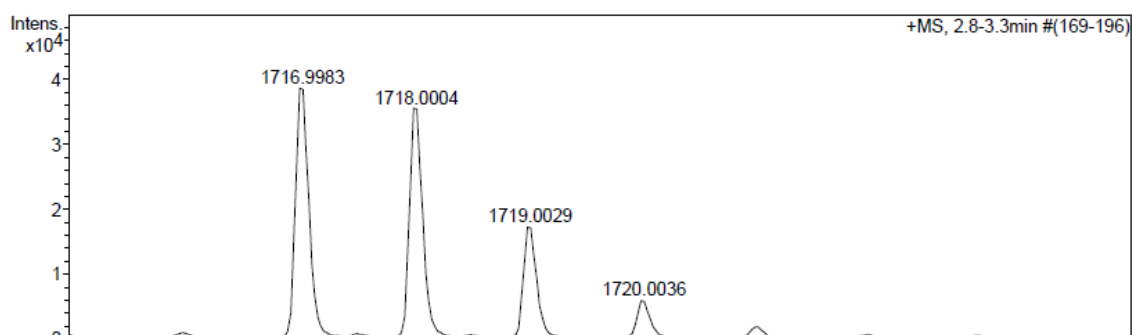
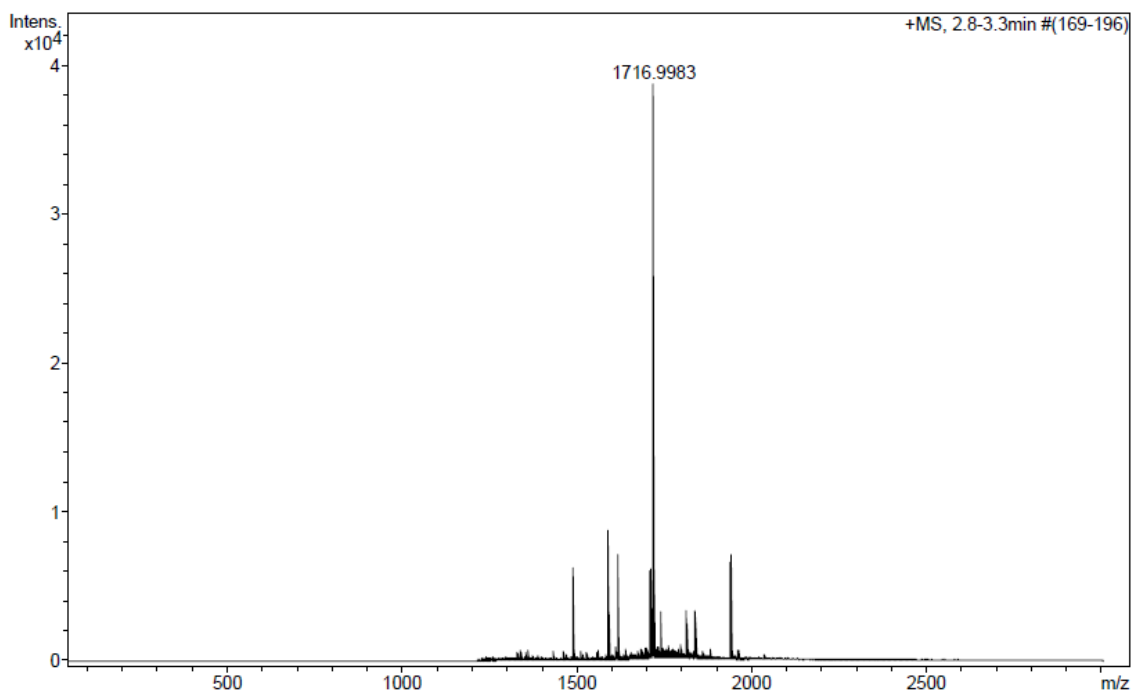
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,38 | 1099,124 | 90,103 | 100,00 |
| Total: | | 1099,124 | 90,103 | 100,00 |

ESI-MS (m/z) (CC-16-336 tub 5)

$$[M+H]^+ = 1718.0$$

$$[M+2H]^{2+} = 859.0$$

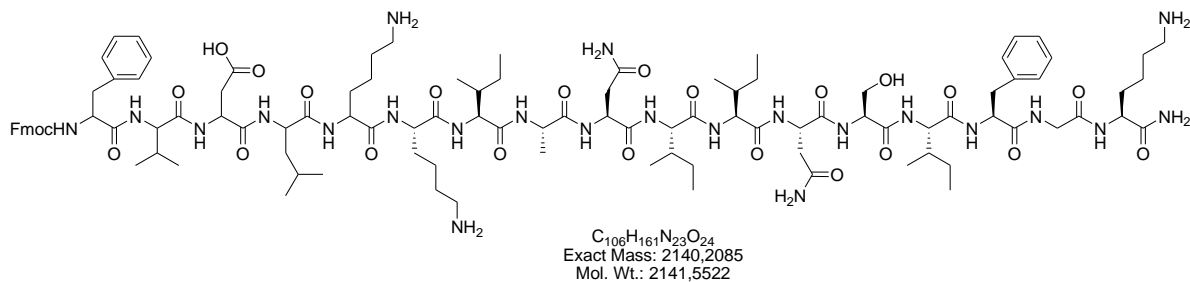
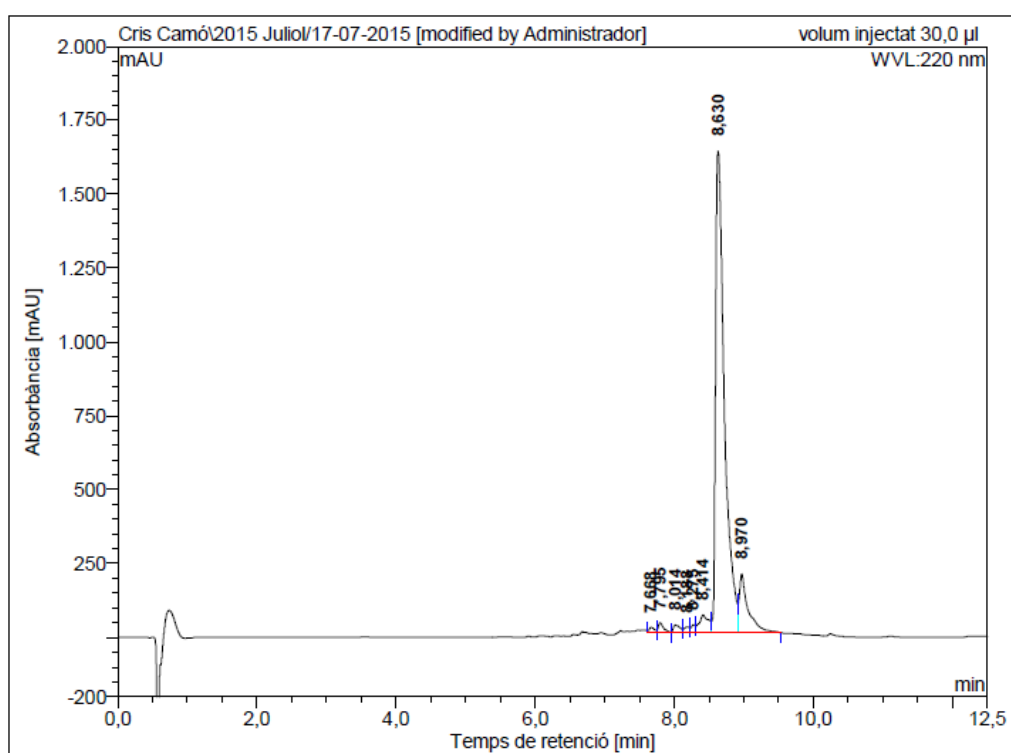
$$[M+3H]^{3+} = 573.1$$

HRMS (ESI) (m/z) (p14) CC-16

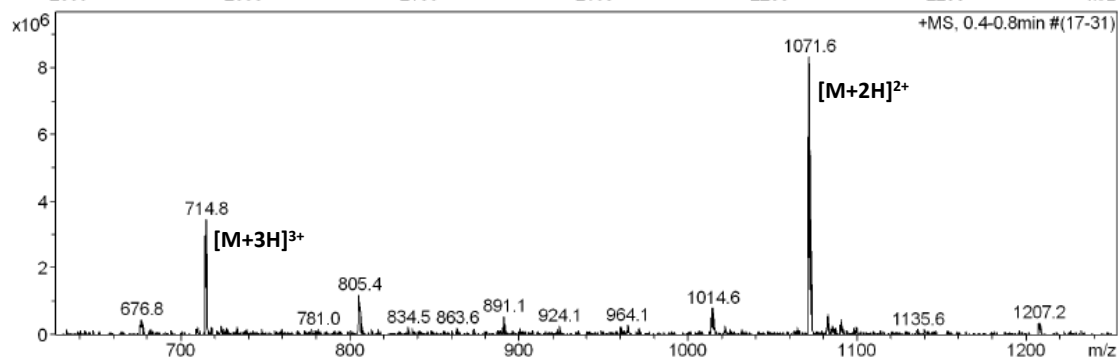
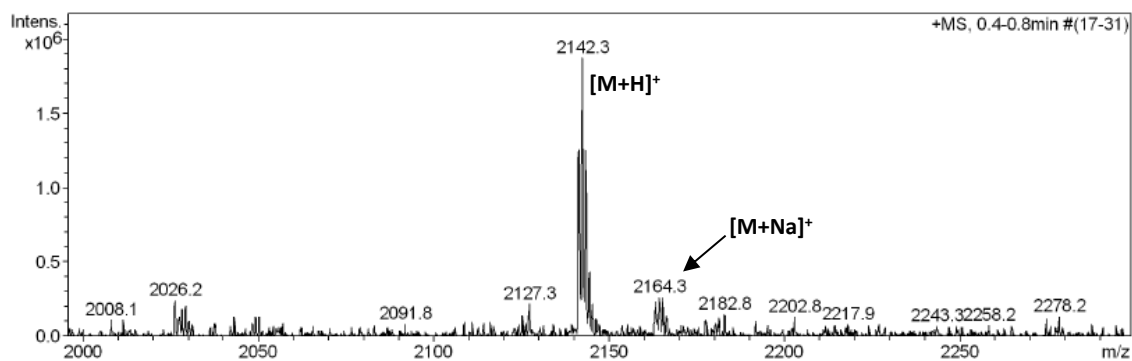
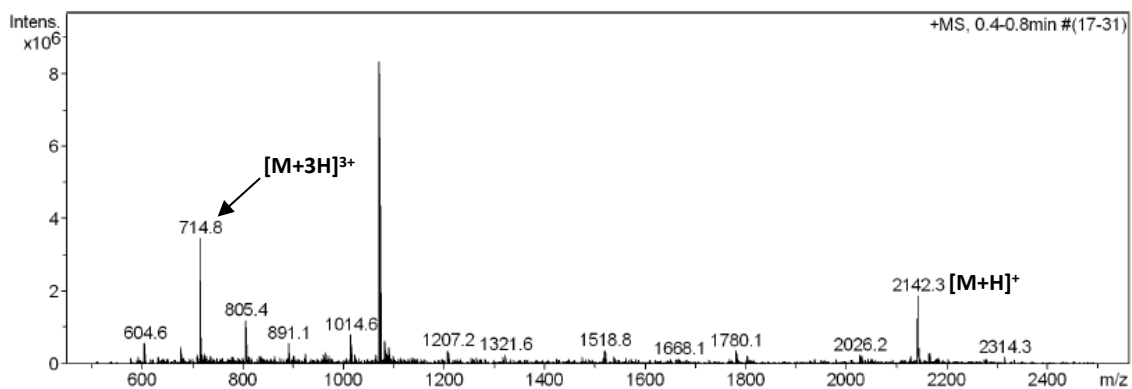
| | Molecular formula | Calculated | Found |
|--------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₃ H ₁₃₄ N ₂₃ O ₂₄ | 1716.9967 | 1716.9983 |

Fmoc-Phe-Val-Asp-Leu-Lys-Lys-Ile-Ala-Asn-Ile-Ile-Asn-Ser-Ile-Phe-Gly-Lys-NH₂ (**preproTemporin-1CEa**)

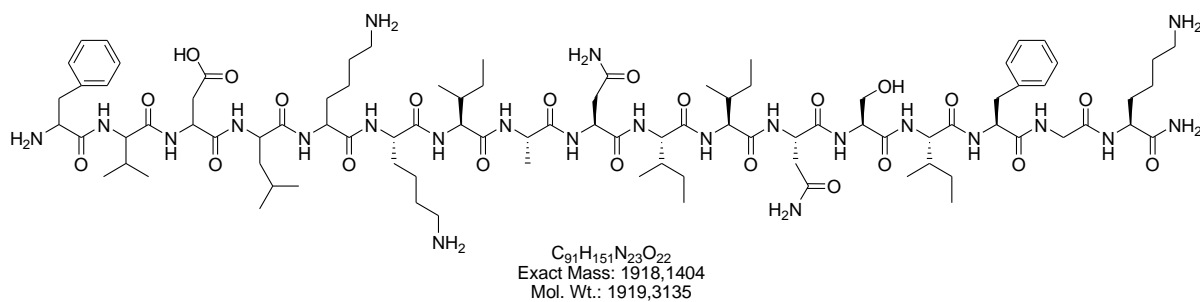
CC-18

HPLC ($\lambda = 220 \text{ nm}$) (CC-18-324)

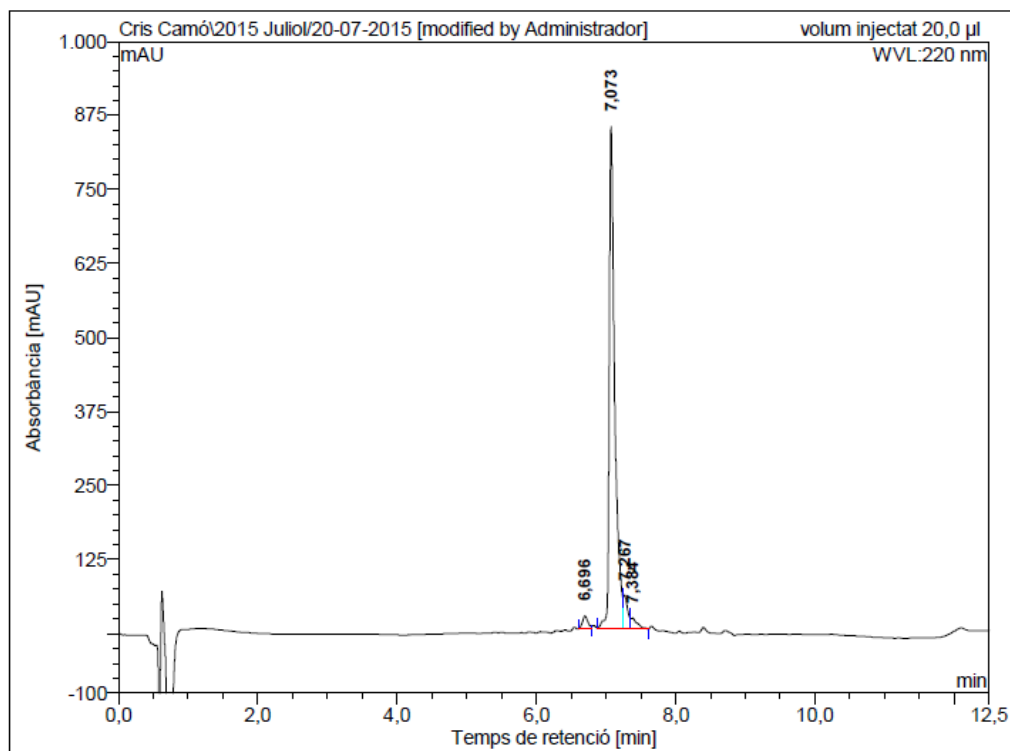
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,67 | 18,476 | 1,611 | 0,55 |
| 2 | 7,80 | 34,557 | 3,247 | 1,11 |
| 3 | 8,01 | 26,004 | 3,079 | 1,05 |
| 4 | 8,19 | 19,787 | 1,824 | 0,62 |
| 5 | 8,27 | 27,112 | 1,746 | 0,60 |
| 6 | 8,41 | 59,955 | 9,617 | 3,29 |
| 7 | 8,63 | 1629,286 | 240,839 | 82,39 |
| 8 | 8,97 | 198,645 | 30,344 | 10,38 |
| Total: | | 2013,821 | 292,307 | 100,00 |

ESI-MS (*m/z*) (CC-18-324)

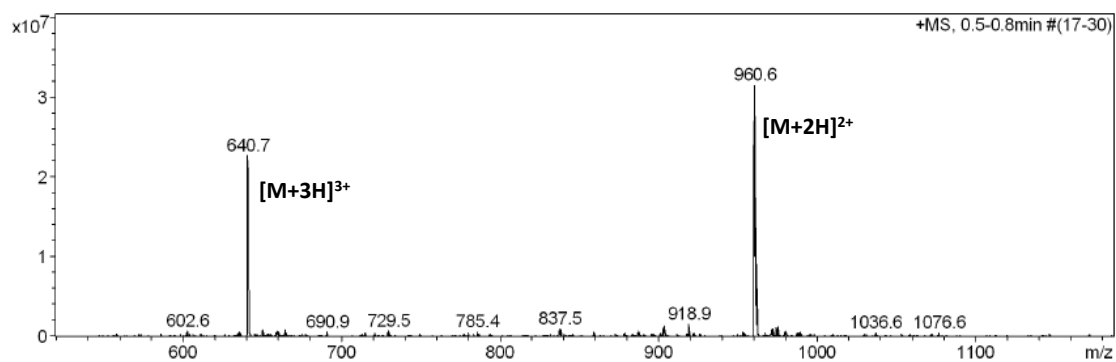
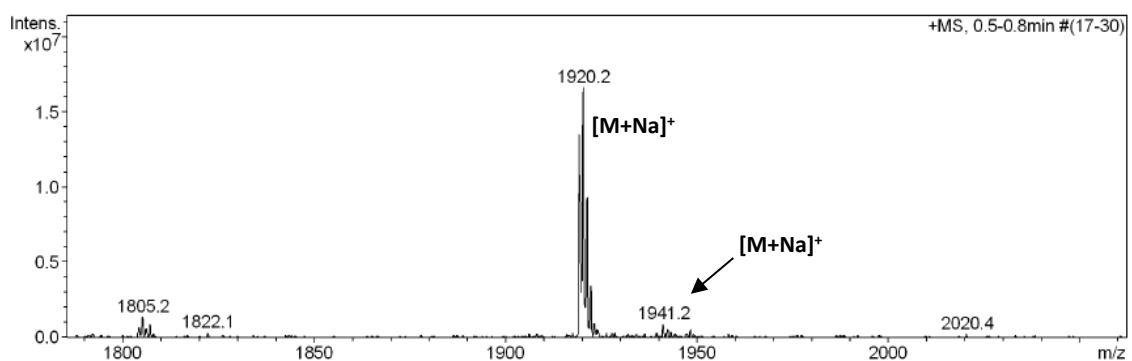
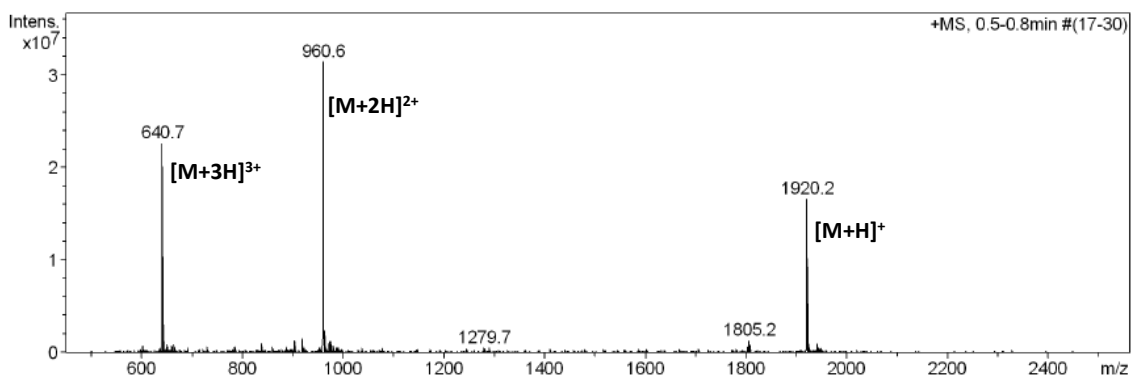
| |
|------------------------------|
| [M+H] ⁺ = 1250.0 |
| [M+Na] ⁺ = 1271.9 |
| [M+2H] ²⁺ = 626.0 |

Phe-Val-Asp-Leu-Lys-Lys-Ile-Ala-Asn-Ile-Ile-Asn-Ser-Ile-Phe-Gly-Lys-NH₂ (**preproTemporin-1CEa**) CC-18

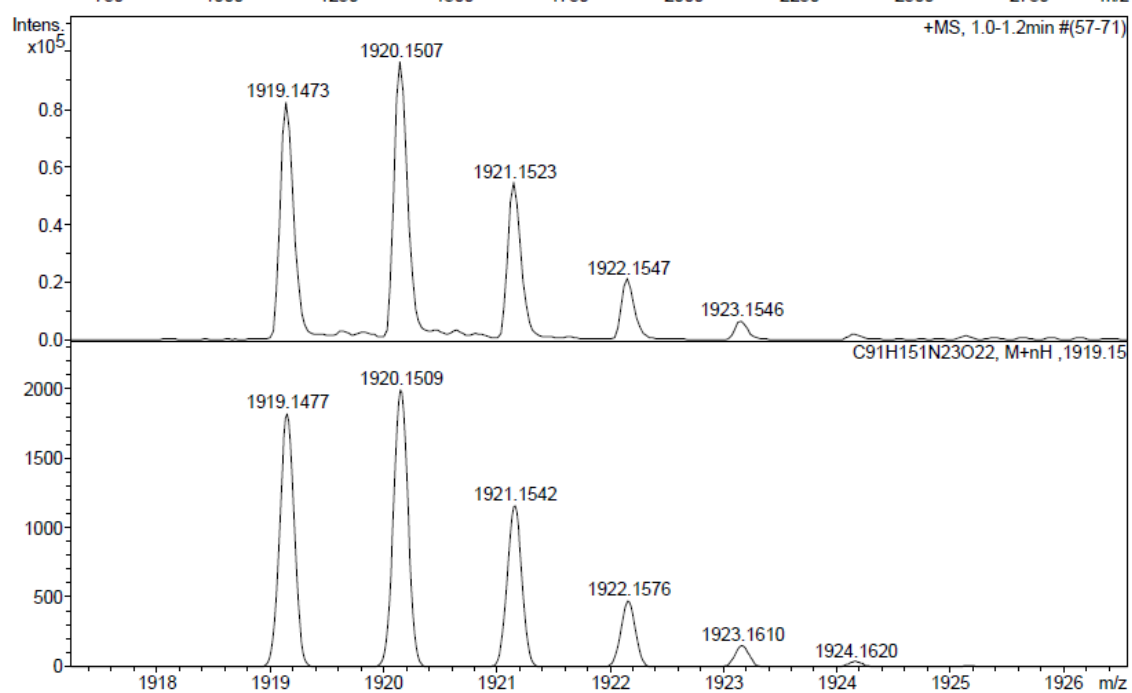
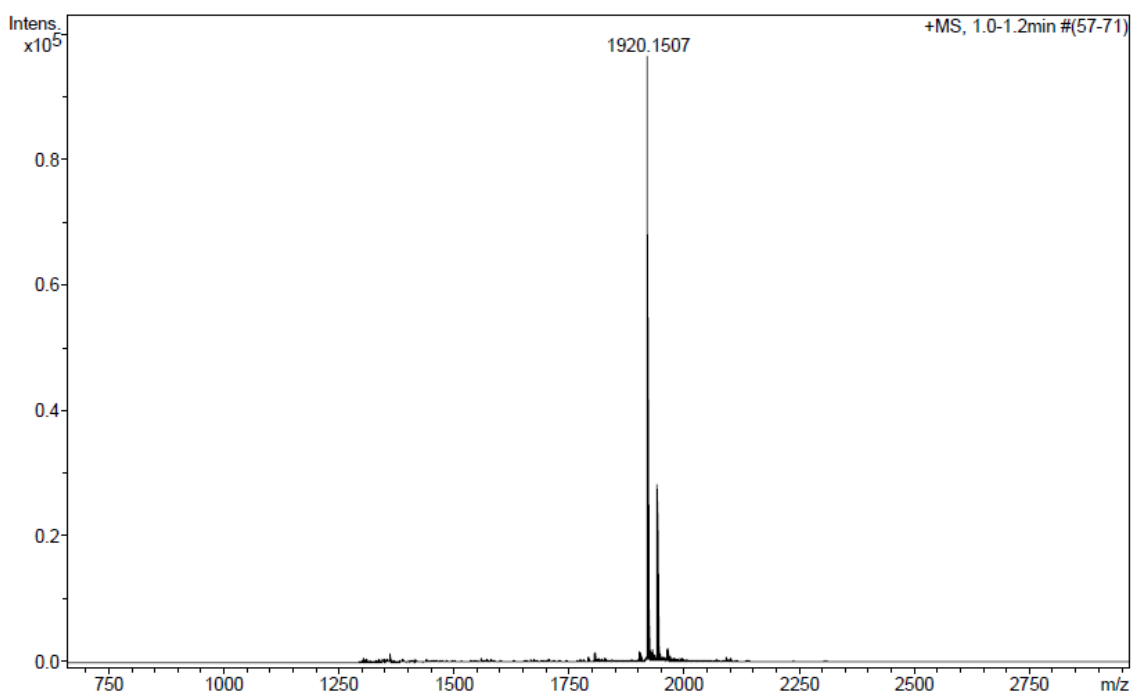
IMPURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-18-326)

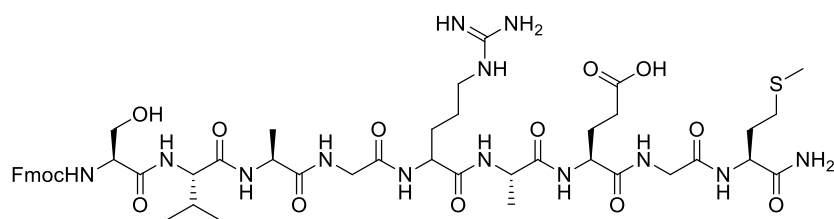
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,70 | 21,867 | 2,034 | 2,35 |
| 2 | 7,07 | 847,886 | 78,061 | 90,39 |
| 3 | 7,27 | 57,519 | 4,189 | 4,85 |
| 4 | 7,38 | 18,674 | 2,072 | 2,40 |
| Total: | | 945,945 | 86,356 | 100,00 |

ESI-MS (m/z) (CC-18-326)

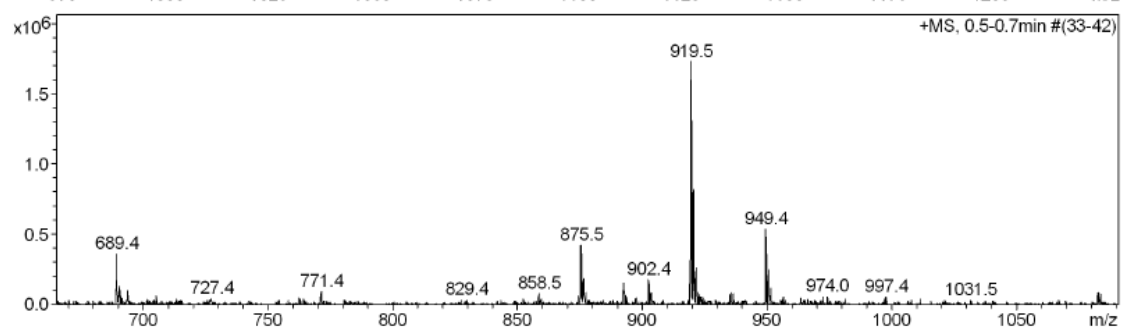
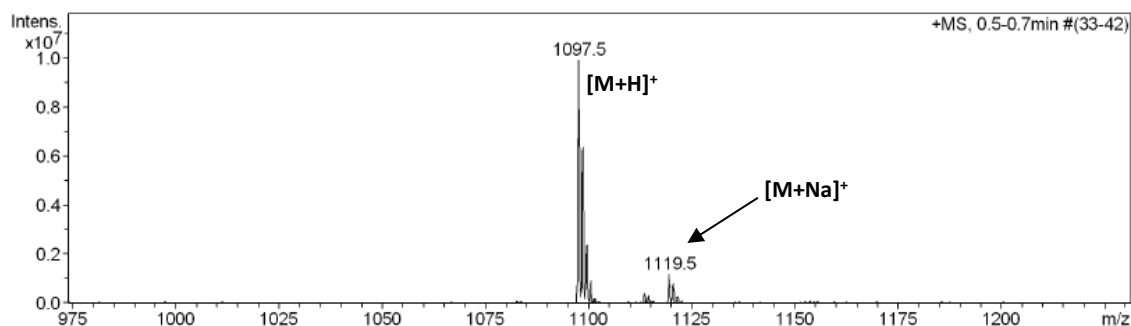
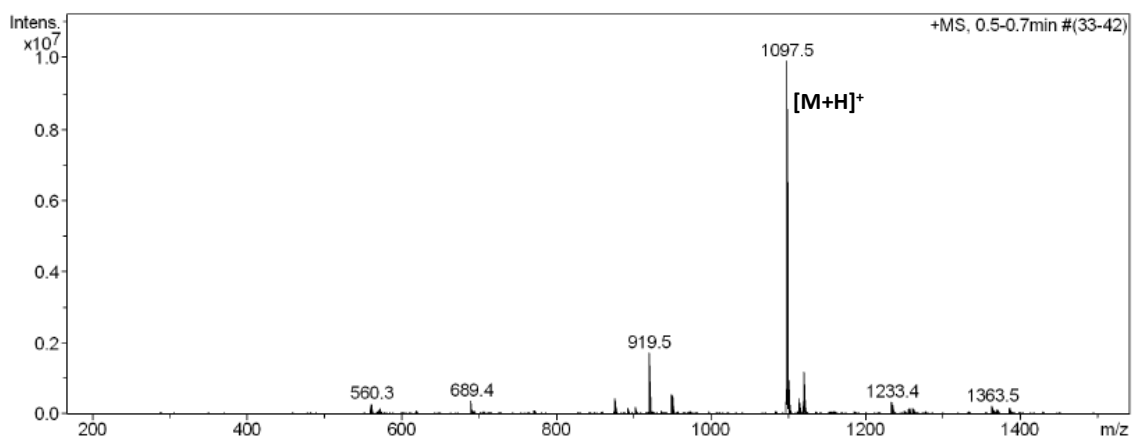
| |
|-----------------------|
| $[M+H]^+ = 1920.2$ |
| $[M+Na]^+ = 1941.2$ |
| $[M+2H]^{2+} = 960.6$ |
| $[M+3H]^{3+} = 640.7$ |

HRMS (ESI) (m/z) (preprotemporin-1CEa) CC-18

| | Molecular formula | Calculated | Found |
|-----------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{91}H_{152}N_{23}O_{22}$ | 1919.1477 | 1919.1473 |

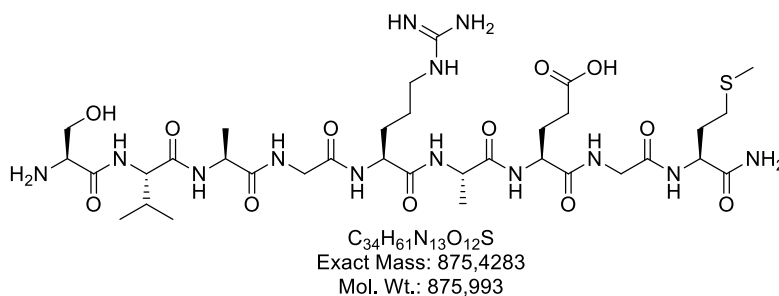
Fmoc-Ser-Val-Ala-Gly-Arg-Ala-Gln-Gly-Met-NH₂ (**Cn-AMP1**) CCC-4

C₄₉H₇₁N₁₃O₁₄S
Exact Mass: 1097,4964
Mol. Wt.: 1098,2317

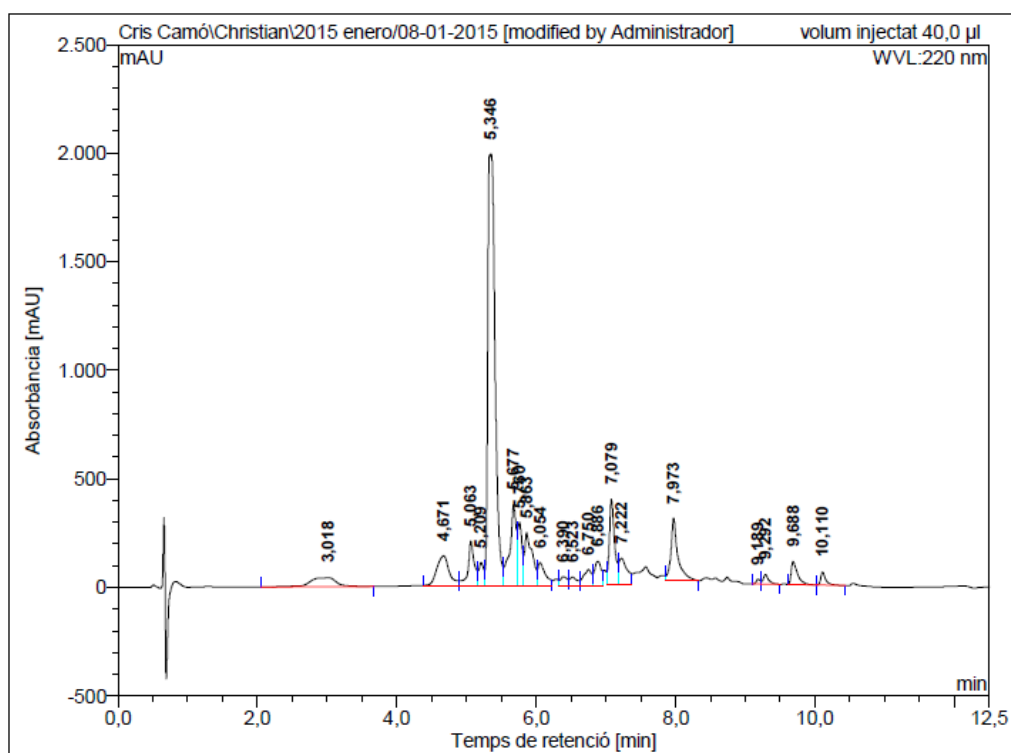
ESI-MS (*m/z*) (CCC-4- total + Fmoc)

[M+H]⁺ = 1097.5

[M+Na]⁺ = 1119.5

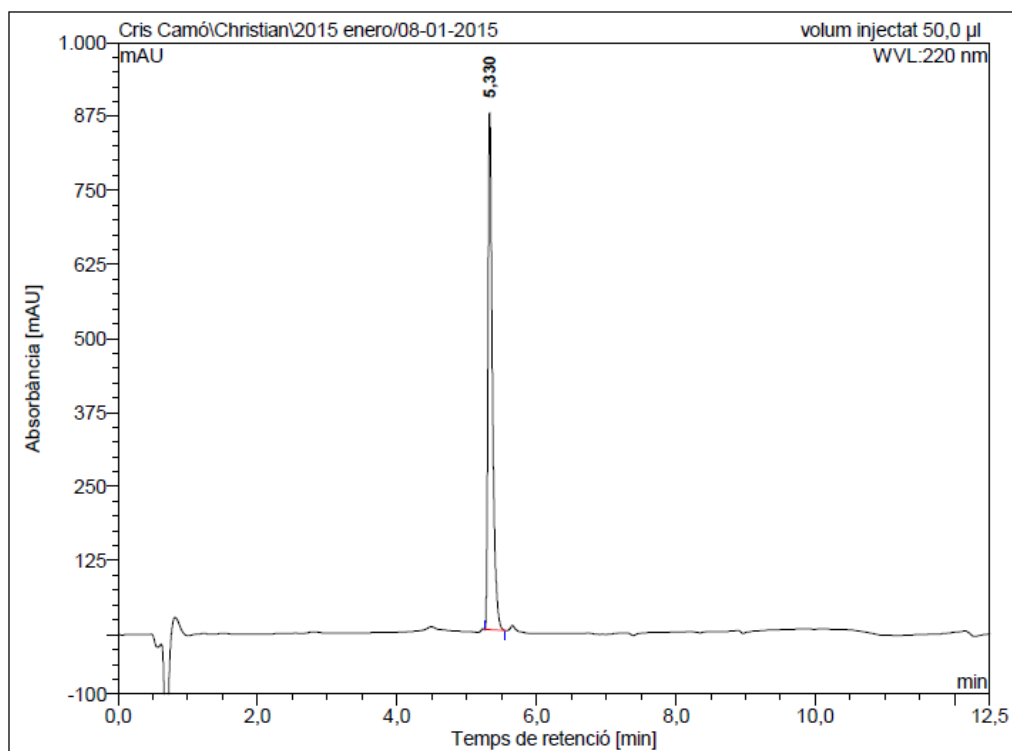
Ser-Val-Ala-Gly-Arg-Ala-Gln-Gly-Met-NH₂ (Cn-AMP1) CCC-4

IMPURE PRODUCT

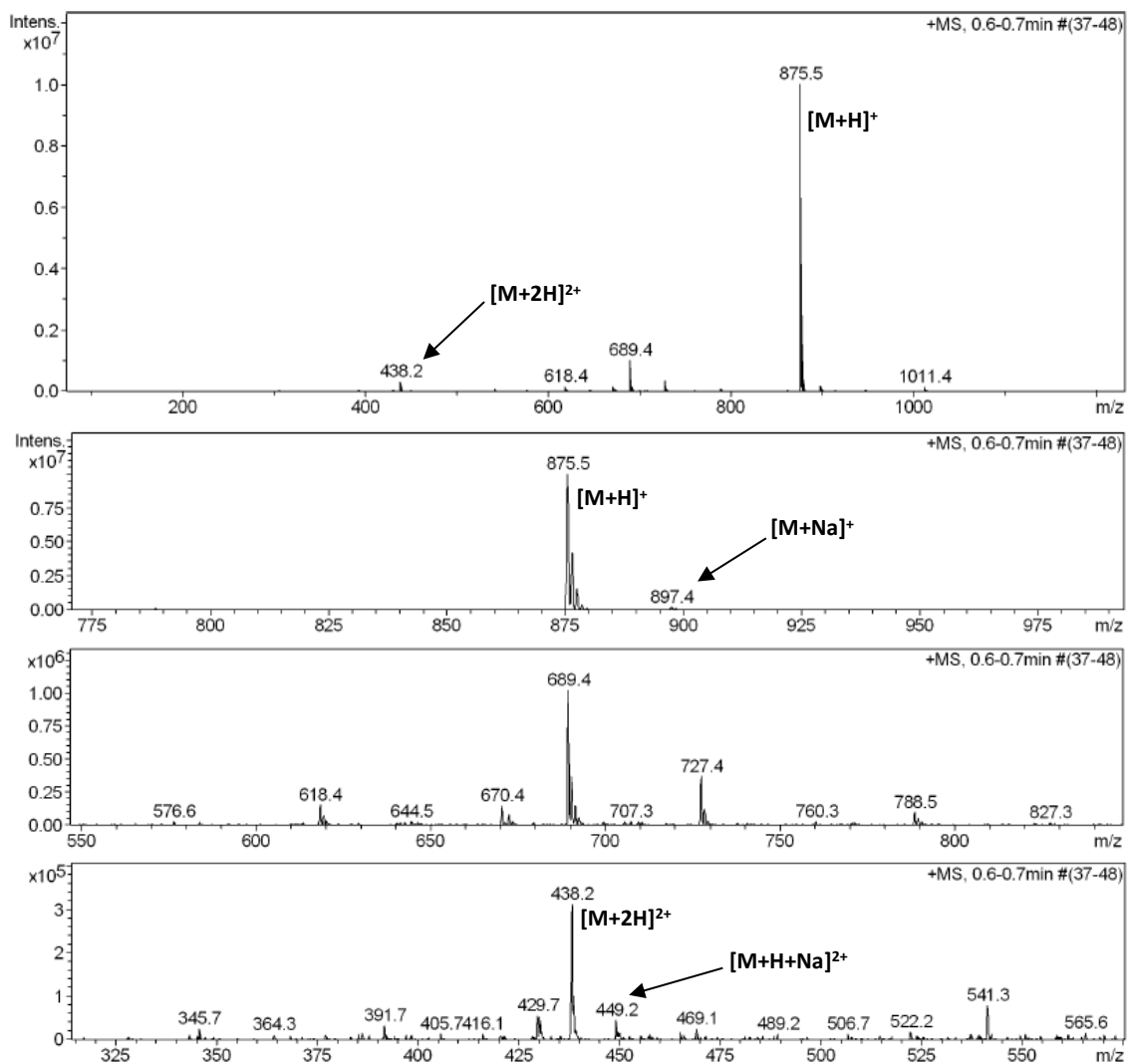
HPLC ($\lambda = 220$ nm) (CCC-4 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 3,02 | 41,749 | 18,531 | 3,30 |
| 2 | 4,67 | 135,776 | 27,541 | 4,91 |
| 3 | 5,06 | 204,080 | 21,160 | 3,77 |
| 4 | 5,21 | 106,039 | 8,324 | 1,48 |
| 5 | 5,35 | 1985,013 | 239,682 | 42,74 |
| 6 | 5,68 | 372,022 | 38,549 | 6,87 |
| 7 | 5,76 | 290,131 | 22,529 | 4,02 |
| 8 | 5,86 | 241,964 | 30,331 | 5,41 |
| 9 | 6,05 | 105,625 | 13,426 | 2,39 |
| 10 | 6,39 | 42,970 | 4,702 | 0,84 |
| 11 | 6,52 | 41,437 | 5,408 | 0,96 |
| 12 | 6,75 | 76,250 | 9,751 | 1,74 |
| 13 | 6,89 | 114,183 | 13,468 | 2,40 |
| 14 | 7,08 | 394,061 | 34,589 | 6,17 |
| 15 | 7,22 | 122,141 | 16,974 | 3,03 |
| 16 | 7,97 | 289,868 | 34,052 | 6,07 |
| 17 | 9,19 | 22,124 | 1,544 | 0,28 |
| 18 | 9,29 | 45,077 | 4,085 | 0,73 |
| 19 | 9,69 | 106,156 | 11,071 | 1,97 |
| 20 | 10,11 | 59,749 | 5,018 | 0,89 |
| Total: | | 4796,415 | 560,734 | 100,00 |

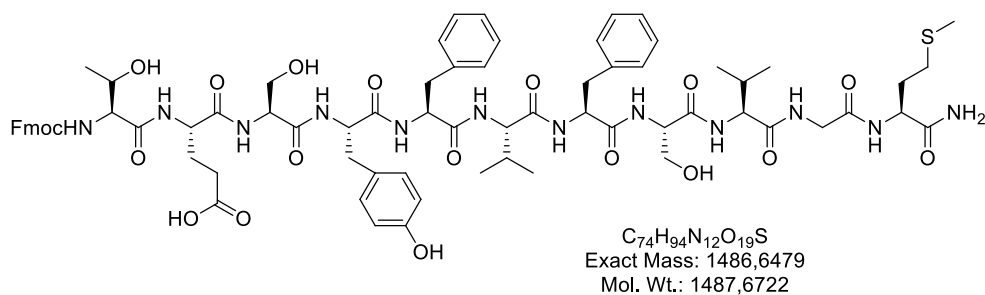
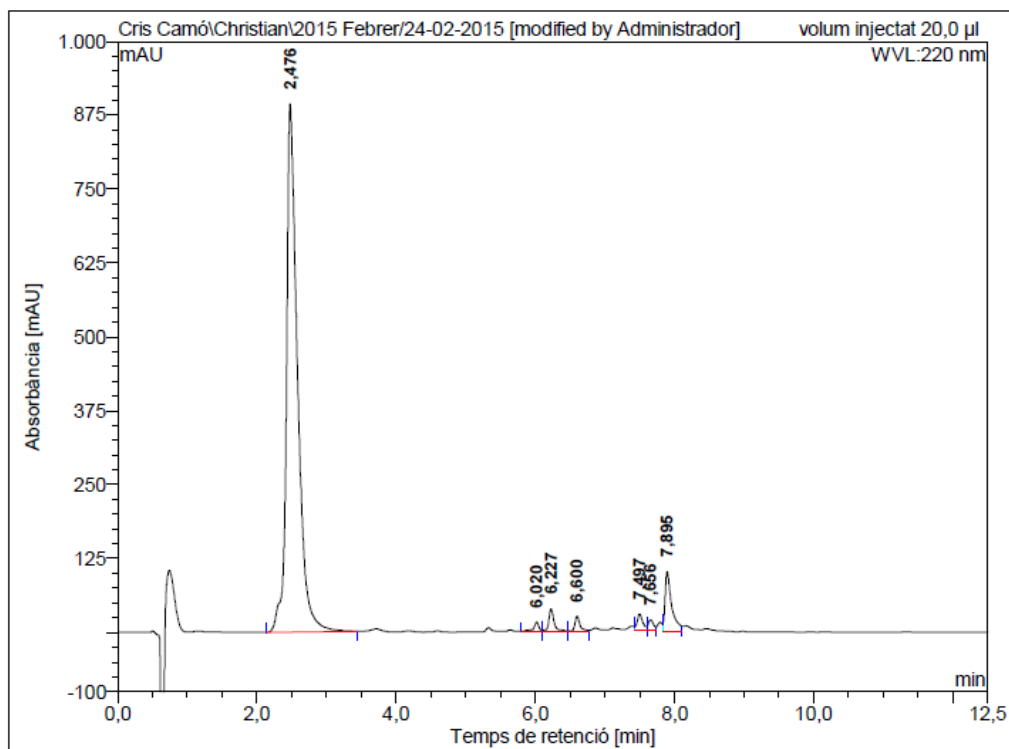
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CCC-4 tub 7)

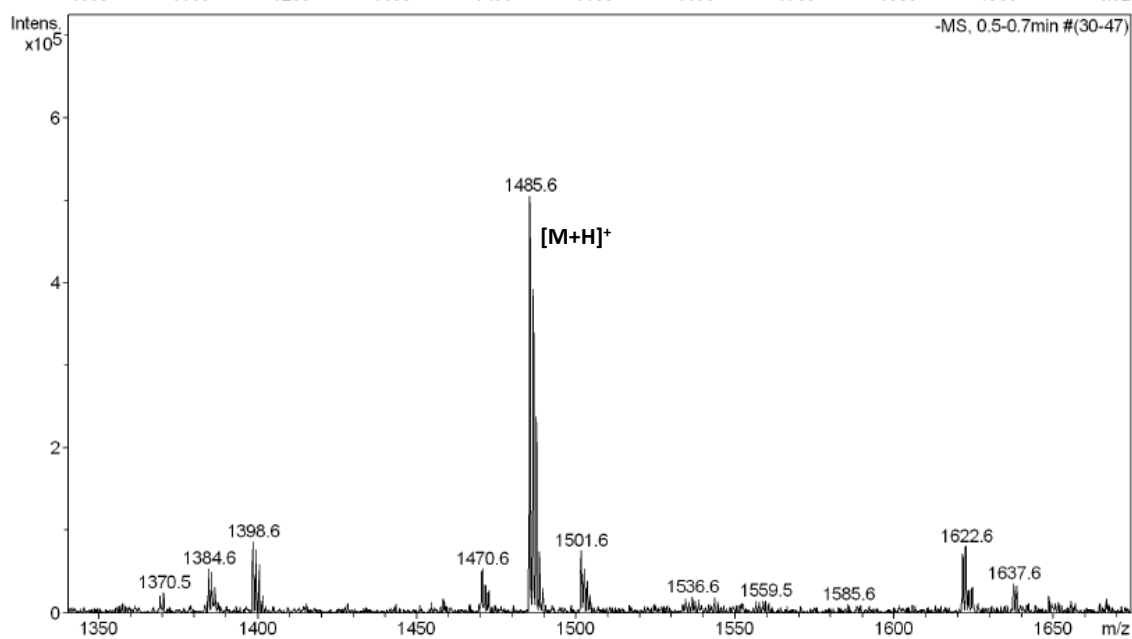
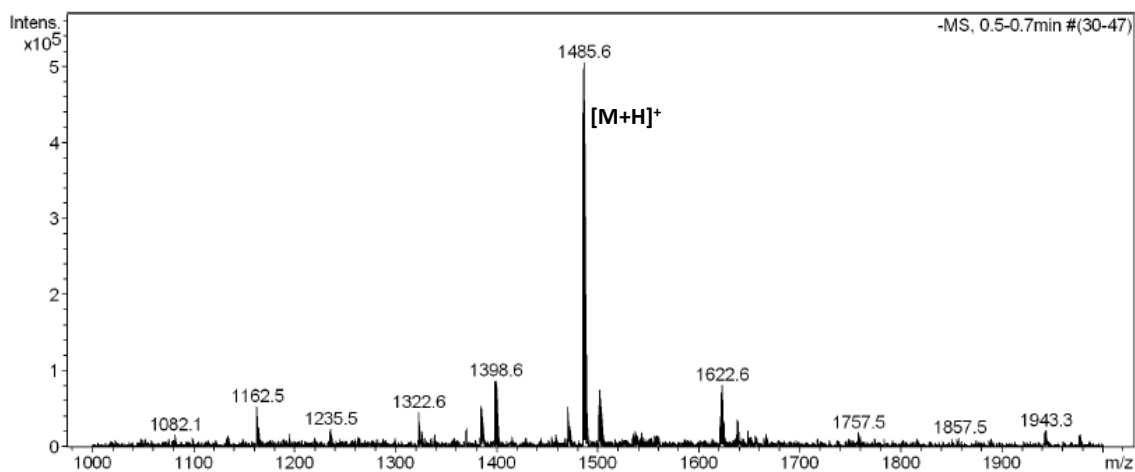
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,33 | 873,720 | 63,436 | 100,00 |
| Total: | | 873,720 | 63,436 | 100,00 |

ESI-MS (m/z) (CCC-4 tub 7)

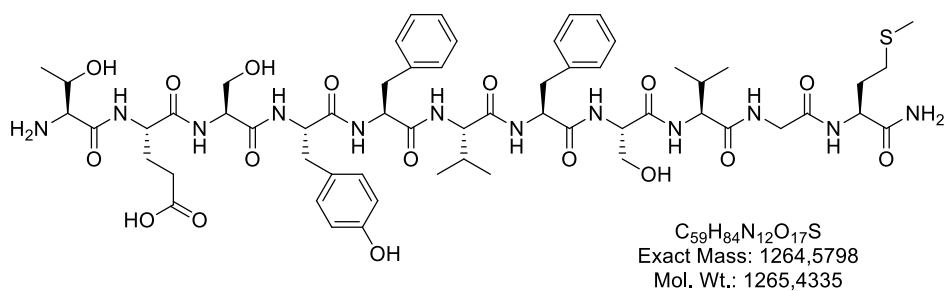
| |
|--------------------------------|
| [M+H] ⁺ = 875.5 |
| [M+Na] ⁺ = 897.4 |
| [M+2H] ²⁺ = 438.2 |
| [M+H+Na] ²⁺ = 449.2 |

Fmoc-Ser-Val-Ala-Gly-Arg-Ala-Gln-Gly-Met-NH₂ (**Cn-AMP2**) CCC-5HPLC ($\lambda = 220$ nm) (CCC-5-52)

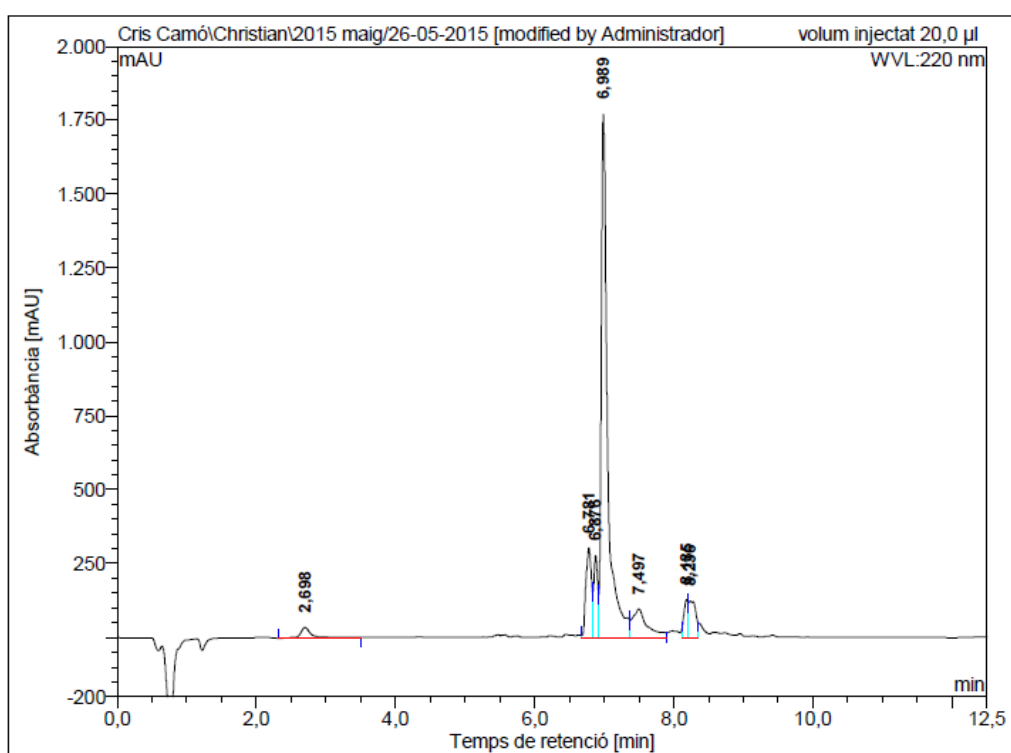
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 2,48 | 893,424 | 164,331 | 87,70 |
| 2 | 6,02 | 16,003 | 1,496 | 0,80 |
| 3 | 6,23 | 38,324 | 3,548 | 1,89 |
| 4 | 6,60 | 26,211 | 2,358 | 1,26 |
| 5 | 7,50 | 28,898 | 2,848 | 1,52 |
| 6 | 7,66 | 19,335 | 1,660 | 0,89 |
| 7 | 7,90 | 100,939 | 11,136 | 5,94 |
| Total: | | 1123,135 | 187,377 | 100,00 |

ESI-MS (m/z) (CCC-5-52)

$[M+H]^+ = 1485.6$

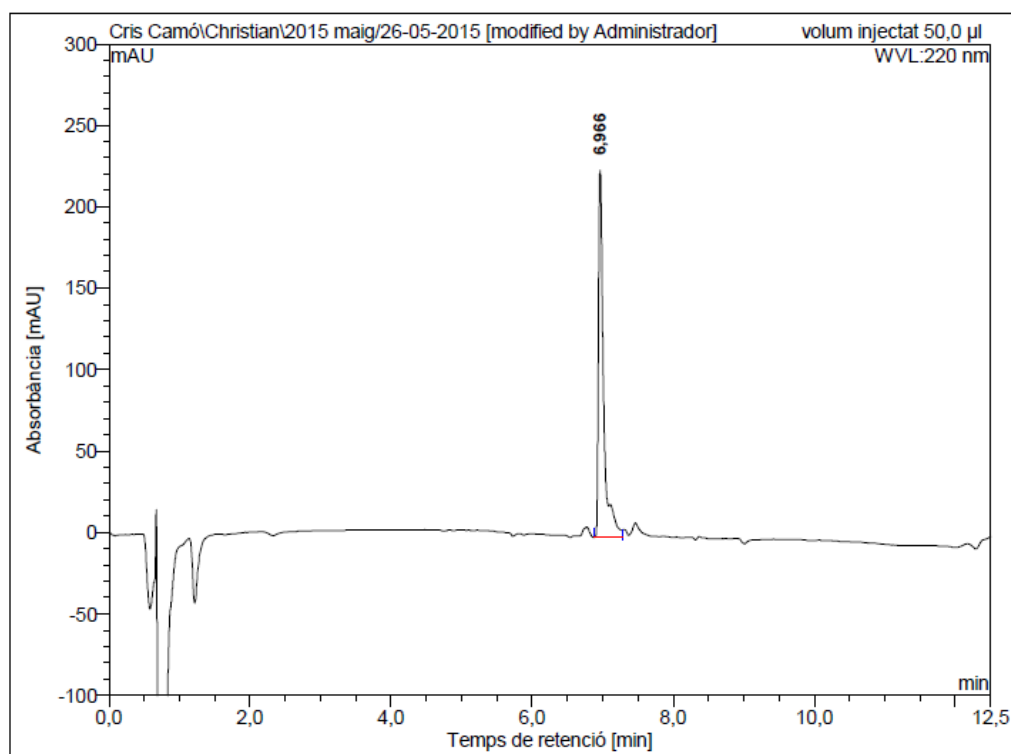
Ser-Val-Ala-Gly-Arg-Ala-Gln-Gly-Met-NH₂ (**Cn-AMP2**) CCC-5

IMPURE PRODUCT

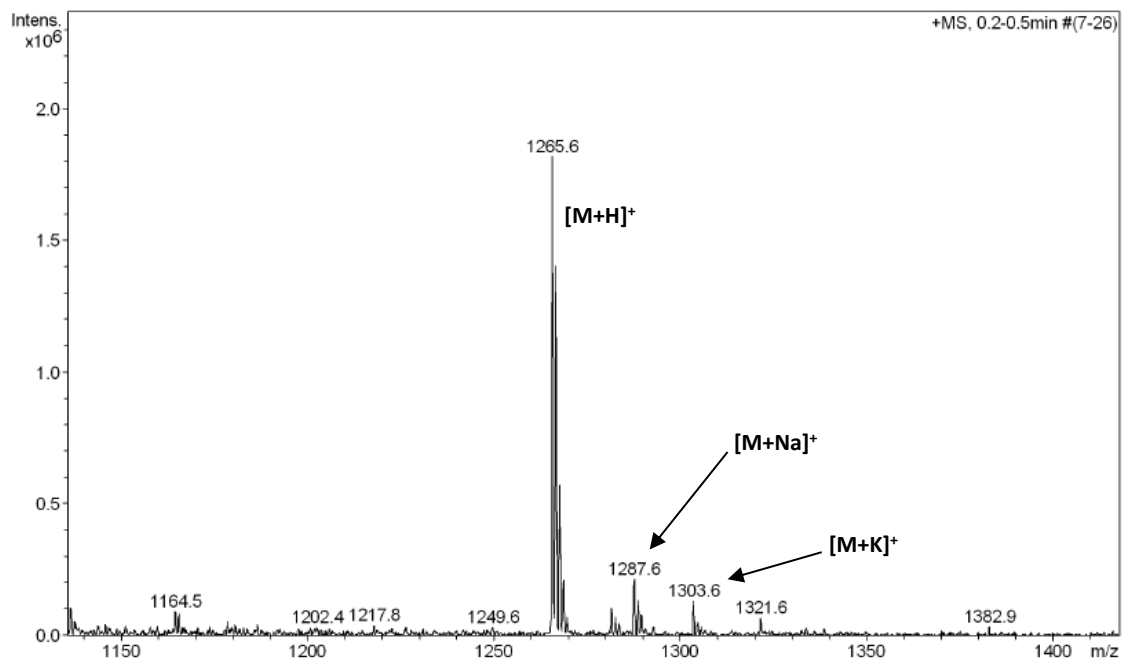
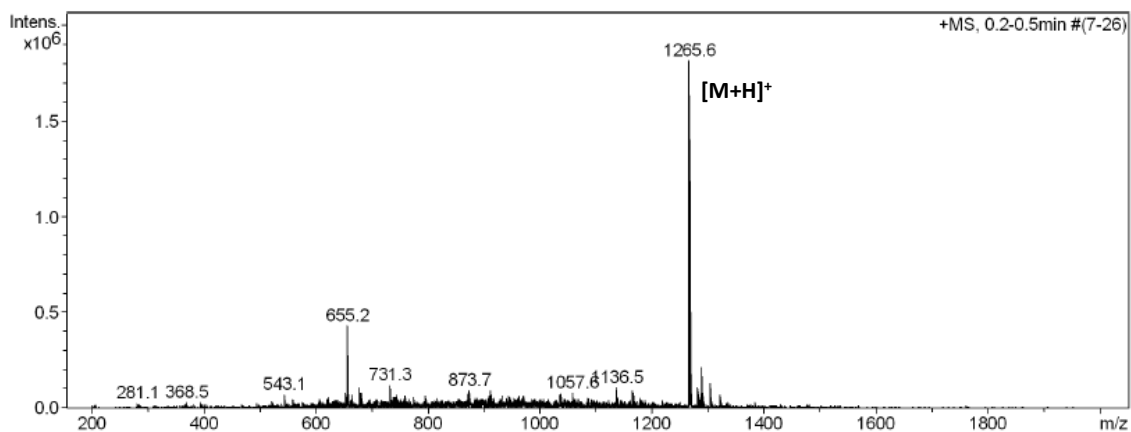
HPLC ($\lambda = 220$ nm) (CCC-5-76 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 2,70 | 36,931 | 8,469 | 2,91 |
| 2 | 6,78 | 303,201 | 27,932 | 9,59 |
| 3 | 6,88 | 278,209 | 18,308 | 6,29 |
| 4 | 6,99 | 1770,290 | 188,937 | 64,88 |
| 5 | 7,50 | 97,499 | 23,953 | 8,23 |
| 6 | 8,19 | 129,142 | 9,289 | 3,19 |
| 7 | 8,24 | 124,563 | 14,323 | 4,92 |
| Total: | | 2739,834 | 291,211 | 100,00 |

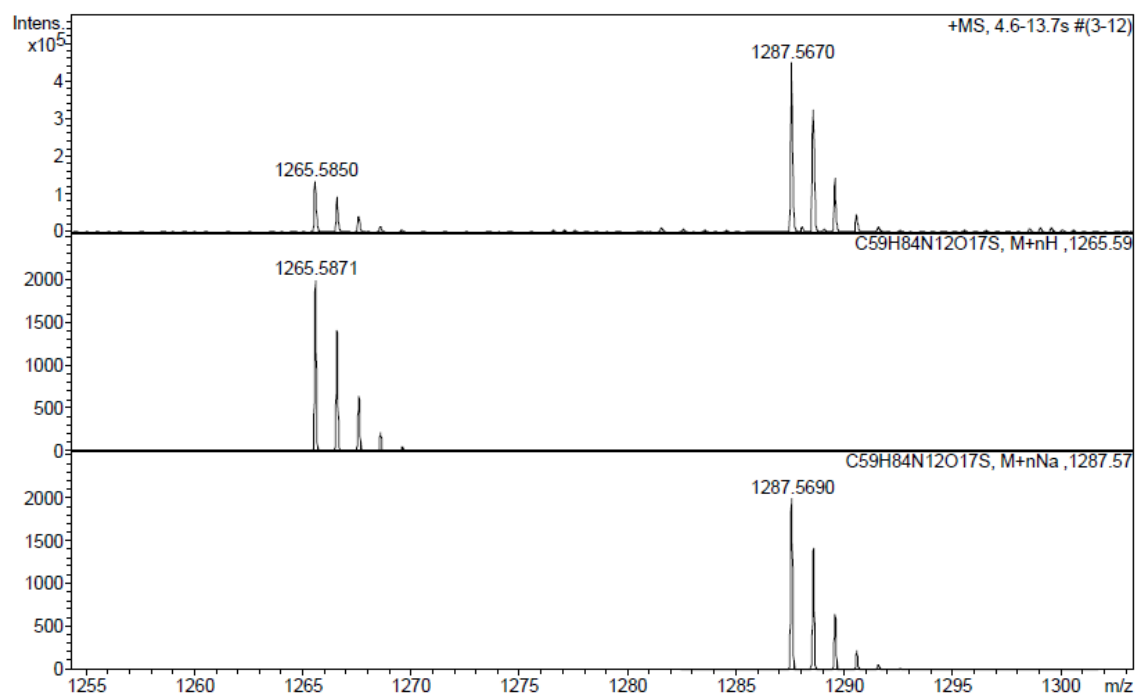
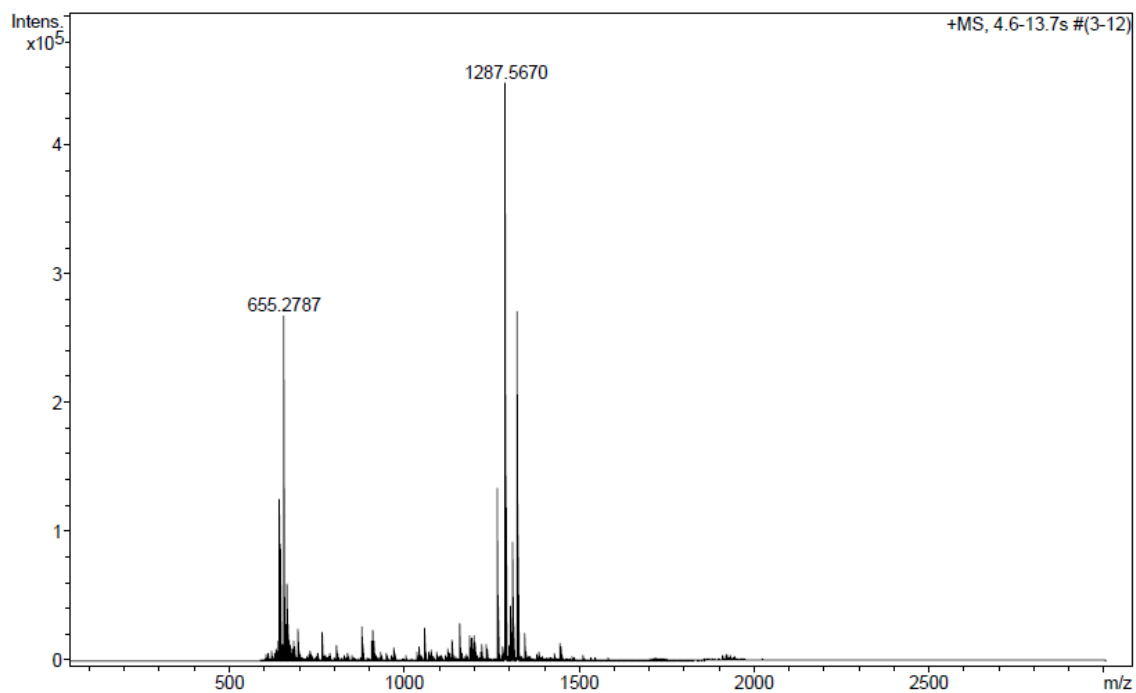
PURE PRODUCT

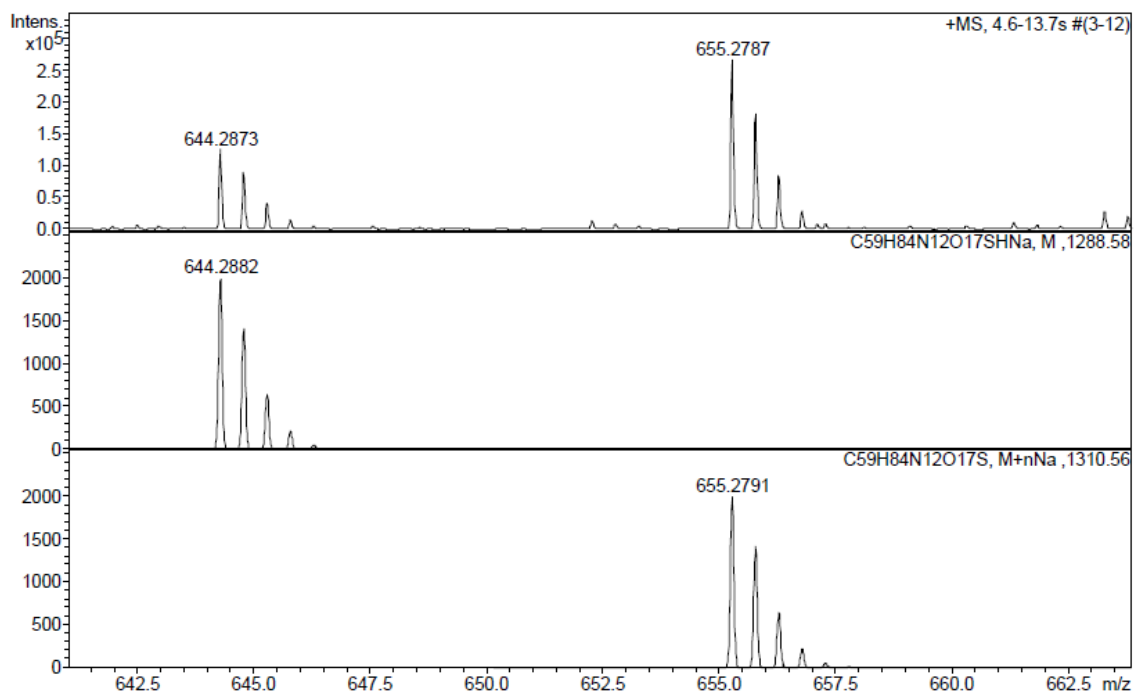
HPLC ($\lambda = 220 \text{ nm}$) (CCC-5-76 tub 25)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,97 | 225,107 | 18,818 | 100,00 |
| Total: | | 225,107 | 18,818 | 100,00 |

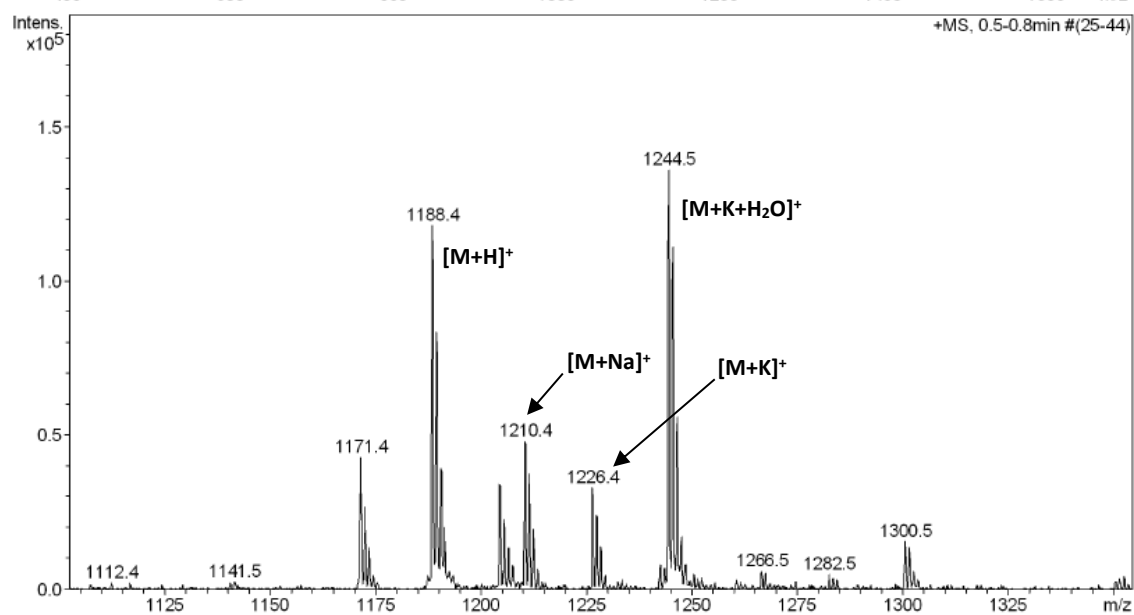
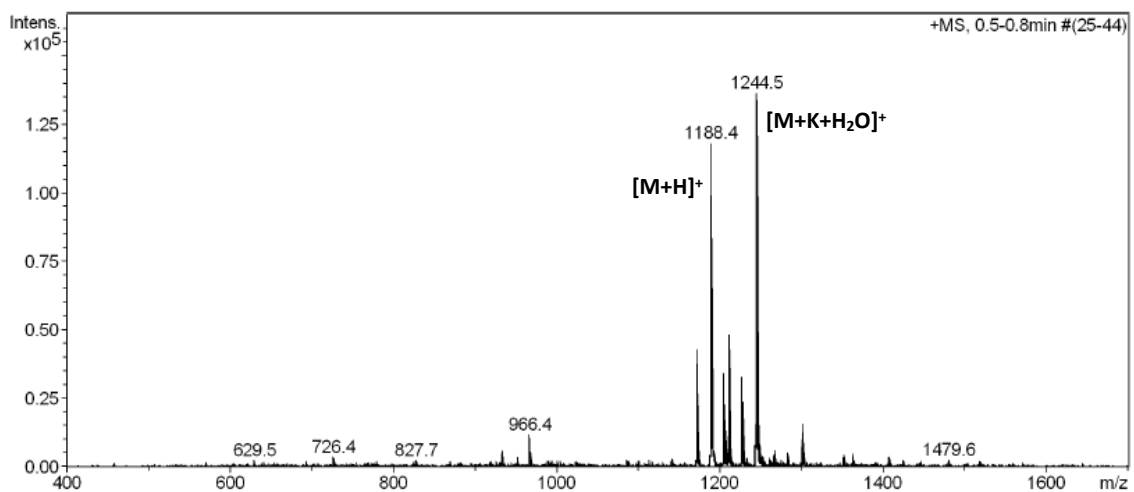
ESI-MS (m/z) (CCC-5-76 tub 25)

| |
|------------------------------|
| [M+H] ⁺ = 1265.6 |
| [M+Na] ⁺ = 1287.6 |
| [M+K] ⁺ = 1303.6 |

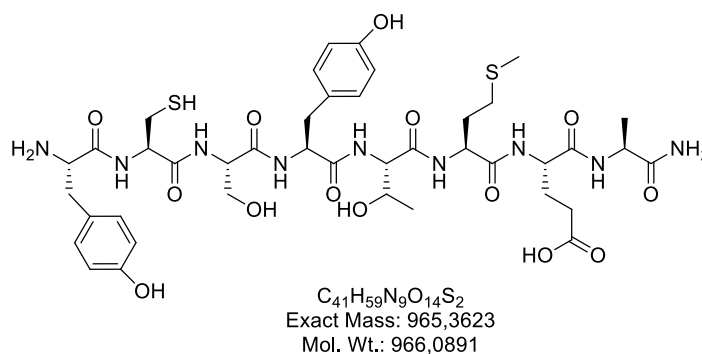
HRMS (ESI) (m/z) (Cn-AMP2) CCC-5



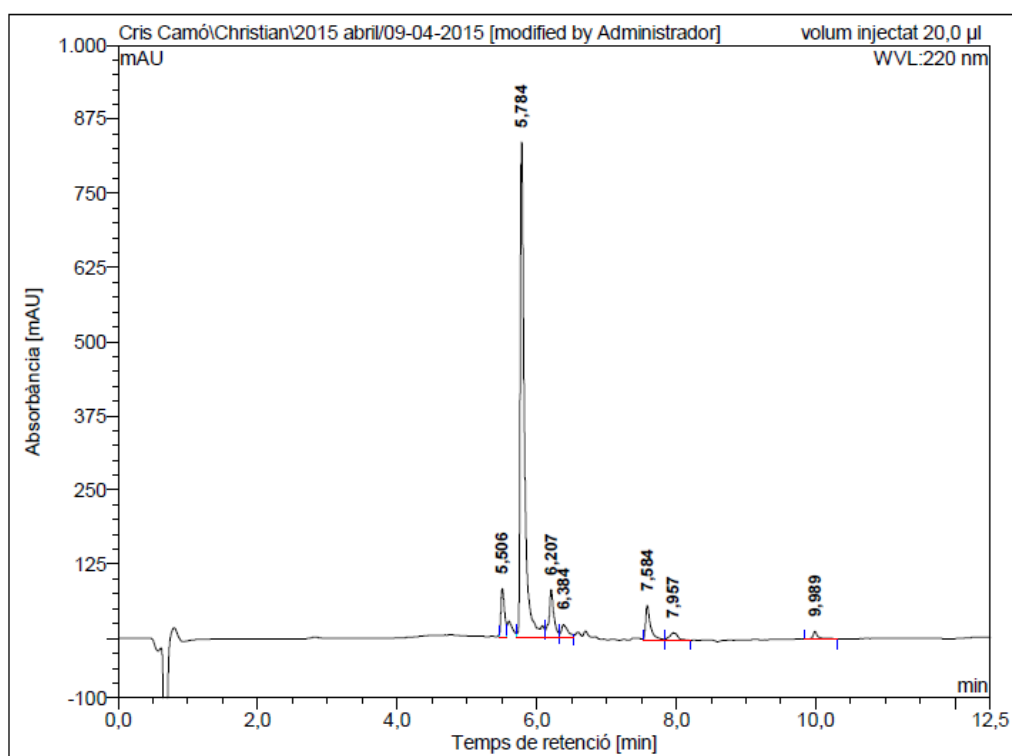
| | Molecular formula | Calculated | Found |
|------------------------------|--|------------|-----------|
| [M+H]⁺ | C ₅₉ H ₈₅ N ₁₂ O ₁₇ S | 1265.5871 | 1265.5850 |
| [M+Na]⁺ | C ₅₉ H ₈₄ N ₁₂ O ₁₇ SNa | 1287.5690 | 1287.5670 |
| [M+H+Na]²⁺ | C ₅₉ H ₈₅ N ₁₂ O ₁₇ SNa | 644.2882 | 644.2873 |
| [M+2Na]²⁺ | C ₅₉ H ₈₄ N ₁₂ O ₁₇ SNa ₂ | 655.2791 | 655.2787 |

ESI-MS (m/z) (CCC-6-61)

| |
|-------------------------|
| $[M+H]^+ = 1188.4$ |
| $[M+Na]^+ = 1210.4$ |
| $[M+K]^+ = 1226.4$ |
| $[M+H+H_2O]^+ = 1244.5$ |

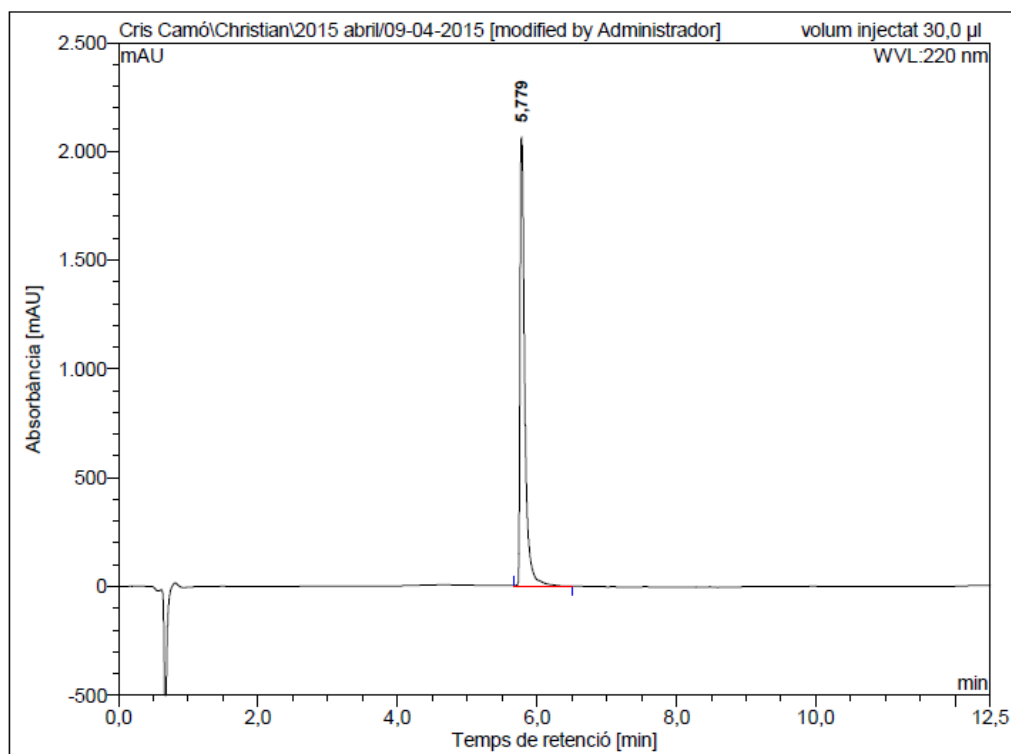
Tyr-Cys-Ser-Tyr-Thr-Met-Glu-Ala-NH₂ (Cn-AMP3) CCC-6

IMPURE PRODUCT

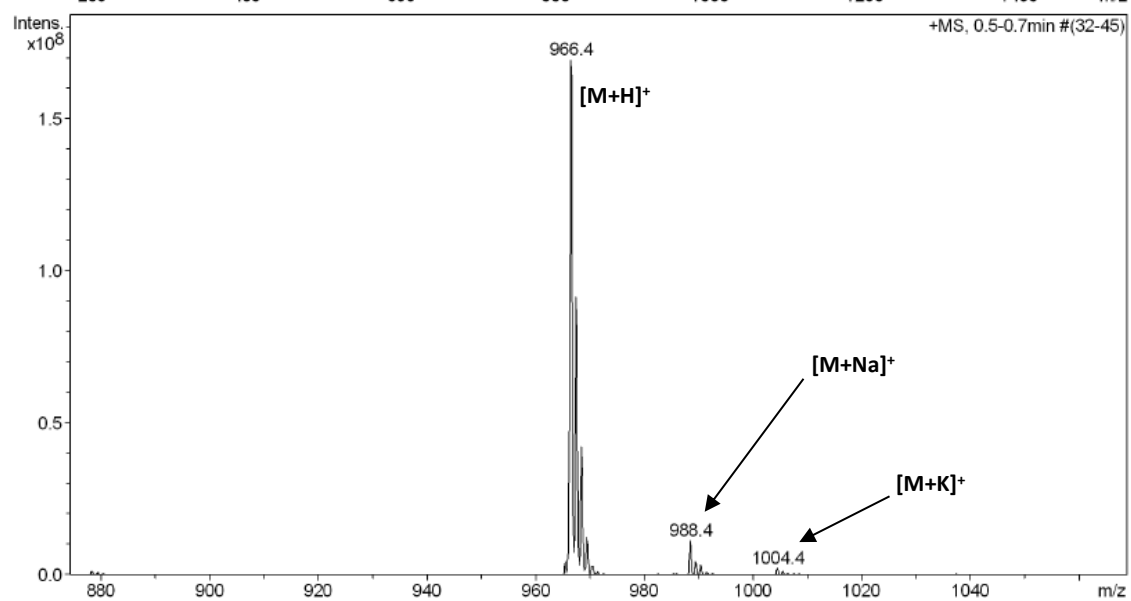
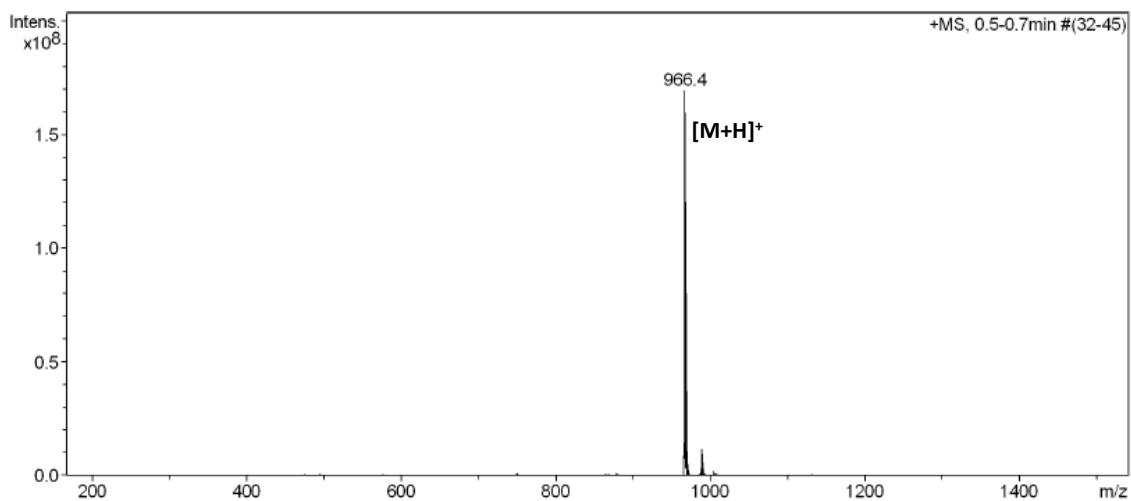
HPLC ($\lambda = 220$ nm) (CCC-6-69 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,51 | 82,669 | 5,151 | 6,35 |
| 2 | 5,78 | 835,419 | 59,120 | 72,83 |
| 3 | 6,21 | 80,860 | 6,670 | 8,22 |
| 4 | 6,38 | 21,701 | 2,460 | 3,03 |
| 5 | 7,58 | 58,556 | 4,904 | 6,04 |
| 6 | 7,96 | 12,504 | 1,723 | 2,12 |
| 7 | 9,99 | 12,778 | 1,147 | 1,41 |
| Total: | | 1104,488 | 81,175 | 100,00 |

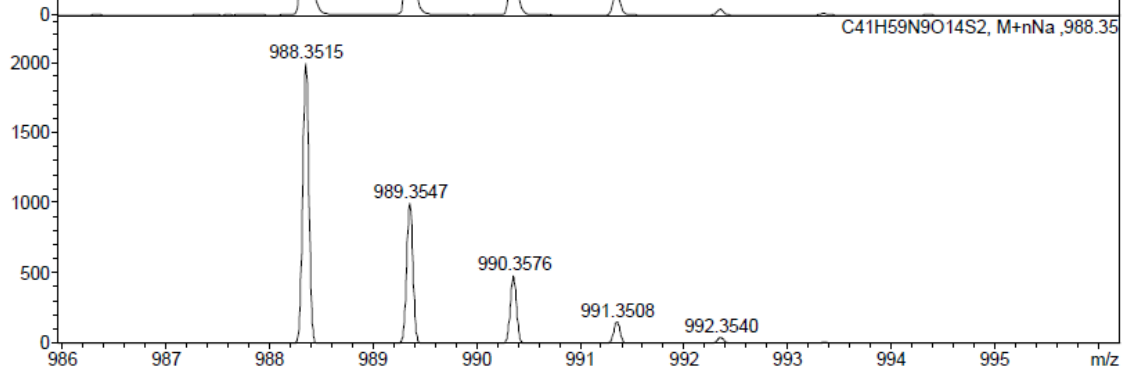
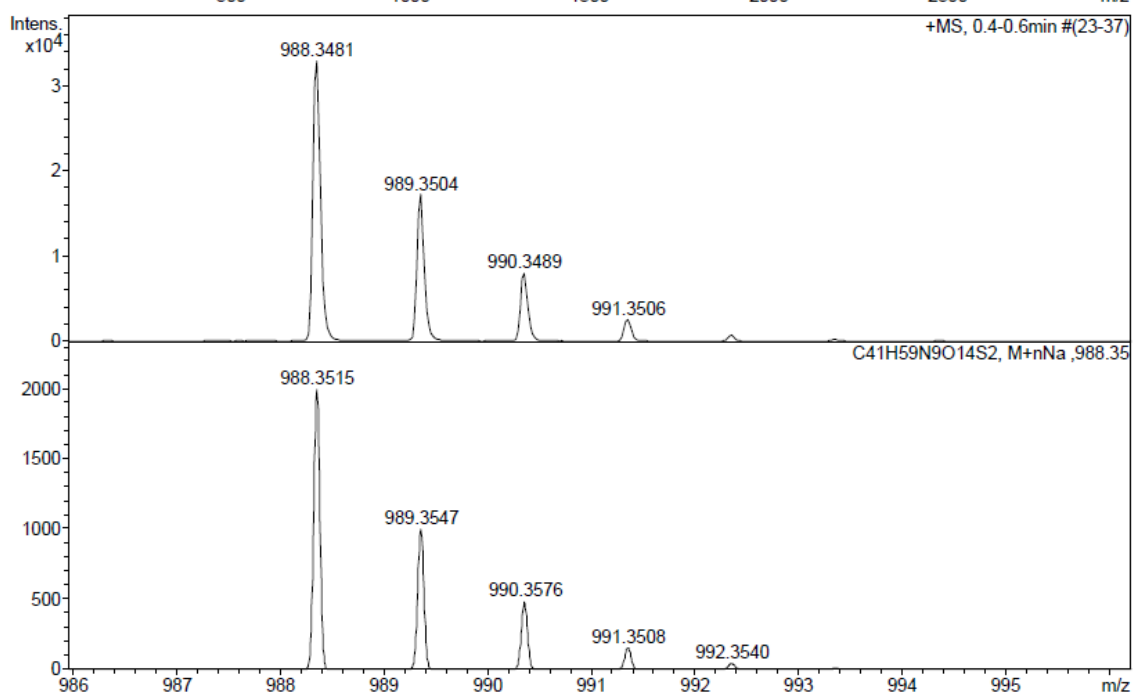
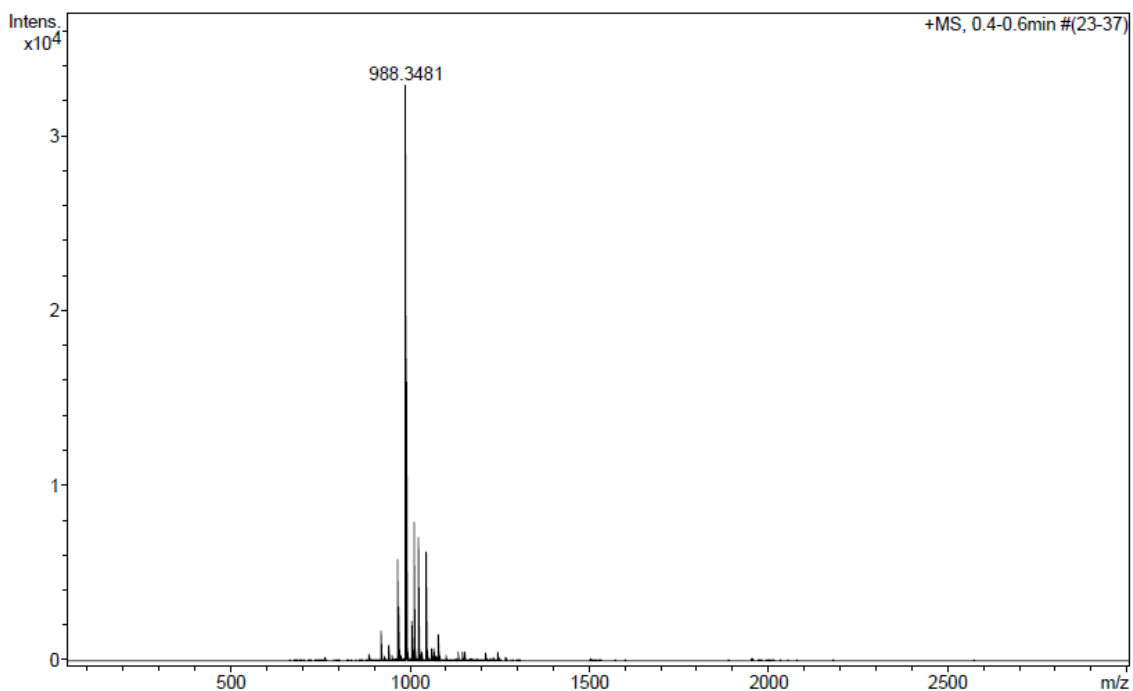
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CCC-6-69 tub 14)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,78 | 2065,517 | 163,602 | 100,00 |
| Total: | | 2065,517 | 163,602 | 100,00 |

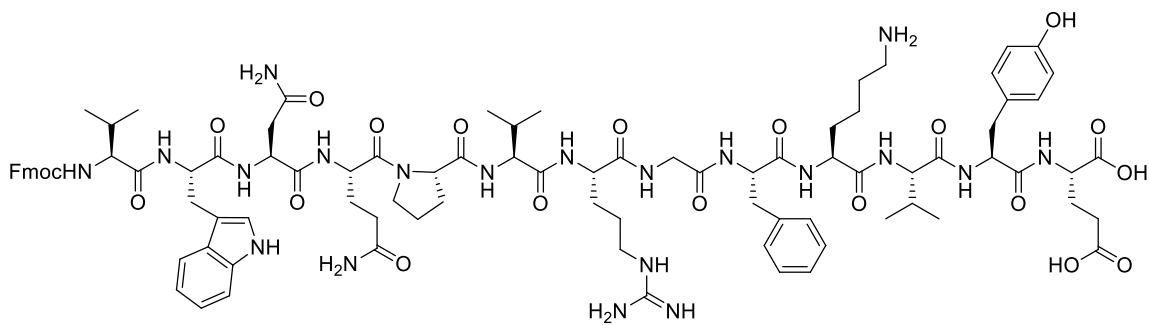
ESI-MS (m/z) (CCC-6-69 tub 14)

| |
|--------------------|
| $[M+H]^+ = 966.4$ |
| $[M+Na]^+ = 988.4$ |
| $[M+K]^+ = 1004.4$ |

HRMS (ESI) (*m/z*) (Cn-AMP3) CCC-6

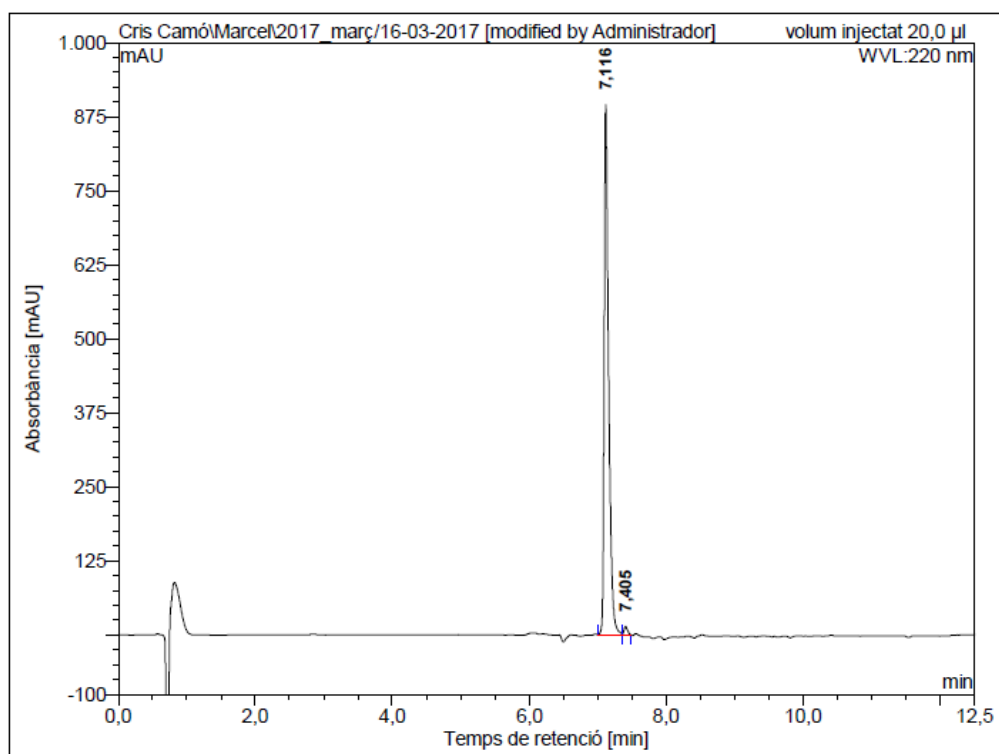
| | Molecular formula | Calculated | Found |
|---------------------|--|------------|----------|
| [M+Na] ⁺ | C ₄₁ H ₅₉ N ₉ O ₁₄ S ₂ Na | 988.3515 | 988.3481 |

Fmoc-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH (Pep13)

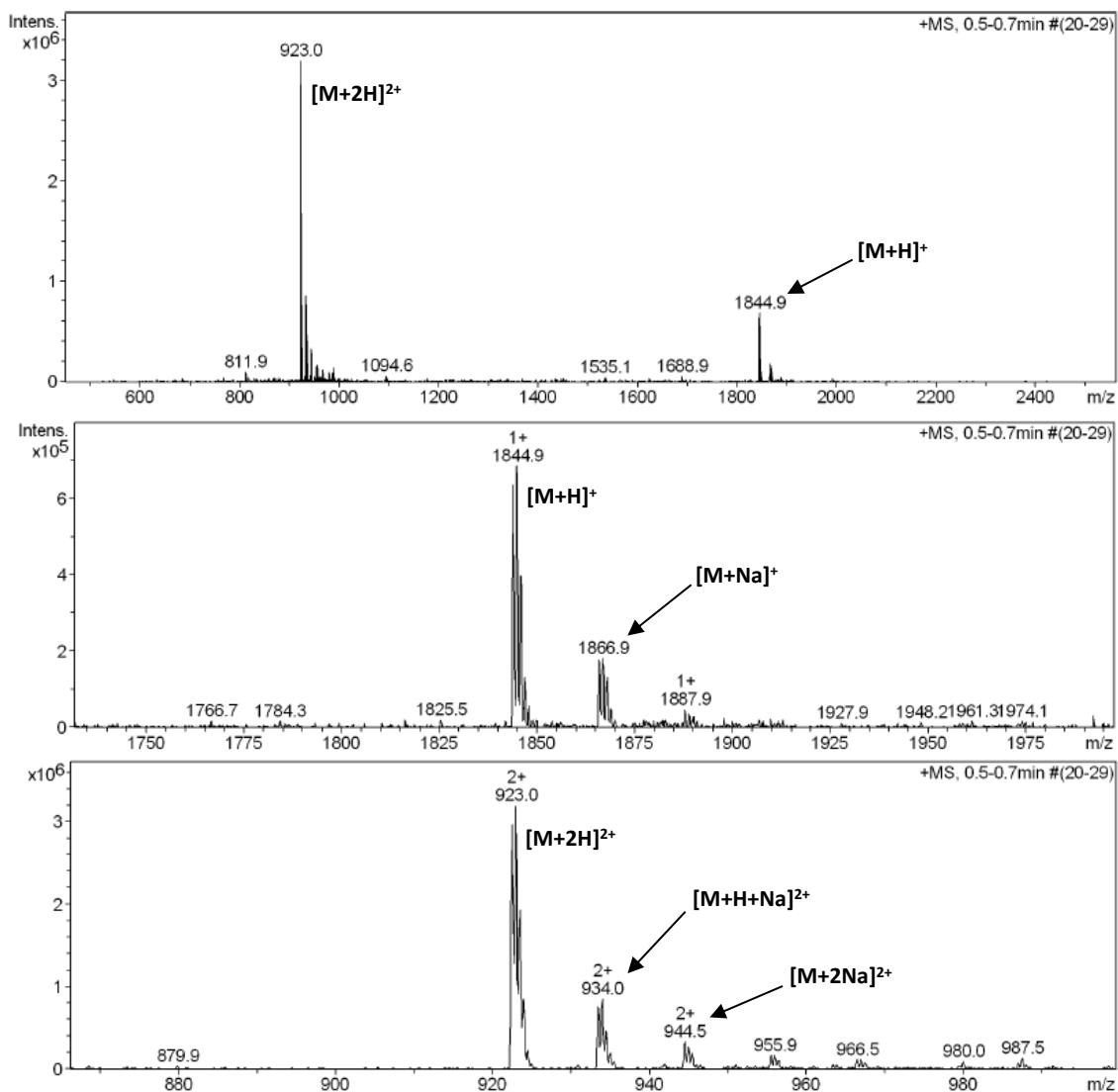
Chemical Formula: $C_{92}H_{122}N_{20}O_{21}$

Exact Mass: 1842,9093

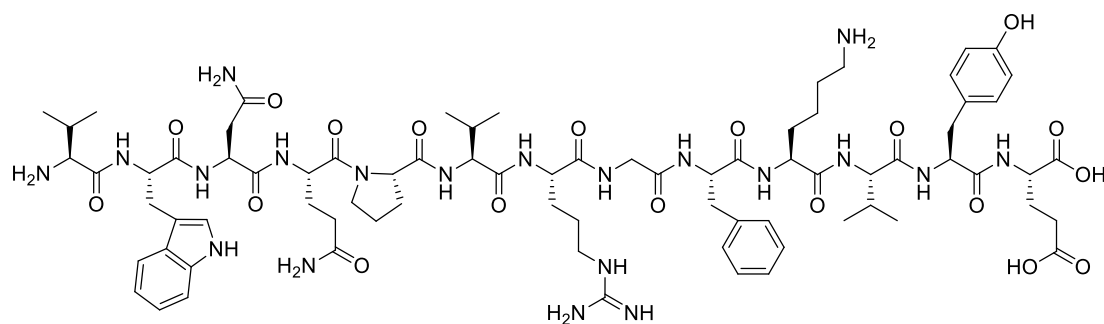
Molecular Weight: 1844,0745

HPLC ($\lambda = 220$ nm) (MM-2 p30)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,12 | 895,799 | 66,971 | 98,76 |
| 2 | 7,40 | 14,153 | 0,842 | 1,24 |
| Total: | | 909,952 | 67,813 | 100,00 |

ESI-MS (m/z) (MM-2 p30)

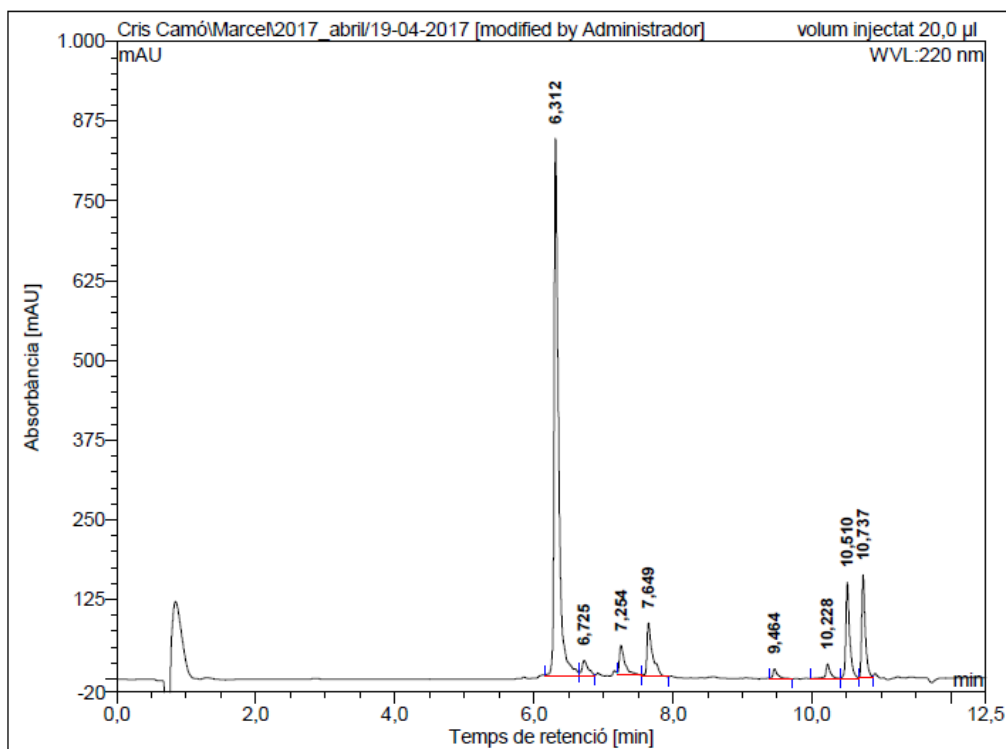
| |
|-------------------------|
| $[M+H]^+ = 1843.9$ |
| $[M+Na]^+ = 1866.9$ |
| $[M+2H]^{2+} = 922.0$ |
| $[M+H+Na]^{2+} = 934.0$ |
| $[M+2Na]^{2+} = 944.5$ |

Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH (**Pep13**)Chemical Formula: $C_{77}H_{112}N_{20}O_{19}$

Exact Mass: 1620,8413

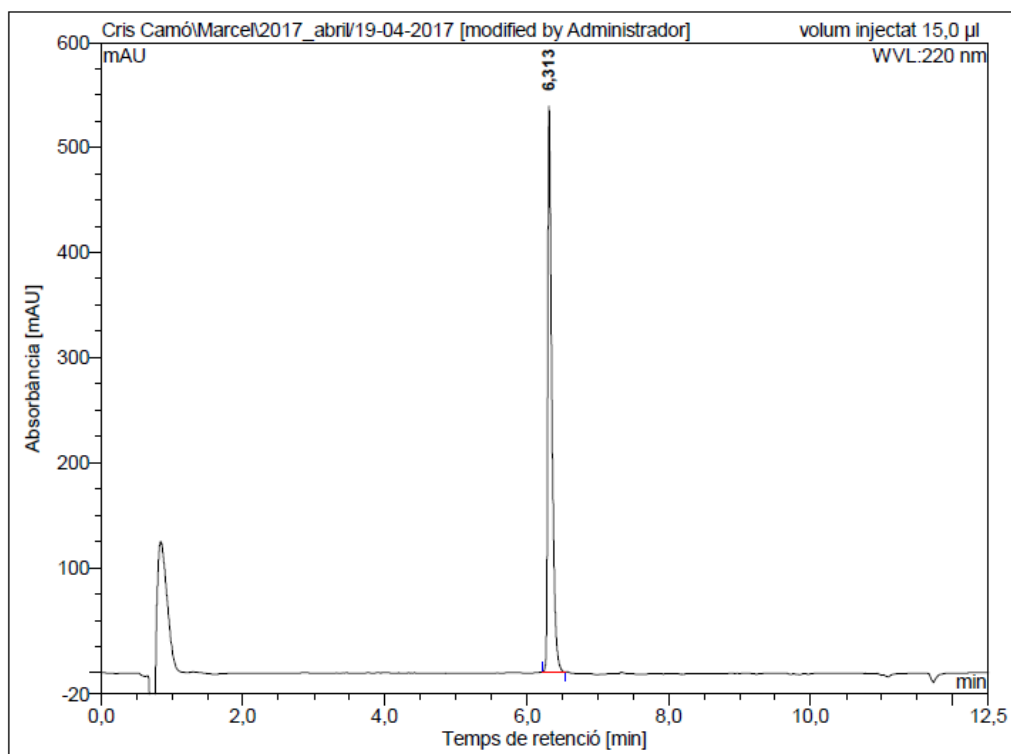
Molecular Weight: 1621,8358

IMPURE PRODUCT

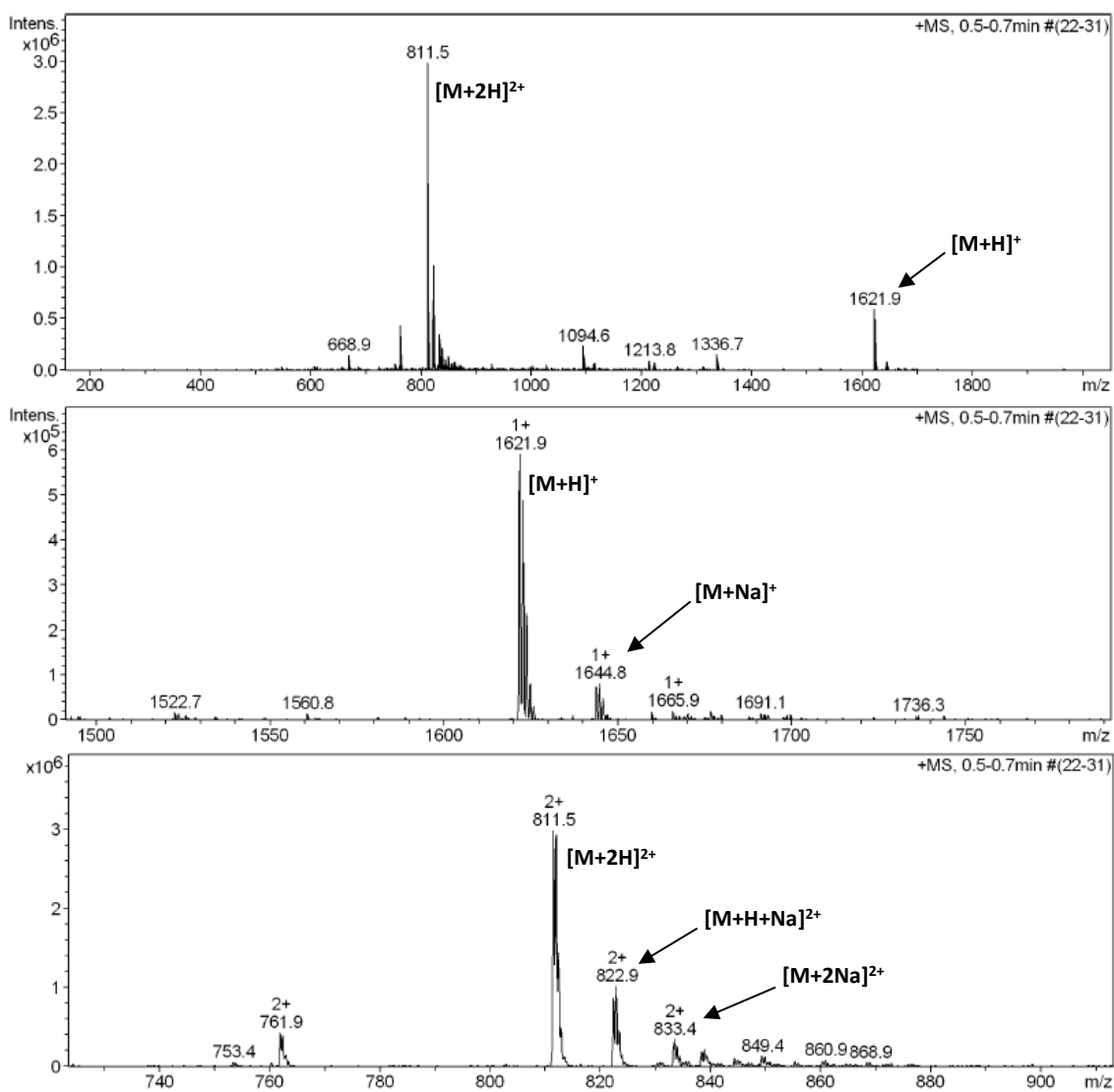
HPLC ($\lambda = 220$ nm) (MM-2 p44 impur)

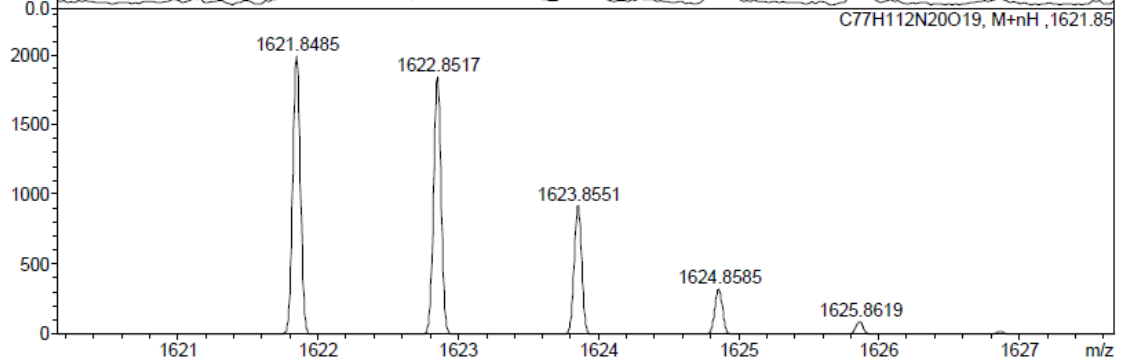
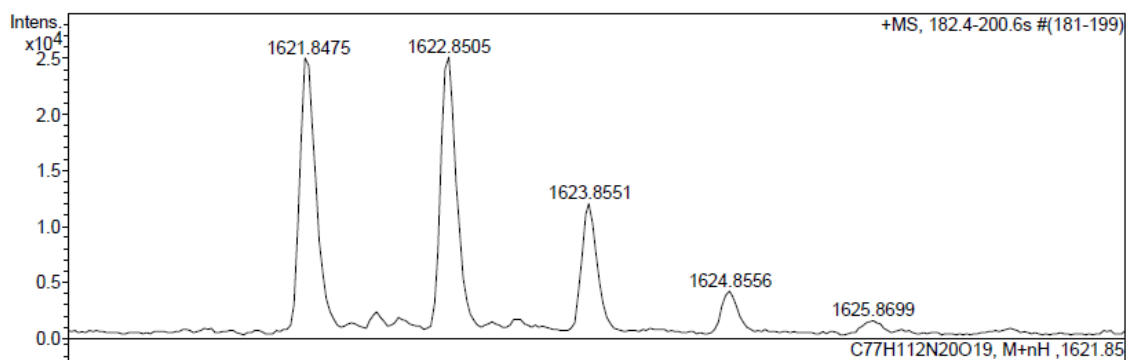
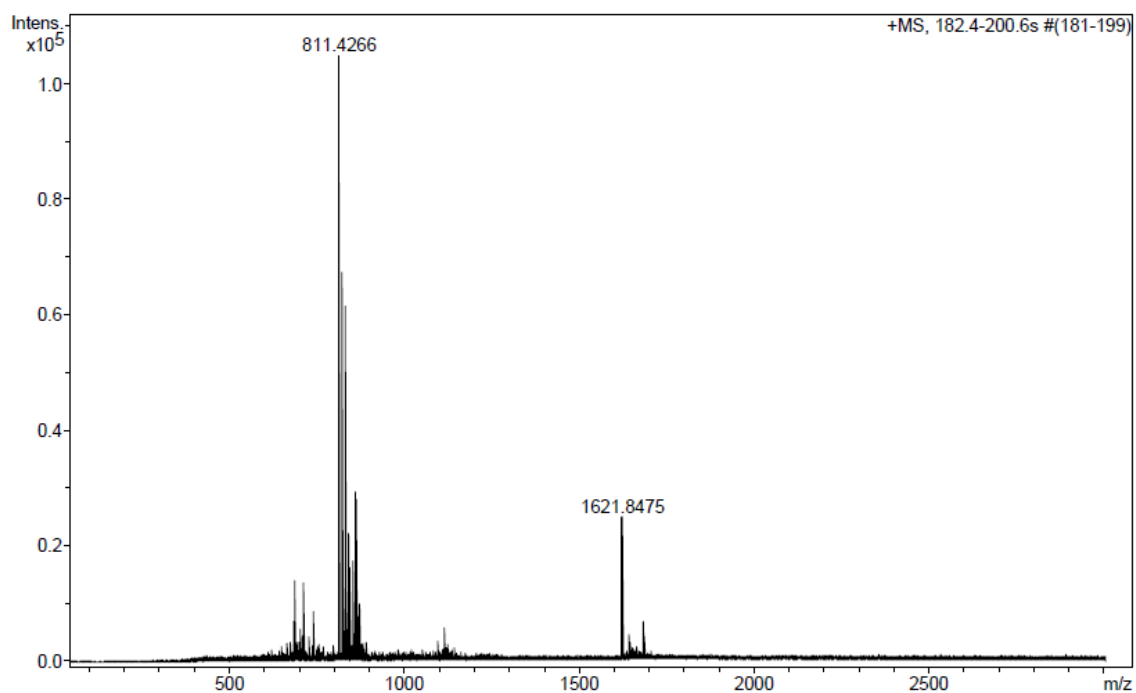
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,31 | 842,555 | 61,796 | 62,78 |
| 2 | 6,73 | 23,347 | 2,336 | 2,37 |
| 3 | 7,25 | 46,787 | 4,306 | 4,37 |
| 4 | 7,65 | 84,694 | 7,762 | 7,89 |
| 5 | 9,46 | 15,846 | 1,344 | 1,37 |
| 6 | 10,23 | 22,920 | 1,804 | 1,83 |
| 7 | 10,51 | 150,304 | 9,625 | 9,78 |
| 8 | 10,74 | 160,541 | 9,467 | 9,62 |
| Total: | | 1346,993 | 98,440 | 100,00 |

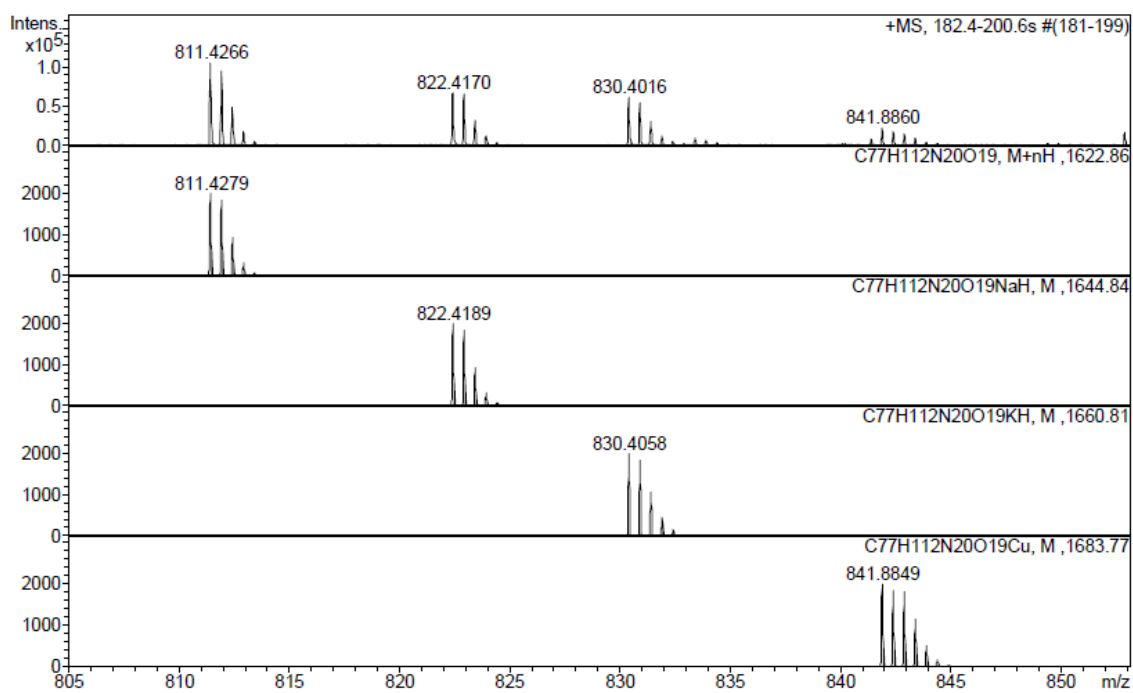
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (MM-2 tub 27 p44)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,31 | 538,690 | 36,322 | 100,00 |
| Total: | | 538,690 | 36,322 | 100,00 |

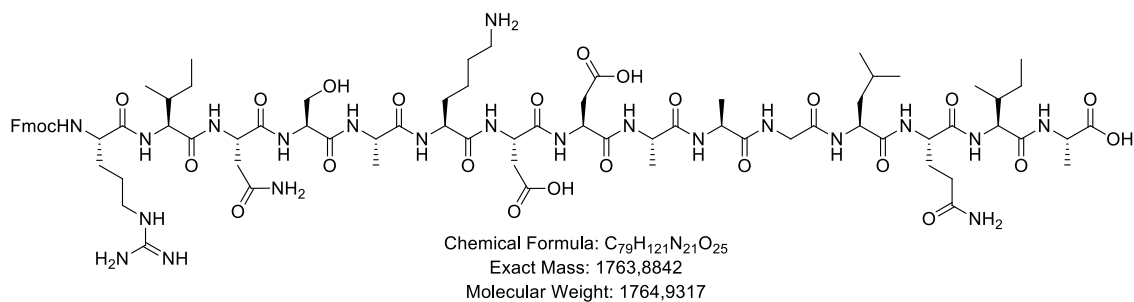
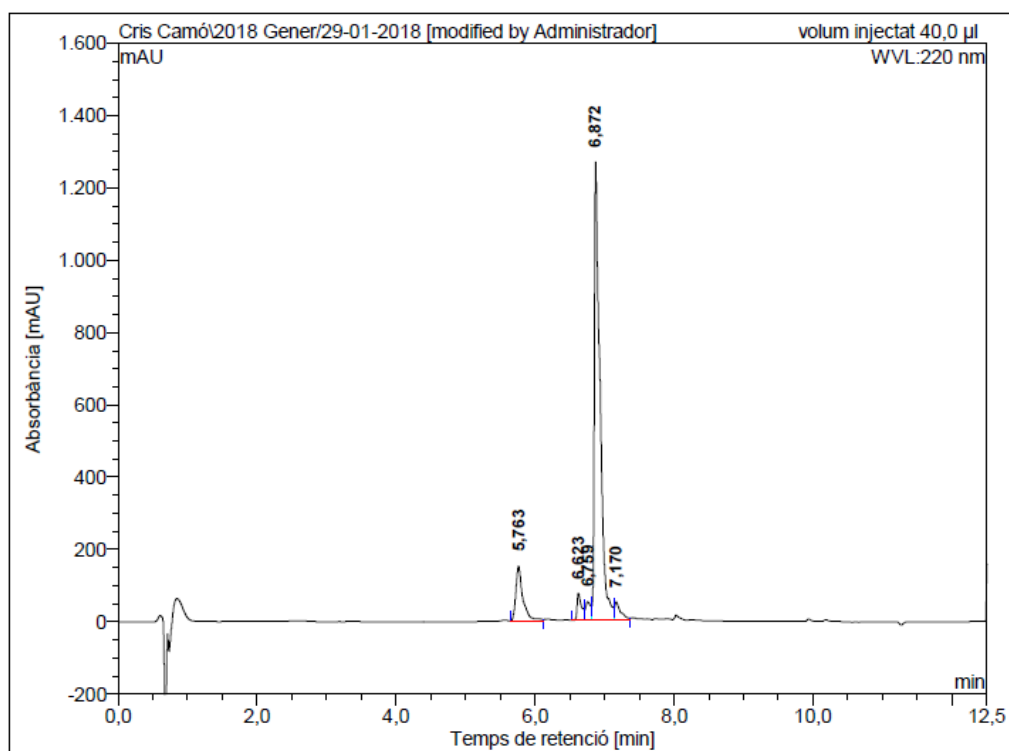
ESI-MS (m/z) (MM-2 tub 27 p.44) $[M+H]^+ = 1621.9$ $[M+Na]^+ = 1644.8$ $[M+2H]^{2+} = 811.5$ $[M+H+Na]^{2+} = 822.9$ $[M+2Na]^{2+} = 833.4$

HRMS (ESI) (m/z) (MM-2)

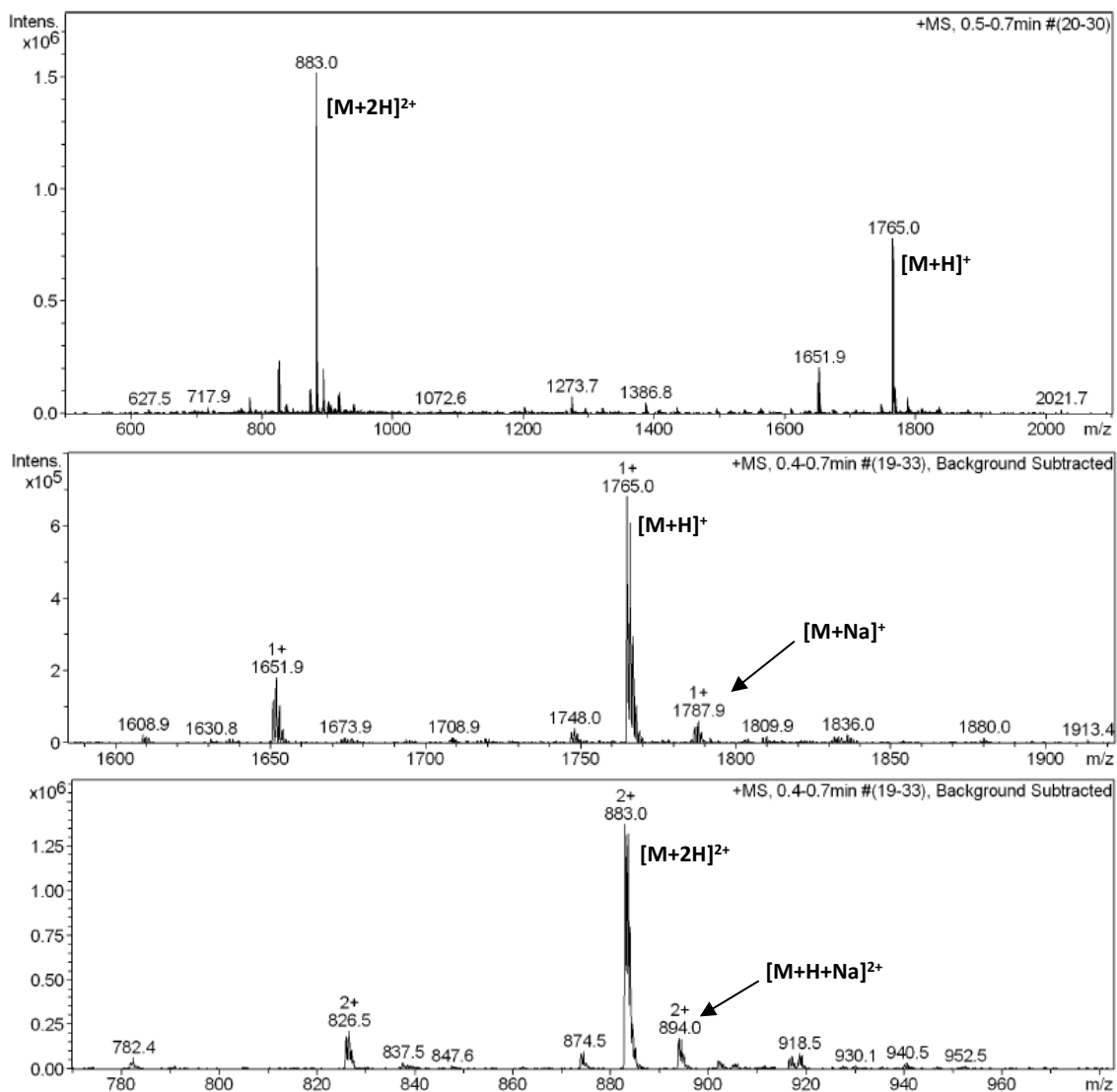


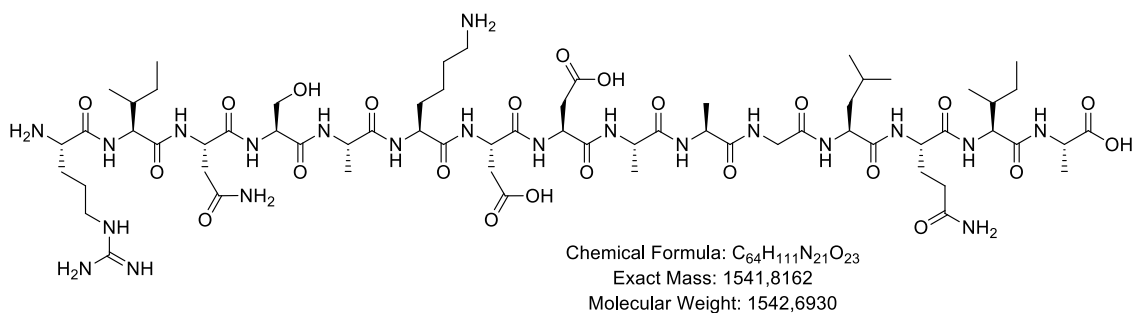
| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+H] ⁺ | C ₇₇ H ₁₁₃ N ₂₀ O ₁₉ | 1621.8485 | 1621.8475 |
| [M+2H] ²⁺ | C ₇₇ H ₁₁₄ N ₂₀ O ₁₉ | 811.4279 | 811.4266 |
| [M+H+Na] ²⁺ | C ₇₇ H ₁₁₃ N ₂₀ O ₁₉ Na | 822.4189 | 822.4170 |
| [M+H+K] ²⁺ | C ₇₇ H ₁₁₃ N ₂₀ O ₁₉ K | 830.4058 | 830.4016 |
| [M+H+Cu] ²⁺ | C ₇₇ H ₁₁₃ N ₂₀ O ₁₉ Cu | 841.8849 | 841.8860 |

Fmoc-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-OH

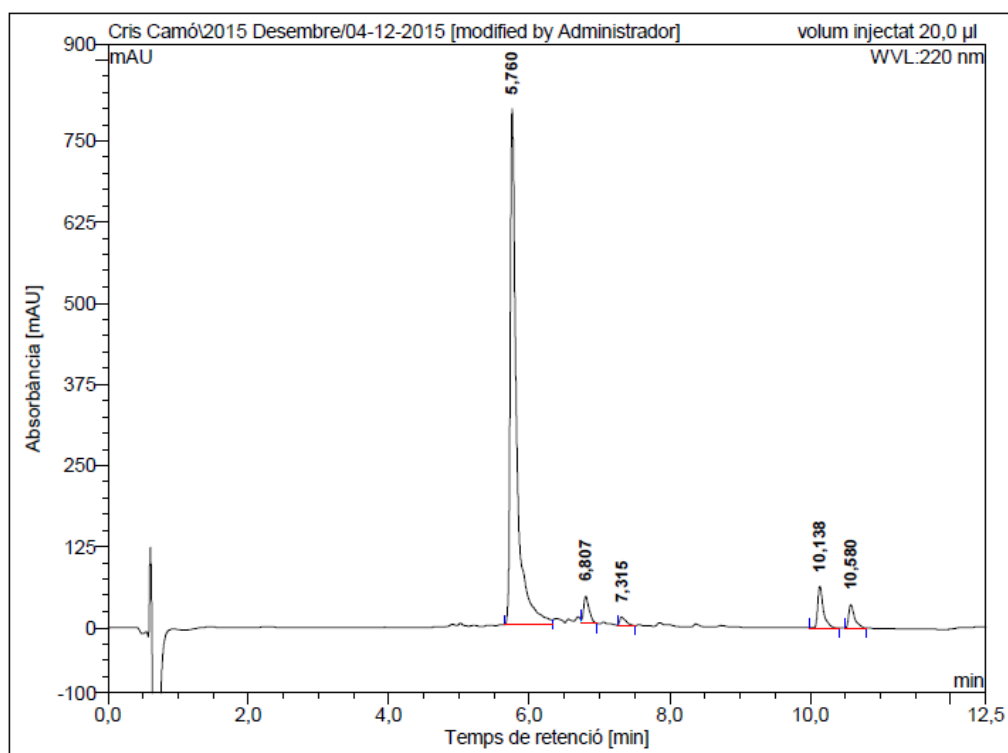
HPLC ($\lambda = 220$ nm) (AC-4 flg15)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,76 | 150,667 | 17,588 | 11,54 |
| 2 | 6,62 | 75,362 | 5,715 | 3,75 |
| 3 | 6,76 | 52,179 | 4,120 | 2,70 |
| 4 | 6,87 | 1268,329 | 119,494 | 78,41 |
| 5 | 7,17 | 51,776 | 5,479 | 3,60 |
| Total: | | 1598,313 | 152,396 | 100,00 |

ESI-MS (m/z) (AC-4 flg15) $[M+H]^+ = 1765.0$ $[M+Na]^+ = 1787.9$ $[M+2H]^{2+} = 883.0$ $[M+H+Na]^{2+} = 894.0$

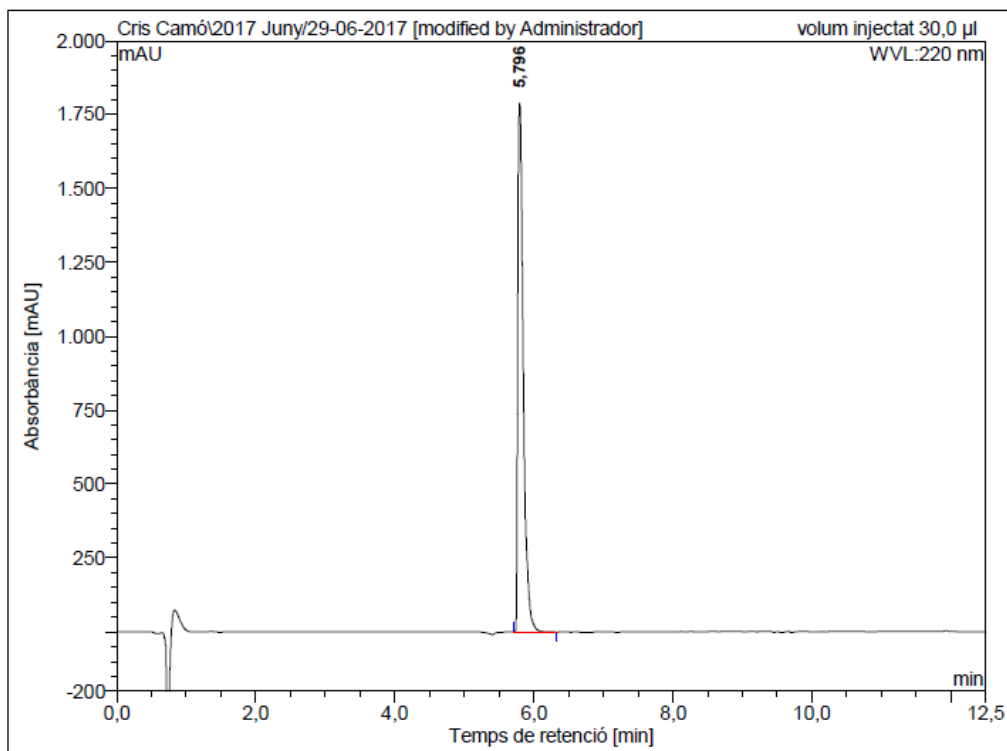
Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-OH (**flg15**)

IMPURE PRODUCT

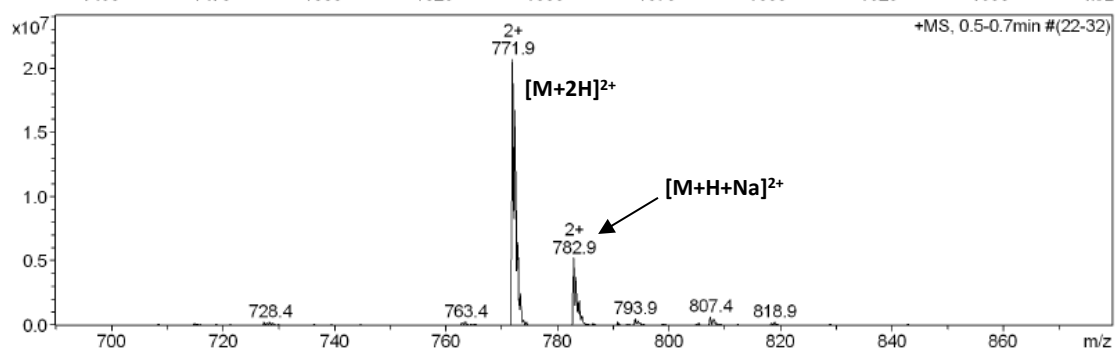
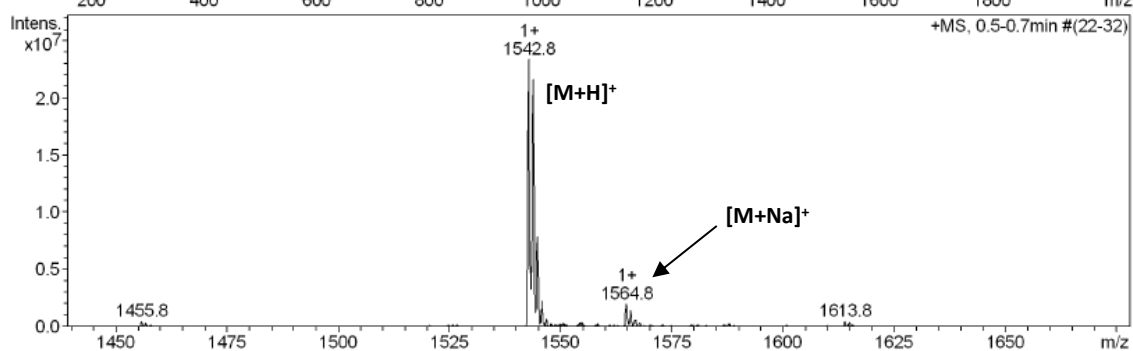
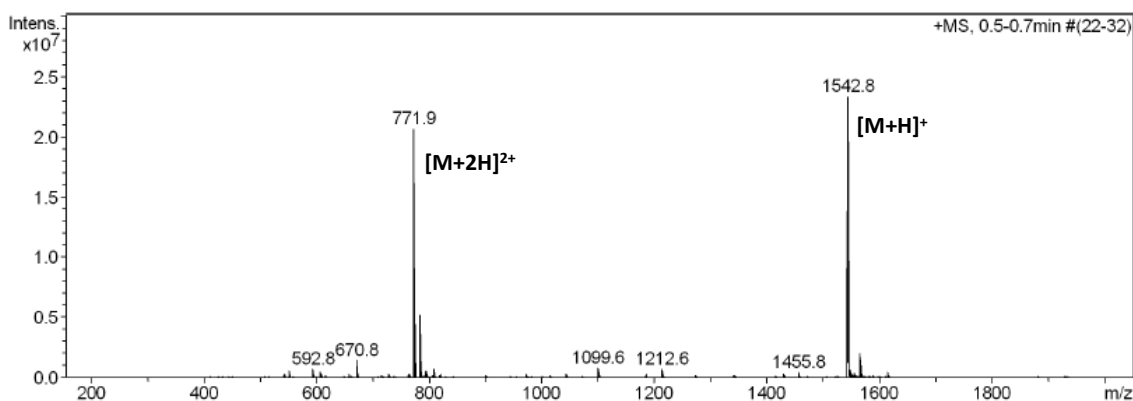
HPLC ($\lambda = 220$ nm) (flg15-3-457 cleavage1)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,76 | 795,359 | 84,856 | 85,54 |
| 2 | 6,81 | 41,676 | 3,771 | 3,80 |
| 3 | 7,31 | 13,011 | 1,275 | 1,29 |
| 4 | 10,14 | 63,943 | 5,828 | 5,87 |
| 5 | 10,58 | 36,309 | 3,476 | 3,50 |
| Total: | | 950,297 | 99,206 | 100,00 |

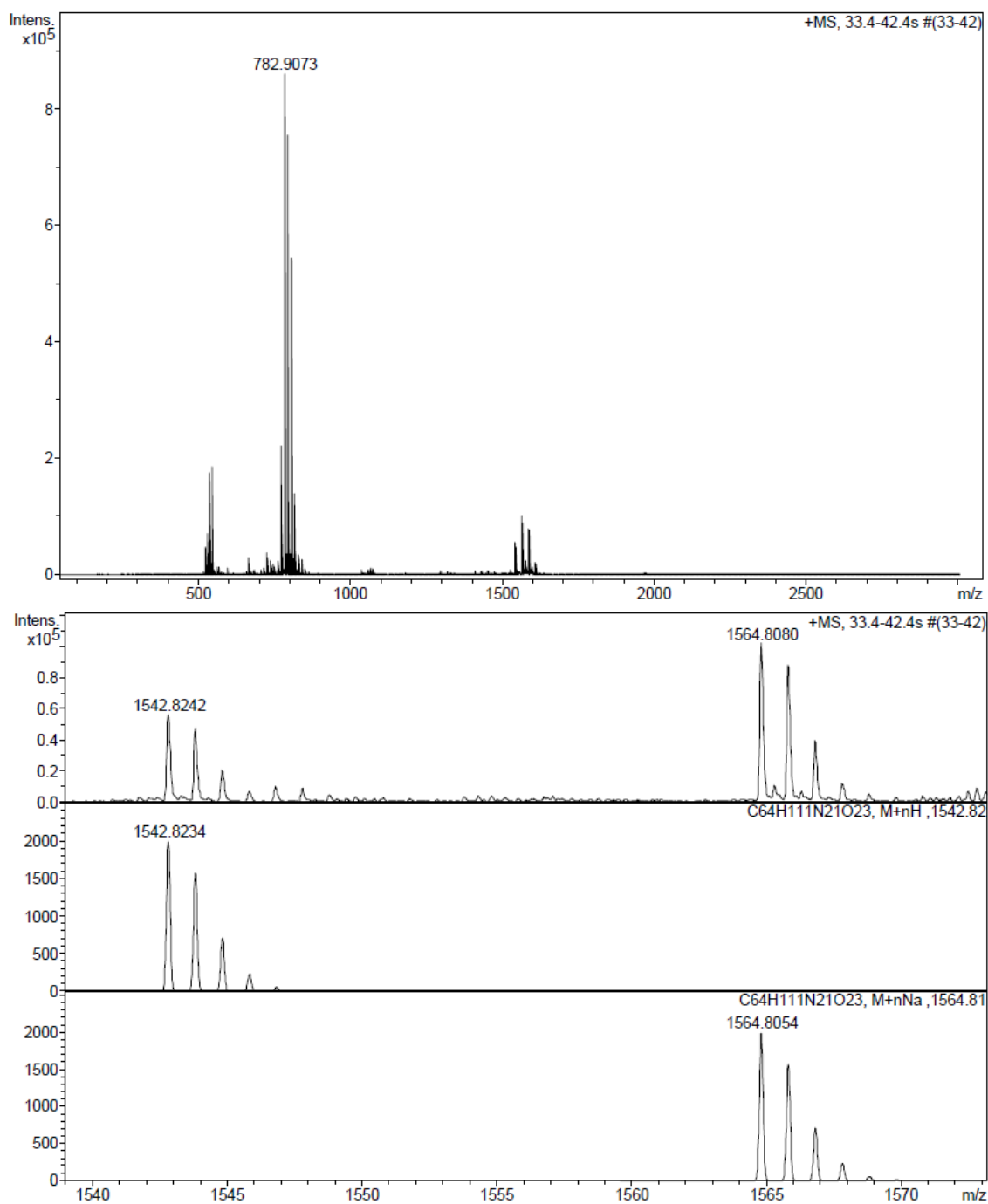
PURE PRODUCT

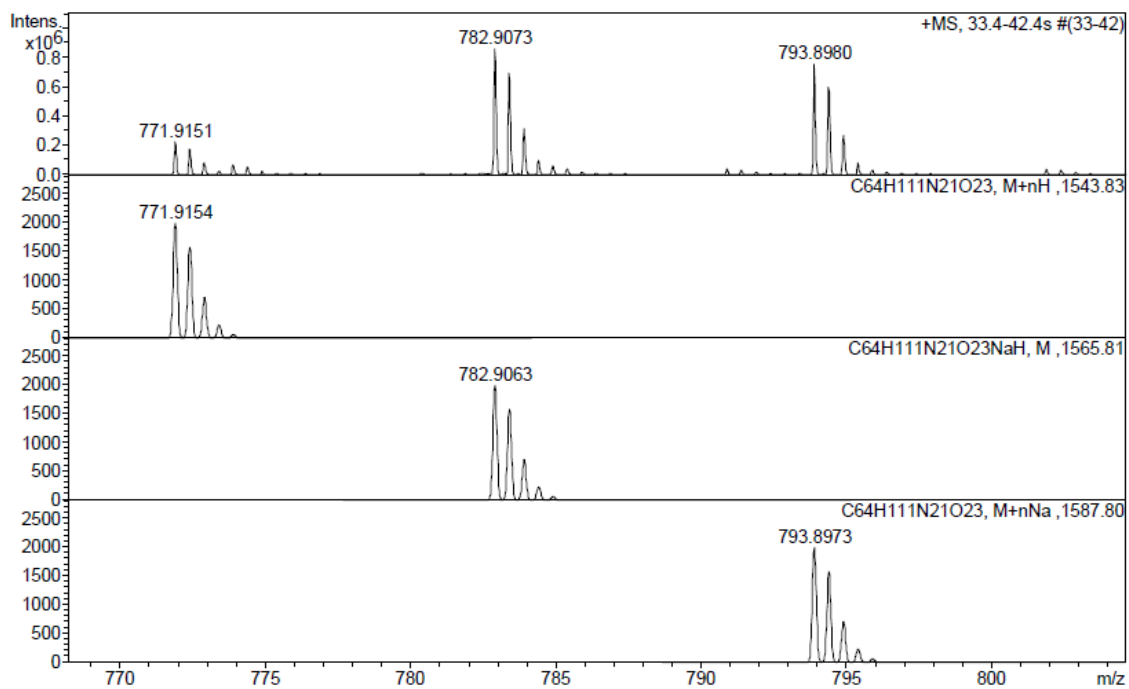
HPLC ($\lambda = 220 \text{ nm}$) (flg15 tub 41)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,80 | 1790,703 | 165,501 | 100,00 |
| Total: | | 1790,703 | 165,501 | 100,00 |

ESI-MS (m/z) (flg15 tub 40)

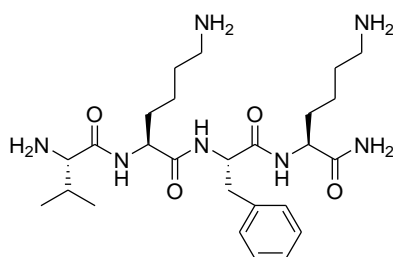
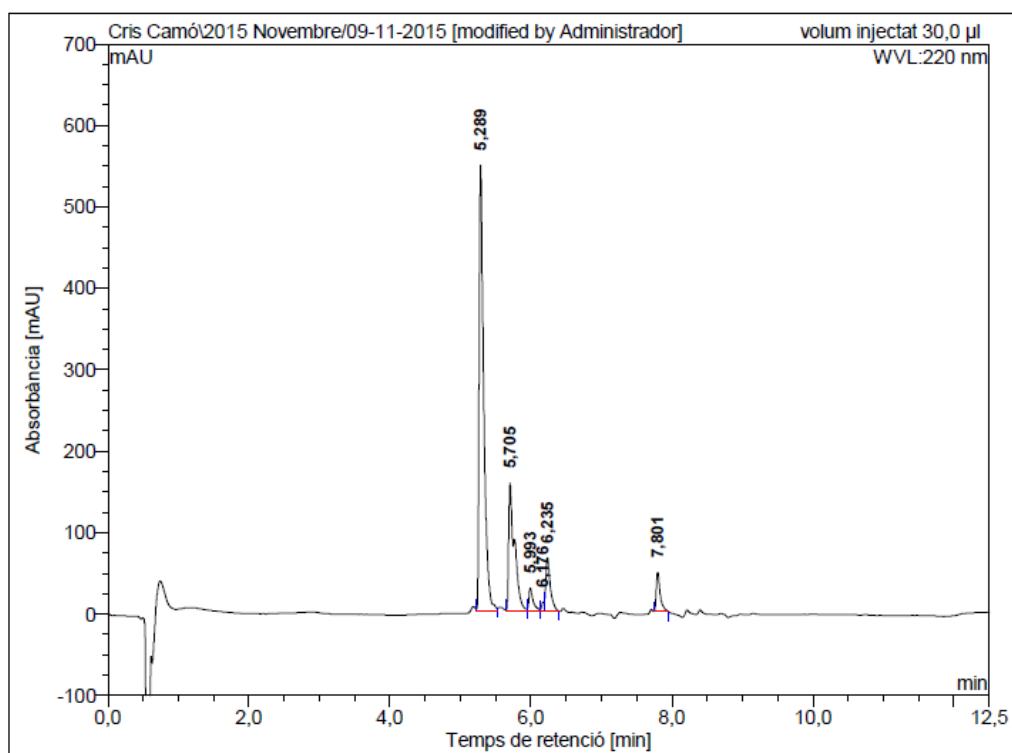
| |
|-------------------------|
| $[M+H]^+ = 1542.8$ |
| $[M+Na]^+ = 1564.8$ |
| $[M+2H]^{2+} = 771.9$ |
| $[M+H+Na]^{2+} = 782.9$ |

HRMS (ESI) (m/z) (flg15)

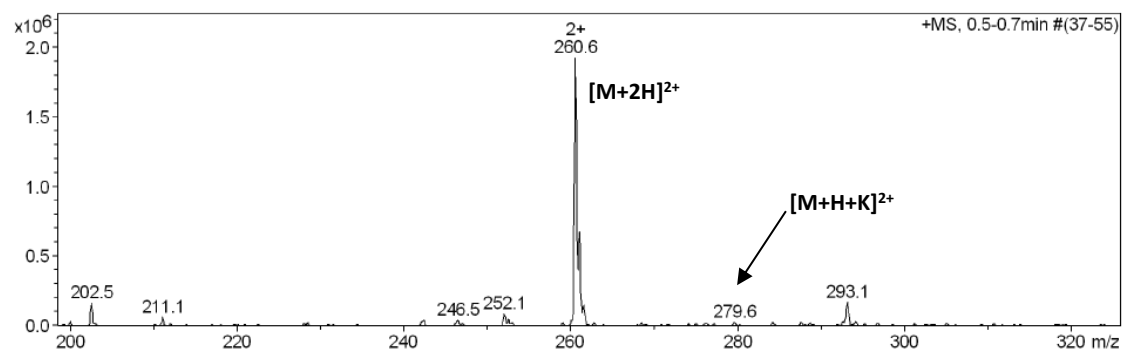
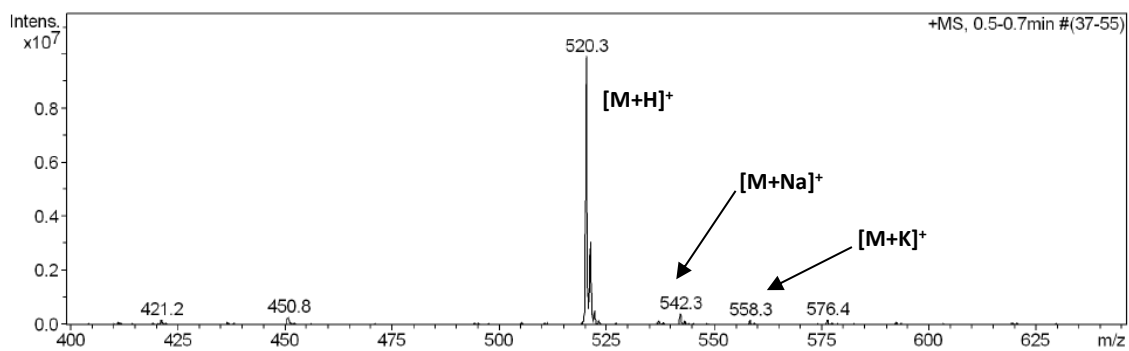
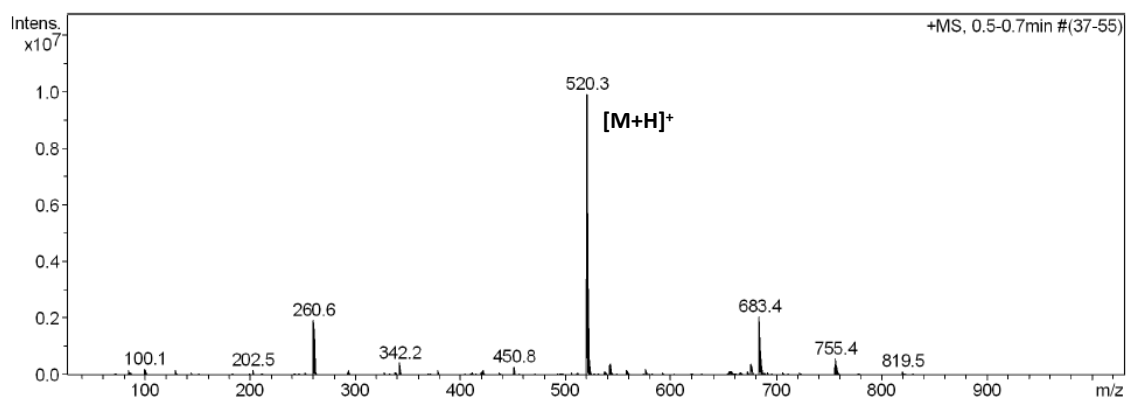


| | Molecular formula | Calculated | Found |
|------------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₄ H ₁₁₂ N ₂₁ O ₂₃ | 1542.8234 | 1542.8242 |
| [M+Na]⁺ | C ₆₄ H ₁₁₁ N ₂₁ O ₂₃ Na | 1564.8054 | 1564.8080 |
| [M+2H]²⁺ | C ₆₄ H ₁₁₃ N ₂₁ O ₂₃ | 771.9154 | 771.9151 |
| [M+H+Na]²⁺ | C ₆₄ H ₁₁₂ N ₂₁ O ₂₃ Na | 782.9063 | 782.9073 |
| [M+2Na]²⁺ | C ₆₄ H ₁₁₁ N ₂₁ O ₂₃ Na ₂ | 793.8973 | 793.8980 |

KSL-W analogues

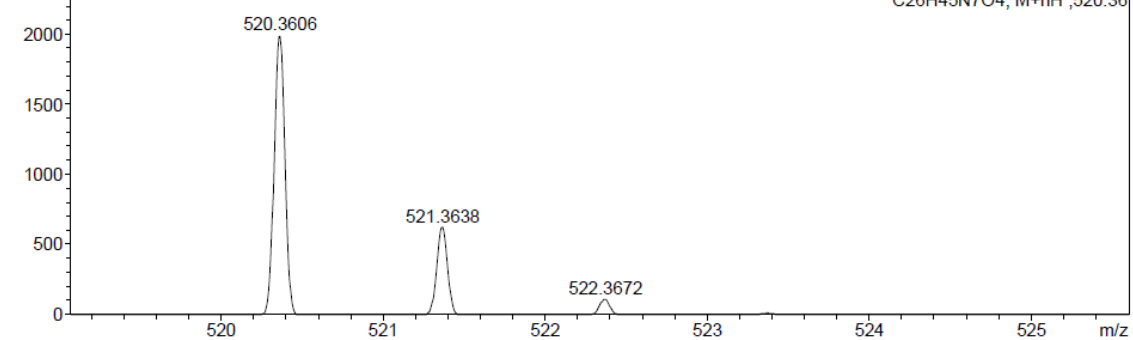
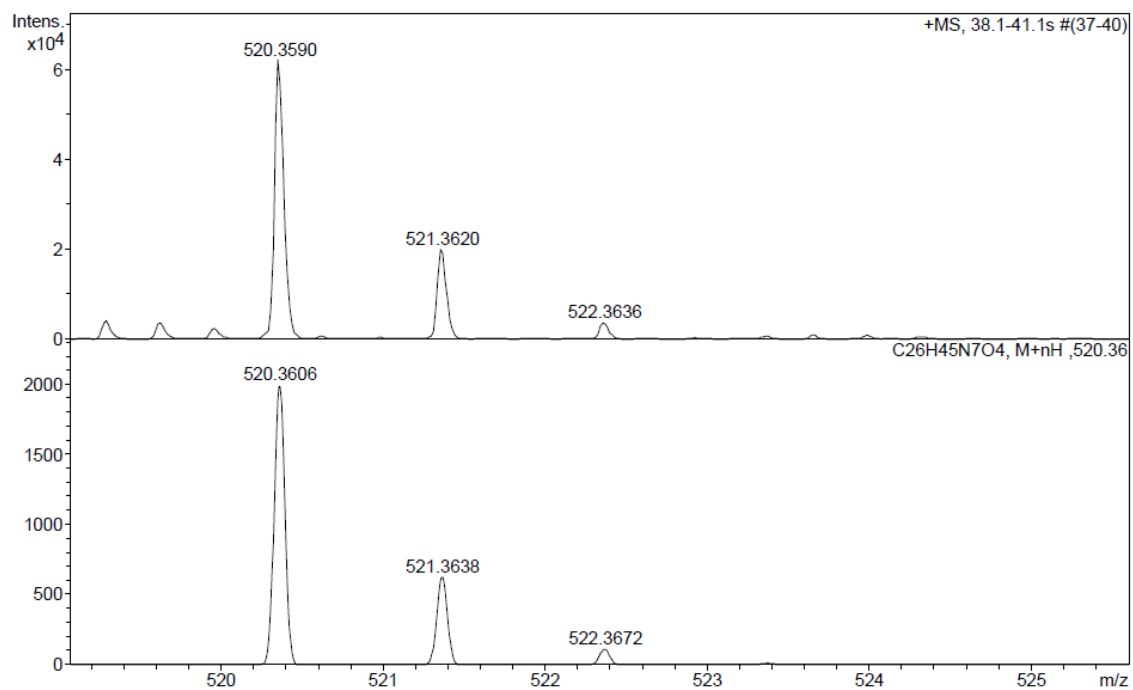
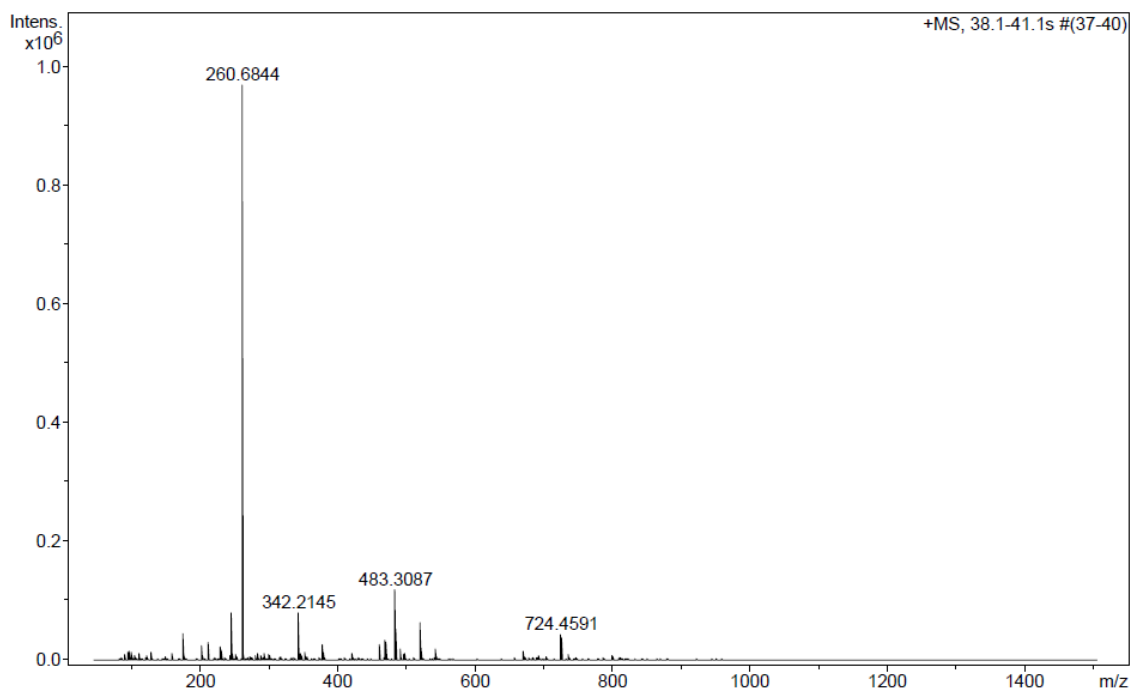
Val-Lys-Phe-Lys-NH₂ (BP403)HPLC ($\lambda = 220 \text{ nm}$)

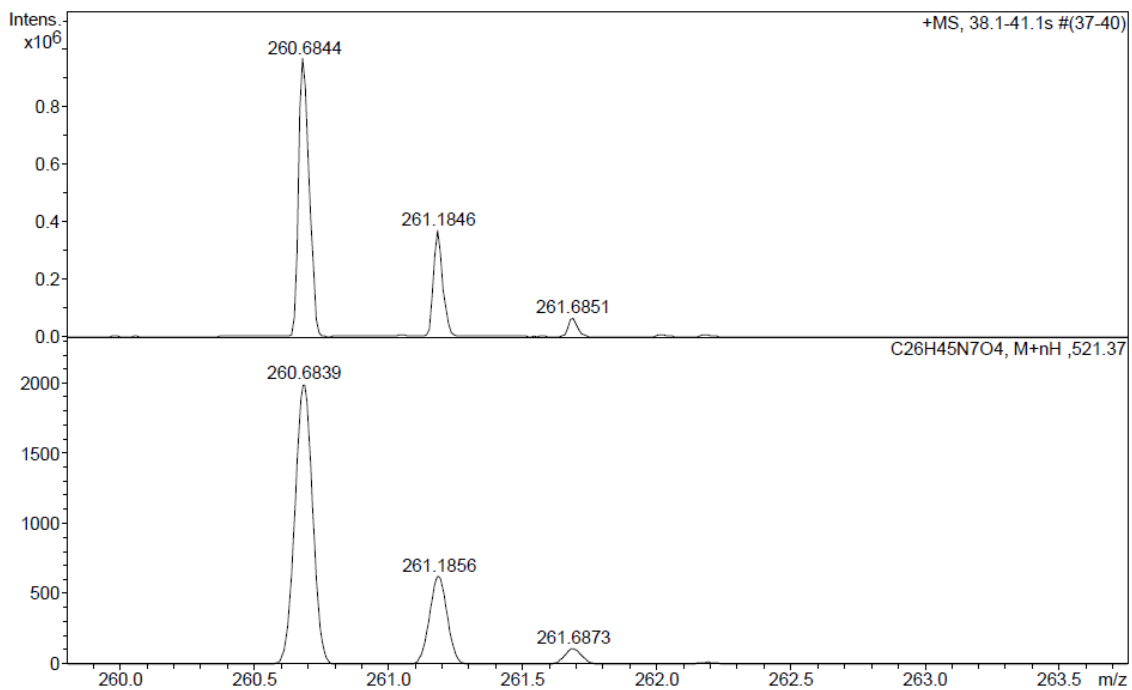
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,29 | 546,963 | 41,425 | 62,24 |
| 2 | 5,70 | 157,023 | 14,776 | 22,20 |
| 3 | 5,99 | 28,055 | 1,996 | 3,00 |
| 4 | 6,18 | 10,767 | 0,434 | 0,65 |
| 5 | 6,24 | 65,099 | 4,813 | 7,23 |
| 6 | 7,80 | 48,394 | 3,118 | 4,68 |
| Total: | | 856,302 | 66,561 | 100,00 |

ESI-MS (m/z)

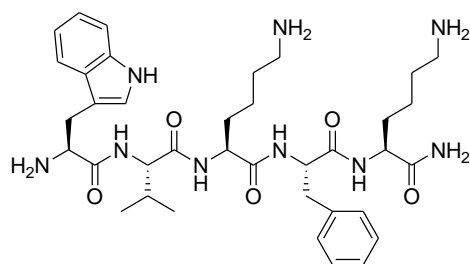
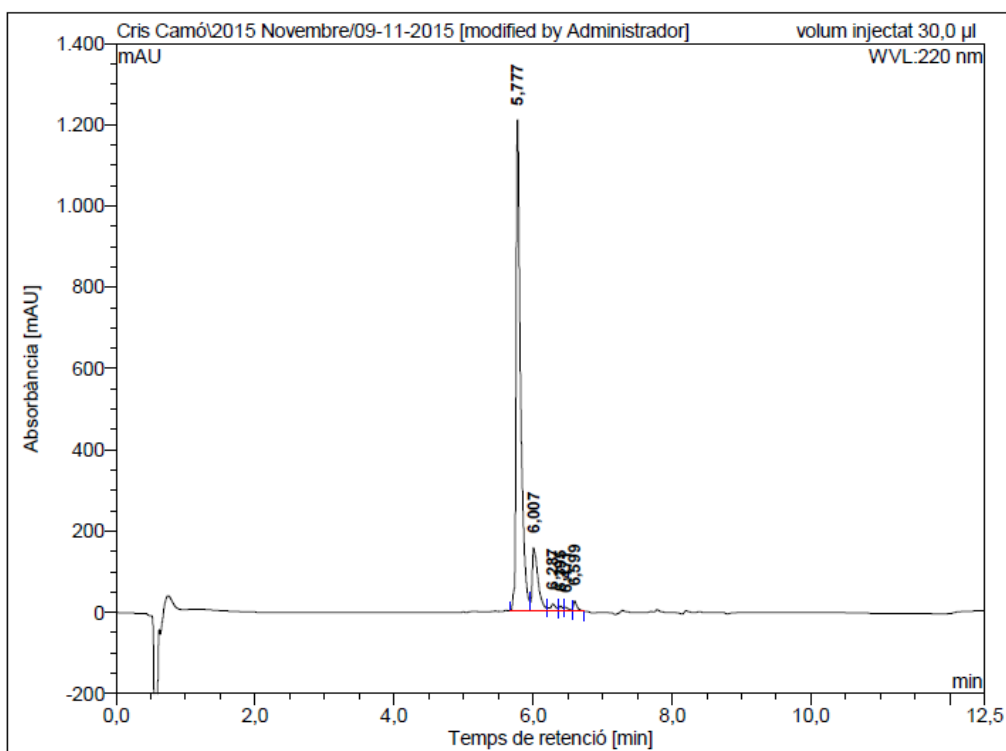
| |
|------------------------|
| $[M+H]^+ = 520.3$ |
| $[M+Na]^+ = 542.3$ |
| $[M+K]^+ = 558.3$ |
| $[M+2H]^{2+} = 260.6$ |
| $[M+H+K]^{2+} = 279.6$ |

HRMS (ESI) (m/z)

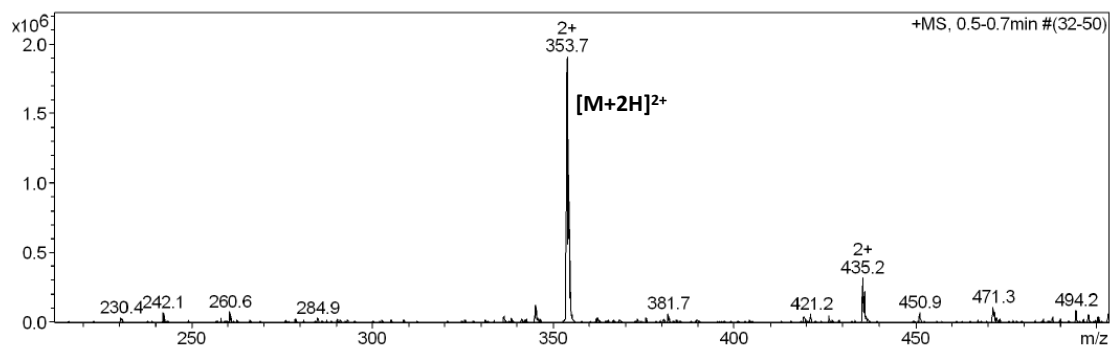
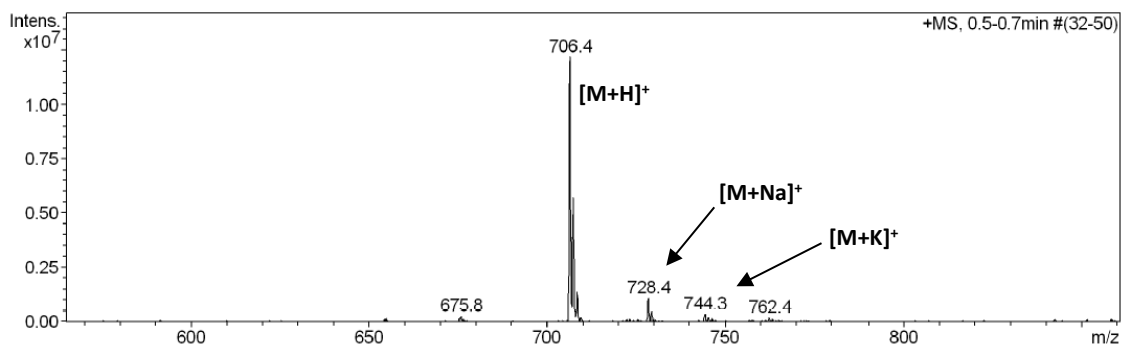
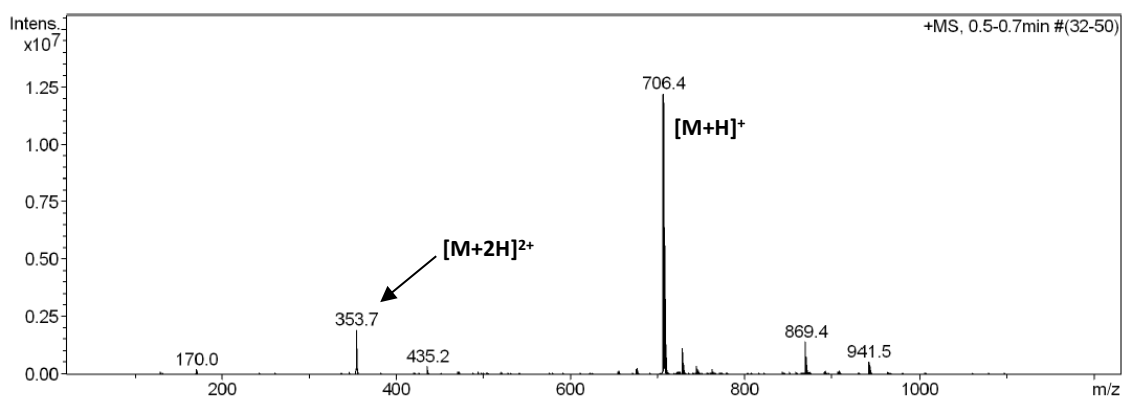




| | Molecular formula | Calculated | Found |
|----------------------------|---|-------------------|--------------|
| [M+H]⁺ | C ₂₆ H ₄₆ N ₇ O ₄ | 520.3606 | 520.3590 |
| [M+2H]²⁺ | C ₂₆ H ₄₇ N ₇ O ₄ | 260.6839 | 260.6844 |

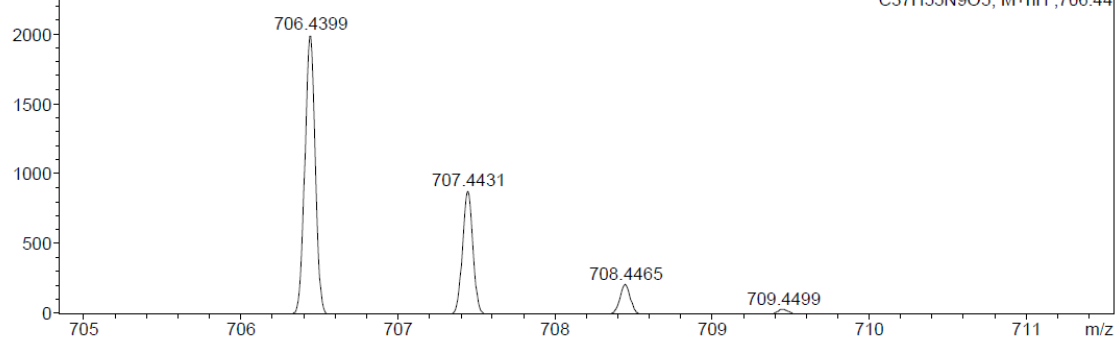
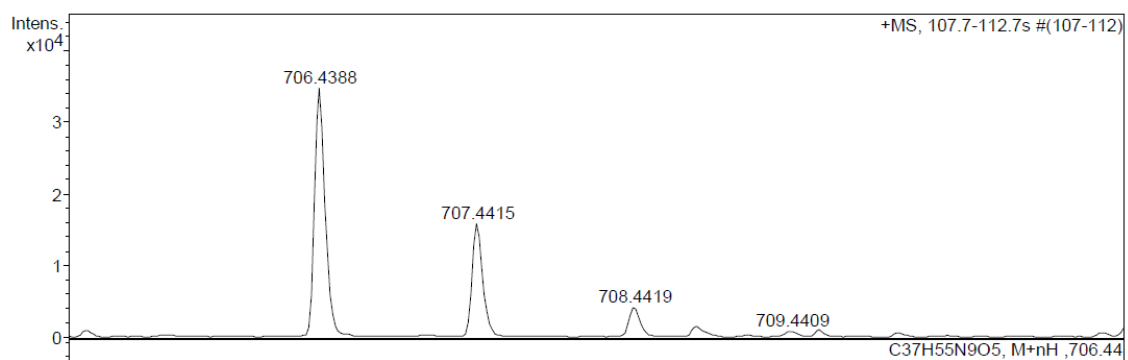
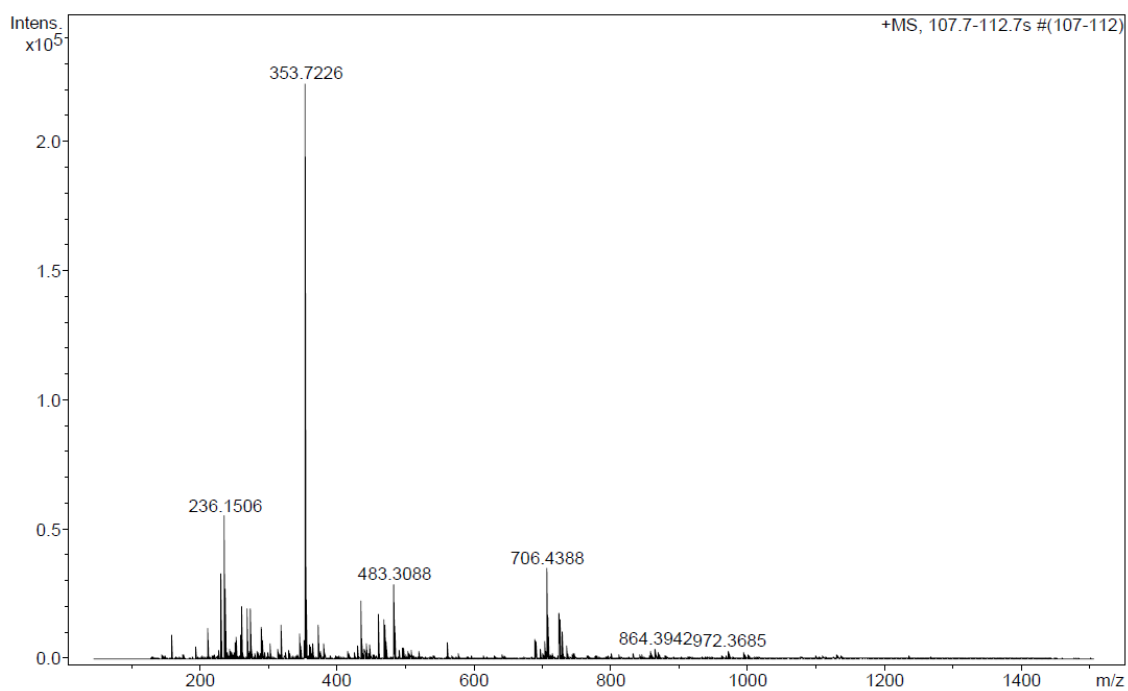
Trp-Val-Lys-Phe-Lys-NH₂ (BP404)HPLC ($\lambda = 220$ nm)

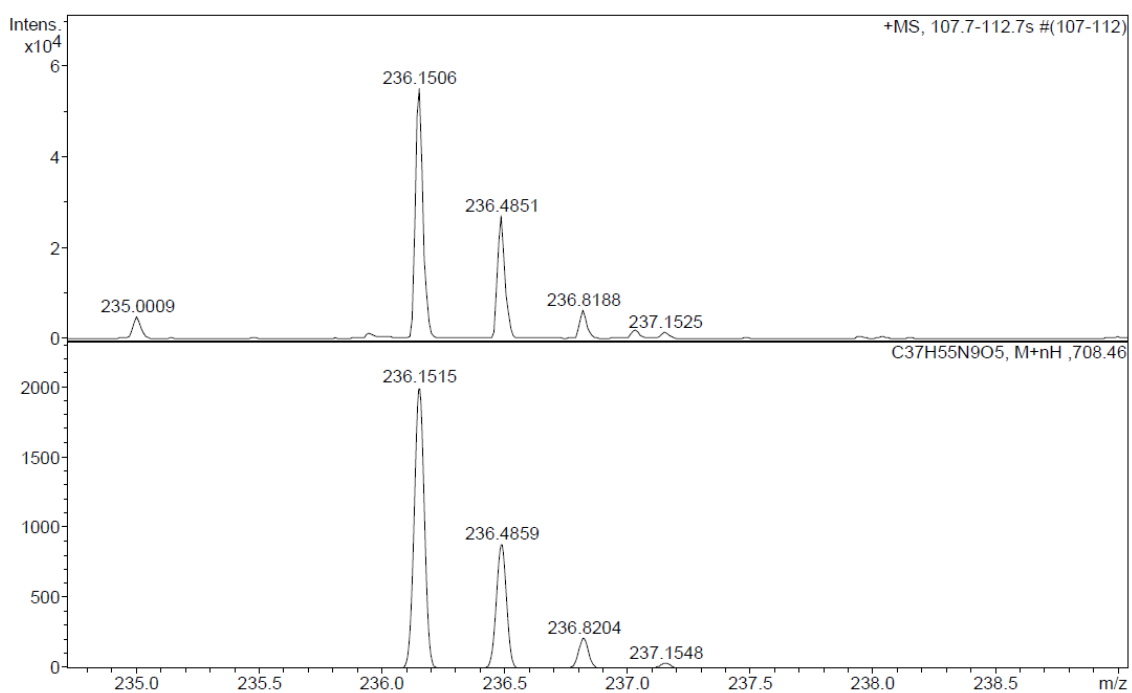
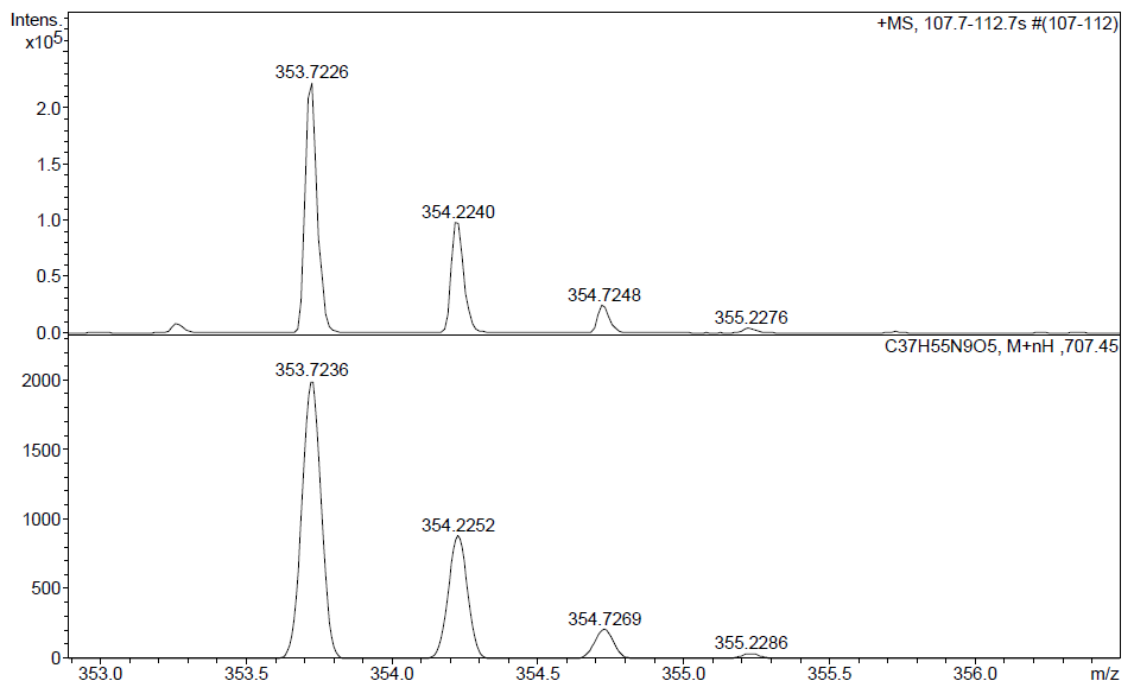
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,78 | 1208,423 | 89,767 | 81,94 |
| 2 | 6,01 | 155,361 | 15,249 | 13,92 |
| 3 | 6,29 | 17,284 | 1,578 | 1,44 |
| 4 | 6,39 | 11,505 | 0,764 | 0,70 |
| 5 | 6,47 | 8,976 | 0,698 | 0,64 |
| 6 | 6,60 | 24,179 | 1,494 | 1,36 |
| Total: | | 1425,728 | 109,550 | 100,00 |

ESI-MS (m/z)

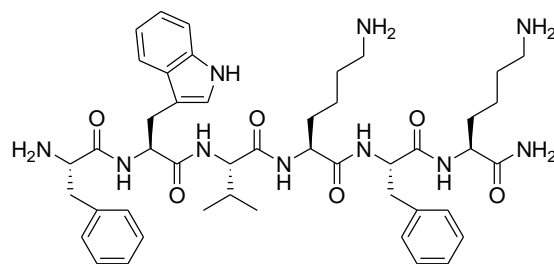
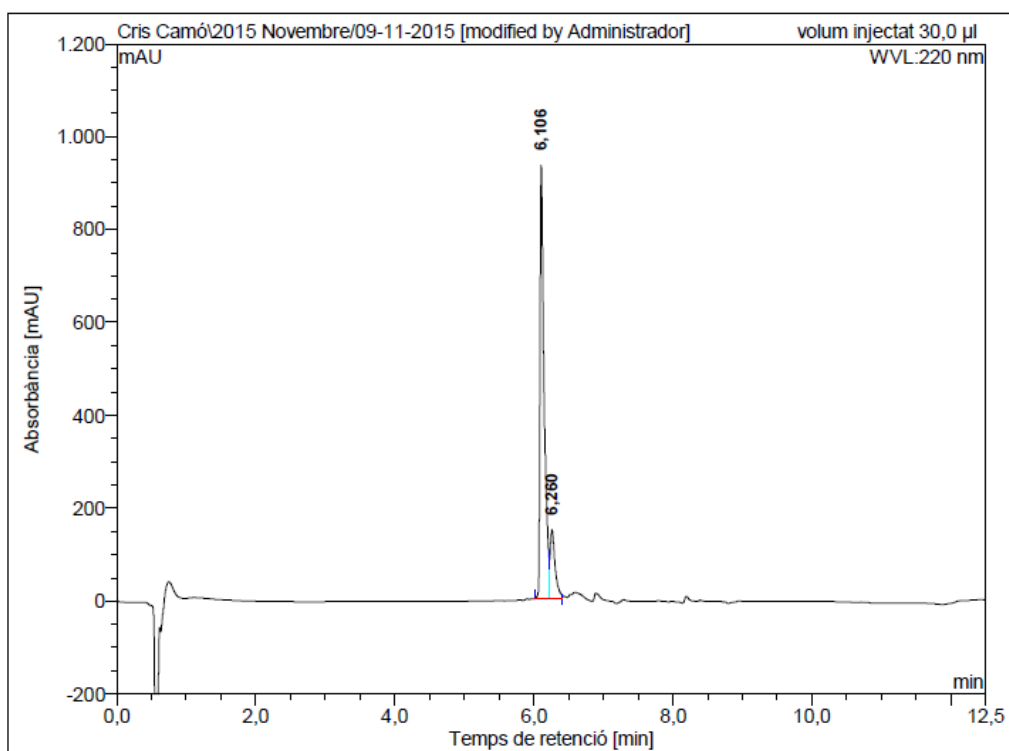
| |
|------------------------------|
| [M+H] ⁺ = 706.4 |
| [M+Na] ⁺ = 728.4 |
| [M+K] ⁺ = 744.3 |
| [M+2H] ²⁺ = 353.7 |

HRMS (ESI) (m/z)

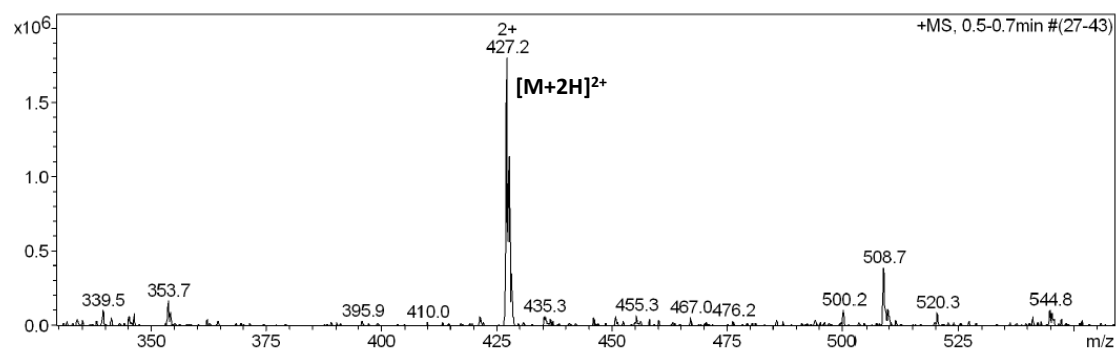
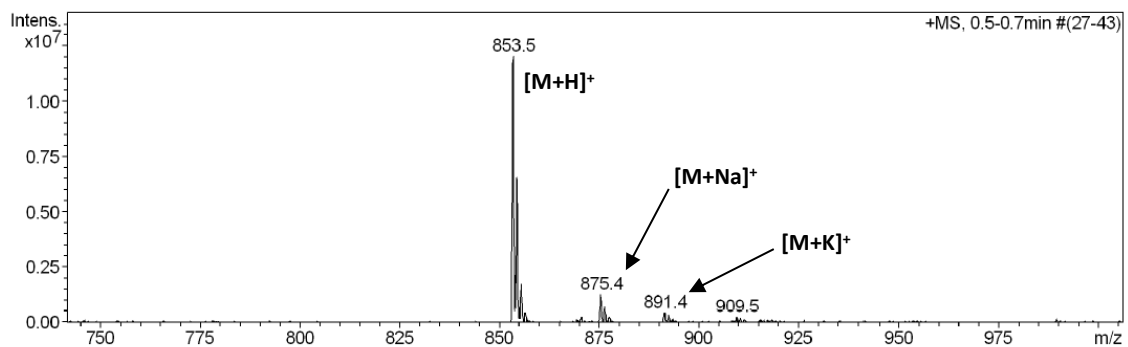
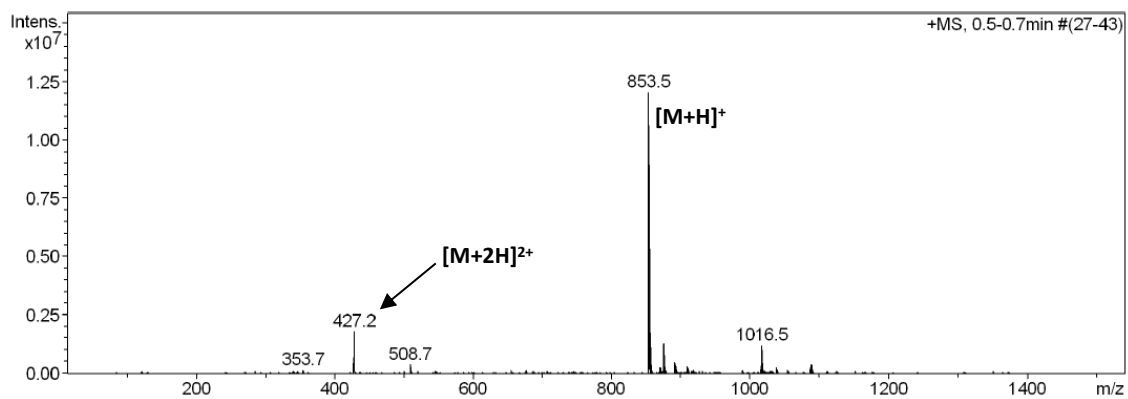




| | Molecular formula | Calculated | Found |
|----------------------|---|------------|----------|
| [M+H] ⁺ | C ₃₇ H ₅₆ N ₉ O ₅ | 706.4399 | 706.4388 |
| [M+2H] ²⁺ | C ₃₇ H ₅₇ N ₉ O ₅ | 353.7236 | 353.7226 |
| [M+3H] ³⁺ | C ₃₇ H ₅₈ N ₉ O ₅ | 236.1515 | 236.1506 |

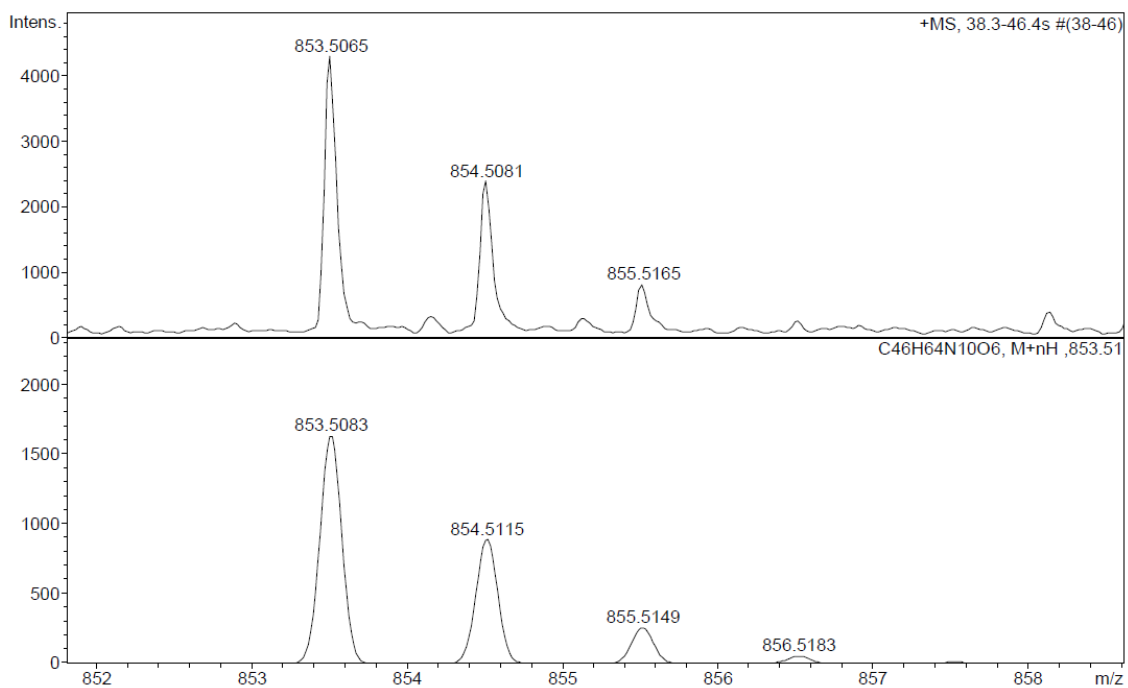
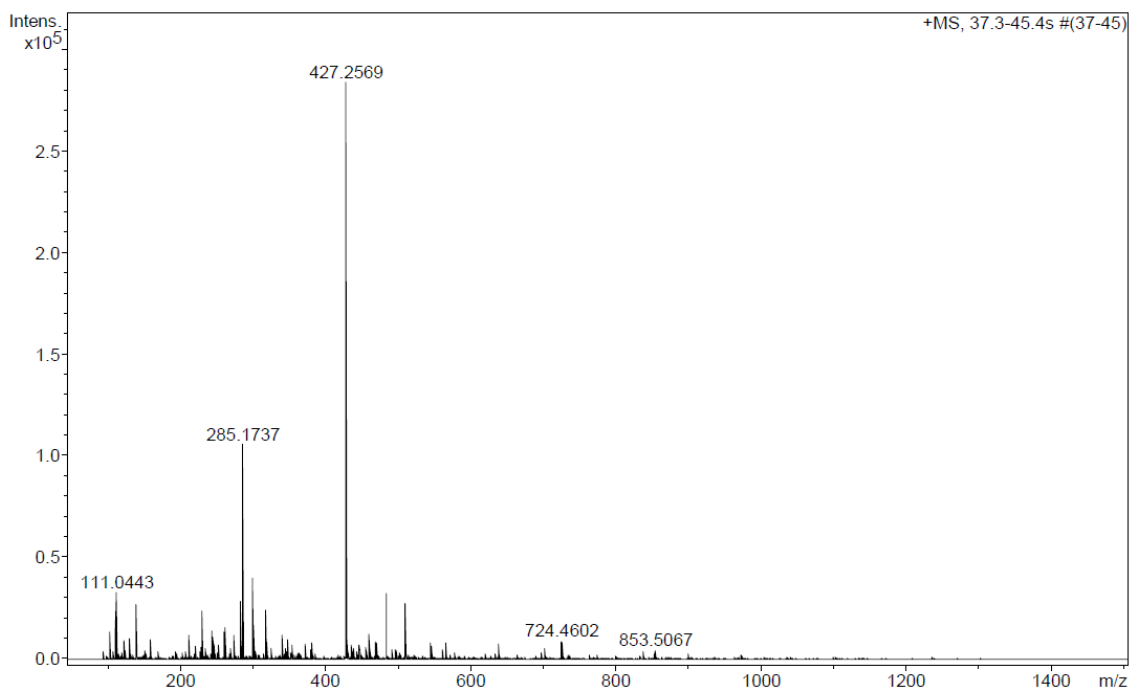
Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP405)HPLC ($\lambda = 220$ nm)

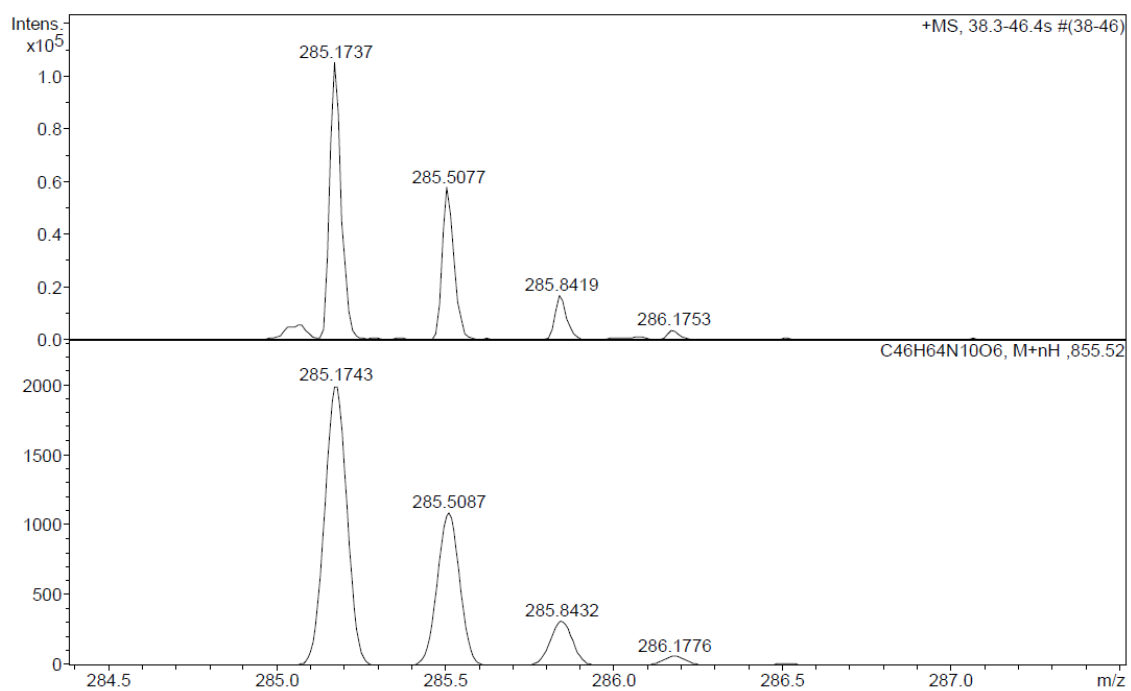
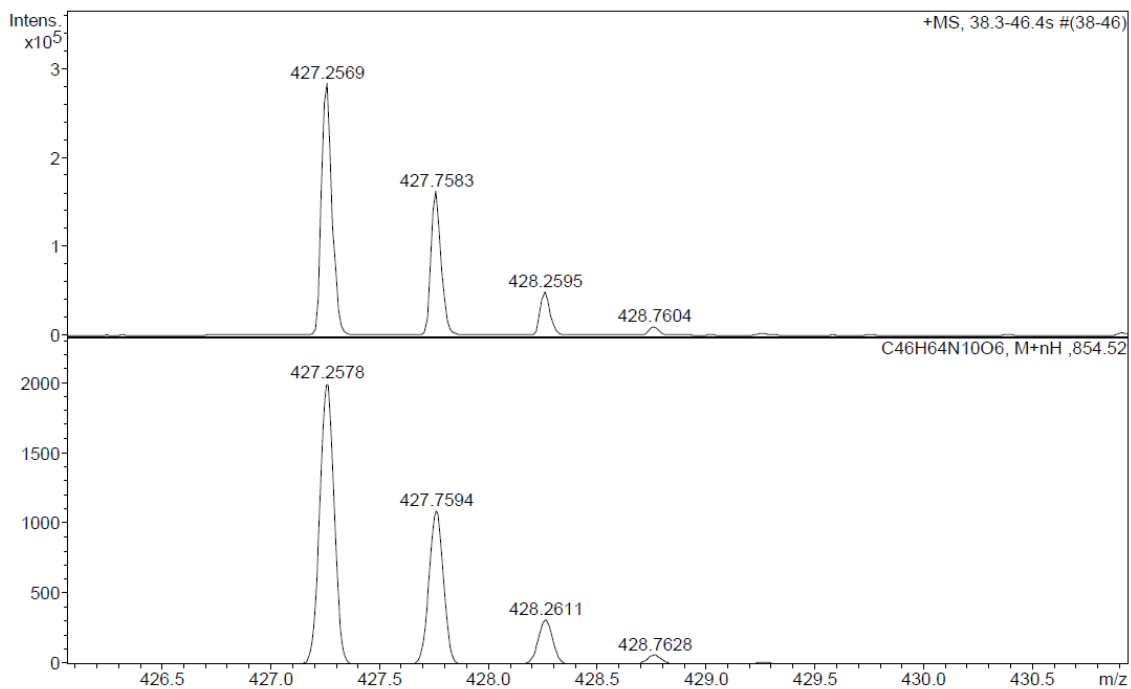
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 932,435 | 65,084 | 84,51 |
| 2 | 6,26 | 148,143 | 11,932 | 15,49 |
| Total: | | 1080,578 | 77,016 | 100,00 |

ESI-MS (m/z)

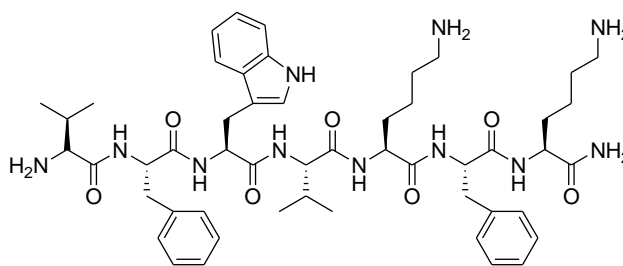
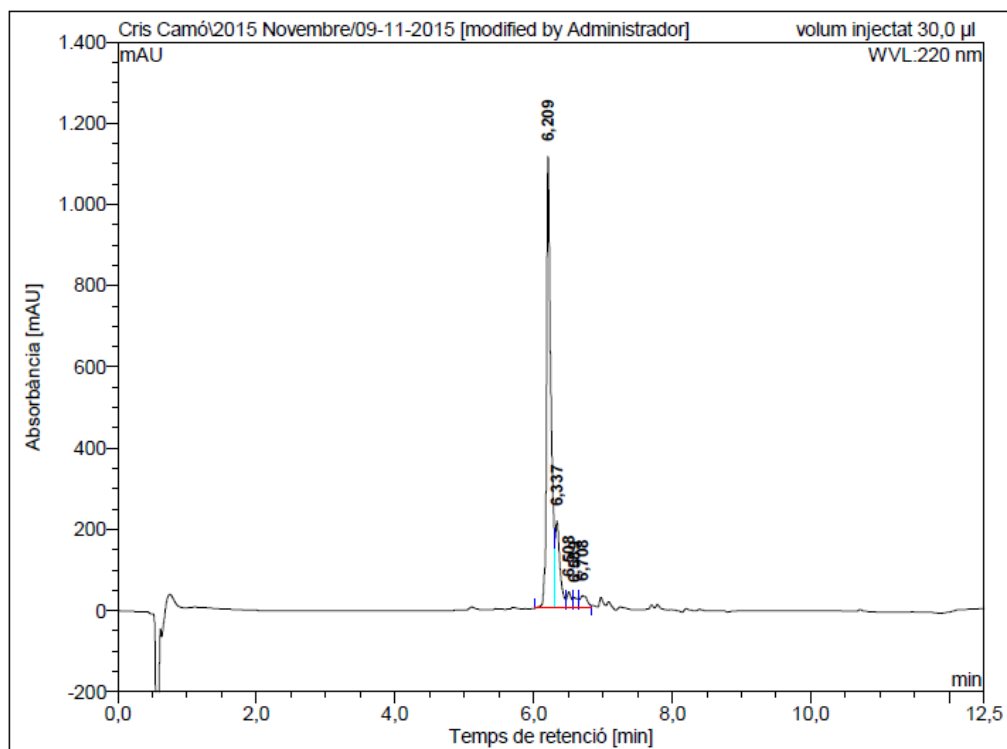
| |
|------------------------------|
| [M+H] ⁺ = 853.5 |
| [M+Na] ⁺ = 875.4 |
| [M+K] ⁺ = 891.4 |
| [M+2H] ²⁺ = 427.2 |

HRMS (ESI) (m/z)

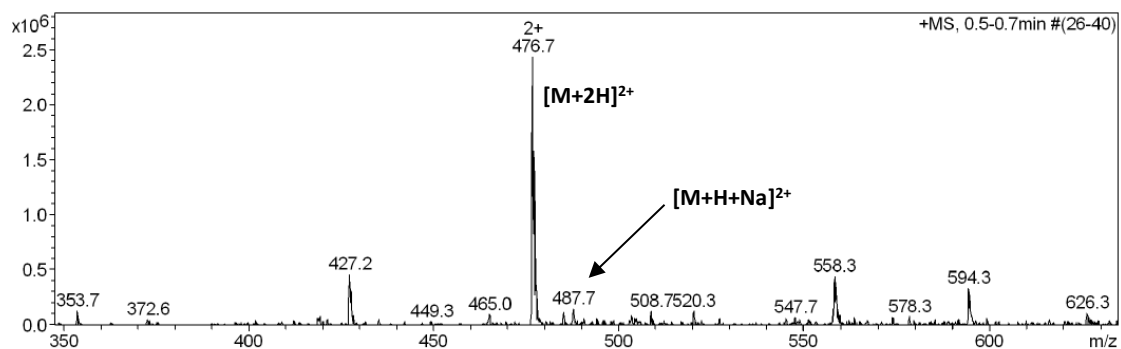
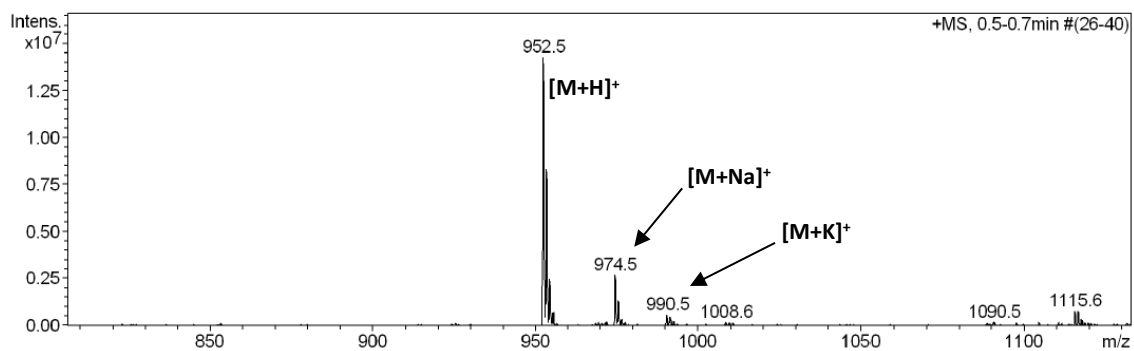
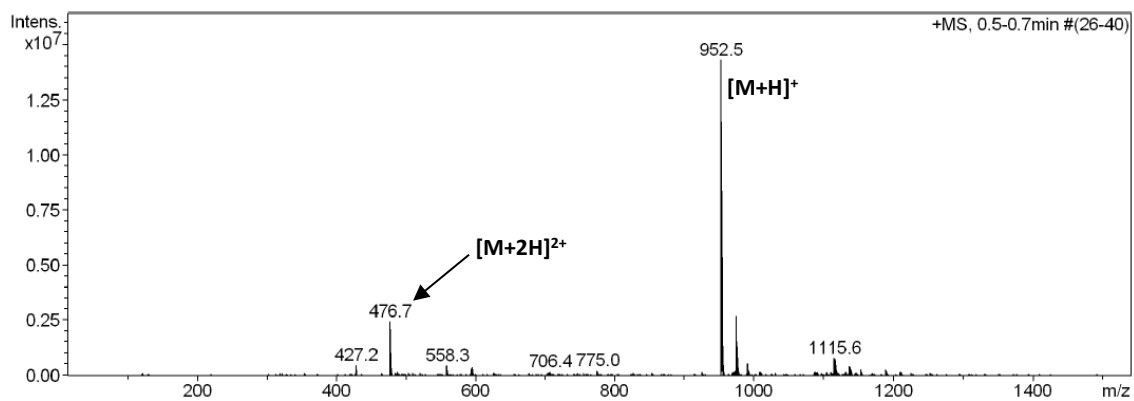




| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|----------|
| [M+H]⁺ | C ₄₆ H ₆₅ N ₁₀ O ₆ | 853.5083 | 853.5065 |
| [M+2H]²⁺ | C ₄₆ H ₆₆ N ₁₀ O ₆ | 427.2578 | 427.2569 |
| [M+3H]³⁺ | C ₄₆ H ₆₇ N ₁₀ O ₆ | 285.1743 | 285.1737 |

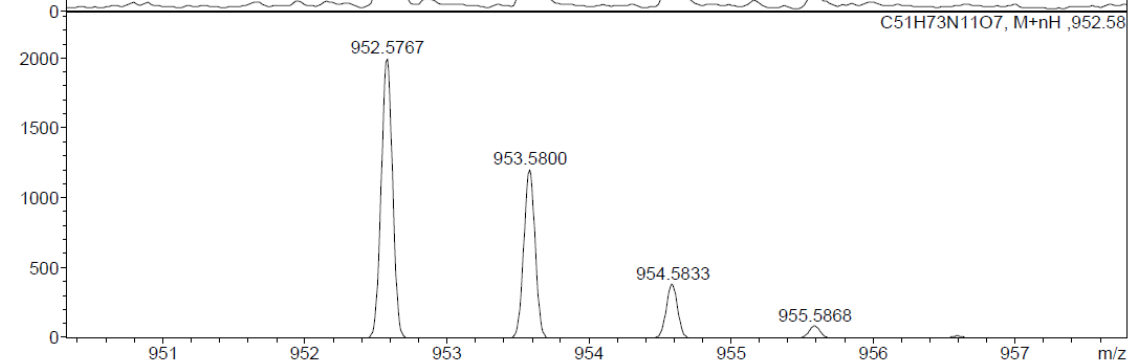
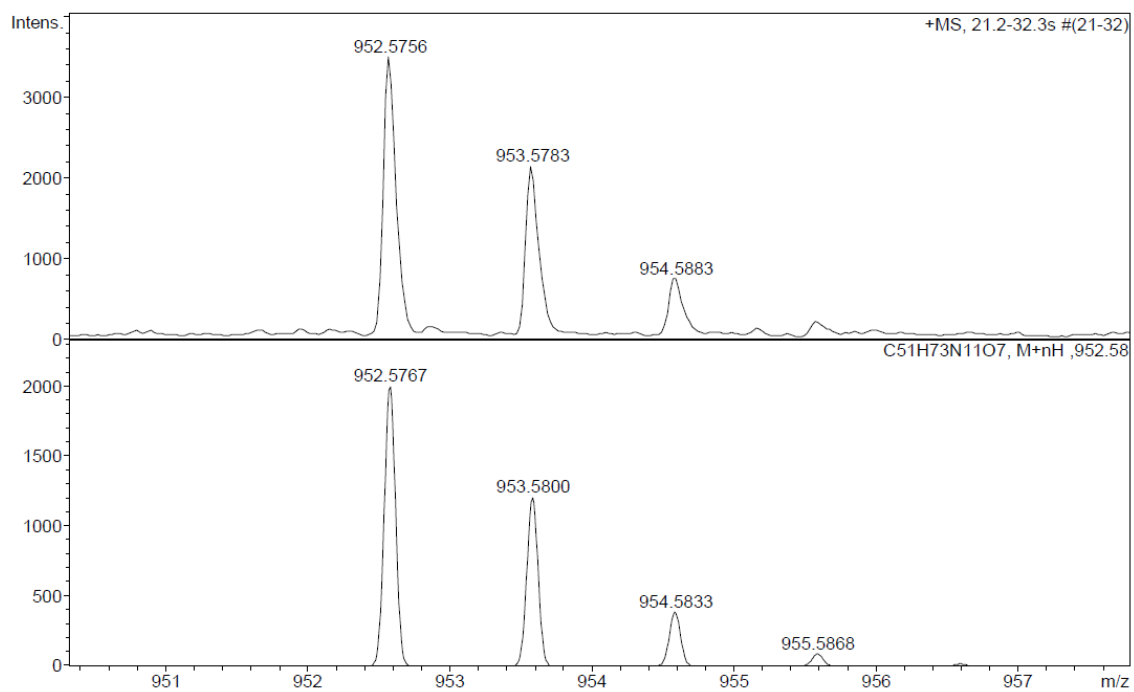
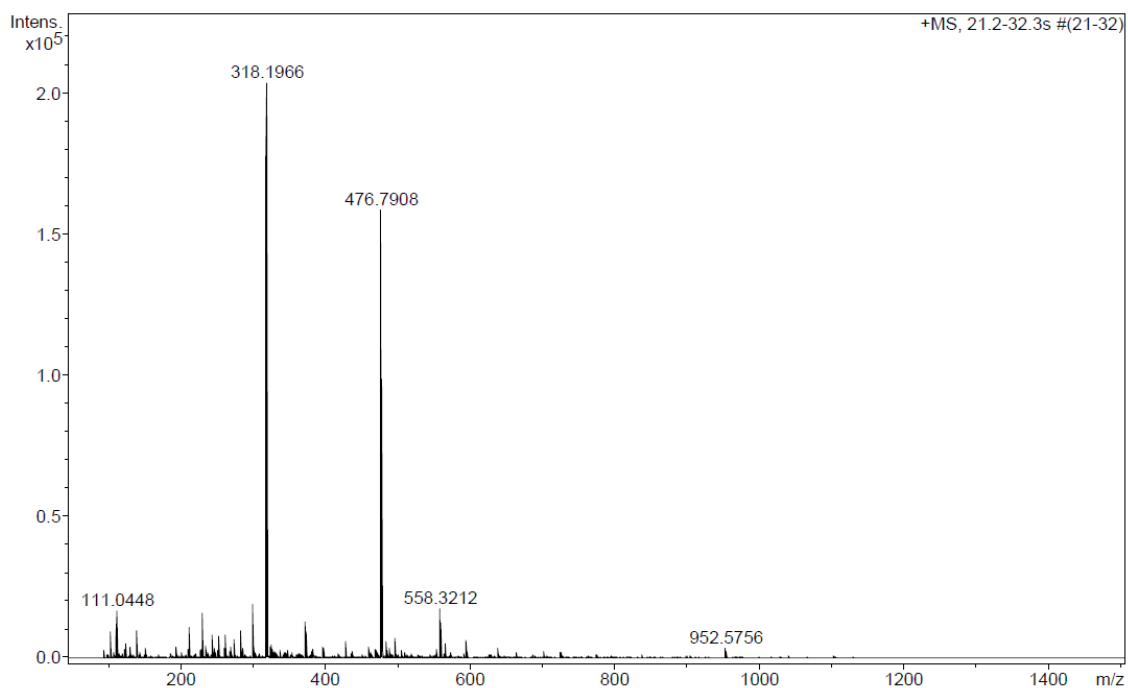
Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP406)HPLC ($\lambda = 220$ nm)

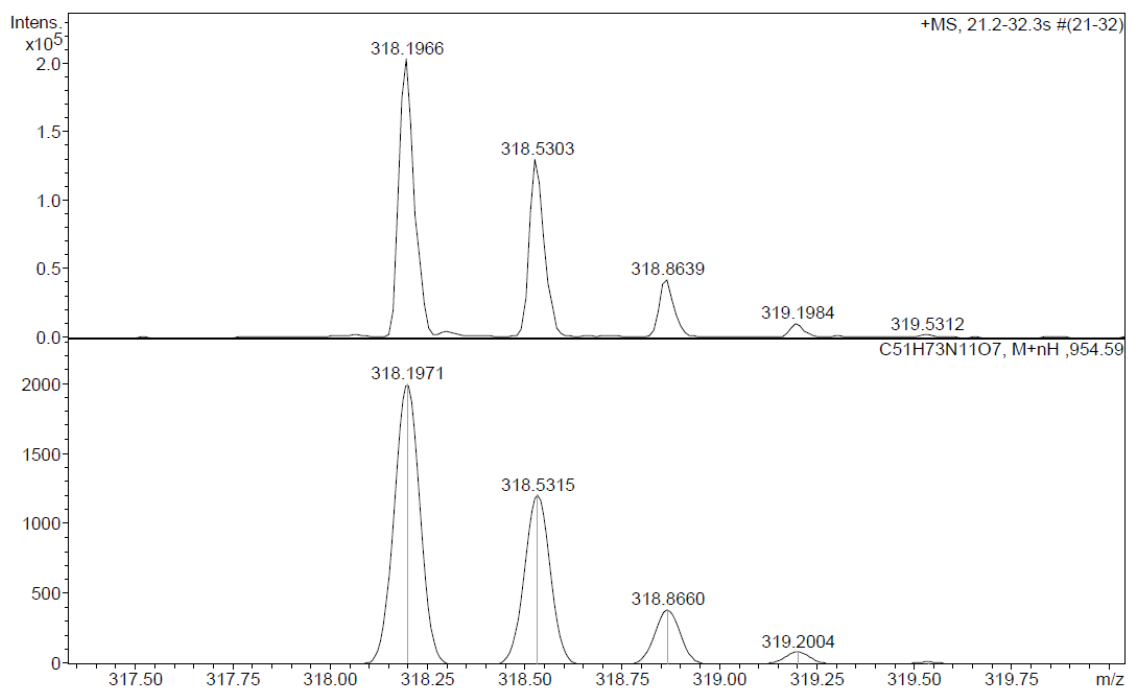
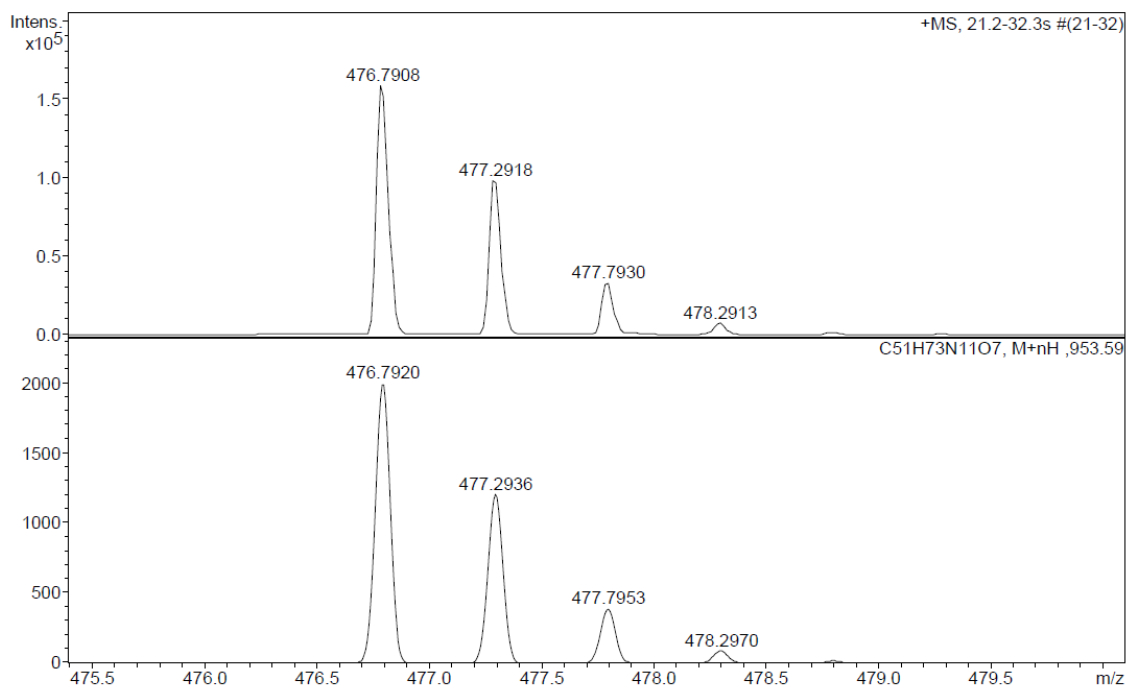
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 1111,374 | 80,497 | 75,78 |
| 2 | 6,34 | 214,282 | 16,810 | 15,83 |
| 3 | 6,51 | 39,995 | 2,802 | 2,64 |
| 4 | 6,59 | 26,433 | 2,289 | 2,15 |
| 5 | 6,71 | 30,567 | 3,824 | 3,60 |
| Total: | | 1422,651 | 106,221 | 100,00 |

ESI-MS (m/z)

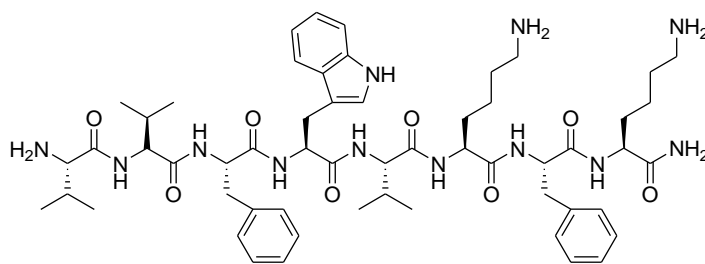
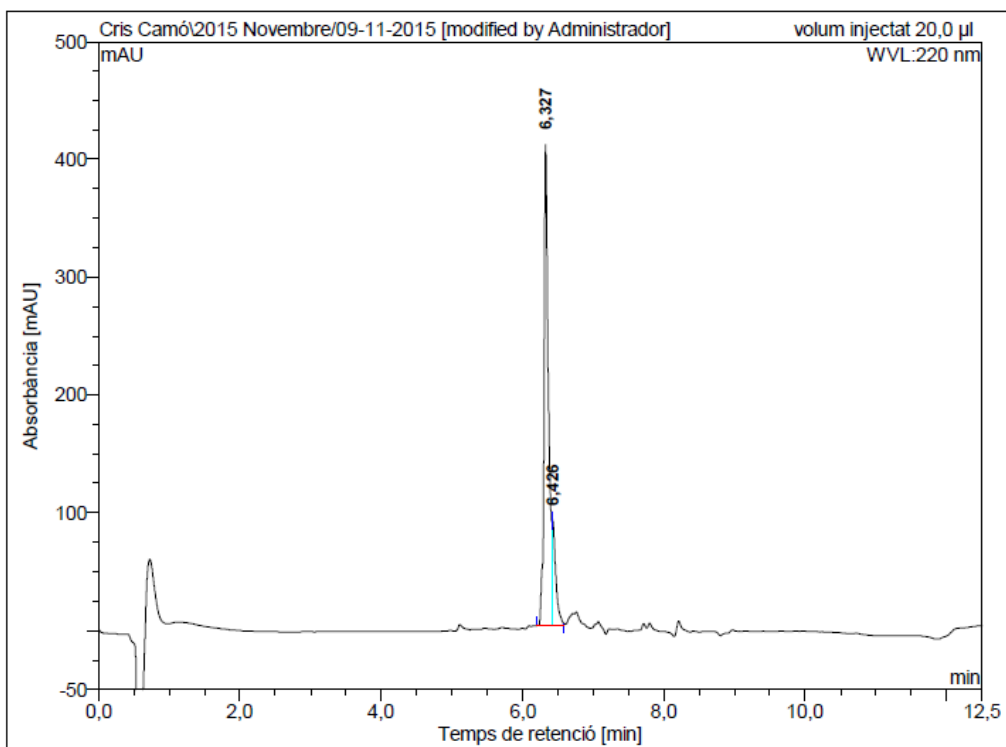
| |
|-------------------------|
| $[M+H]^+ = 952.5$ |
| $[M+Na]^+ = 974.5$ |
| $[M+K]^+ = 990.5$ |
| $[M+2H]^{2+} = 476.7$ |
| $[M+H+Na]^{2+} = 487.7$ |

HRMS (ESI) (m/z)



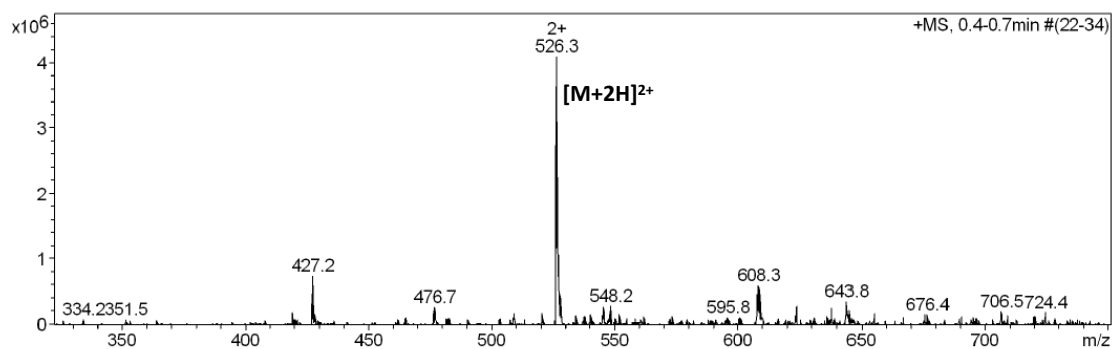
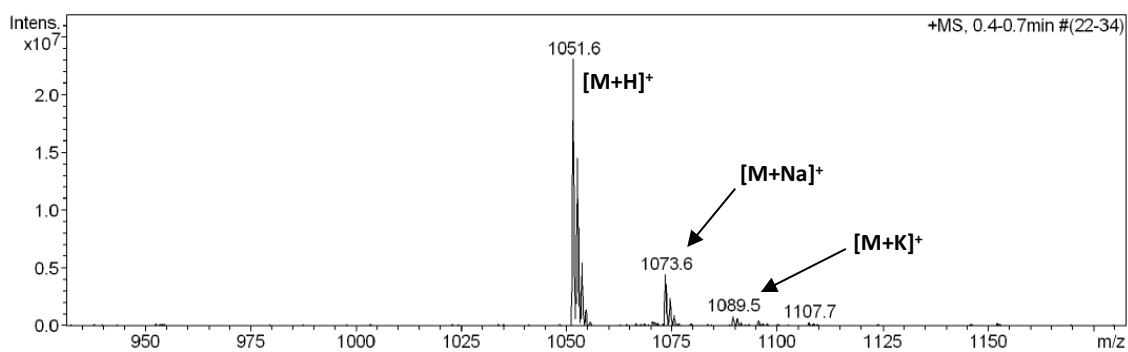
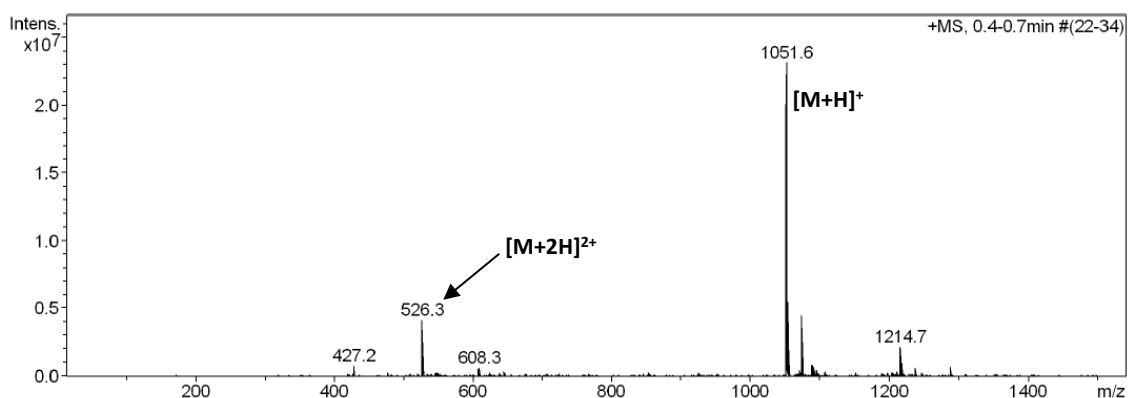


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|----------|
| [M+H]⁺ | C ₅₁ H ₇₄ N ₁₁ O ₇ | 952.5767 | 952.5756 |
| [M+2H]²⁺ | C ₅₁ H ₇₅ N ₁₁ O ₇ | 476.7920 | 476.7908 |
| [M+3H]³⁺ | C ₅₁ H ₇₆ N ₁₁ O ₇ | 318.1971 | 318.1966 |

Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP407)HPLC ($\lambda = 220 \text{ nm}$)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,33 | 408,378 | 28,585 | 82,35 |
| 2 | 6,43 | 89,972 | 6,128 | 17,65 |
| Total: | | 498,350 | 34,713 | 100,00 |

ESI-MS (m/z)



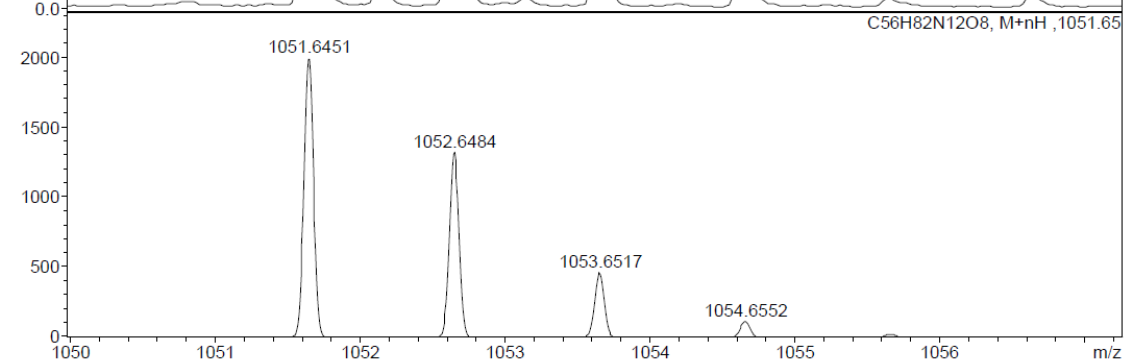
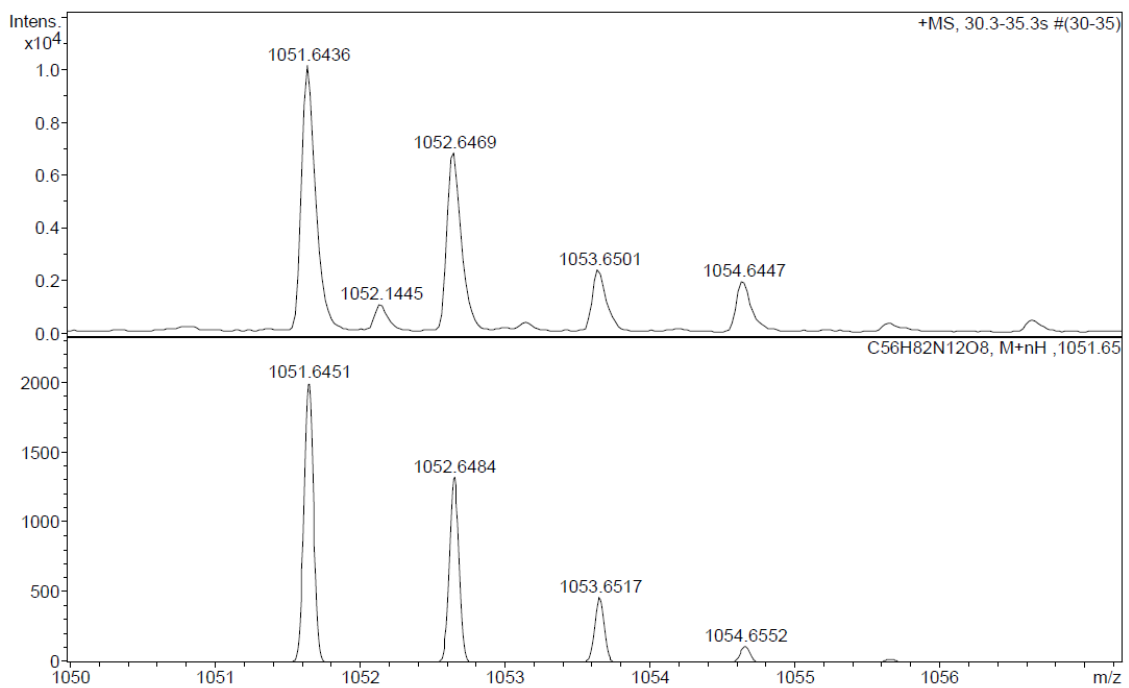
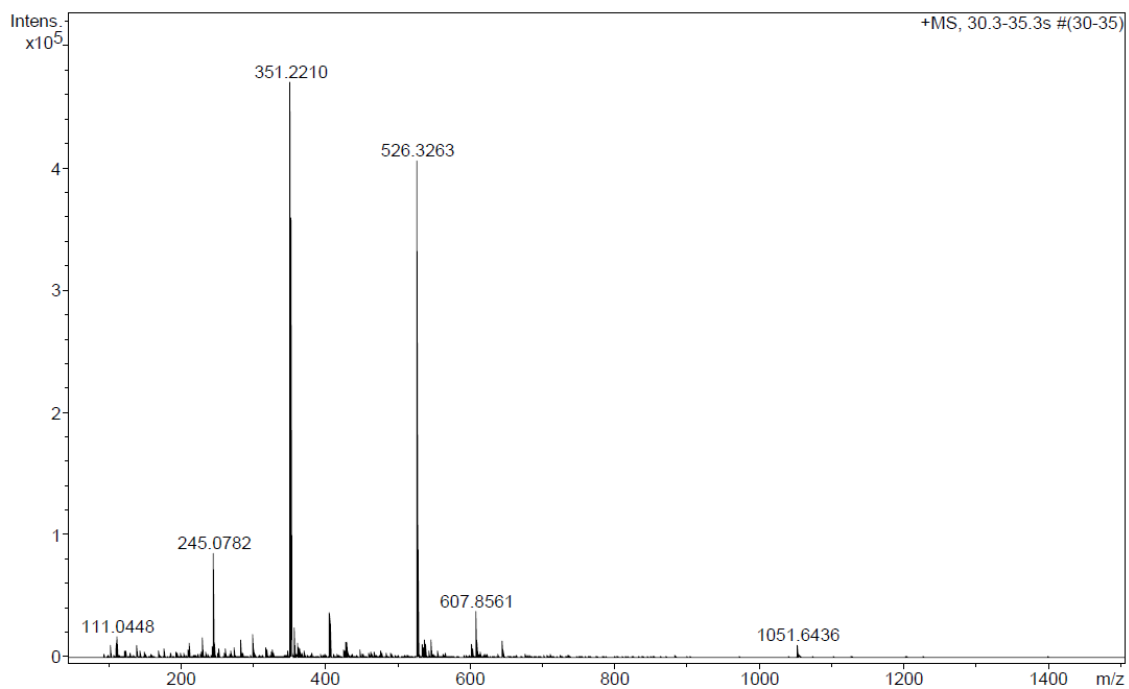
$$[M+H]^+ = 1051.6$$

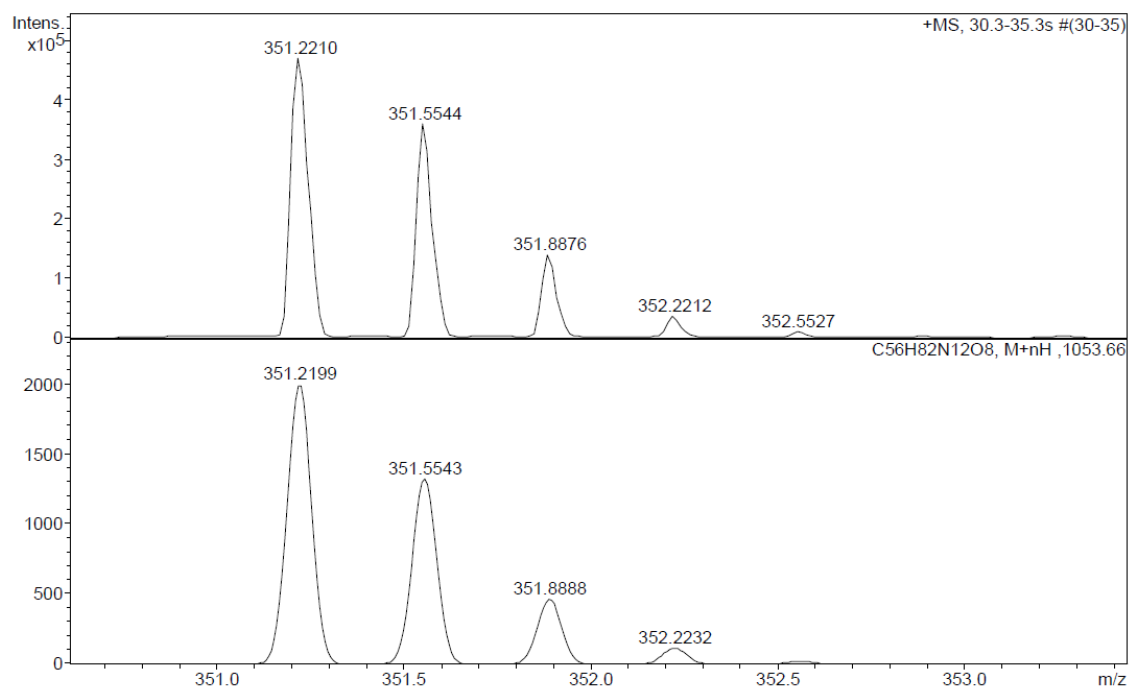
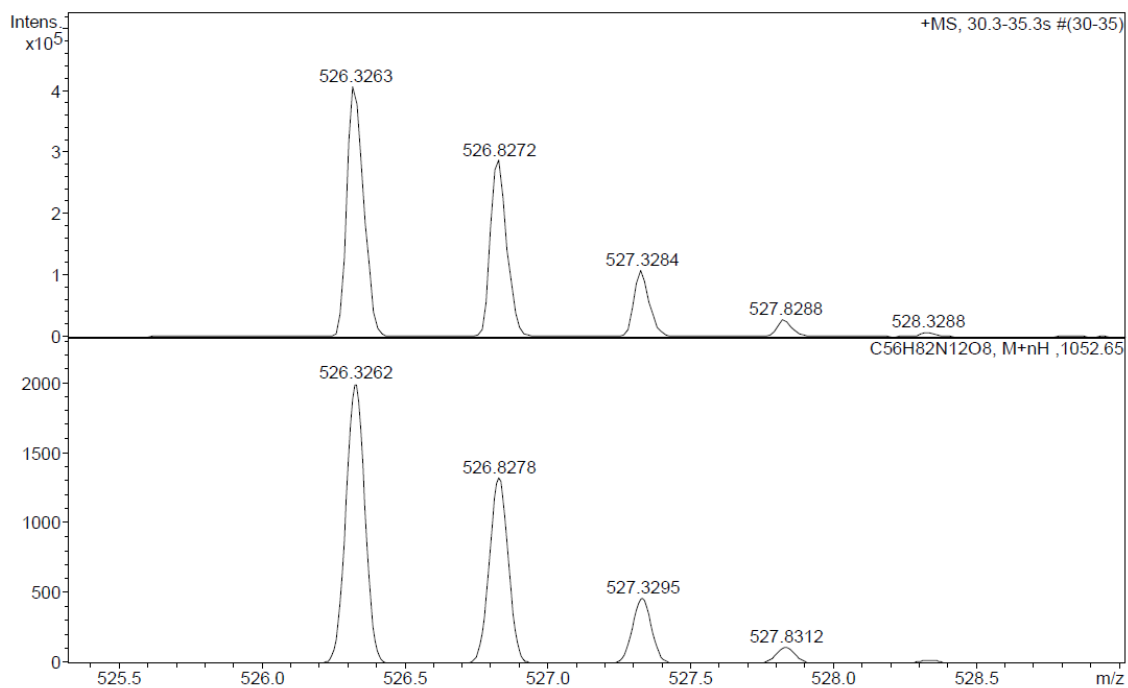
$$[M+Na]^+ = 1073.6$$

$$[M+K]^+ = 1089.5$$

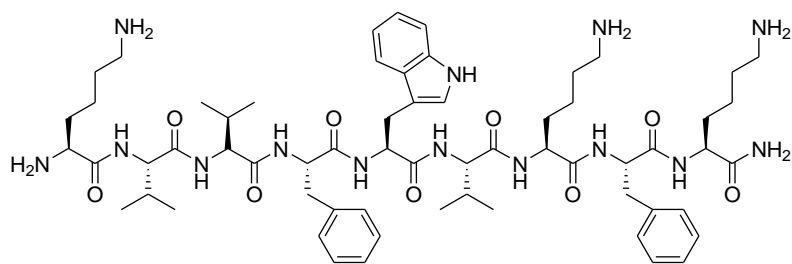
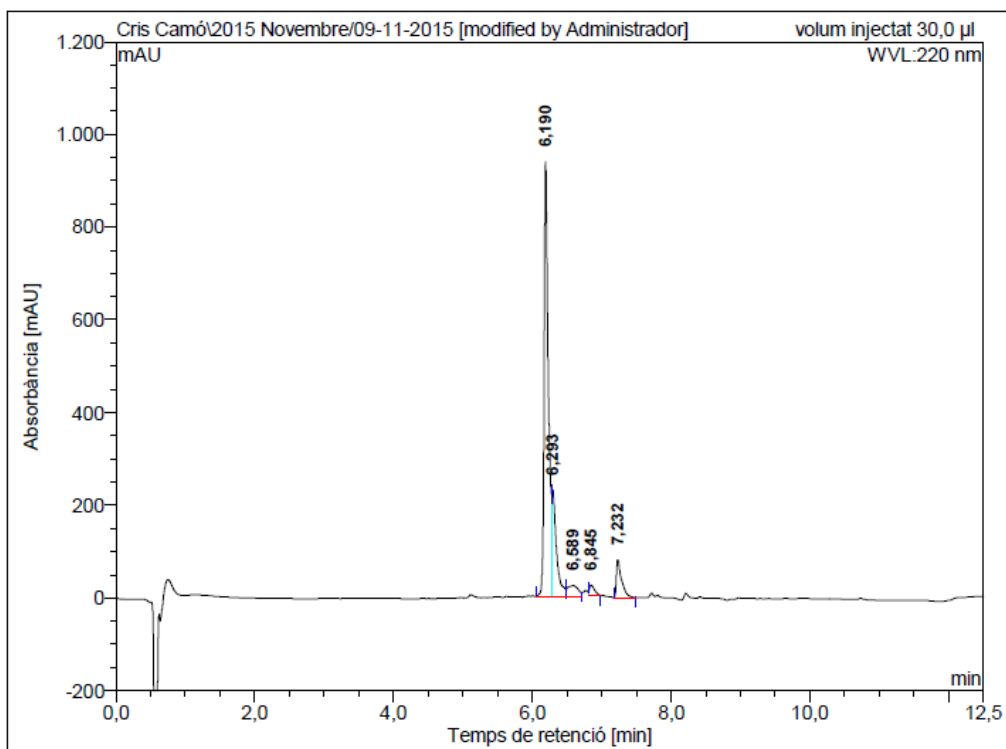
$$[M+2H]^{2+} = 526.3$$

HRMS (ESI) (m/z)

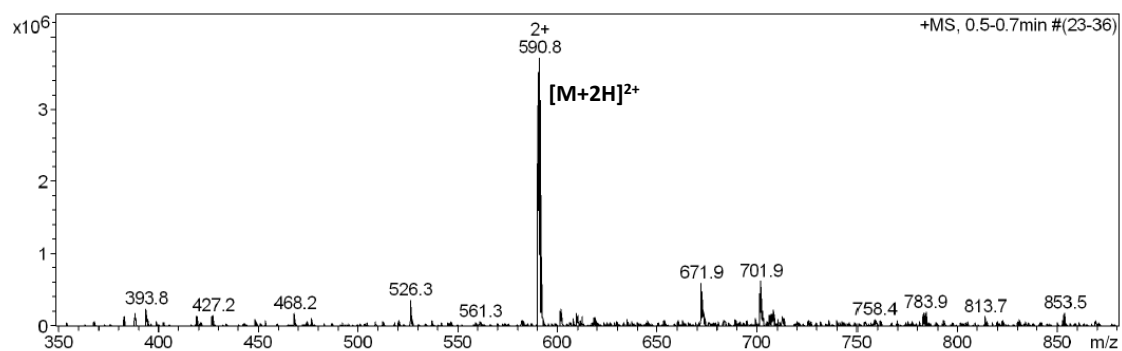
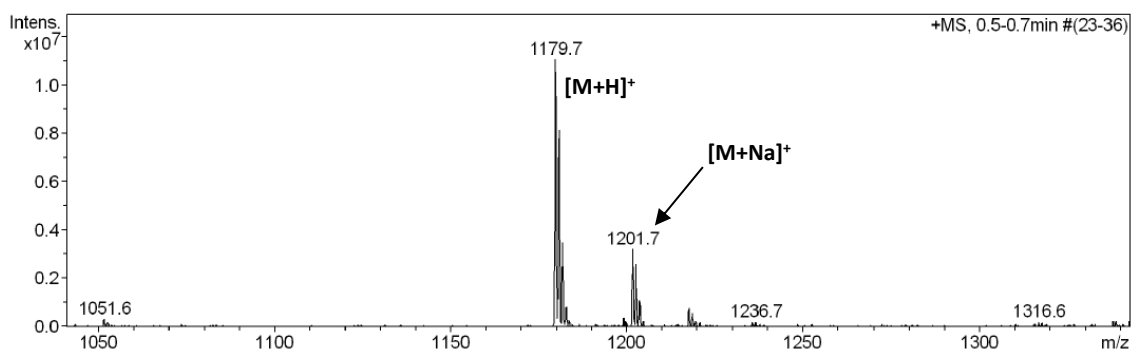
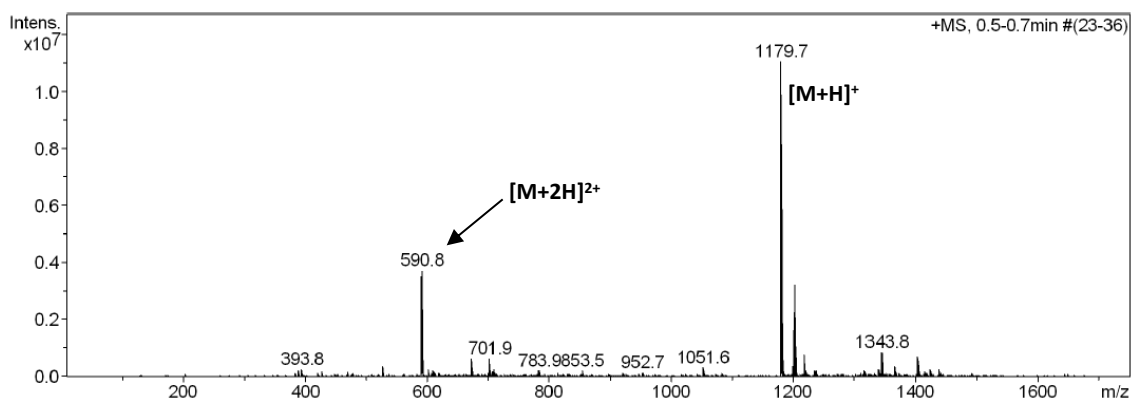




| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₅₆ H ₈₃ N ₁₂ O ₈ | 1051.6451 | 1051.6436 |
| [M+2H] ²⁺ | C ₅₆ H ₈₄ N ₁₂ O ₈ | 526.3262 | 526.3263 |
| [M+3H] ³⁺ | C ₅₆ H ₈₅ N ₁₂ O ₈ | 351.2199 | 351.2210 |

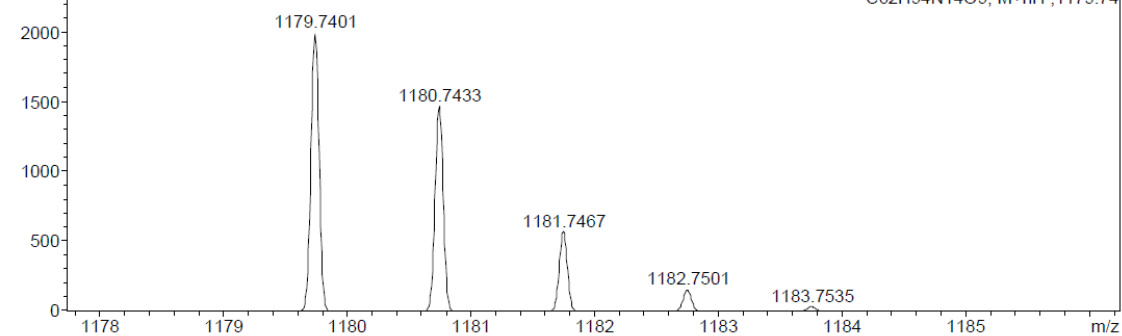
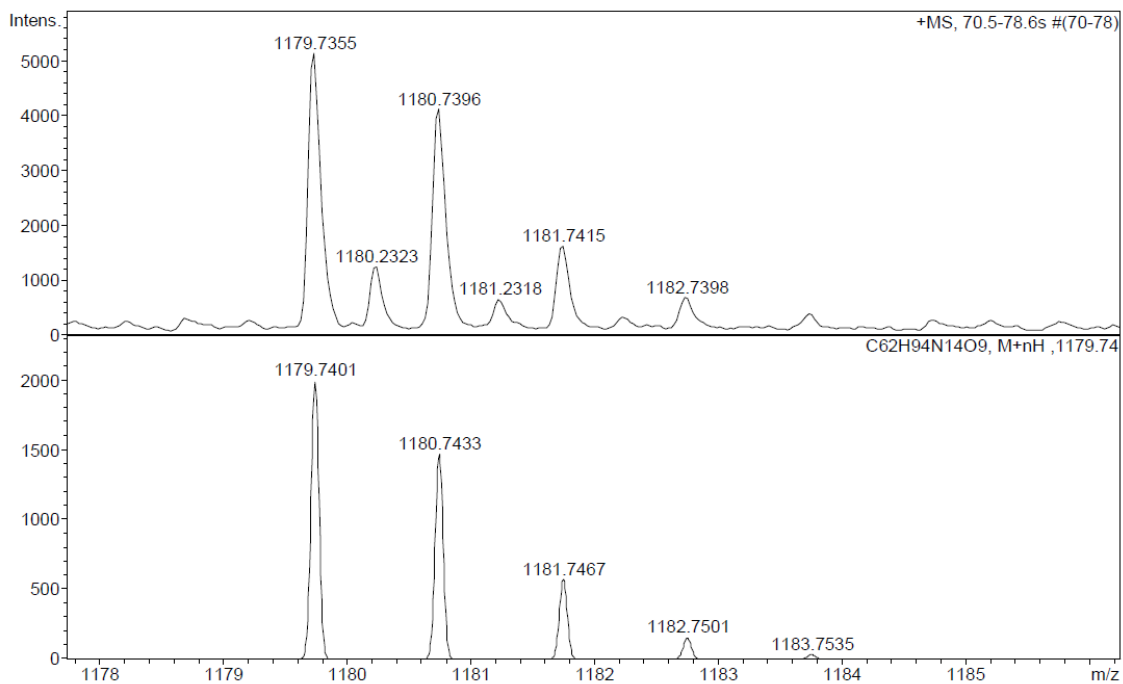
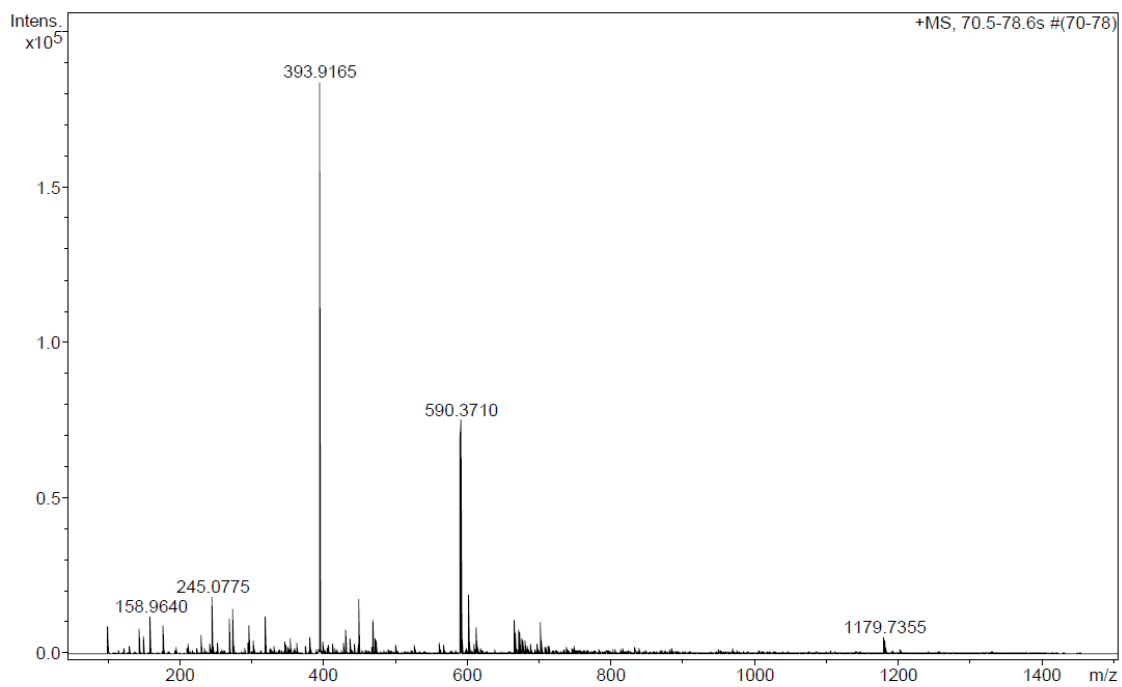
Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP408)HPLC ($\lambda = 220$ nm)

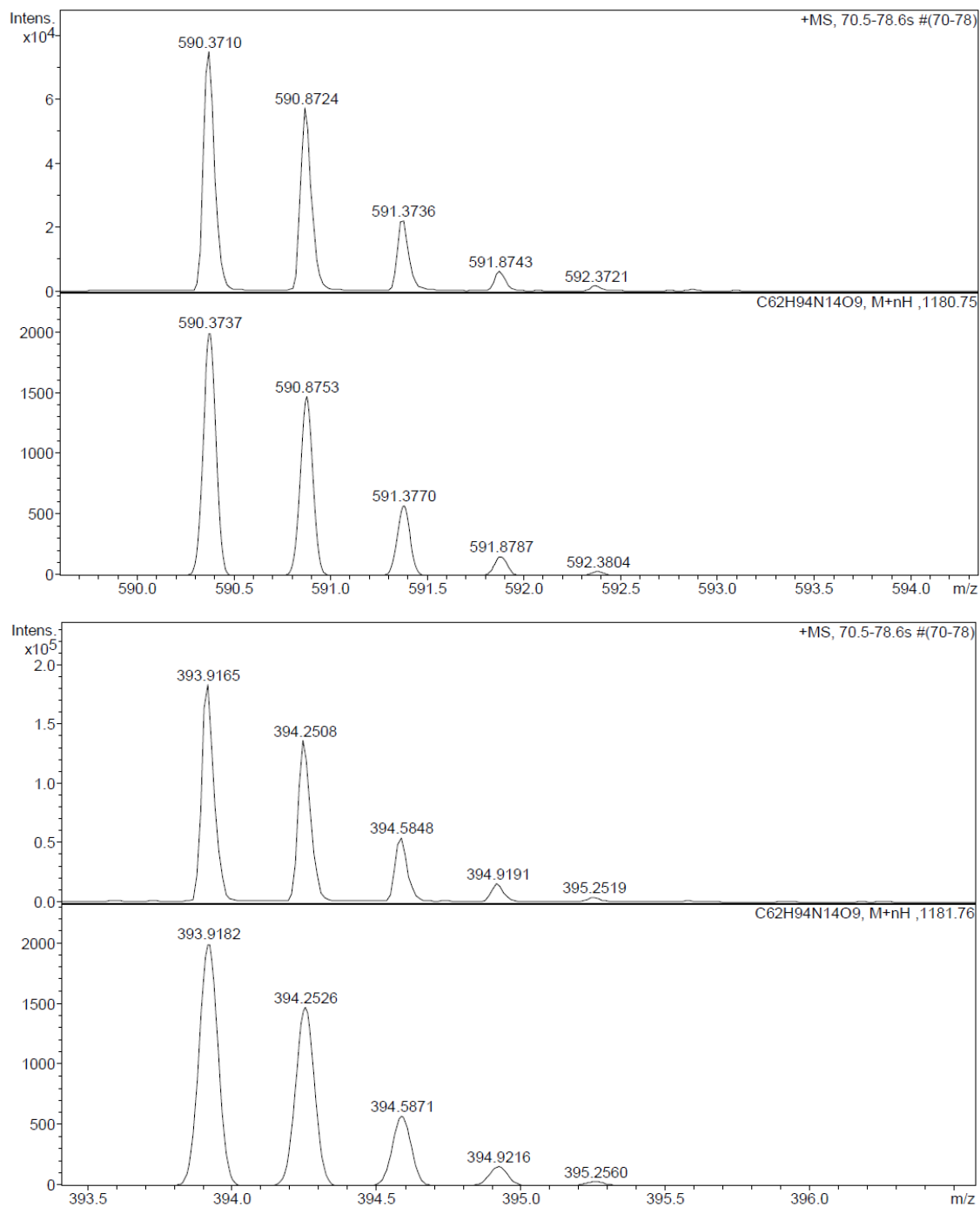
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,19 | 937,106 | 65,622 | 67,29 |
| 2 | 6,29 | 230,401 | 18,307 | 18,77 |
| 3 | 6,59 | 23,276 | 4,264 | 4,37 |
| 4 | 6,85 | 22,221 | 1,978 | 2,03 |
| 5 | 7,23 | 82,442 | 7,347 | 7,53 |
| Total: | | 1295,445 | 97,518 | 100,00 |

ESI-MS (m/z)

| |
|------------------------------|
| [M+H] ⁺ = 1179.7 |
| [M+Na] ⁺ = 1201.7 |
| [M+2H] ²⁺ = 590.8 |

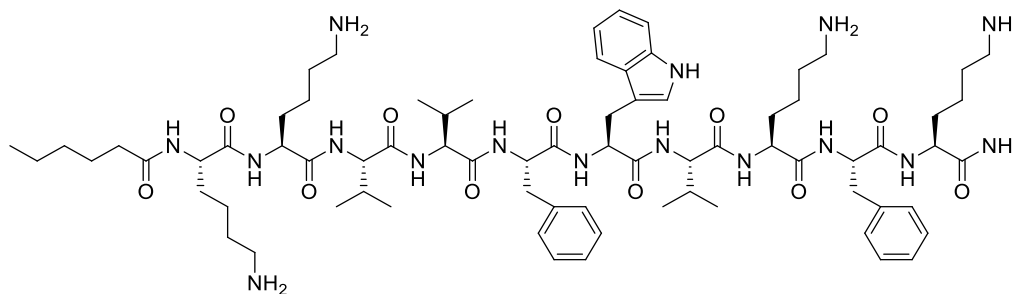
HRMS (ESI) (m/z)





| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₂ H ₉₅ N ₁₄ O ₉ | 1179.7401 | 1179.7355 |
| [M+2H]²⁺ | C ₆₂ H ₉₆ N ₁₄ O ₉ | 590.3737 | 590.3710 |
| [M+3H]³⁺ | C ₆₂ H ₉₇ N ₁₄ O ₉ | 393.9182 | 393.9165 |

Lipopeptides derived from KSLW acylated at the N-terminus

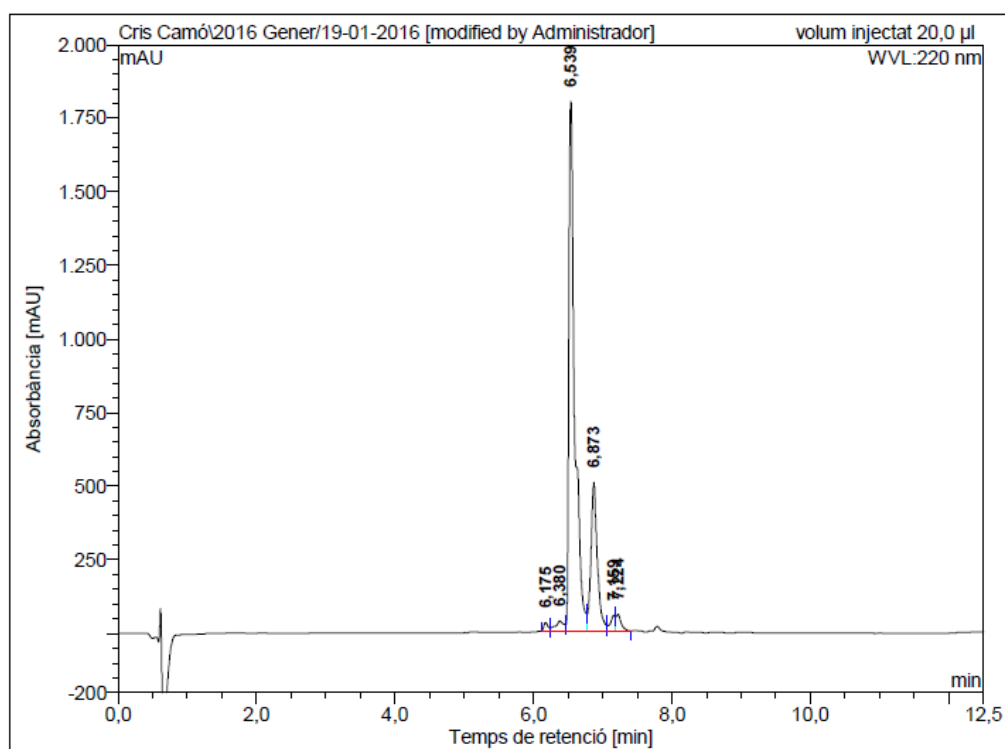
C₅H₁₁CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP409)Chemical Formula: C₇₄H₁₁₆N₁₆O₁₁

Exact Mass: 1404,9009

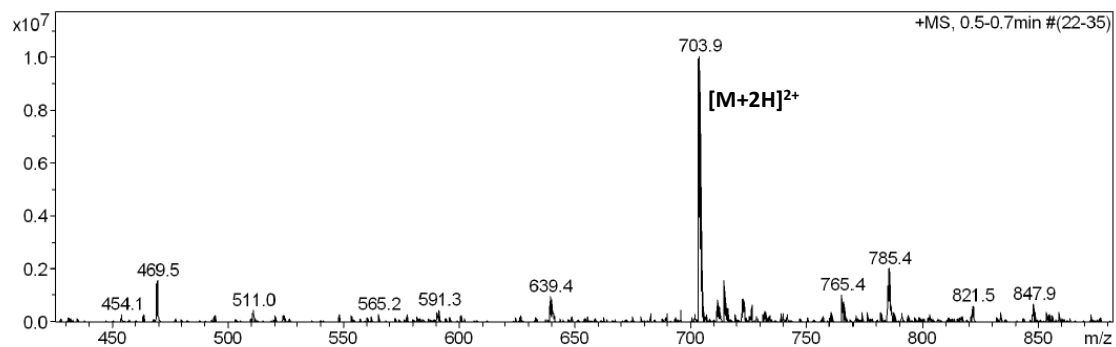
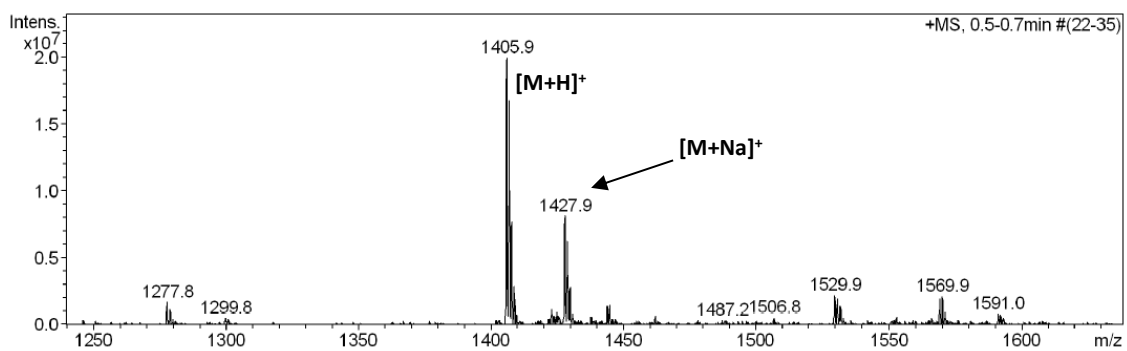
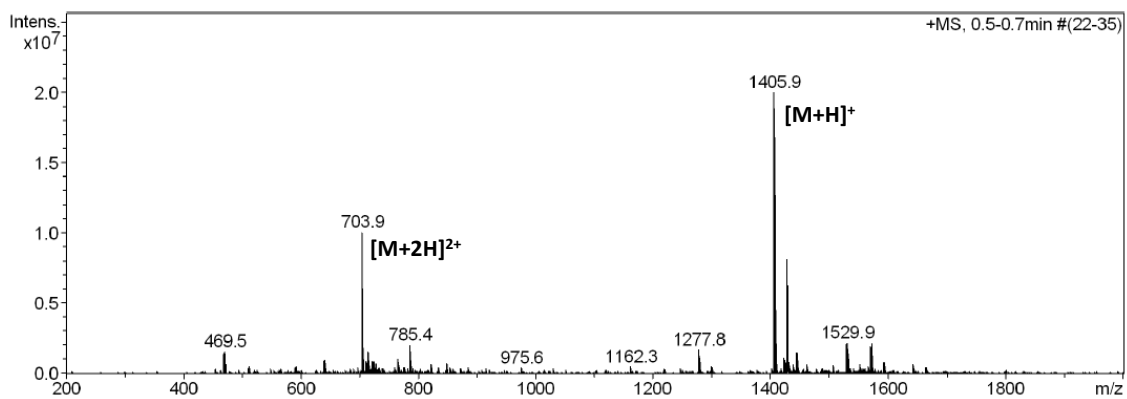
Molecular Weight: 1405,8134

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4.3-hexanoic-cleav1-509 impur)

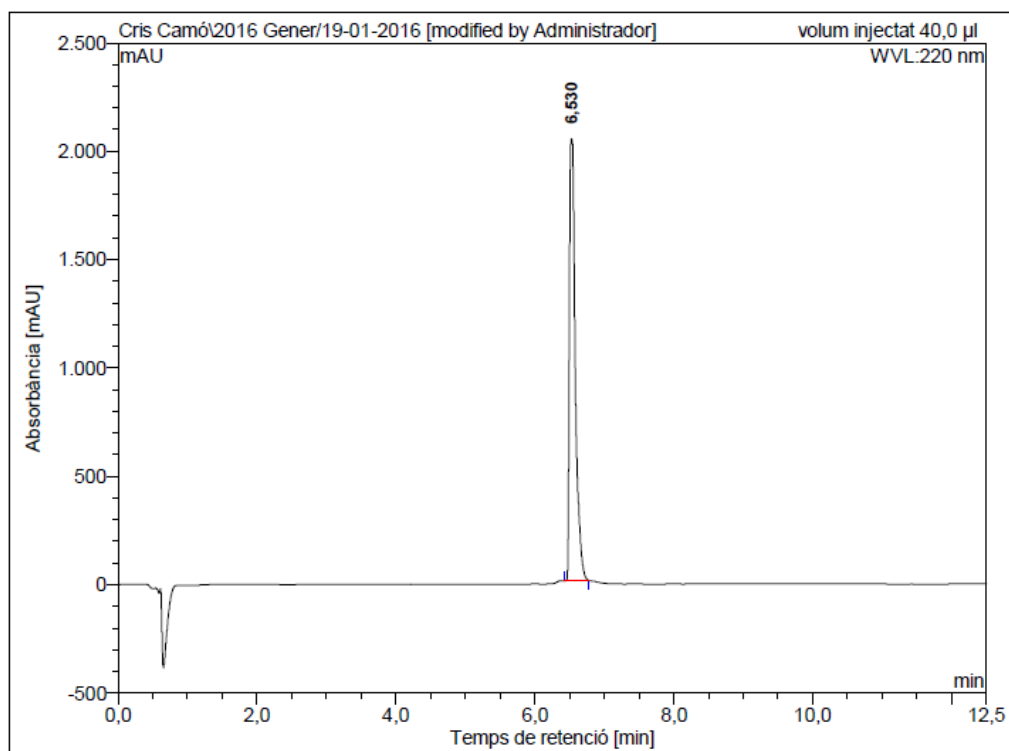


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,17 | 30,060 | 2,160 | 0,87 |
| 2 | 6,38 | 35,066 | 5,045 | 2,02 |
| 3 | 6,54 | 1800,275 | 178,094 | 71,38 |
| 4 | 6,87 | 505,310 | 54,587 | 21,88 |
| 5 | 7,16 | 54,896 | 4,445 | 1,78 |
| 6 | 7,22 | 57,846 | 5,172 | 2,07 |
| Total: | | 2483,454 | 249,502 | 100,00 |

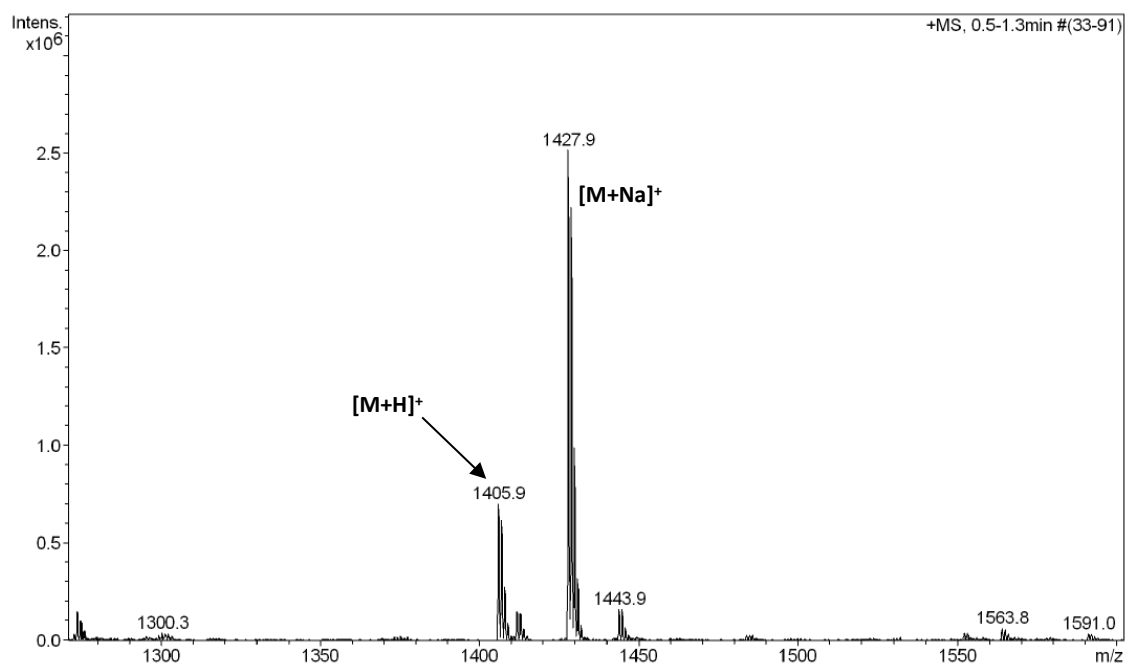
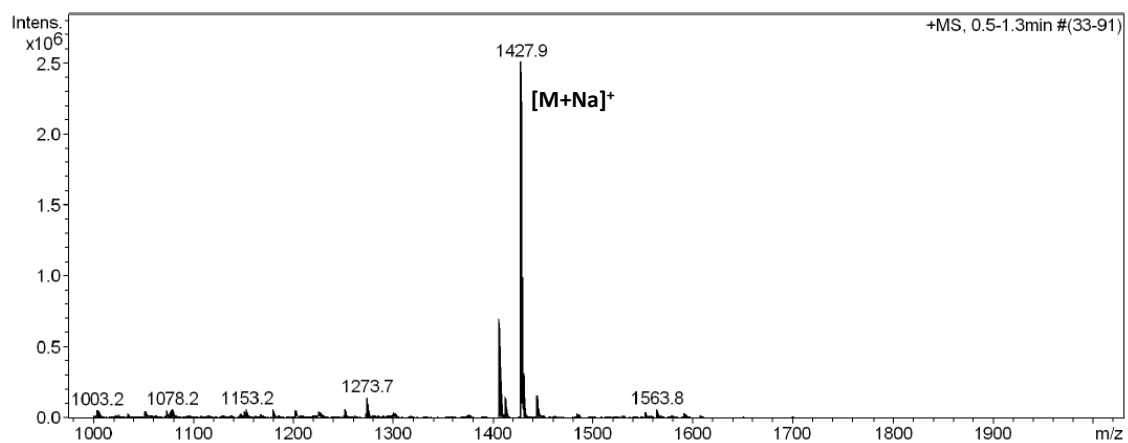
ESI-MS (m/z) (CC-4.3-hexanoic-427)

| |
|-----------------------|
| $[M+H]^+ = 1405.9$ |
| $[M+Na]^+ = 1427.9$ |
| $[M+2H]^{2+} = 703.9$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-4.3-hexanoic-cleav1-509 tub21)

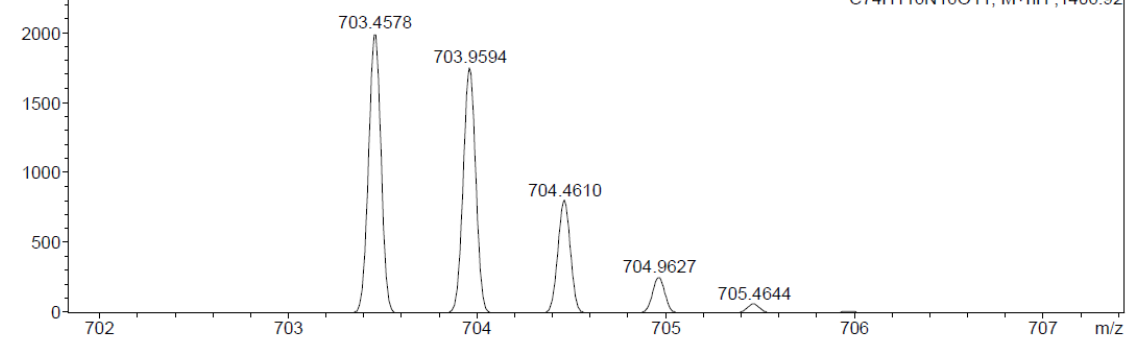
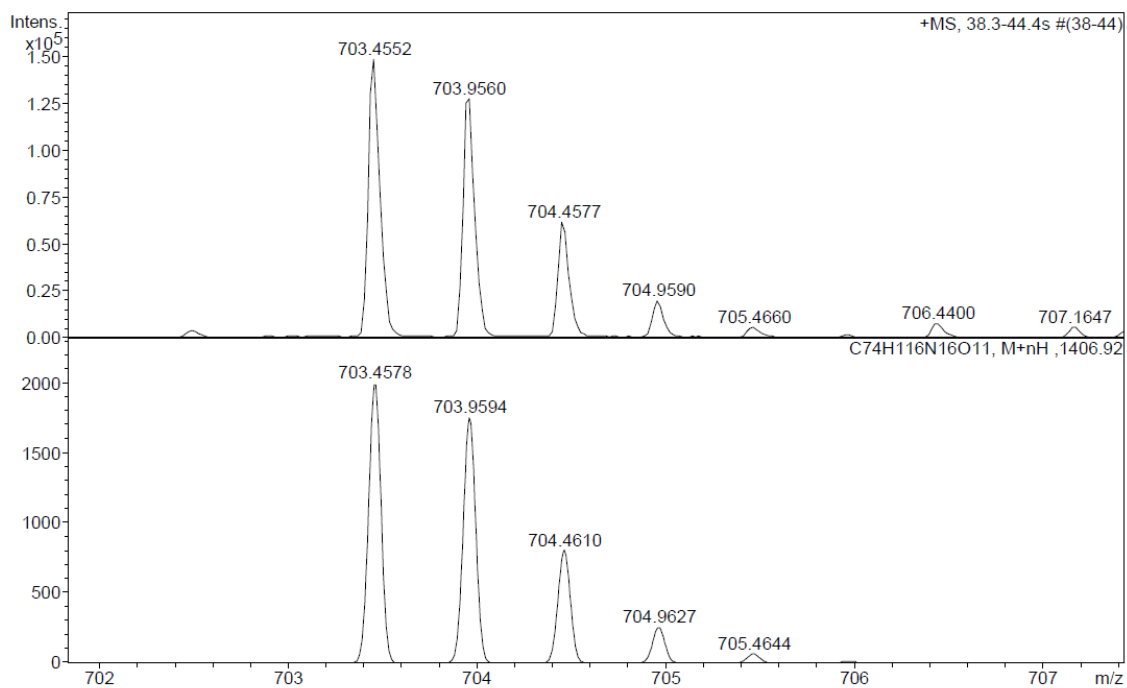
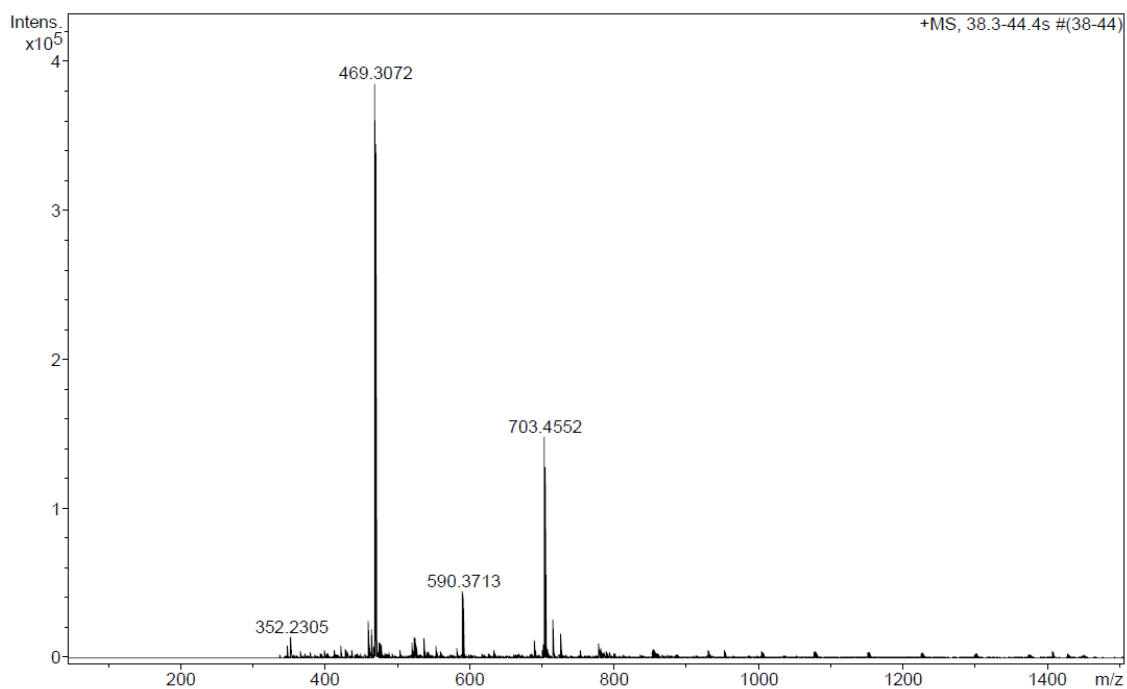
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,53 | 2038,182 | 200,467 | 100,00 |
| Total: | | 2038,182 | 200,467 | 100,00 |

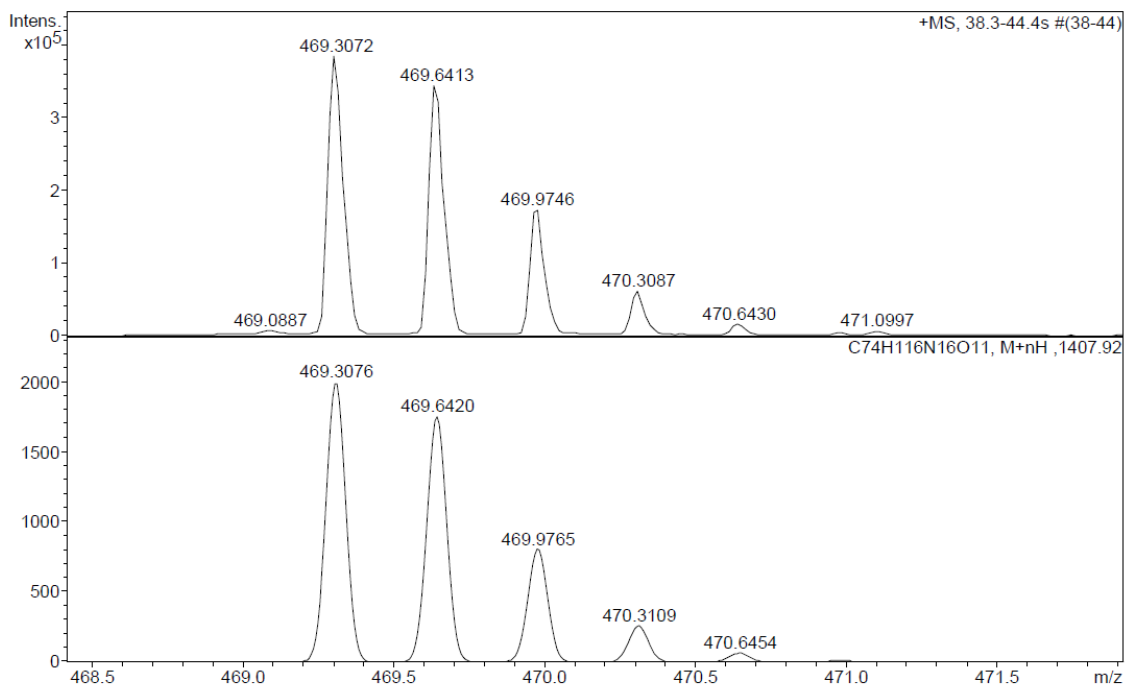
ESI-MS (m/z) (CC-4.3-hexanoic-cleav1-509 tub21)

| |
|--------------------|
| $[M+H]^+ = 1405.9$ |
|--------------------|

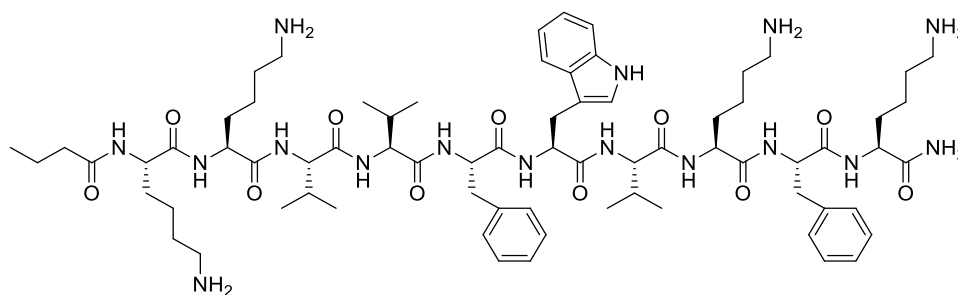
| |
|---------------------|
| $[M+Na]^+ = 1427.9$ |
|---------------------|

HRMS (ESI) (m/z)





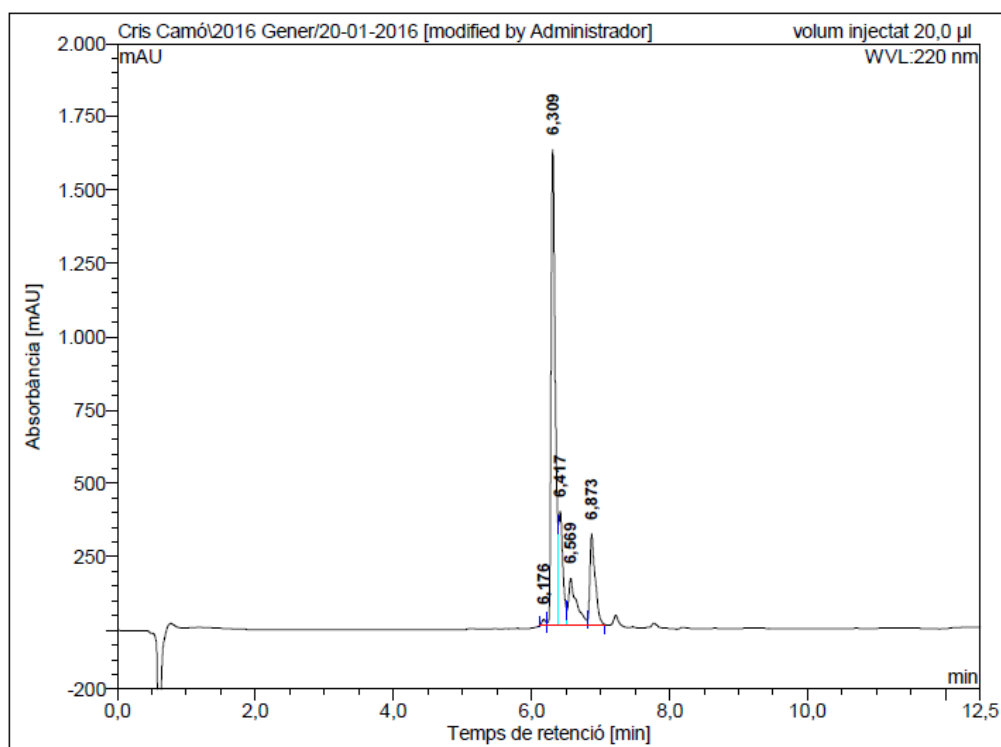
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|----------|
| [M+2H] ²⁺ | C ₇₄ H ₁₁₈ N ₁₆ O ₁₁ | 703.4578 | 703.4552 |
| [M+3H] ³⁺ | C ₇₄ H ₁₁₉ N ₁₆ O ₁₁ | 469.3076 | 469.3072 |

C₃H₇CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP410)

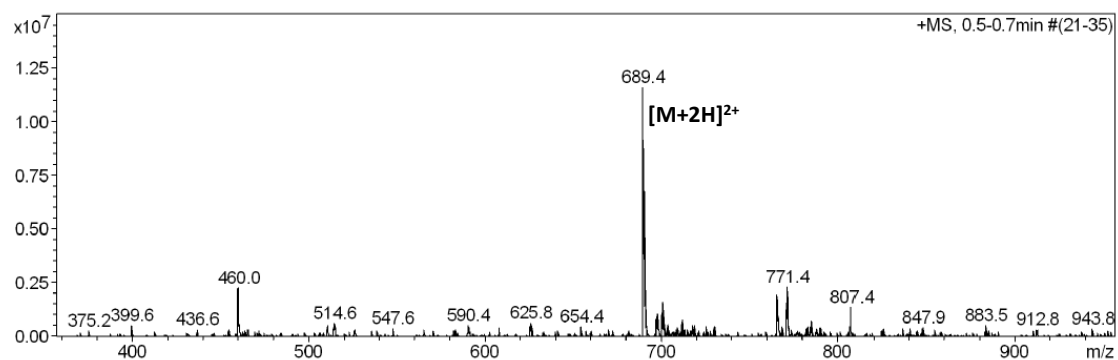
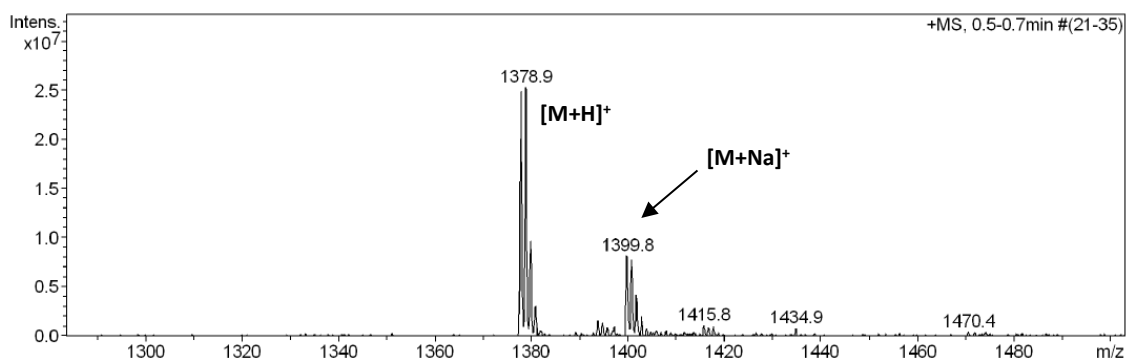
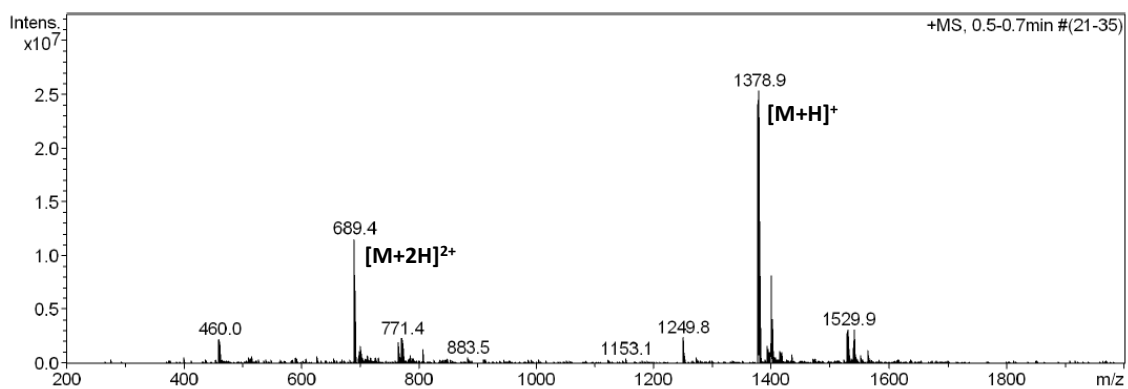
Chemical Formula: C₇₂H₁₁₂N₁₆O₁₁
 Exact Mass: 1376,8696
 Molecular Weight: 1377,7603

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4.3-butíric-cleav1-511 impur)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 20,325 | 1,317 | 0,68 |
| 2 | 6,31 | 1621,658 | 113,826 | 58,74 |
| 3 | 6,42 | 388,477 | 29,544 | 15,25 |
| 4 | 6,57 | 160,420 | 21,260 | 10,97 |
| 5 | 6,87 | 312,007 | 27,825 | 14,36 |
| Total: | | 2502,887 | 193,772 | 100,00 |

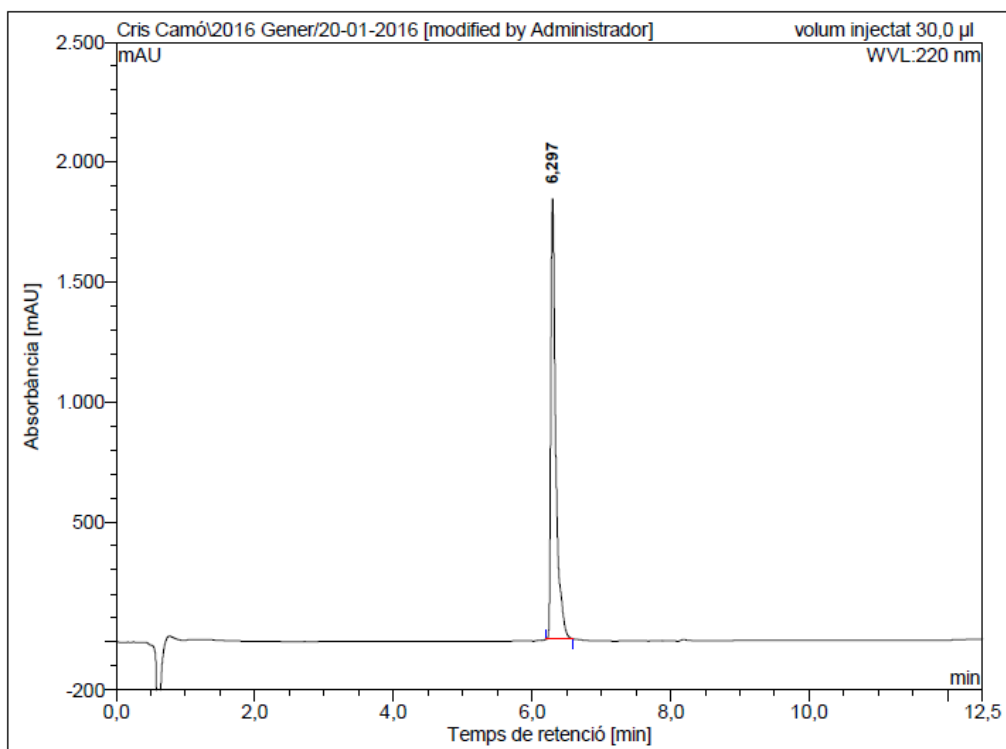
ESI-MS (*m/z*) (CC-4.3-butiric-427)

| |
|--------------------|
| $[M+H]^+ = 1377.9$ |
|--------------------|

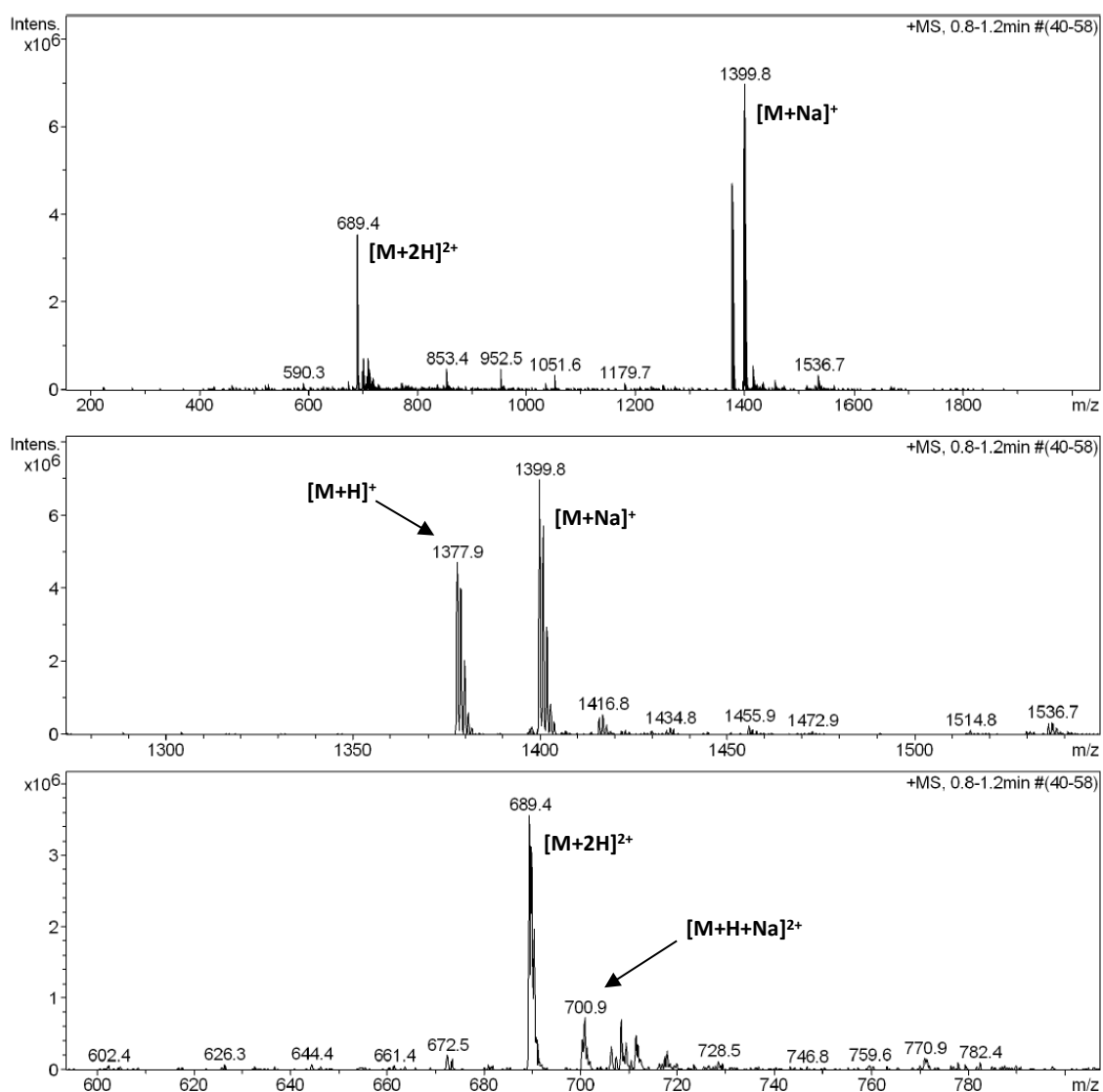
| |
|---------------------|
| $[M+Na]^+ = 1399.8$ |
|---------------------|

| |
|-----------------------|
| $[M+2H]^{2+} = 689.4$ |
|-----------------------|

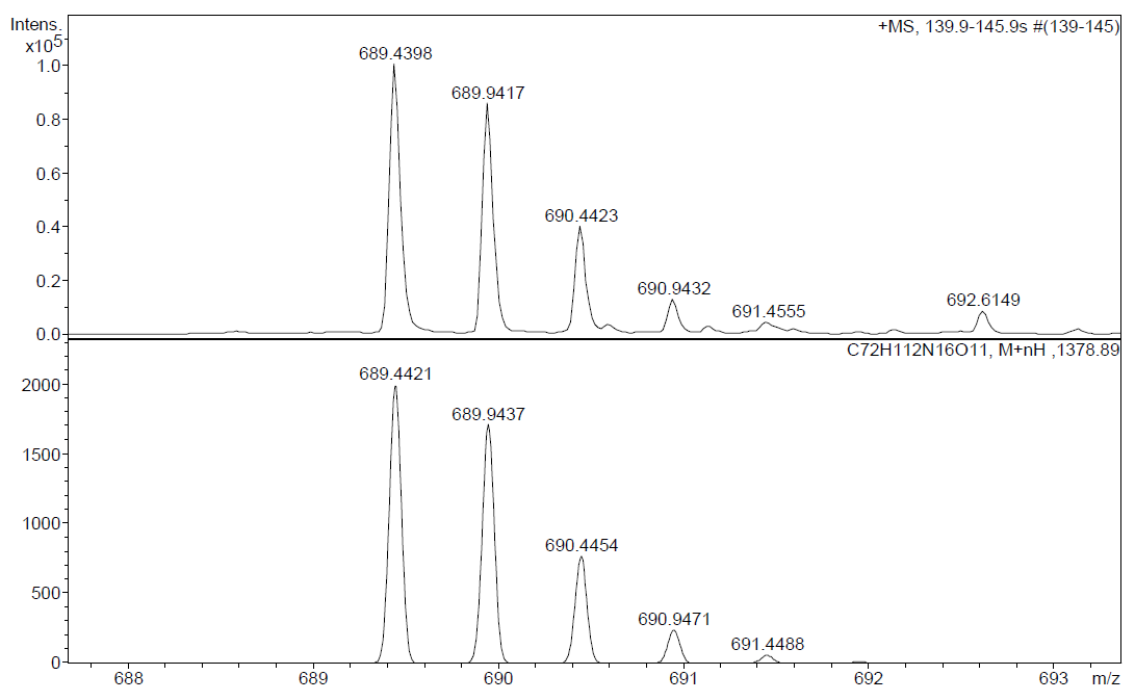
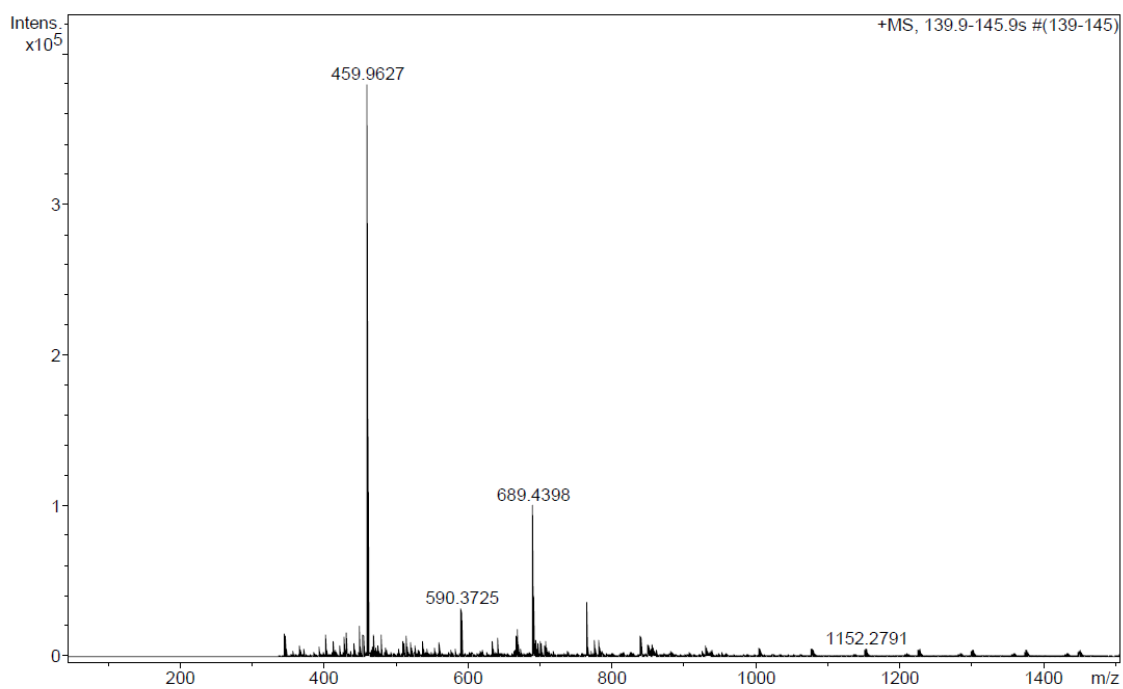
PURE PRODUCT

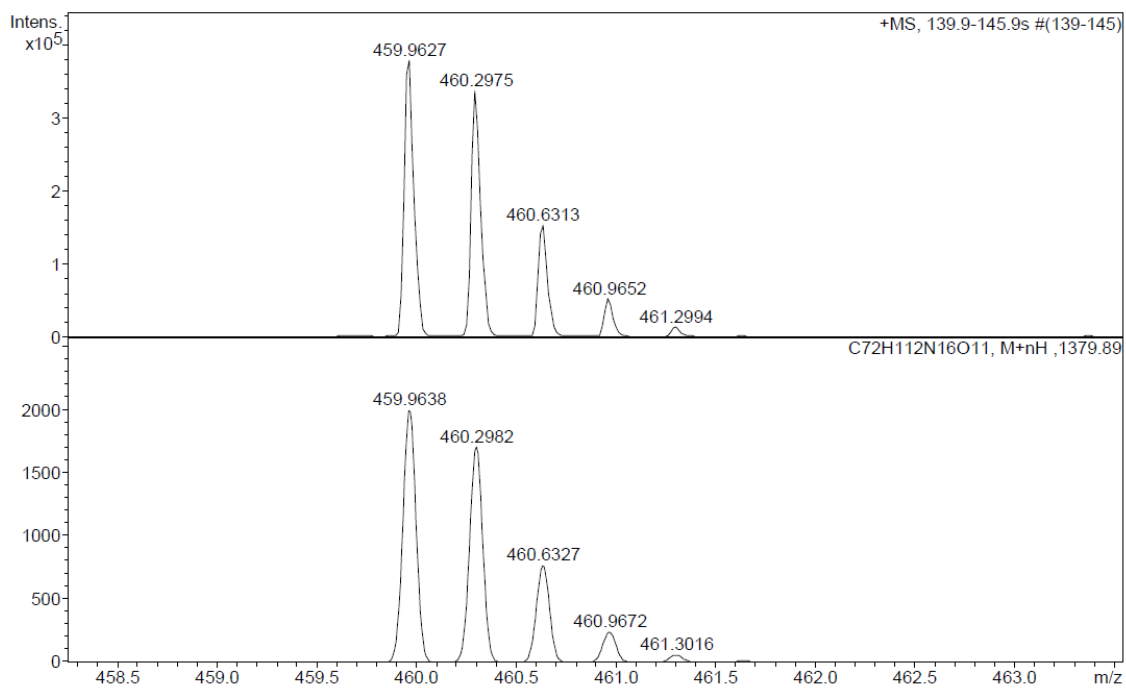
HPLC ($\lambda = 220 \text{ nm}$) (CC-4.3-butíric-cleav1-511 tub16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,30 | 1833,038 | 153,768 | 100,00 |
| Total: | | 1833,038 | 153,768 | 100,00 |

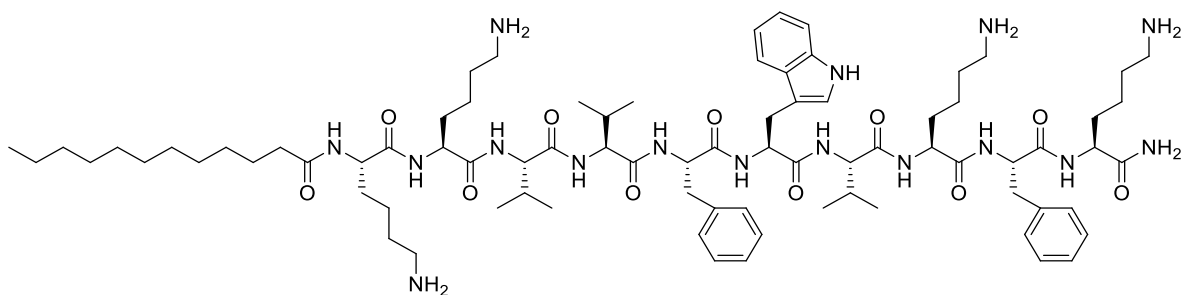
ESI-MS (m/z) (CC-4.3-butíric-cleav1-511 tub 16)

| |
|-------------------------|
| $[M+H]^+ = 1377.9$ |
| $[M+Na]^+ = 1399.8$ |
| $[M+2H]^{2+} = 689.4$ |
| $[M+H+Na]^{2+} = 700.9$ |

HRMS (ESI) (m/z) (CC-4.3-butíric-cleav1-511 tub 16)



| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|----------|
| [M+2H]²⁺ | C ₇₂ H ₁₁₄ N ₁₆ O ₁₁ | 689.4421 | 689.4398 |
| [M+3H]³⁺ | C ₇₂ H ₁₁₅ N ₁₆ O ₁₁ | 459.9638 | 459.9627 |

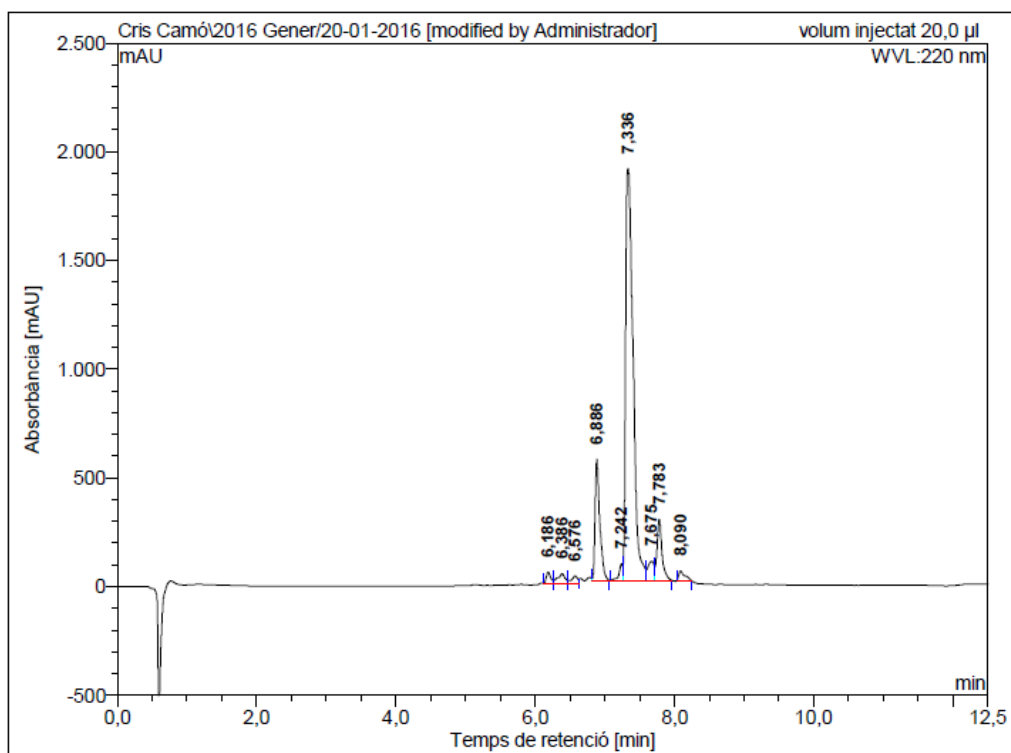
C₁₁H₂₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP411)Chemical Formula: C₈₀H₁₂₈N₁₆O₁₁

Exact Mass: 1488,9948

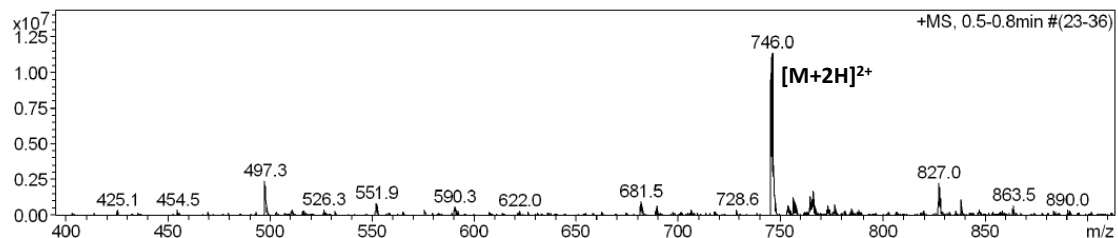
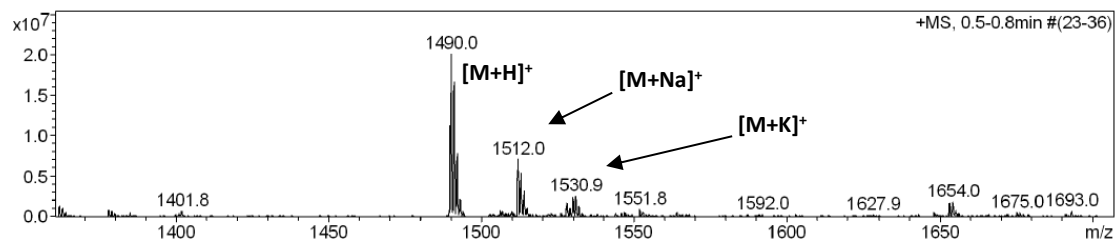
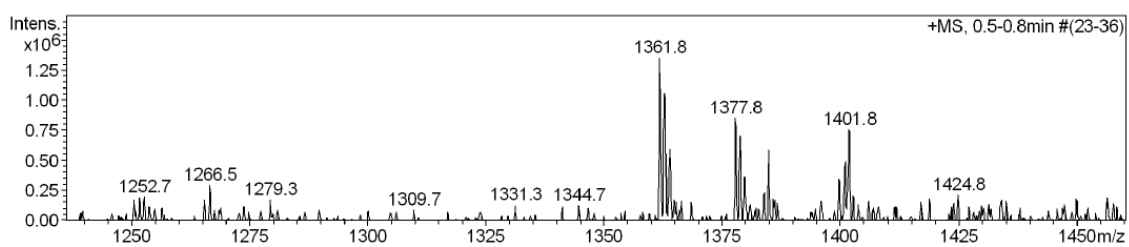
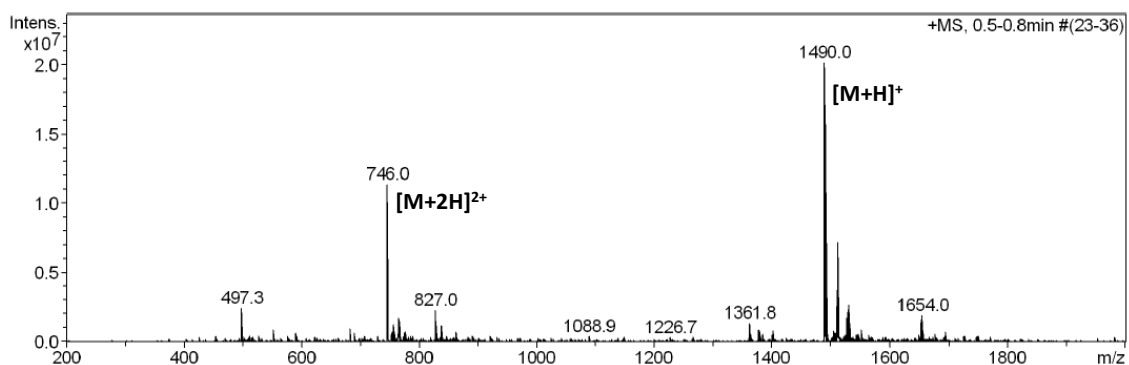
Molecular Weight: 1489,9729

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4.3-làuric-cleav1-513 impur)

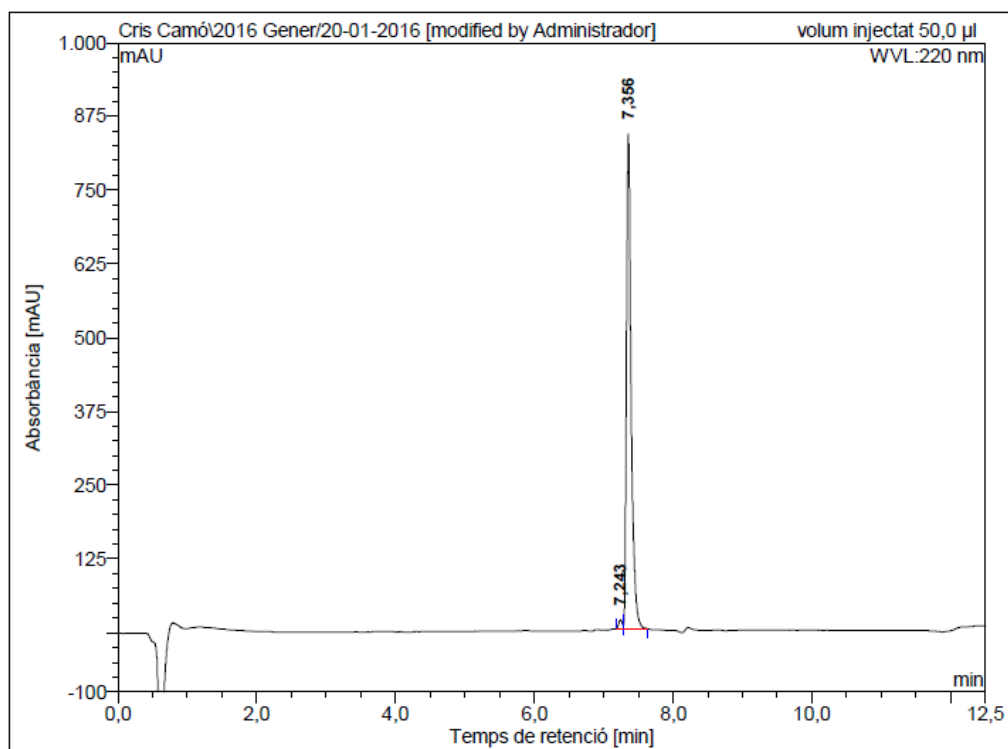


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,19 | 50,553 | 3,618 | 1,08 |
| 2 | 6,39 | 42,890 | 5,243 | 1,57 |
| 3 | 6,58 | 32,884 | 3,033 | 0,91 |
| 4 | 6,89 | 557,802 | 43,861 | 13,13 |
| 5 | 7,24 | 77,492 | 4,586 | 1,37 |
| 6 | 7,34 | 1893,466 | 236,478 | 70,78 |
| 7 | 7,68 | 88,358 | 9,356 | 2,80 |
| 8 | 7,78 | 281,149 | 23,643 | 7,08 |
| 9 | 8,09 | 43,180 | 4,302 | 1,29 |
| Total: | | 3067,772 | 334,120 | 100,00 |

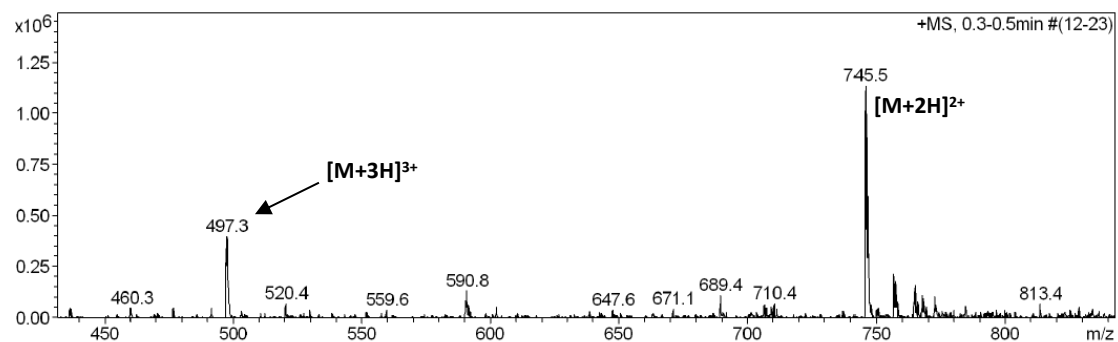
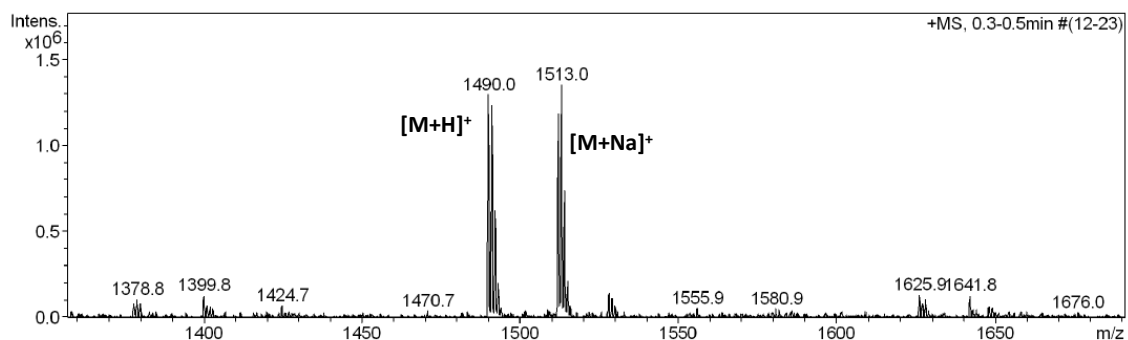
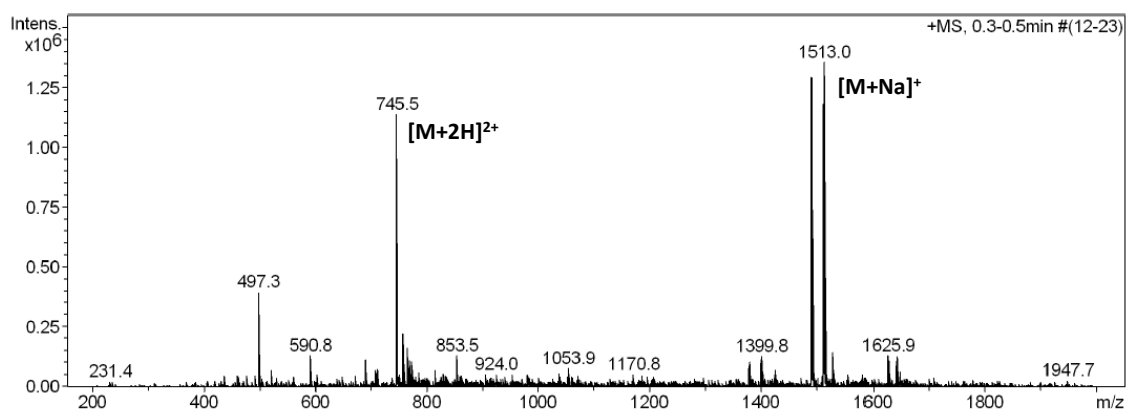
ESI-MS (m/z) (CC-4.3-làuric-427)

| |
|------------------------------|
| [M+H] ⁺ = 1490.0 |
| [M+Na] ⁺ = 1512.0 |
| [M+K] ⁺ = 1530.9 |
| [M+2H] ²⁺ = 746.0 |

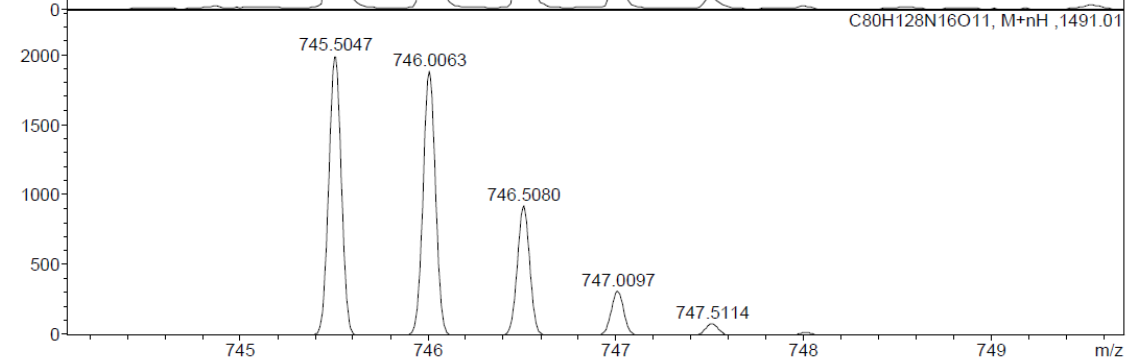
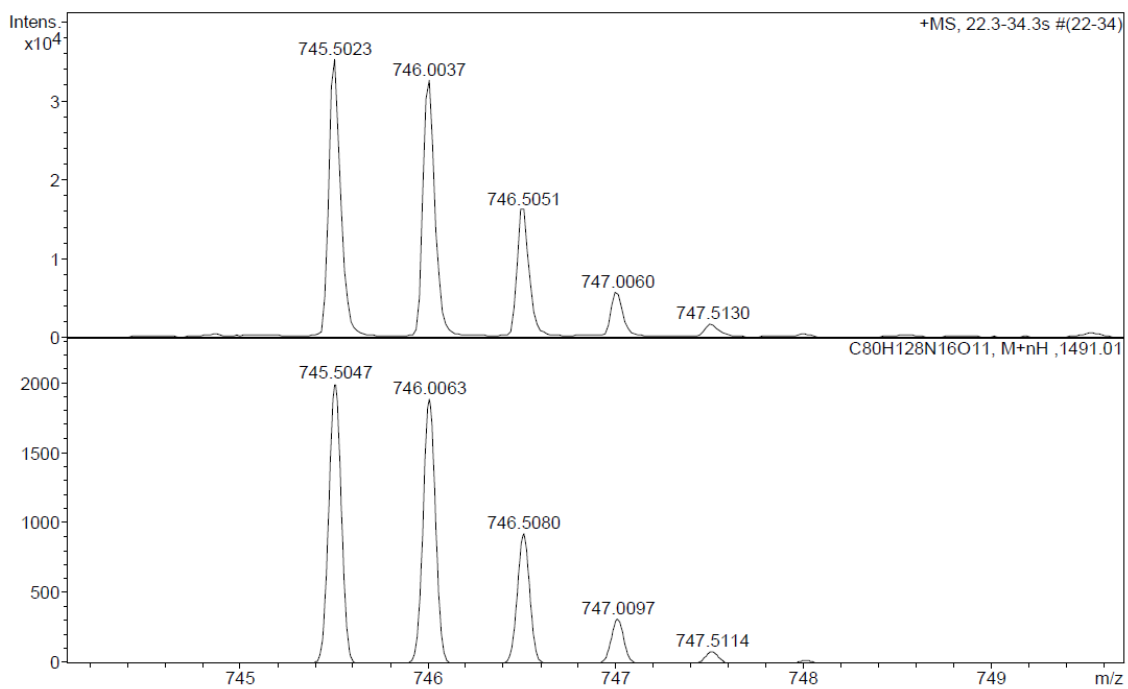
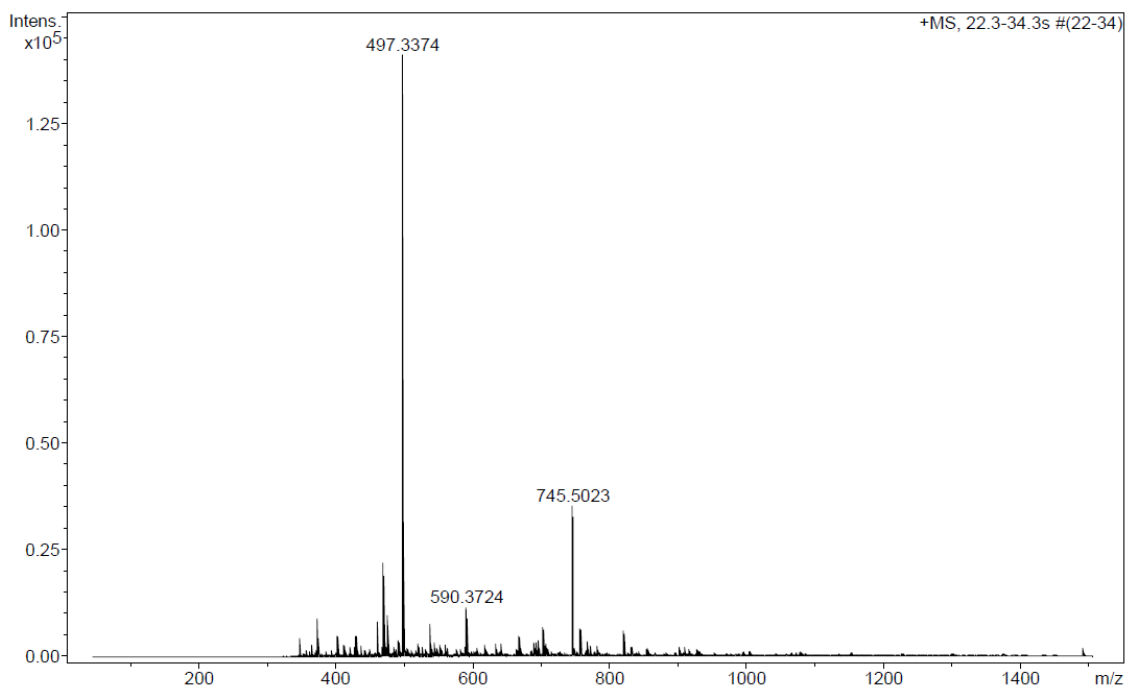
PURE PRODUCT

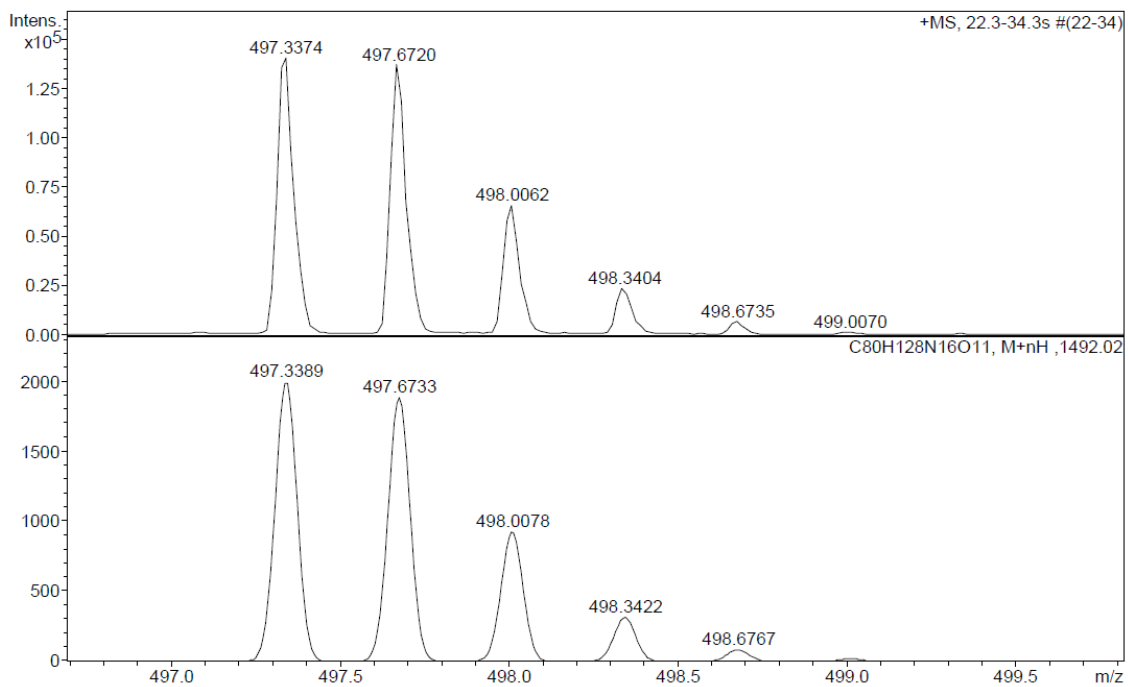
HPLC ($\lambda = 220 \text{ nm}$) (CC-4.3-làuric-cleav1-513 tub 34)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,24 | 15,242 | 0,884 | 1,33 |
| 2 | 7,36 | 838,656 | 65,430 | 98,67 |
| Total: | | 853,898 | 66,314 | 100,00 |

ESI-MS (m/z) (CC-4.3-làuric-cleav1-513 tub 34)

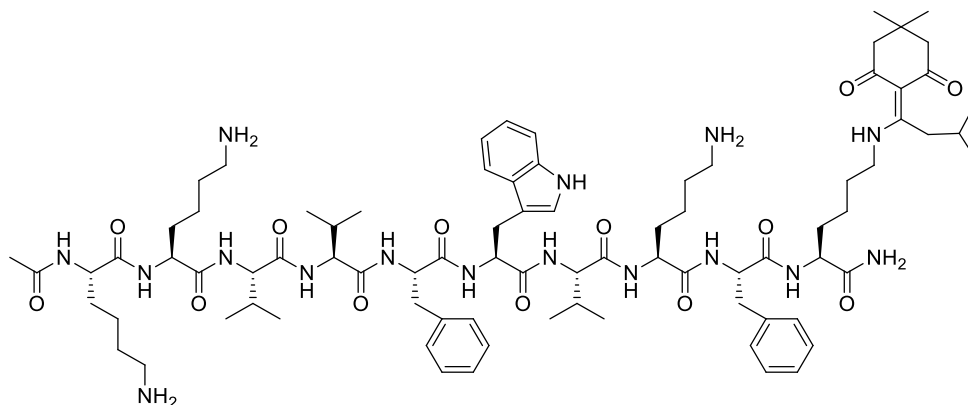
| |
|-----------------------|
| $[M+H]^+ = 1490.0$ |
| $[M+Na]^+ = 1513.0$ |
| $[M+2H]^{2+} = 745.5$ |
| $[M+3H]^{3+} = 497.3$ |

HRMS (ESI) (m/z) (CC-4.3-làuric-cleav1-513 tub 34)



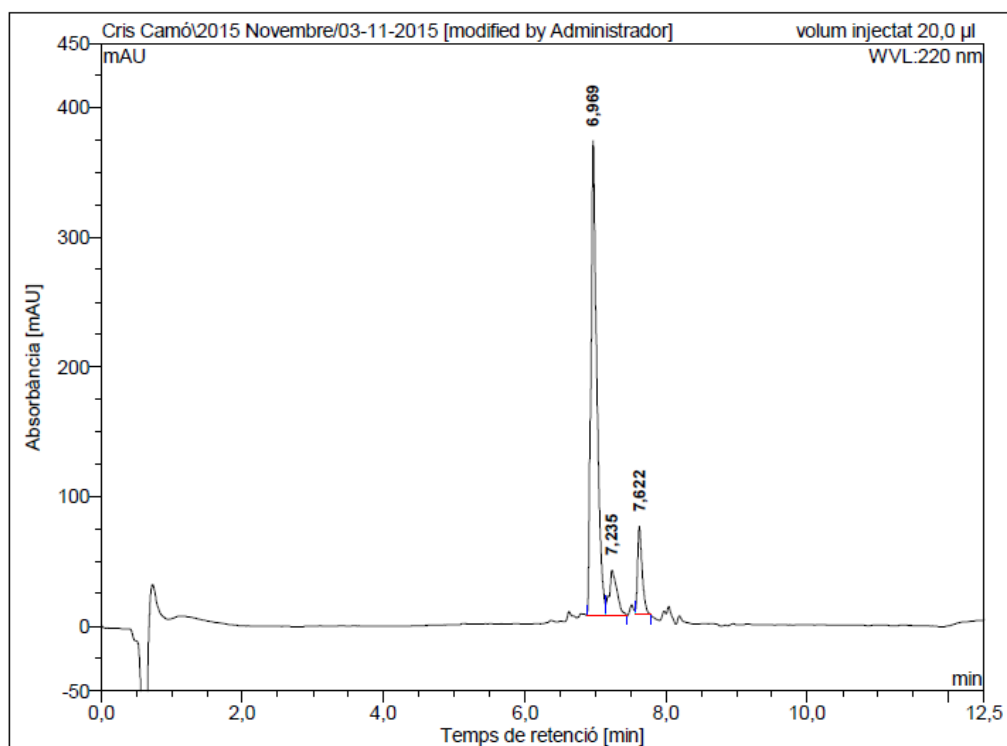
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|----------|
| [M+2H]²⁺ | C ₈₀ H ₁₃₀ N ₁₆ O ₁₁ | 745.5047 | 745.5023 |
| [M+3H]³⁺ | C ₈₀ H ₁₃₁ N ₁₆ O ₁₁ | 497.3389 | 497.3374 |

Lipopeptides derived from KSLW acylated at position 10

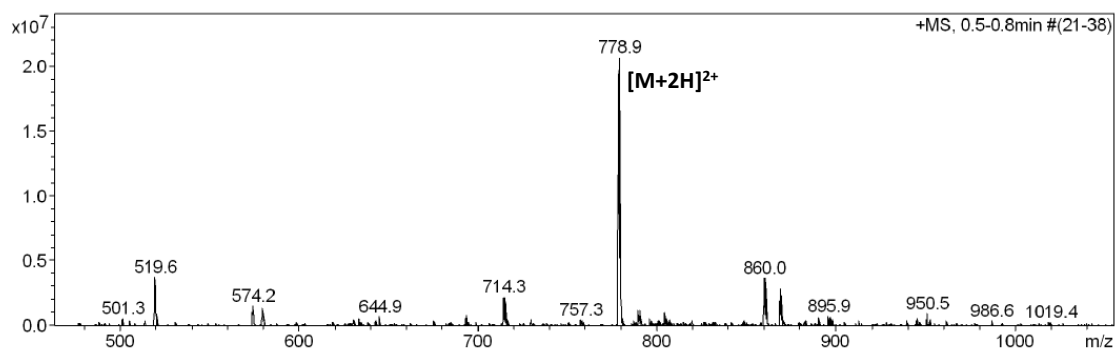
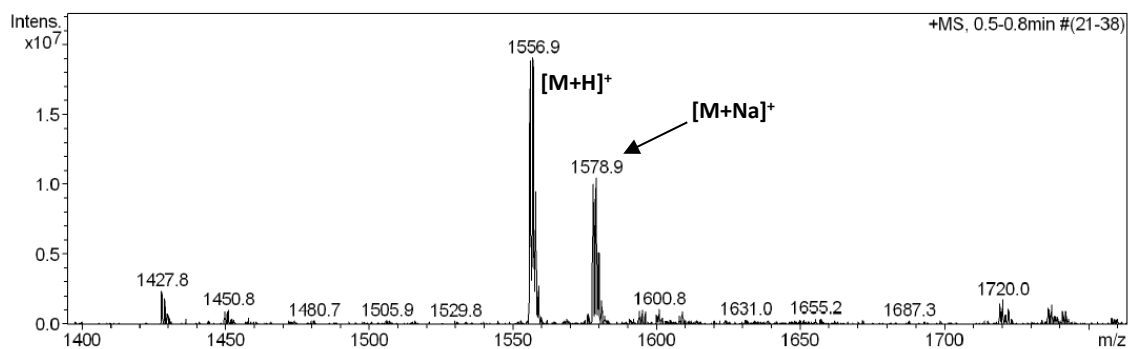
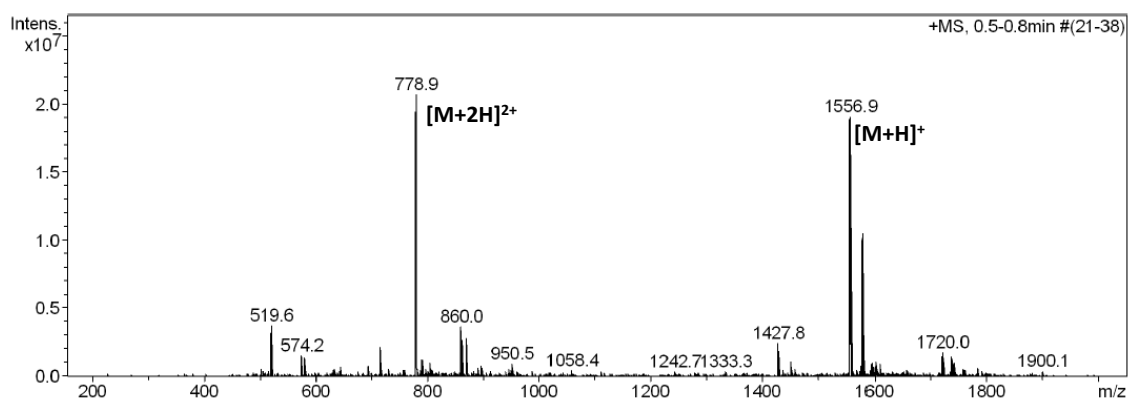
 $\text{CH}_3\text{CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys(ivDde)-NH}_2$
Chemical Formula: $\text{C}_{83}\text{H}_{126}\text{N}_{16}\text{O}_{13}$

Exact Mass: 1554,9690

Molecular Weight: 1555,9879

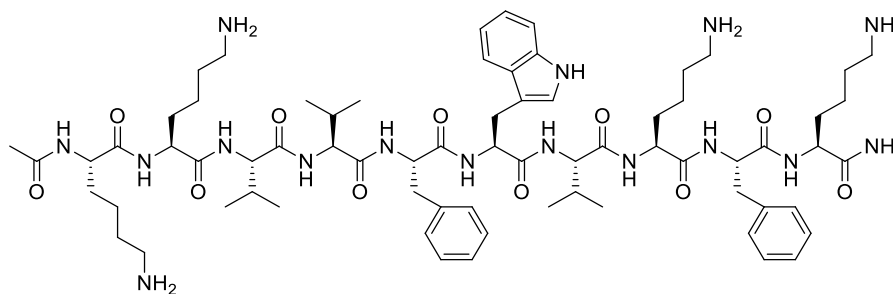
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP1-413)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,97 | 366,119 | 35,397 | 78,55 |
| 2 | 7,23 | 34,888 | 4,407 | 9,78 |
| 3 | 7,62 | 68,307 | 5,259 | 11,67 |
| Total: | | 469,314 | 45,062 | 100,00 |

ESI-MS (m/z) (CC-4-LysP1-413)

| |
|-----------------------|
| $[M+H]^+ = 1555.9$ |
| $[M+Na]^+ = 1577.9$ |
| $[M+2H]^{2+} = 778.9$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂

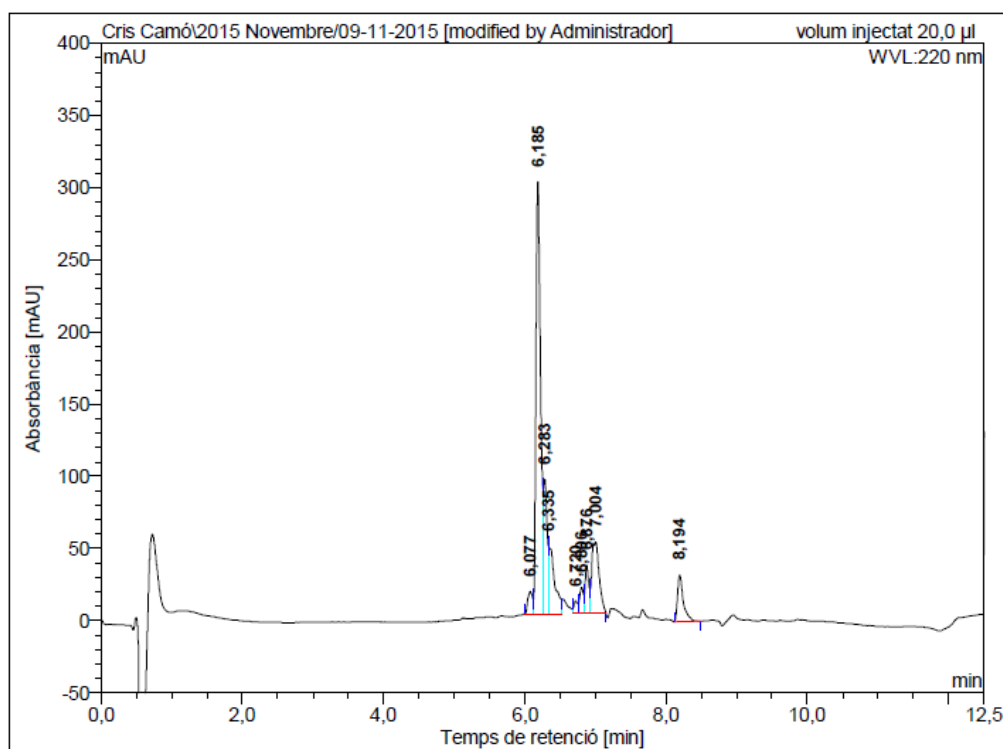


Chemical Formula: C₇₀H₁₀₈N₁₆O₁₁

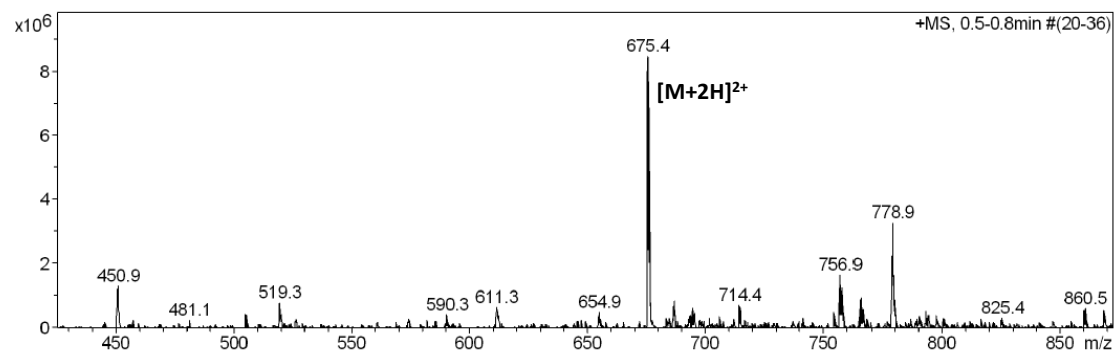
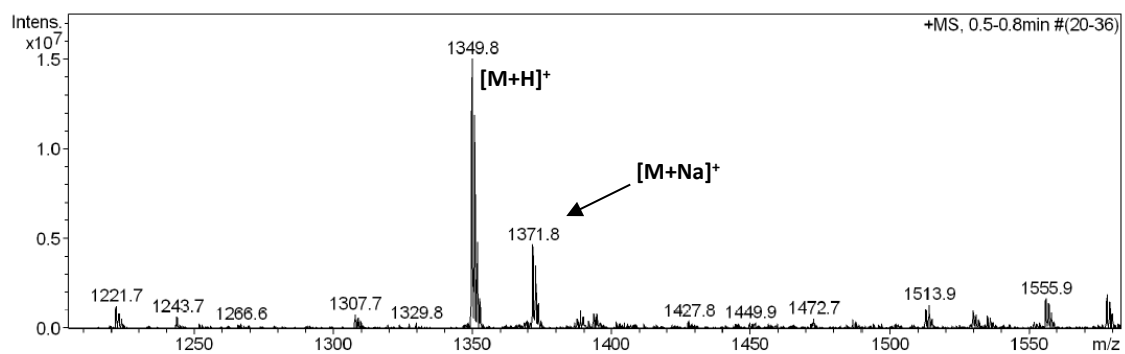
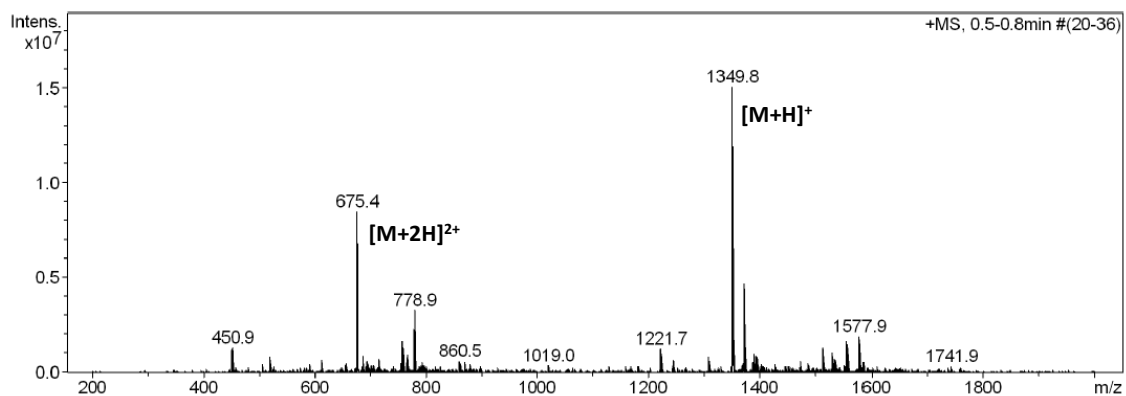
Exact Mass: 1348,8383

Molecular Weight: 1349,7071

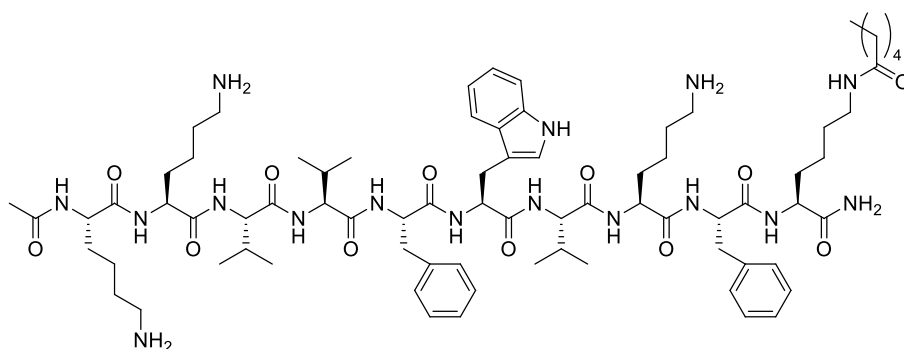
HPLC (λ = 220 nm) (CC-4-LysP1-435)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,08 | 15,396 | 1,210 | 2,59 |
| 2 | 6,19 | 299,515 | 22,145 | 47,44 |
| 3 | 6,28 | 93,482 | 5,929 | 12,70 |
| 4 | 6,33 | 47,062 | 4,785 | 10,25 |
| 5 | 6,72 | 8,298 | 0,431 | 0,92 |
| 6 | 6,81 | 17,466 | 1,106 | 2,37 |
| 7 | 6,88 | 32,976 | 1,999 | 4,28 |
| 8 | 7,00 | 48,833 | 5,993 | 12,84 |
| 9 | 8,19 | 32,294 | 3,083 | 6,60 |
| Total: | | 595,320 | 46,681 | 100,00 |

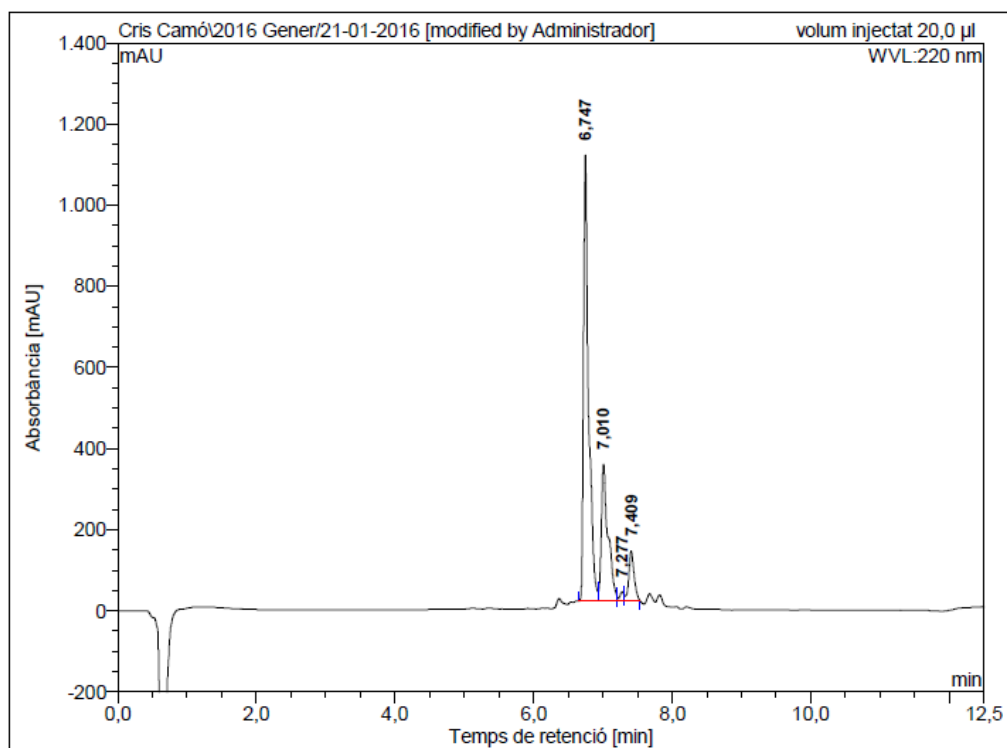
ESI-MS (m/z) (CC-4-LysP1-435)

| |
|-----------------------|
| $[M+H]^+ = 1349.8$ |
| $[M+Na]^+ = 1371.8$ |
| $[M+2H]^{2+} = 675.4$ |

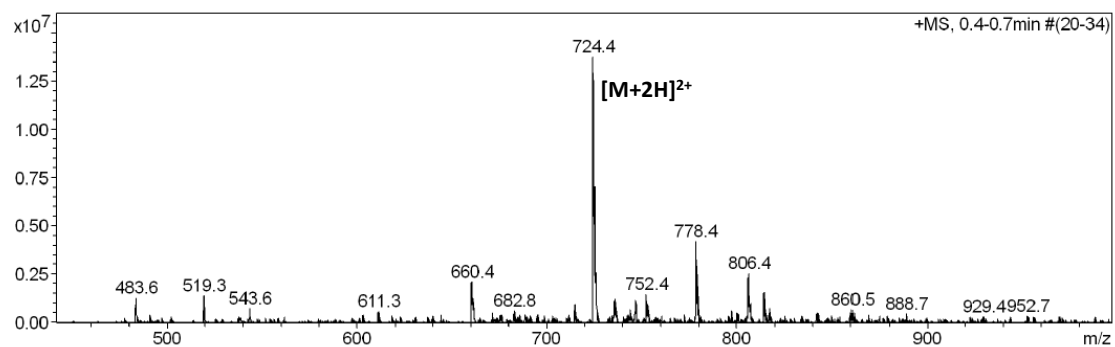
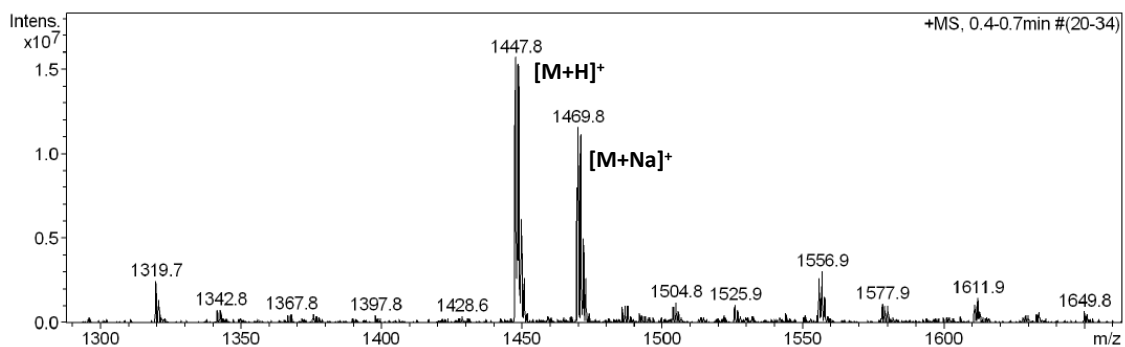
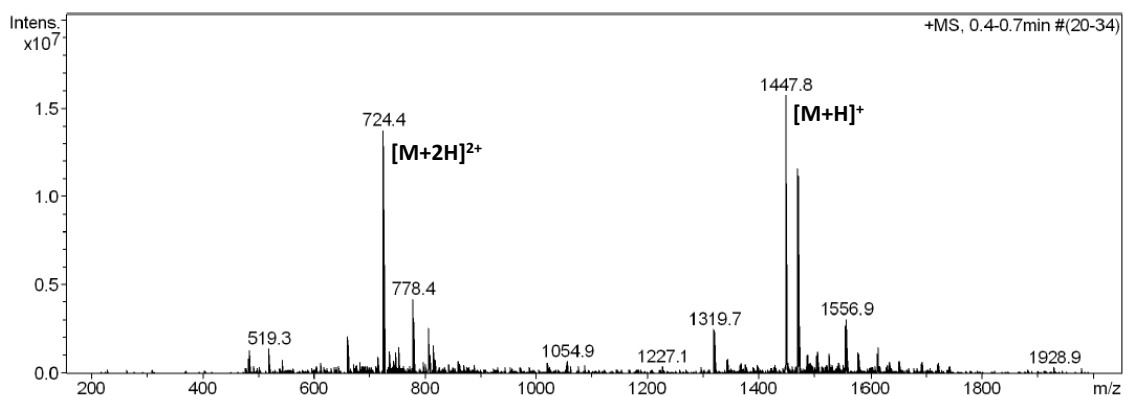
$\text{CH}_3\text{CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys}(\text{CO-C}_5\text{H}_{11})\text{-NH}_2$ (**BP412**)
Chemical Formula: $\text{C}_{76}\text{H}_{118}\text{N}_{16}\text{O}_{12}$

Exact Mass: 1446,9115

Molecular Weight: 1447,8501

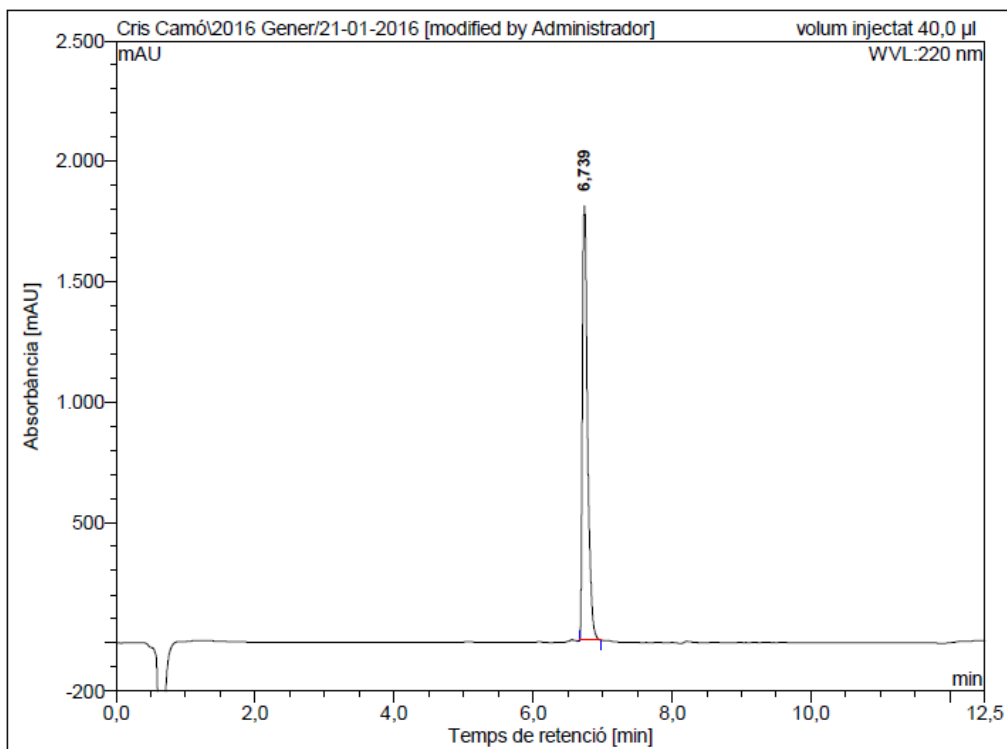
IMPURE PRODUCT**HPLC ($\lambda = 220$ nm) (CC-4-LysP1-hexanoic-cleav1-515 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,75 | 1098,645 | 92,793 | 64,80 |
| 2 | 7,01 | 337,573 | 37,812 | 26,41 |
| 3 | 7,28 | 22,863 | 1,509 | 1,05 |
| 4 | 7,41 | 123,447 | 11,080 | 7,74 |
| Total: | | 1582,529 | 143,194 | 100,00 |

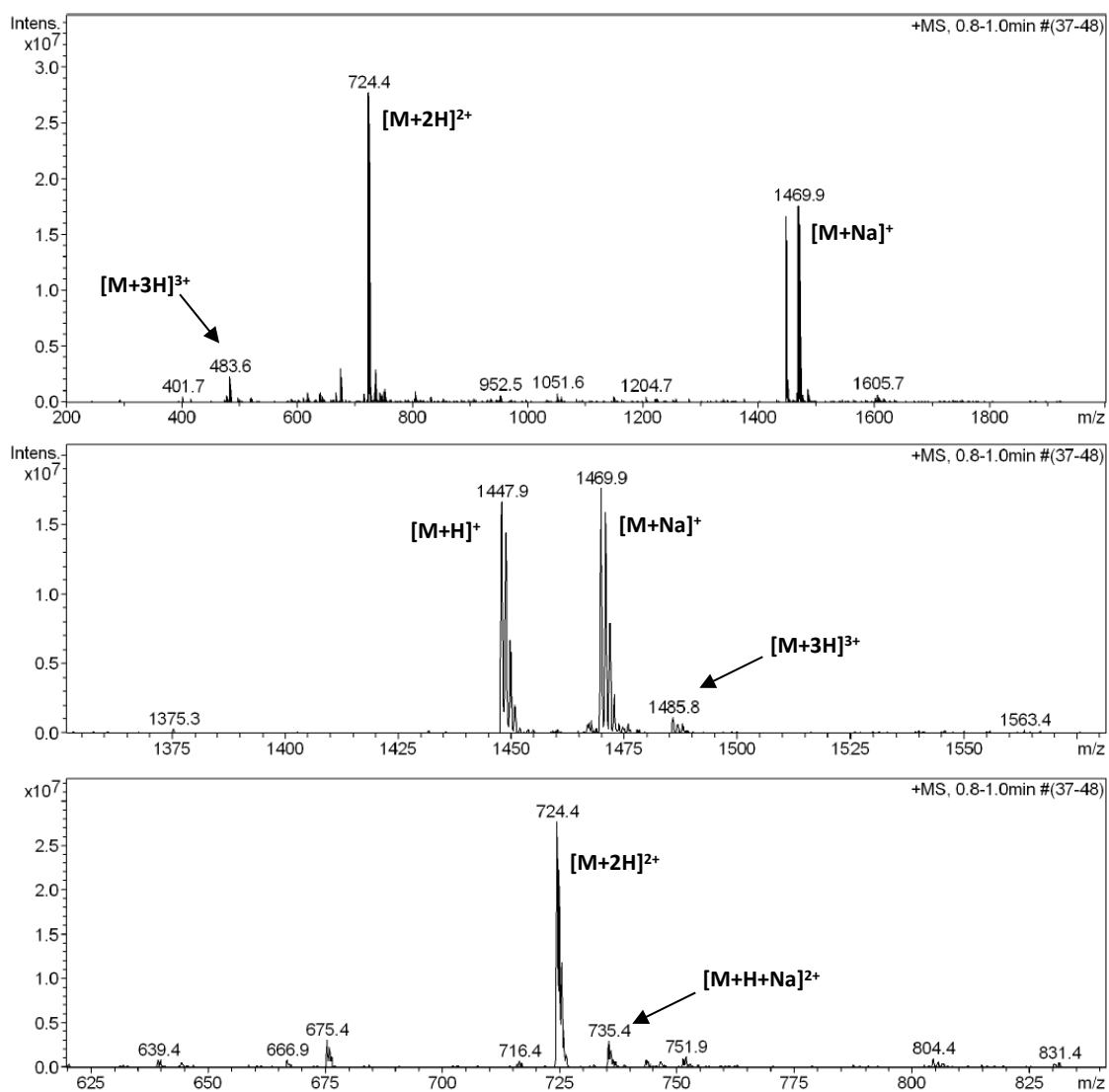
ESI-MS (m/z) (CC-4-LysP1-hexanoic-437)

| |
|-----------------------|
| $[M+H]^+ = 1447.8$ |
| $[M+Na]^+ = 1469.8$ |
| $[M+2H]^{2+} = 724.4$ |

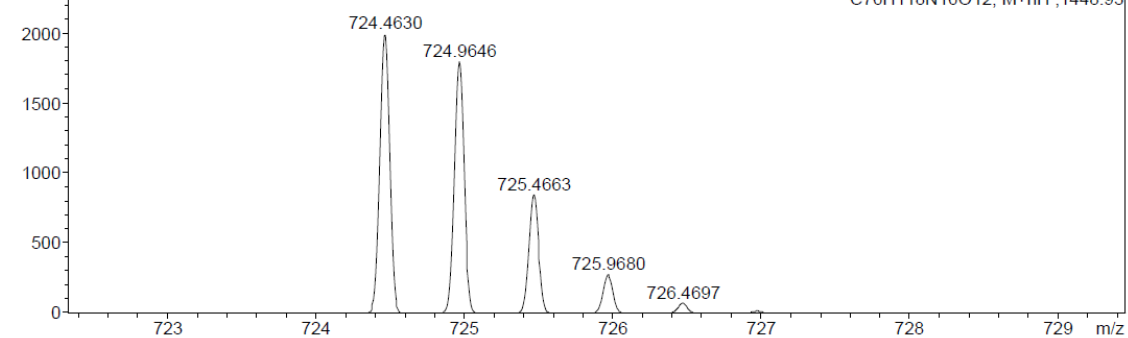
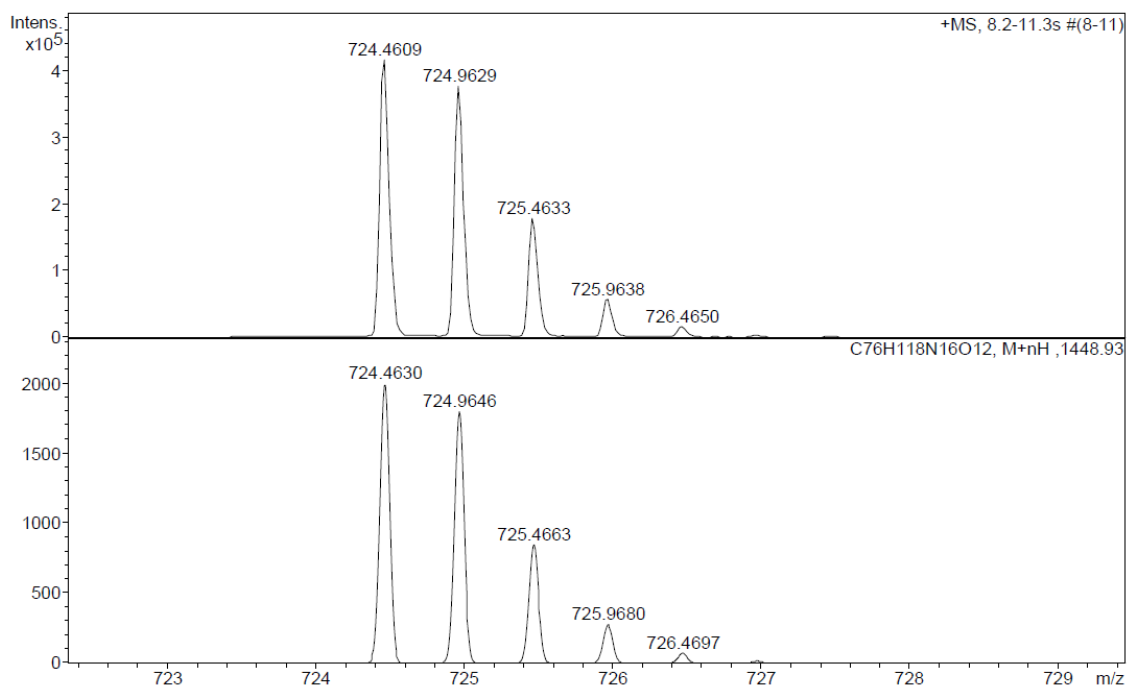
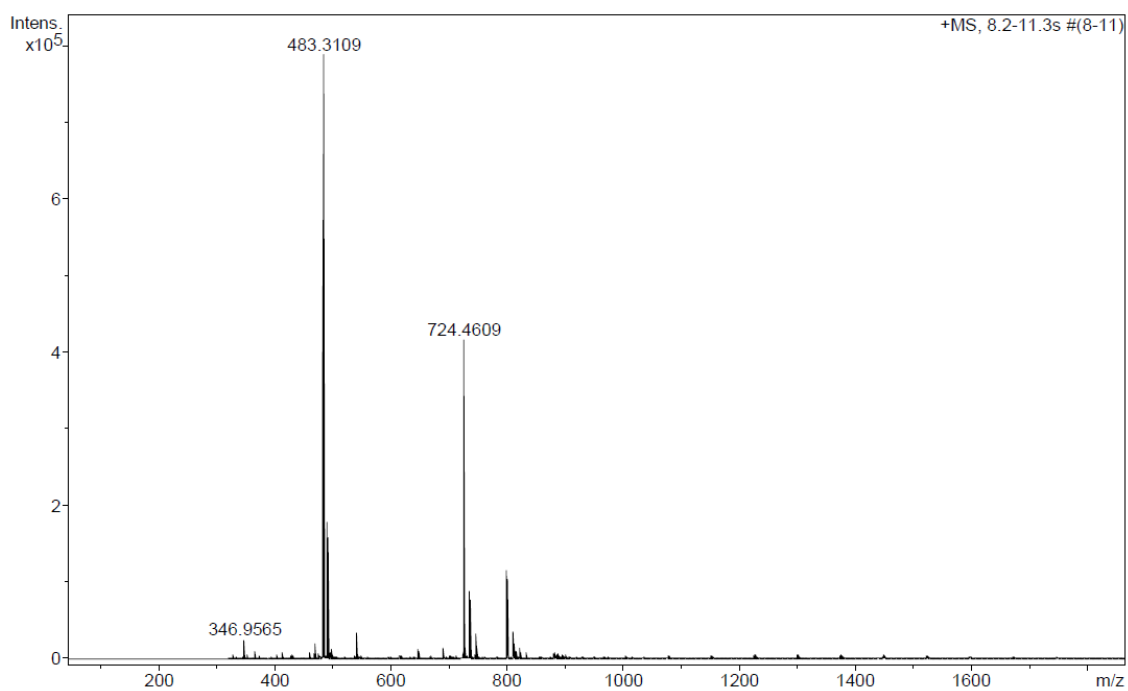
PURE PRODUCT

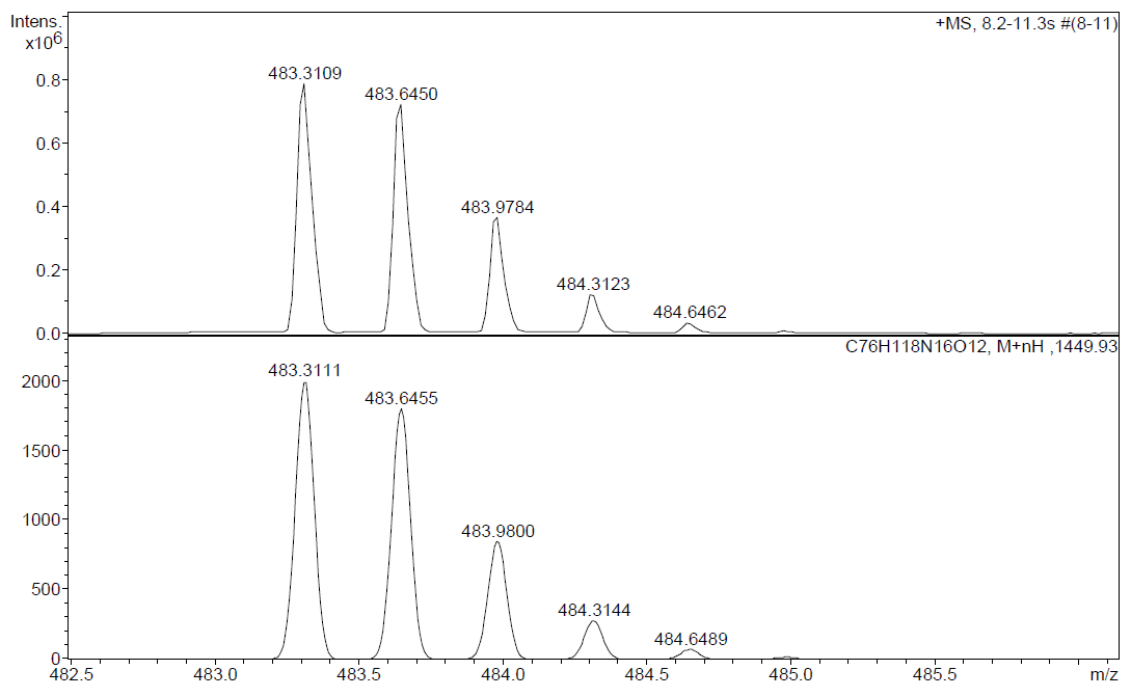
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP1-hexanoic-cleav1-515 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,74 | 1803,442 | 155,158 | 100,00 |
| Total: | | 1803,442 | 155,158 | 100,00 |

ESI-MS (m/z) (CC-4-LysP1-hexanoic-cleav1-515 tub 16)

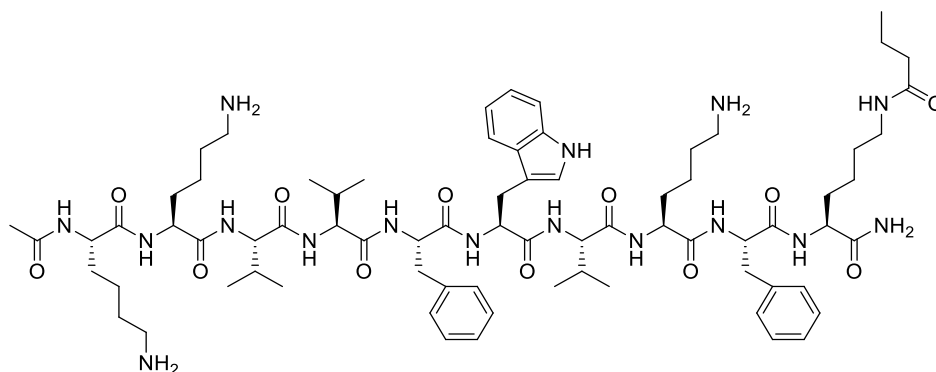
| |
|-------------------------|
| $[M+H]^+$ = 1447.9 |
| $[M+Na]^+$ = 1469.9 |
| $[M+K]^+$ = 1485.8 |
| $[M+2H]^{2+}$ = 724.4 |
| $[M+H+Na]^{2+}$ = 735.4 |
| $[M+3H]^{3+}$ = 483.6 |

HRMS (ESI) (m/z) (CC-4-LysP1-hexanoic-cleav1-515 tub 16)



| | Molecular formula | Calculated | Found |
|---------------|--|------------|----------|
| $[M+2H]^{2+}$ | C ₇₆ H ₁₂₀ N ₁₆ O ₁₂ | 724.4630 | 724.4609 |
| $[M+3H]^{3+}$ | C ₇₆ H ₁₂₁ N ₁₆ O ₁₂ | 483.3111 | 483.3109 |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys(CO-C₃H₇)-NH₂ (**BP413**)



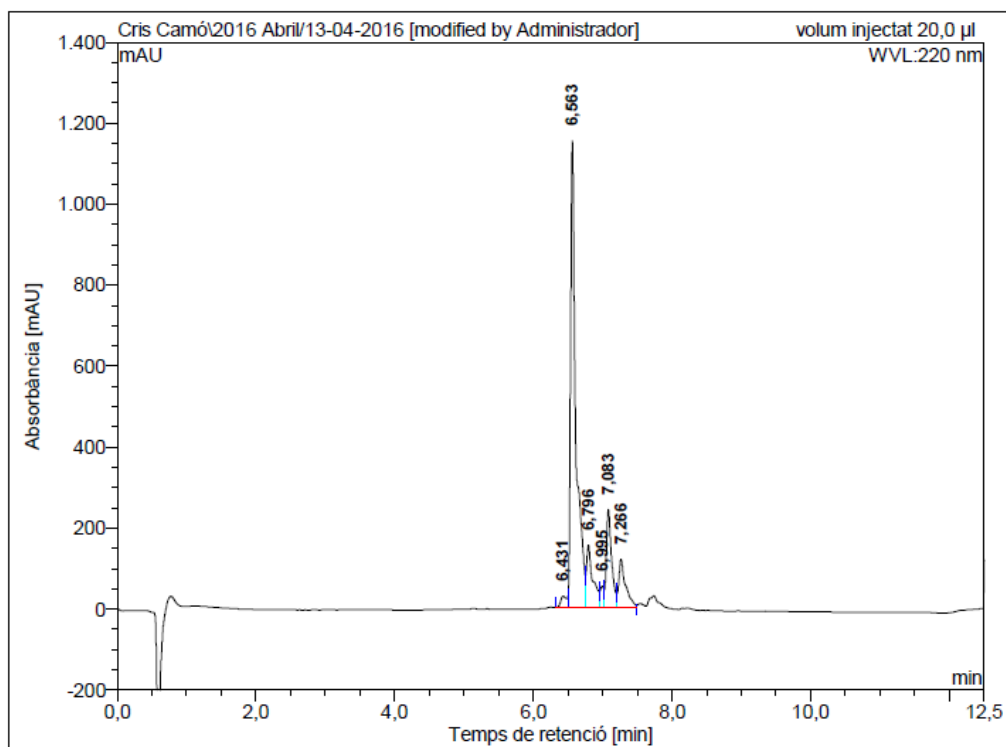
Chemical Formula: C₇₄H₁₁₄N₁₆O₁₂

Exact Mass: 1418,8802

Molecular Weight: 1419,7970

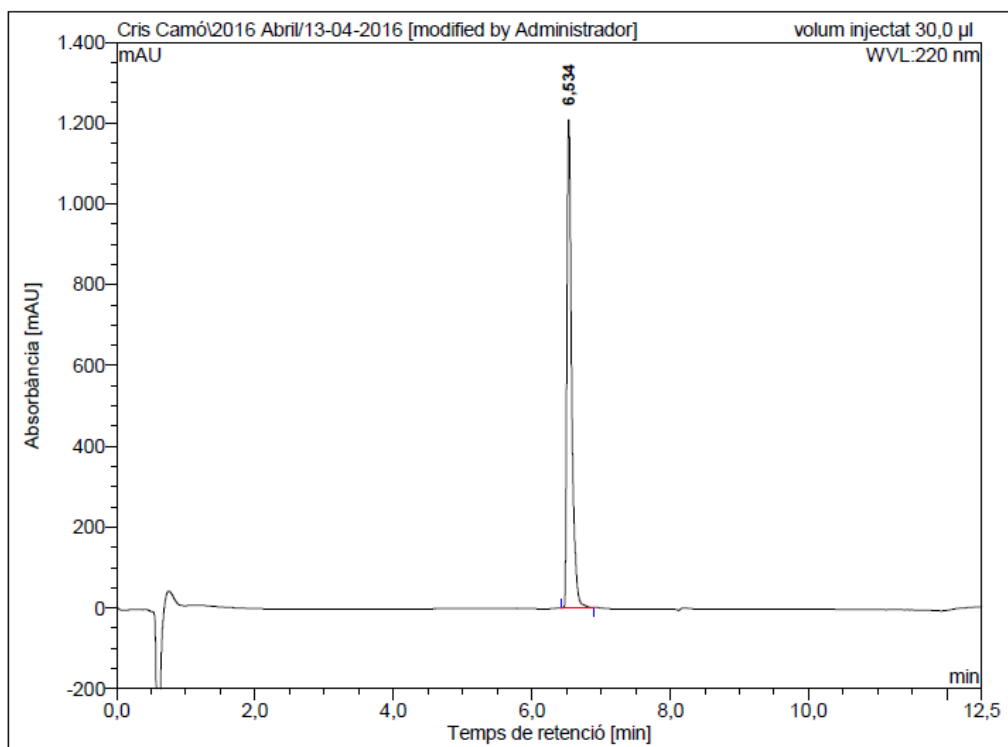
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP1-butíric-631 impur)

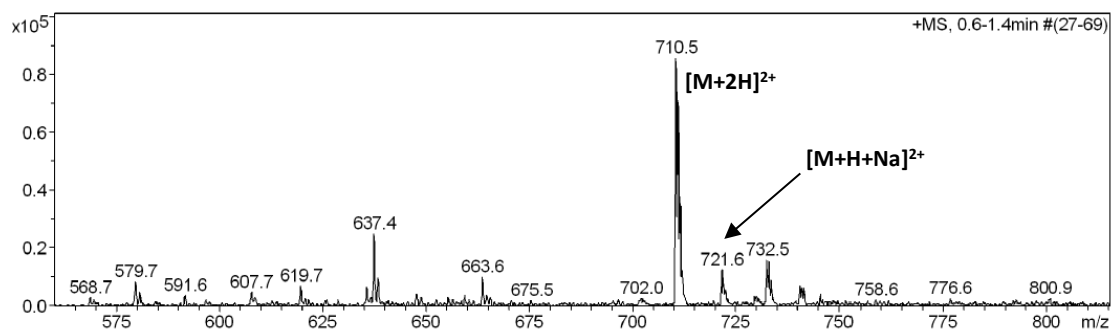
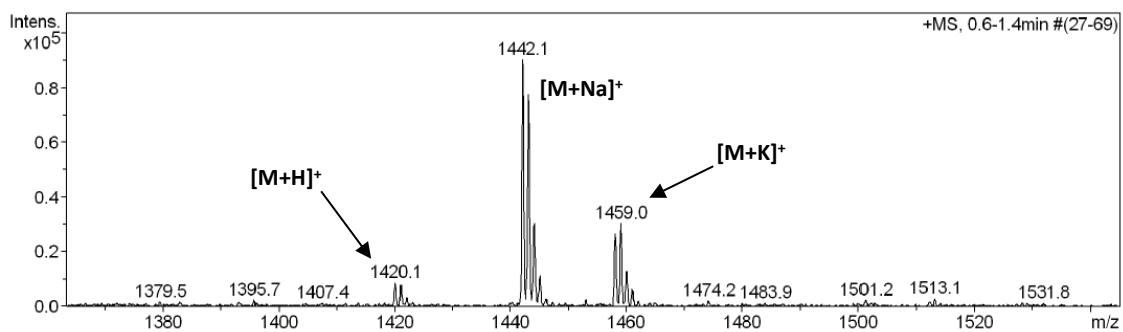
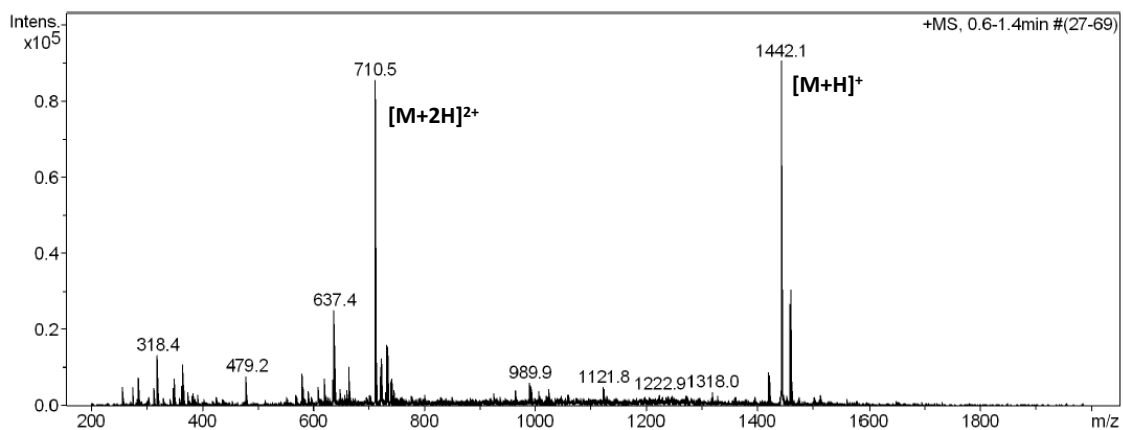


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,43 | 27,801 | 2,779 | 1,73 |
| 2 | 6,56 | 1152,913 | 103,267 | 64,14 |
| 3 | 6,80 | 153,998 | 16,393 | 10,18 |
| 4 | 6,99 | 52,935 | 3,639 | 2,26 |
| 5 | 7,08 | 241,701 | 21,404 | 13,29 |
| 6 | 7,27 | 119,444 | 13,513 | 8,39 |
| Total: | | 1748,791 | 160,994 | 100,00 |

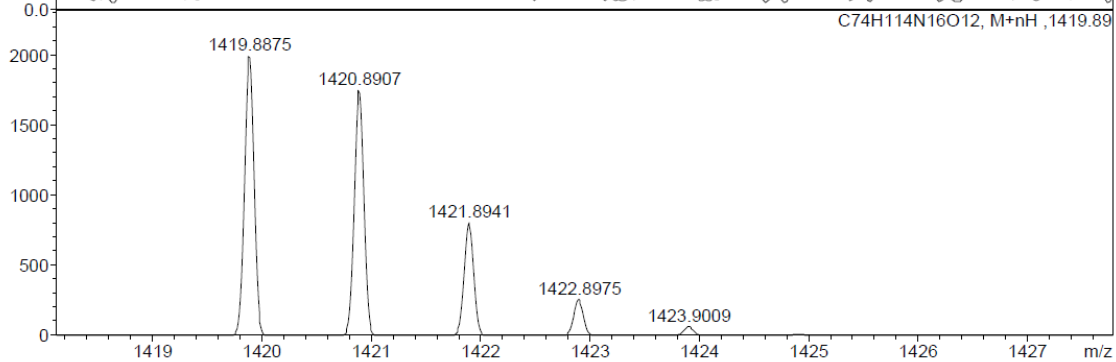
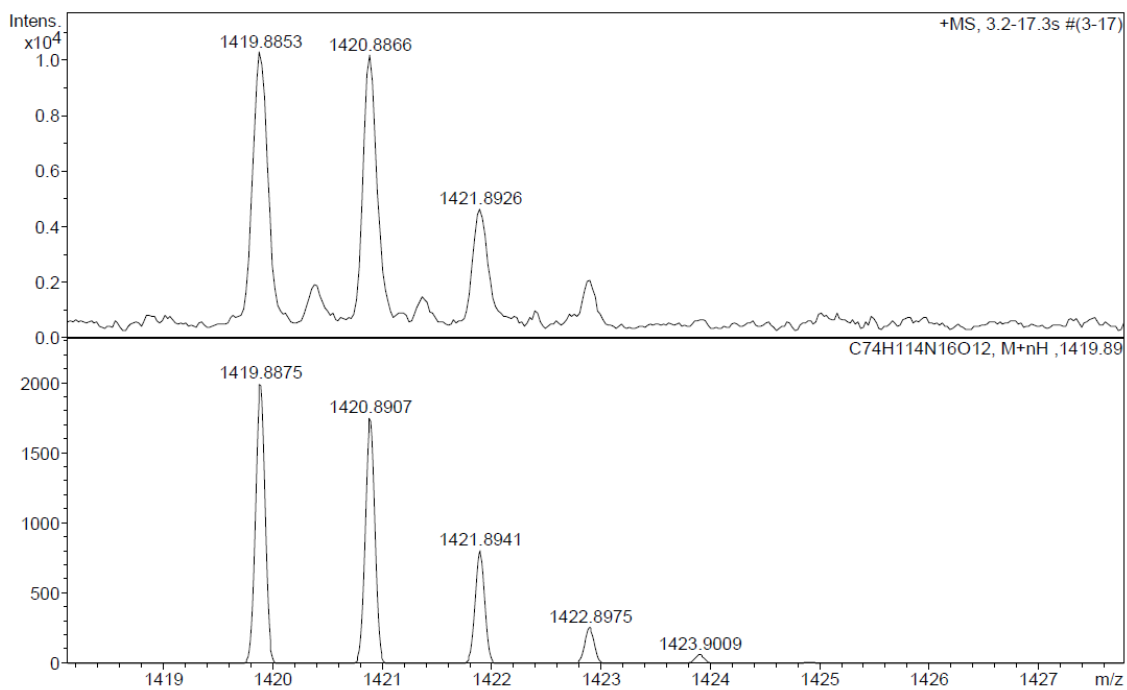
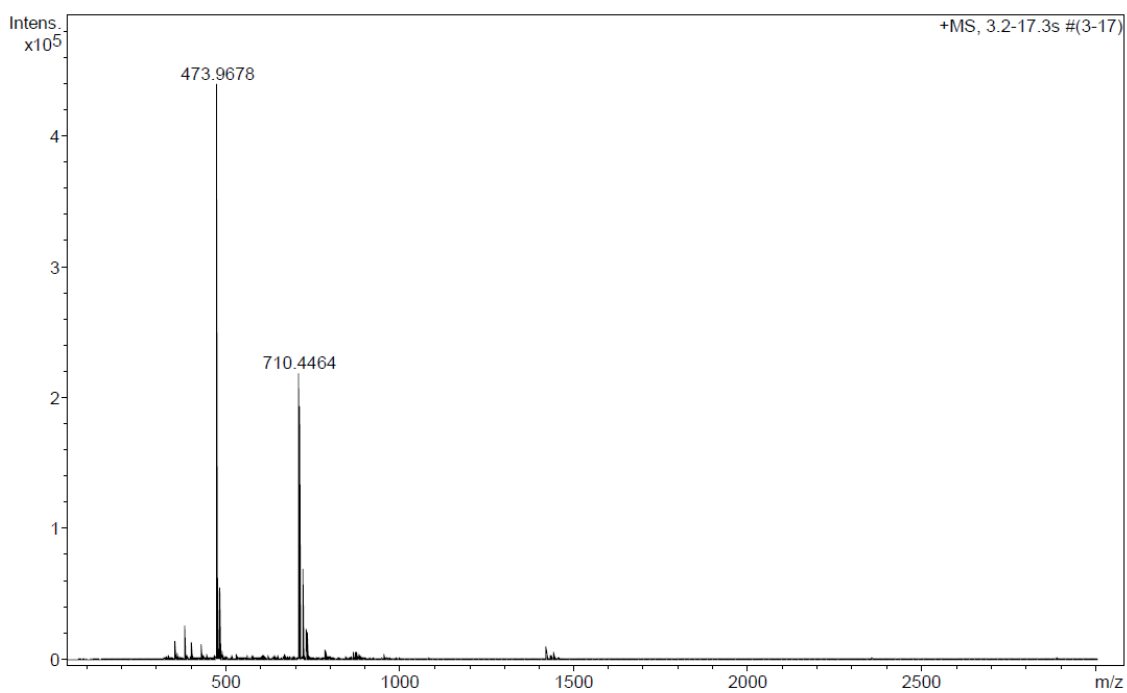
PURE PRODUCT

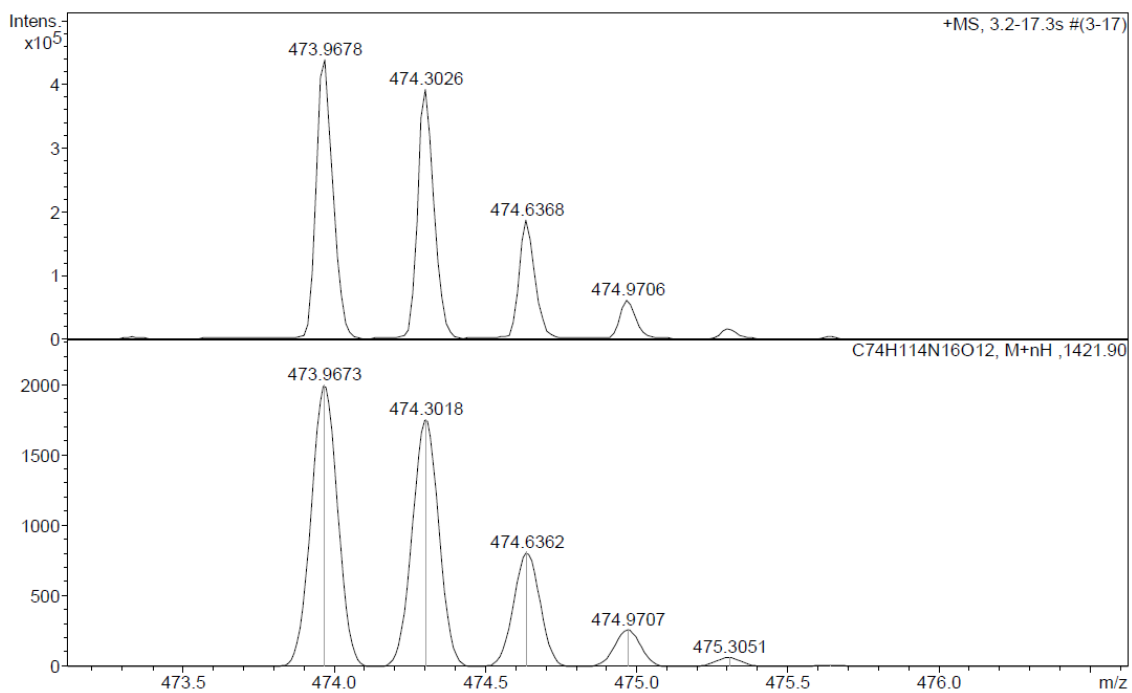
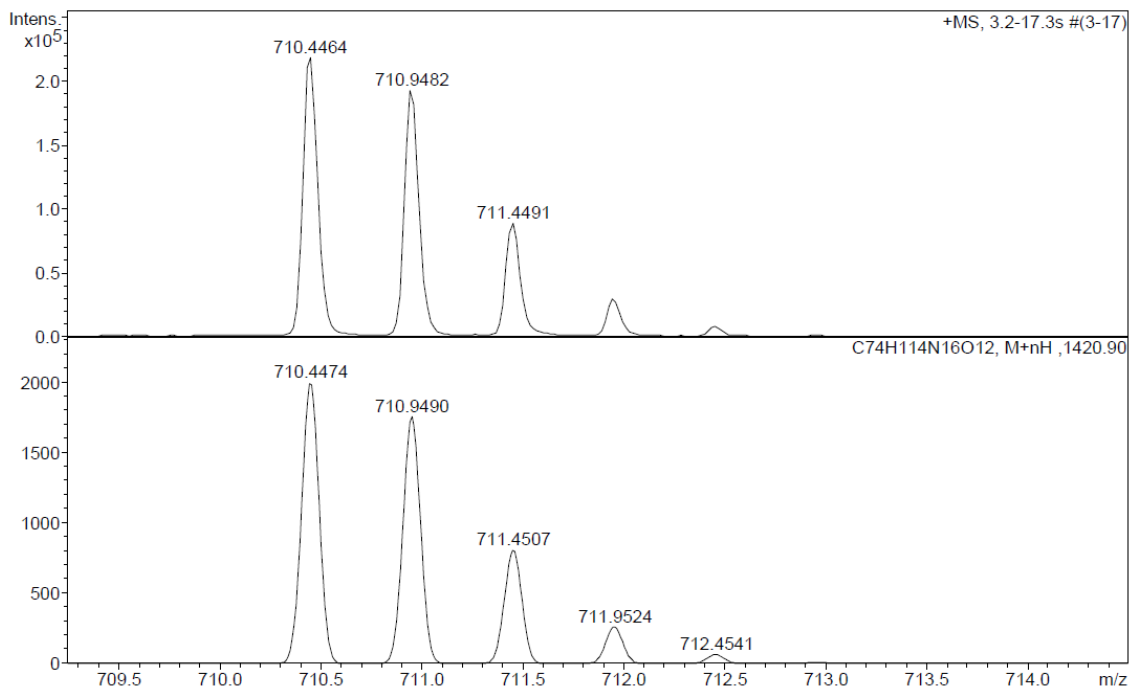
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP1-butíric-631 tub 17)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,53 | 1208,490 | 95,663 | 100,00 |
| Total: | | 1208,490 | 95,663 | 100,00 |

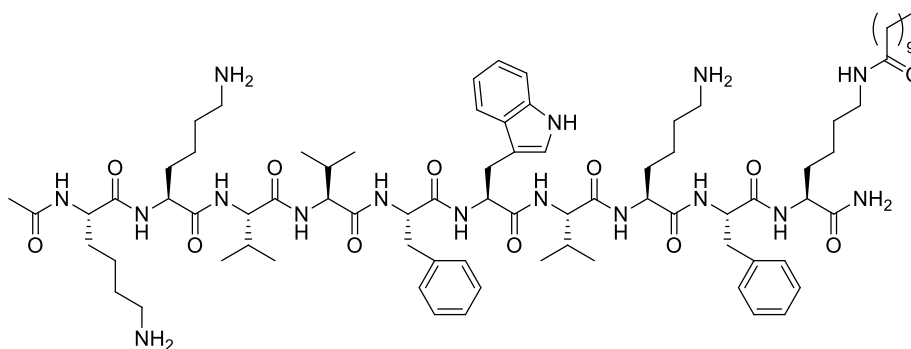
ESI-MS (m/z) (CC-4-LysP1-butiric-631 tub 17)

| |
|-------------------------|
| $[M+H]^+ = 1420.1$ |
| $[M+Na]^+ = 1442.1$ |
| $[M+K]^+ = 1458.0$ |
| $[M+2H]^{2+} = 710.5$ |
| $[M+H+Na]^{2+} = 721.6$ |

HRMS (ESI) (m/z) (CC-4-LysP1-butíric-631 tubs 14-19)



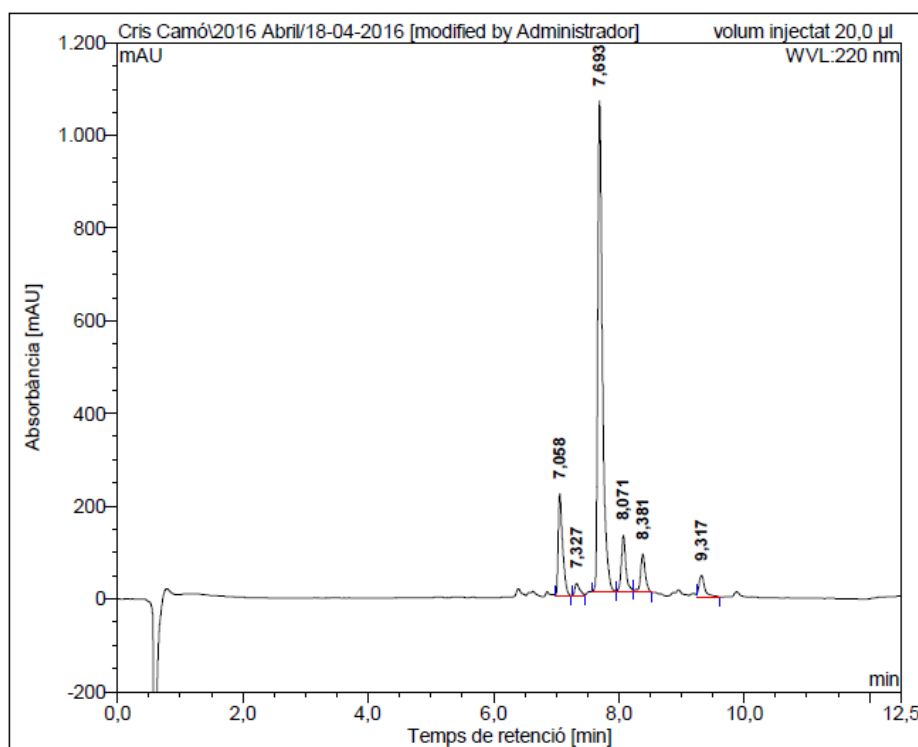
| | Molecular formula | Calculated | Found |
|---------------|--|------------|-----------|
| $[M+H]^+$ | C ₇₄ H ₁₁₅ N ₁₆ O ₁₂ | 1419.8875 | 1419.8853 |
| $[M+2H]^{2+}$ | C ₇₄ H ₁₁₆ N ₁₆ O ₁₂ | 710.4474 | 710.4464 |
| $[M+3H]^{3+}$ | C ₇₄ H ₁₁₇ N ₁₆ O ₁₂ | 473.9673 | 473.9678 |

$\text{CH}_3\text{CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys(CO-C}_{11}\text{H}_{23})\text{-NH}_2$ (**BP414**)
Chemical Formula: $\text{C}_{82}\text{H}_{130}\text{N}_{16}\text{O}_{12}$

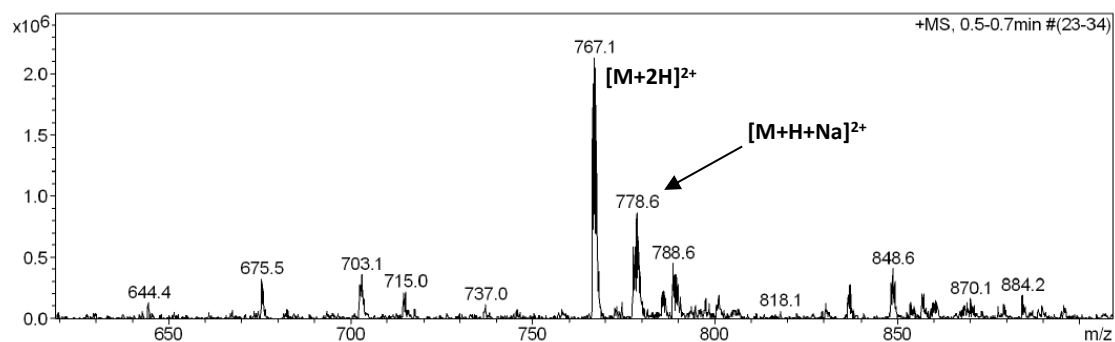
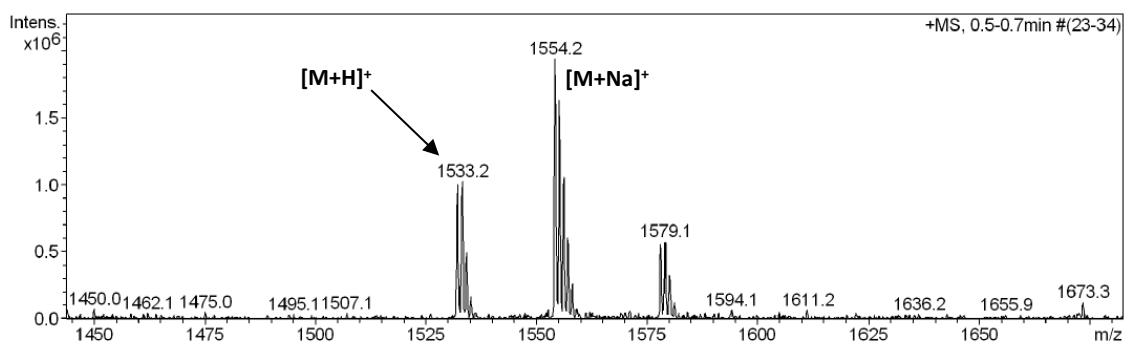
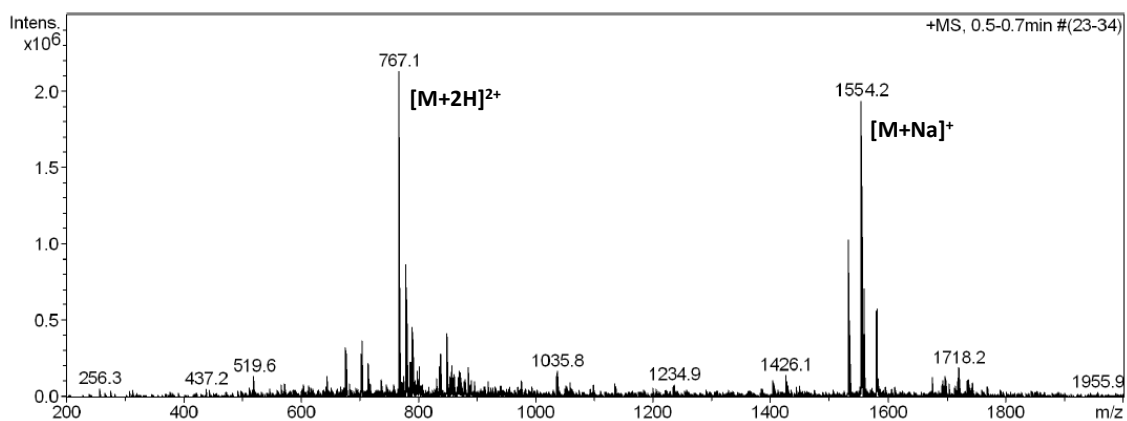
Exact Mass: 1531,0054

Molecular Weight: 1532,0096

IMPURE PRODUCT

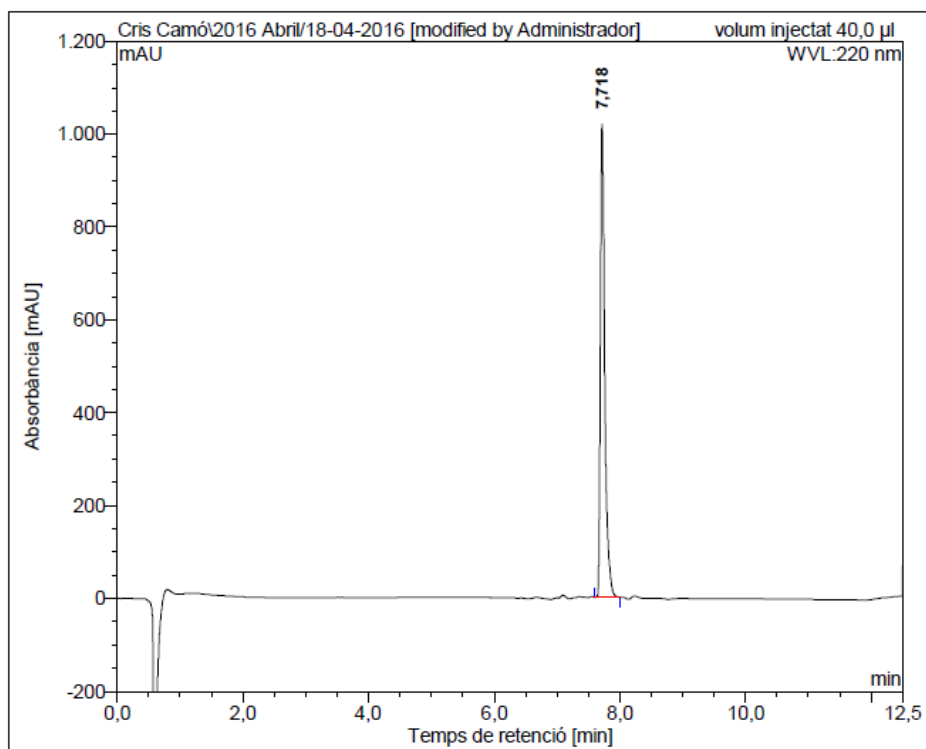
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP1-làuric-633 impur)

| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 7,06 | 220,123 | 17,942 | 13,13 |
| 2 | 7,33 | 26,943 | 2,399 | 1,76 |
| 3 | 7,69 | 1061,659 | 92,891 | 67,97 |
| 4 | 8,07 | 123,240 | 10,854 | 7,94 |
| 5 | 8,38 | 83,153 | 7,520 | 5,50 |
| 6 | 9,32 | 46,945 | 5,051 | 3,70 |
| Total: | | 1562,064 | 136,657 | 100,00 |

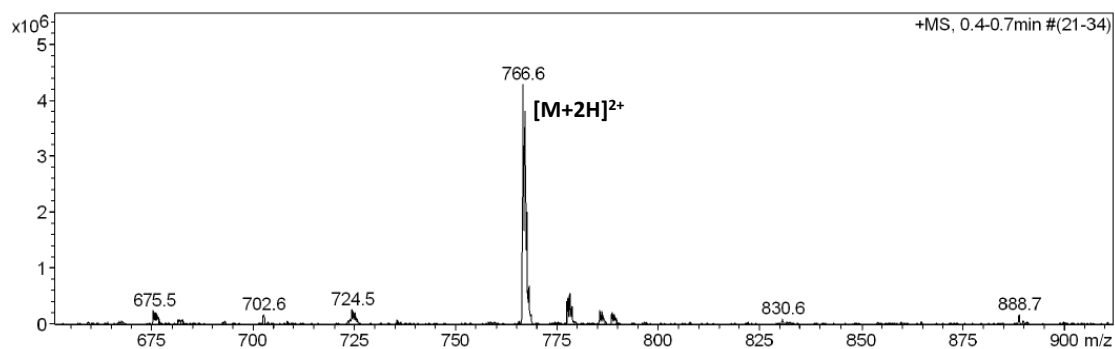
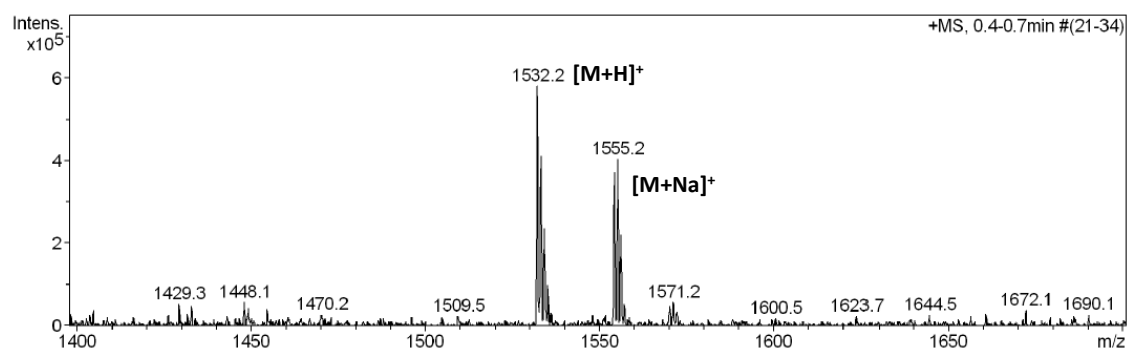
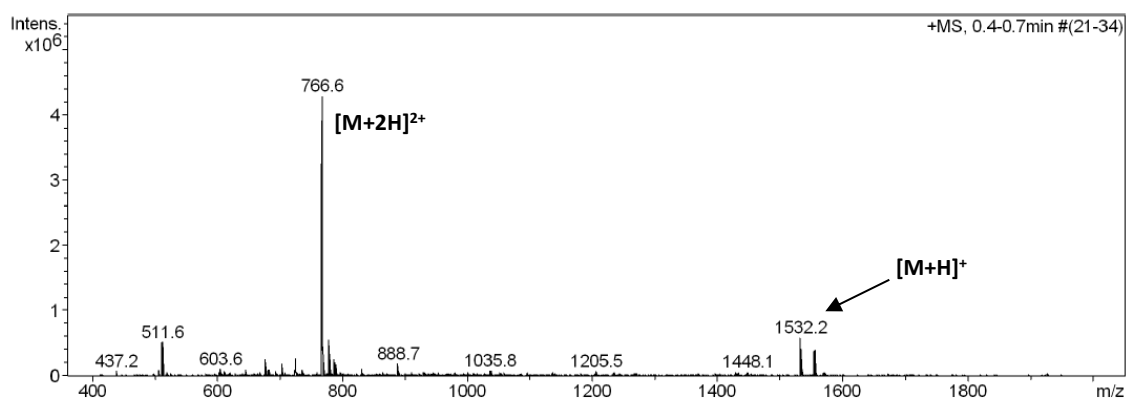
ESI-MS (m/z) (CC-4-LysP1-làuric-633 impur)

| |
|-------------------------|
| $[M+H]^+ = 1532.2$ |
| $[M+Na]^+ = 1554.2$ |
| $[M+2H]^{2+} = 767.1$ |
| $[M+H+Na]^{2+} = 778.6$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP1-làuric-633 tub 30)

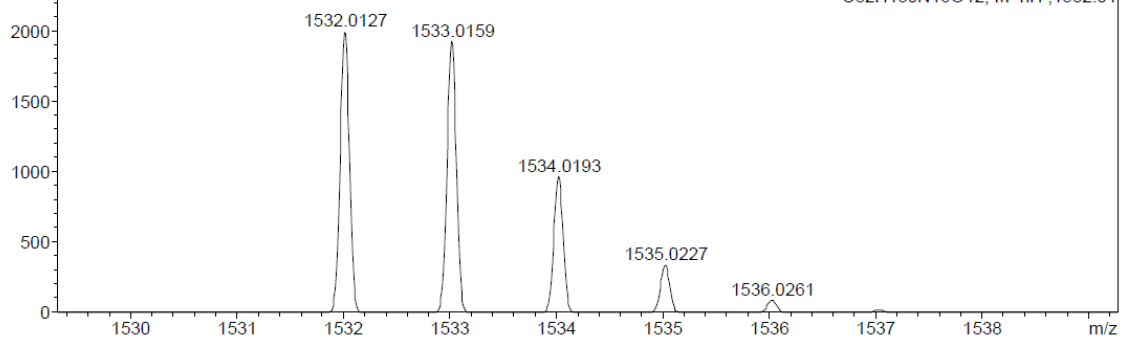
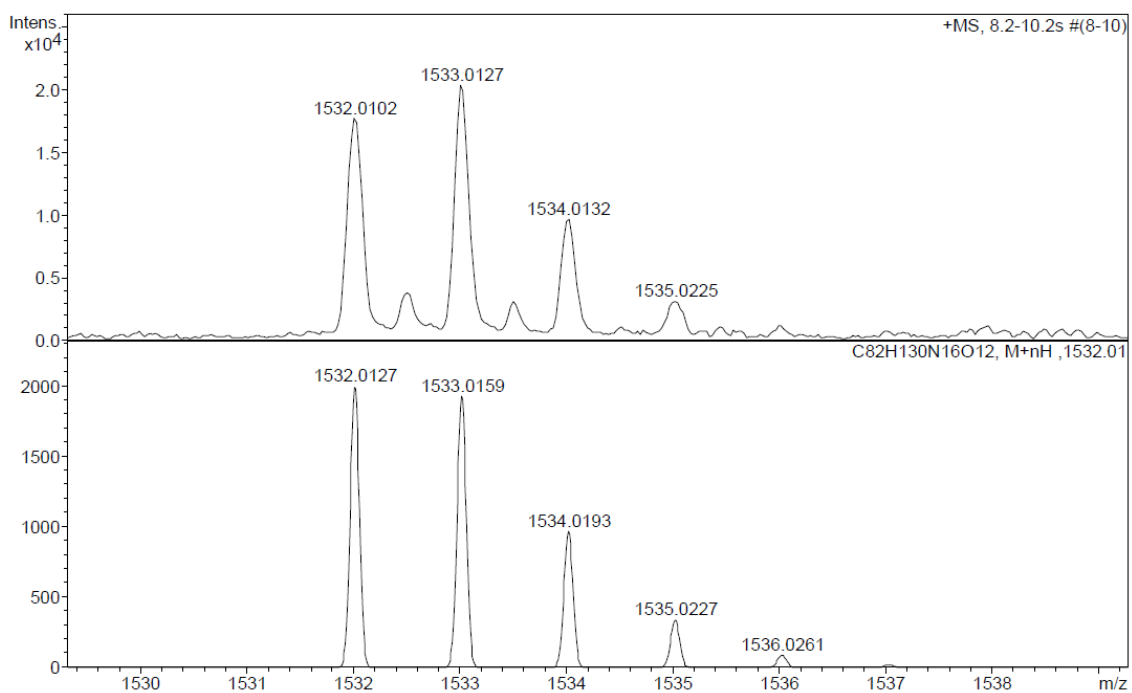
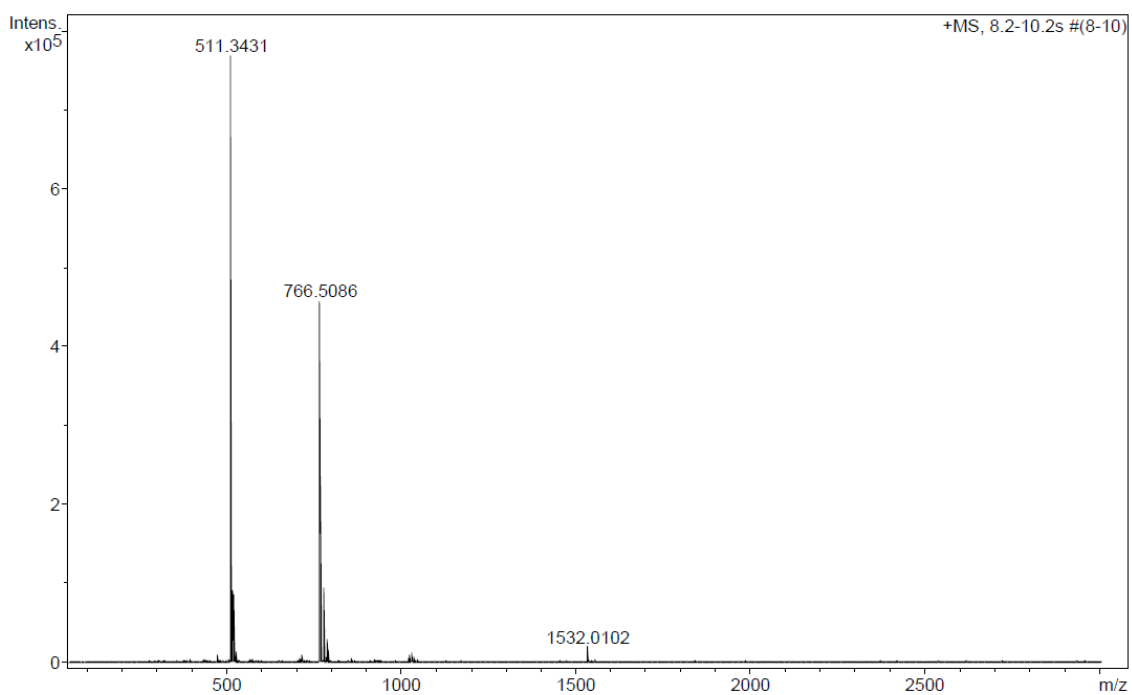
| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 7,72 | 1018,087 | 81,862 | 100,00 |
| Total: | | 1018,087 | 81,862 | 100,00 |

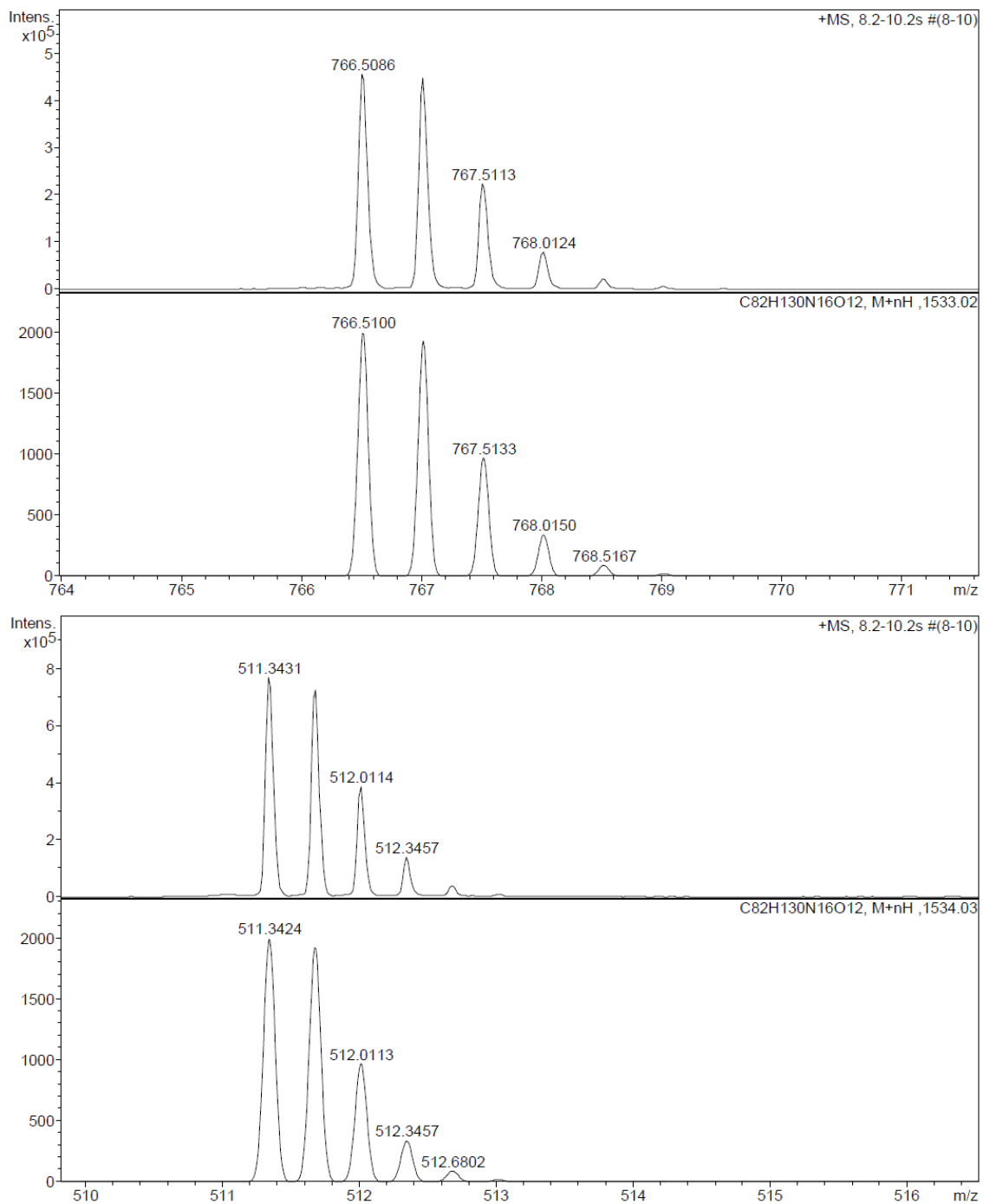
ESI-MS (m/z) (CC-4-LysP1-làuric-633 tub 30)

| |
|--------------------|
| $[M+H]^+ = 1532.2$ |
|--------------------|

| |
|---------------------|
| $[M+Na]^+ = 1554.2$ |
|---------------------|

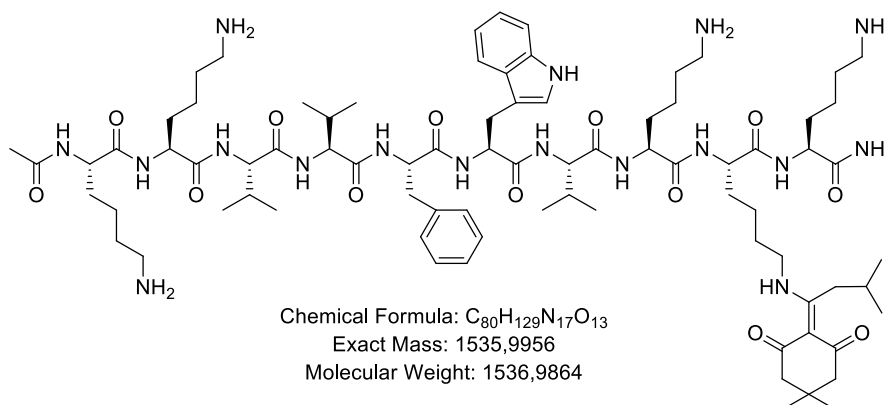
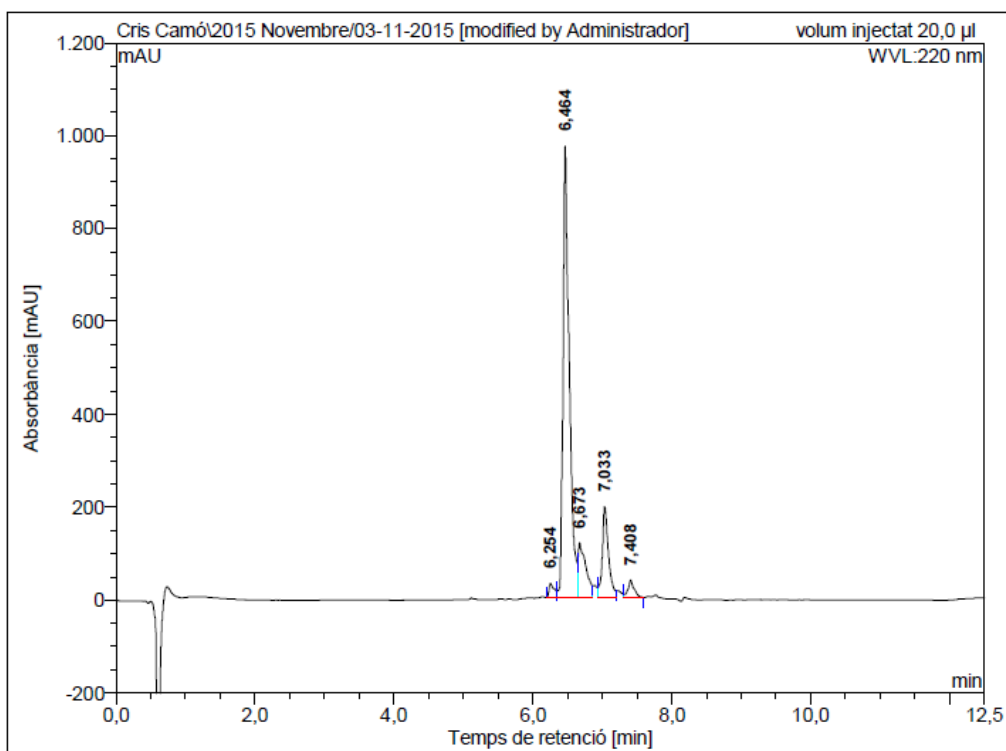
| |
|-----------------------|
| $[M+2H]^{2+} = 766.6$ |
|-----------------------|

HRMS (ESI) (m/z) (CC-4-LysP1-làuric-633 tubs 27-32)

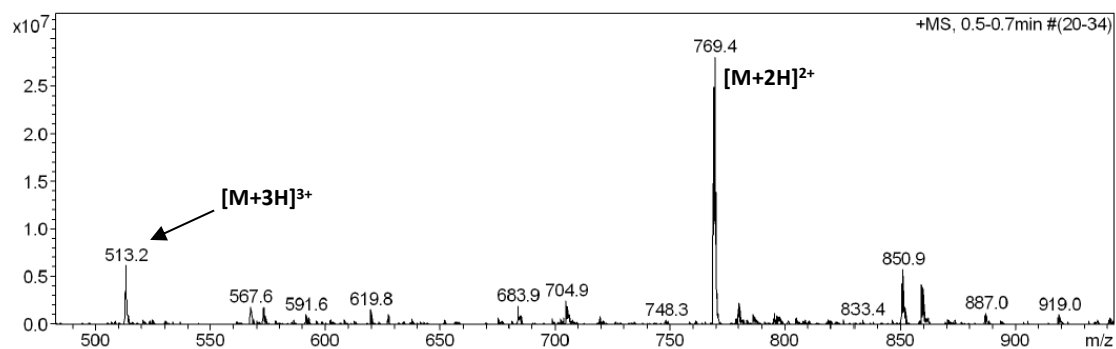
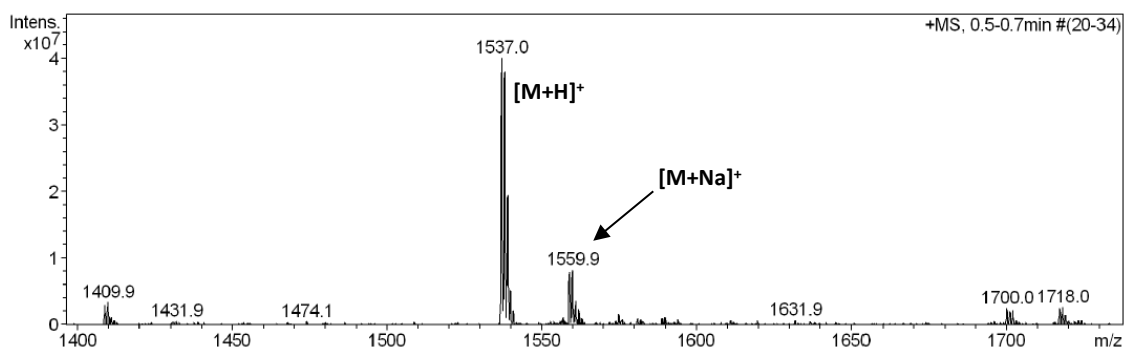
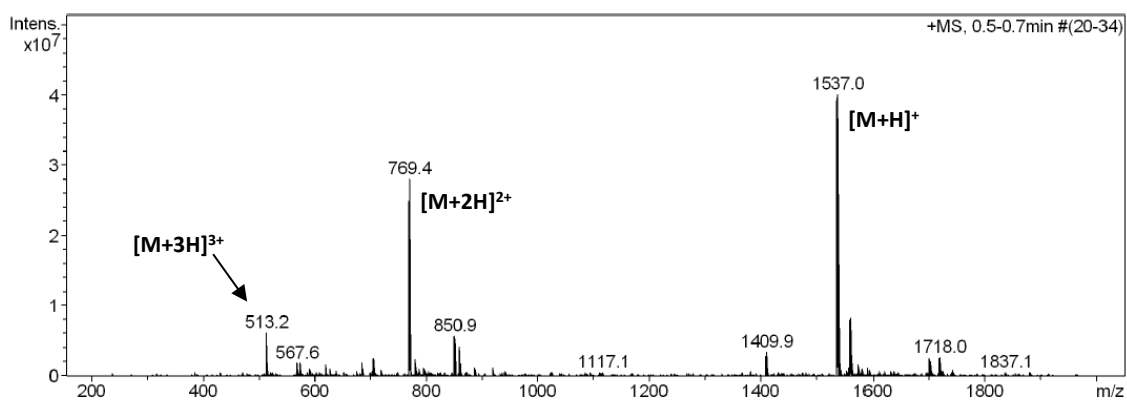


| | Molecular formula | Calculated | Found |
|----------------------------|--|-------------------|--------------|
| [M+H]⁺ | C ₈₂ H ₁₃₁ N ₁₆ O ₁₂ | 1532.0127 | 1532.0102 |
| [M+2H]²⁺ | C ₈₂ H ₁₃₂ N ₁₆ O ₁₂ | 766.5100 | 766.5086 |
| [M+3H]³⁺ | C ₈₂ H ₁₃₃ N ₁₆ O ₁₂ | 511.3424 | 511.3431 |

Lipopeptides derived from KSLW acylated at position 9

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Lys(ivDde)-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-LysP2-413)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,25 | 29,966 | 2,586 | 1,82 |
| 2 | 6,46 | 971,445 | 99,725 | 70,08 |
| 3 | 6,67 | 117,311 | 15,791 | 11,10 |
| 4 | 7,03 | 195,420 | 20,371 | 14,32 |
| 5 | 7,41 | 37,032 | 3,830 | 2,69 |
| Total: | | 1351,173 | 142,303 | 100,00 |

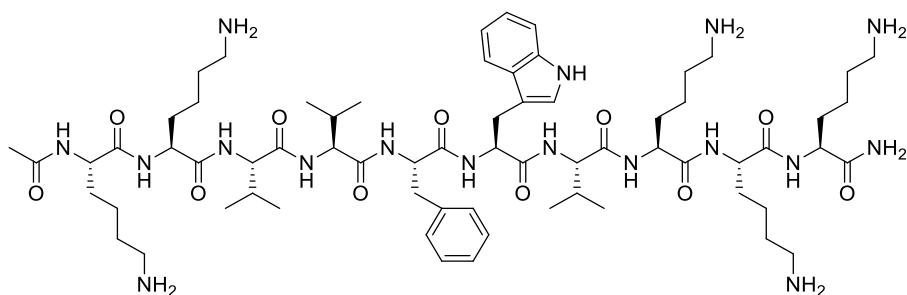
ESI-MS (m/z) (CC-4-LysP2-413)

| |
|--------------------|
| $[M+H]^+ = 1537.0$ |
|--------------------|

| |
|---------------------|
| $[M+Na]^+ = 1559.9$ |
|---------------------|

| |
|-----------------------|
| $[M+2H]^{2+} = 769.4$ |
|-----------------------|

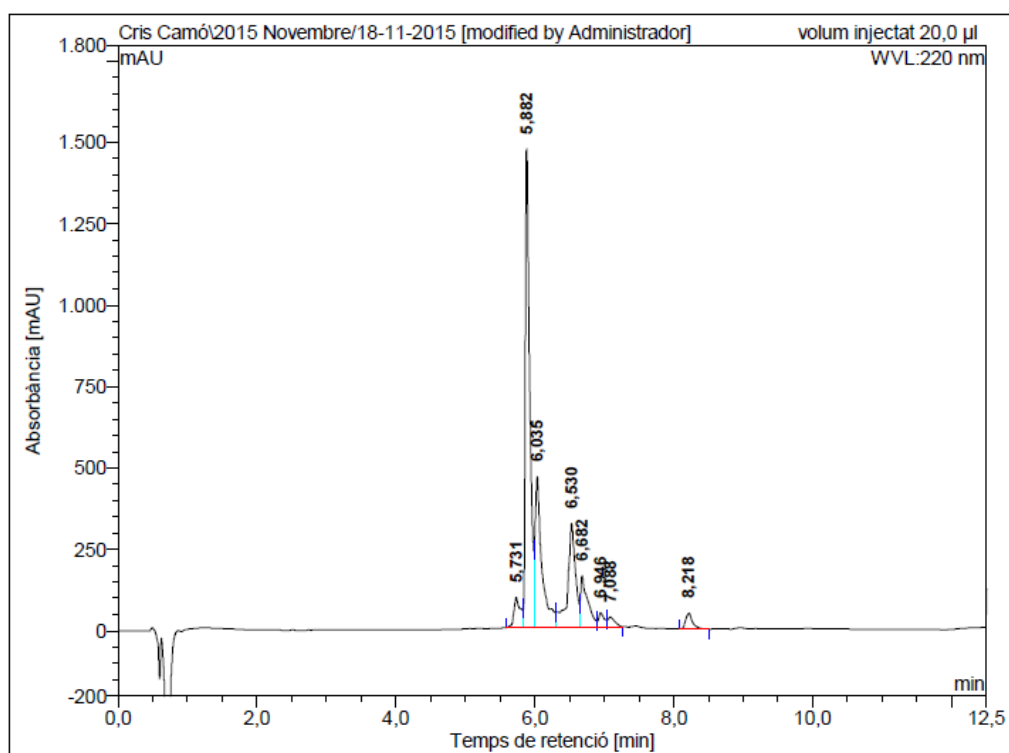
| |
|-----------------------|
| $[M+3H]^{3+} = 513.2$ |
|-----------------------|

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Lys-NH₂Chemical Formula: C₆₇H₁₁₁N₁₇O₁₁

Exact Mass: 1329,8649

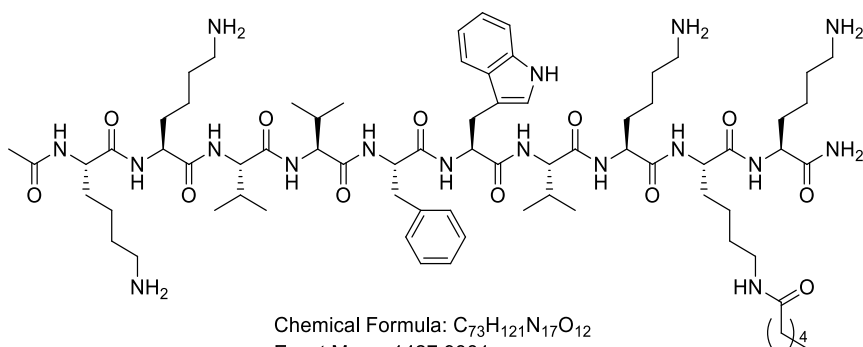
Molecular Weight: 1330,7055

HPLC (λ = 220 nm) (CC-4-LysP2-454)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,73 | 92,535 | 10,374 | 4,20 |
| 2 | 5,88 | 1469,892 | 107,191 | 43,39 |
| 3 | 6,03 | 463,071 | 53,446 | 21,64 |
| 4 | 6,53 | 319,637 | 42,526 | 17,22 |
| 5 | 6,68 | 159,315 | 19,604 | 7,94 |
| 6 | 6,95 | 45,470 | 4,414 | 1,79 |
| 7 | 7,09 | 32,120 | 4,055 | 1,64 |
| 8 | 8,22 | 47,803 | 5,418 | 2,19 |
| Total: | | 2629,844 | 247,028 | 100,00 |

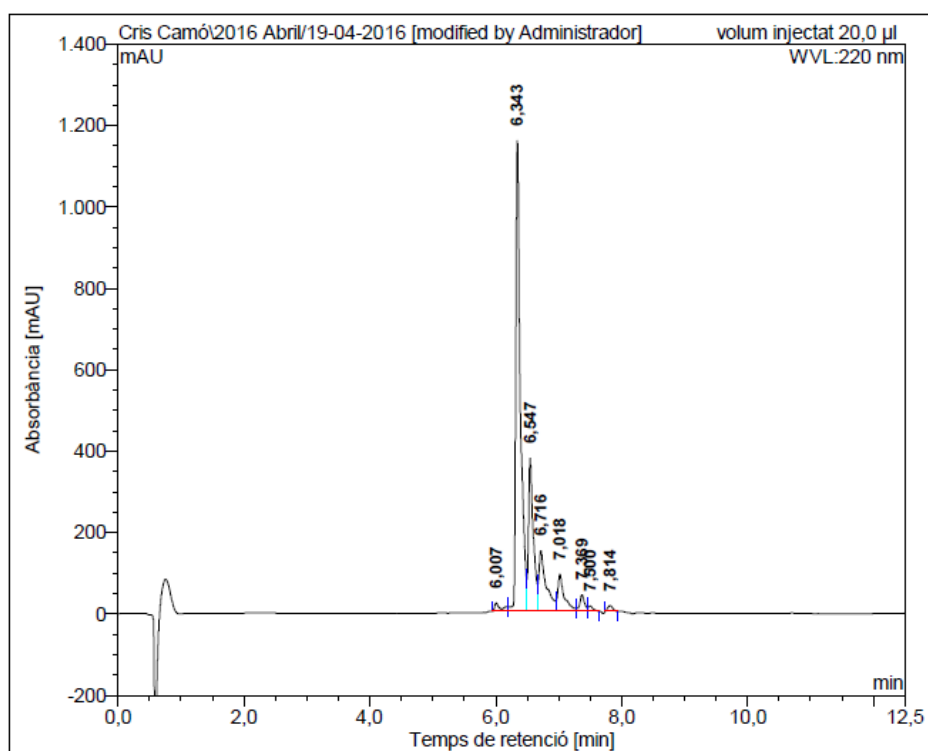
CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Lys(CO-C₅H₁₁)-Lys-NH₂ (BP415)



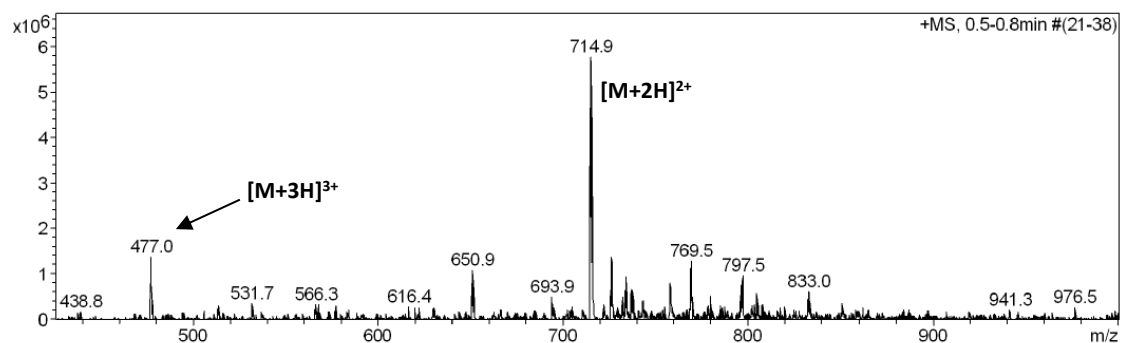
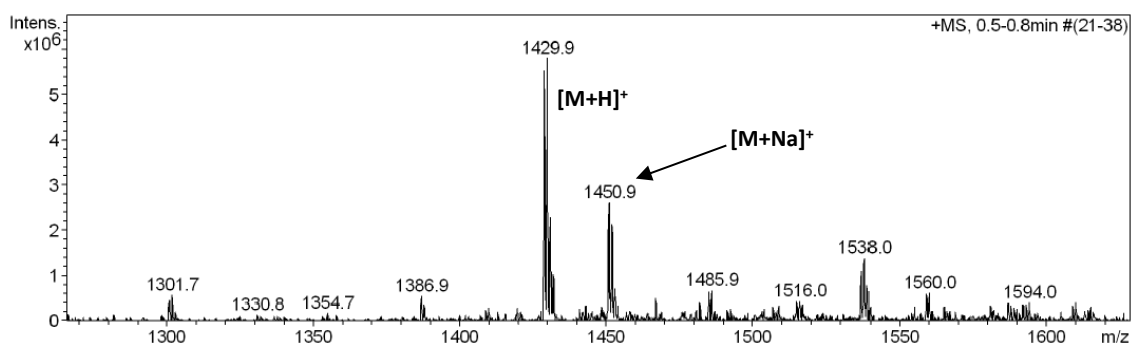
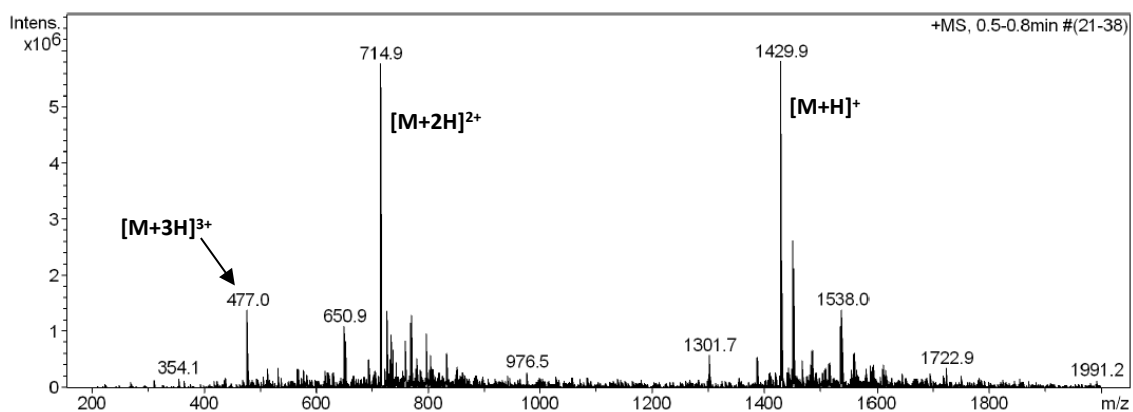
Chemical Formula: C₇₃H₁₂₁N₁₇O₁₂
 Exact Mass: 1427,9381
 Molecular Weight: 1428,8485

IMPURE PRODUCT

HPLC (λ = 220 nm (CC-4-LysP2-hexanoic-635 impur)

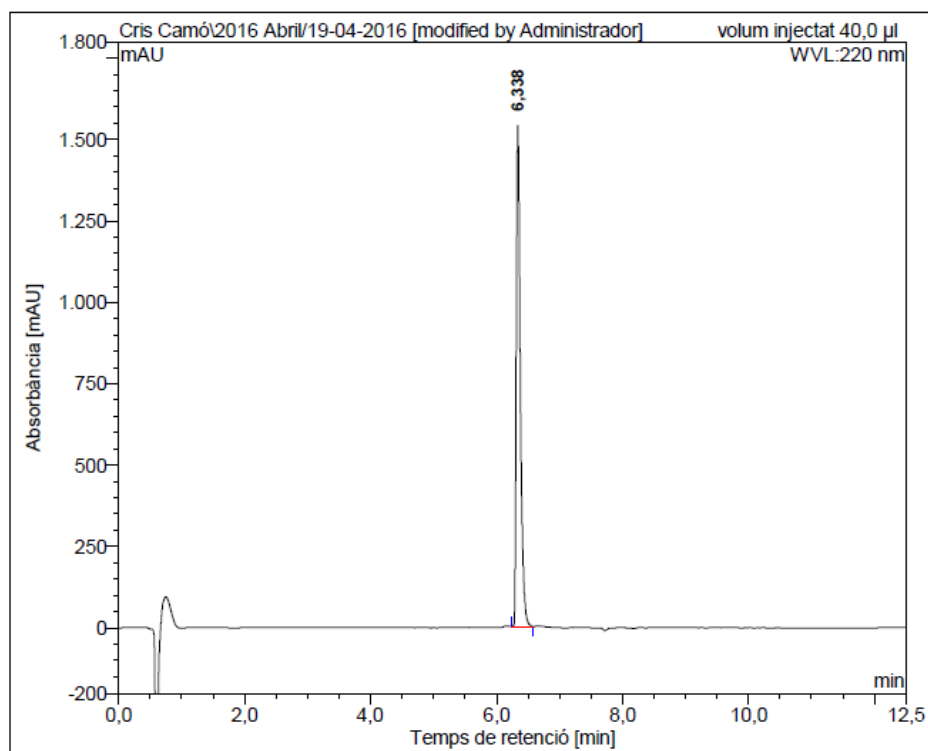


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,01 | 20,857 | 2,648 | 1,55 |
| 2 | 6,34 | 1157,020 | 97,431 | 57,00 |
| 3 | 6,55 | 375,905 | 33,317 | 19,49 |
| 4 | 6,72 | 149,294 | 20,245 | 11,84 |
| 5 | 7,02 | 91,636 | 11,102 | 6,50 |
| 6 | 7,37 | 40,594 | 3,613 | 2,11 |
| 7 | 7,50 | 13,734 | 1,257 | 0,74 |
| 8 | 7,81 | 14,583 | 1,317 | 0,77 |
| Total: | | 1863,623 | 170,928 | 100,00 |

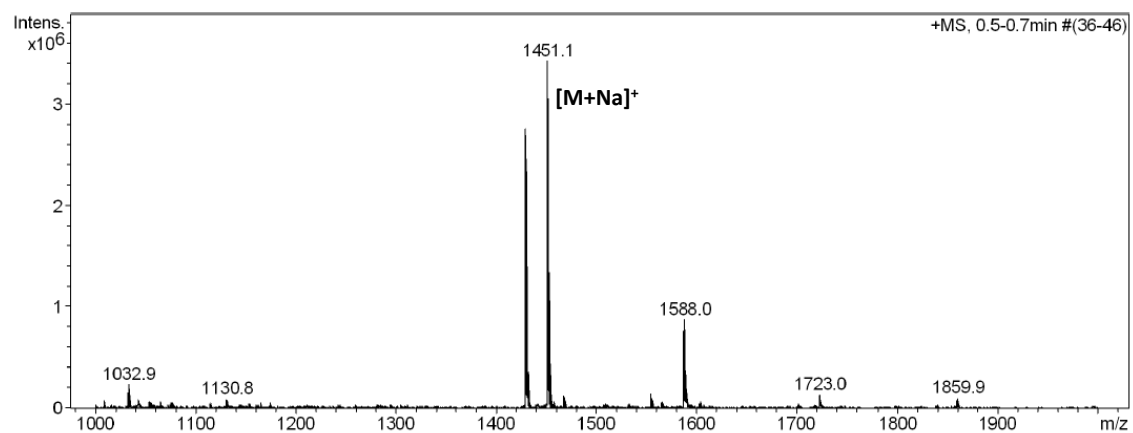
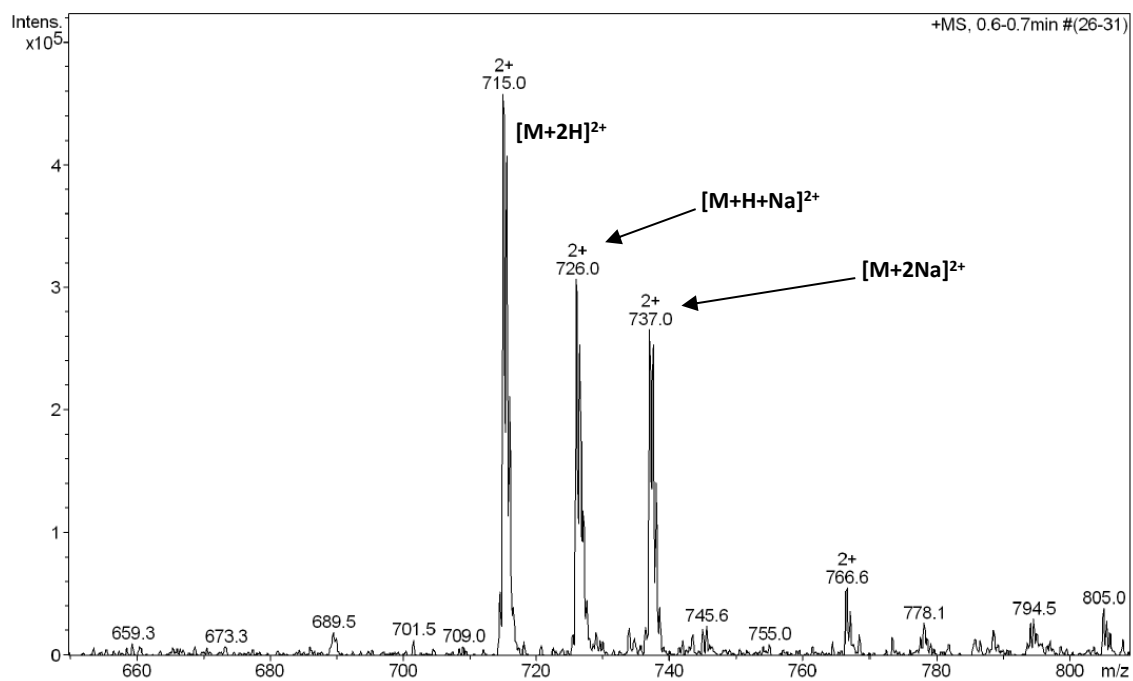
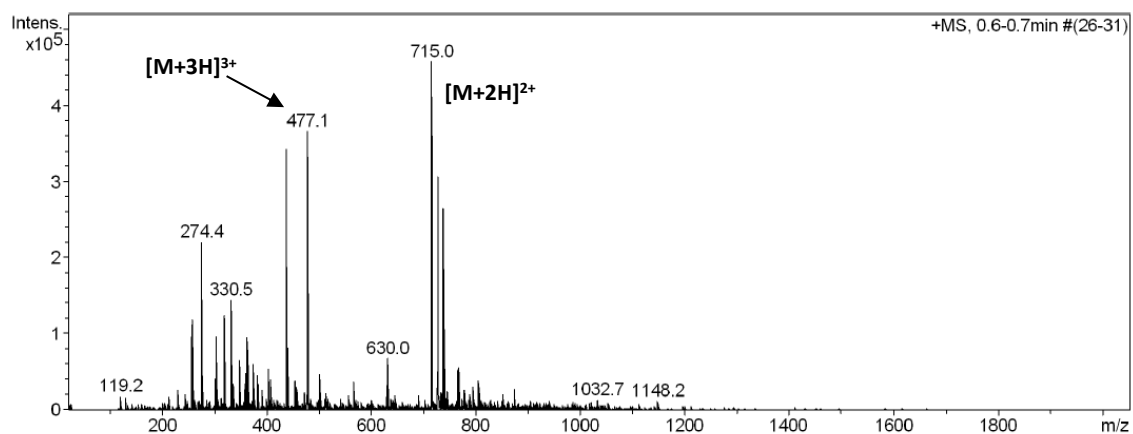
ESI-MS (m/z) (CC-4-LysP2-hexanoic-468)

| |
|-----------------------|
| $[M+H]^+ = 1428.9$ |
| $[M+Na]^+ = 1450.9$ |
| $[M+2H]^{2+} = 714.9$ |
| $[M+3H]^{3+} = 477.0$ |

PURE PRODUCT

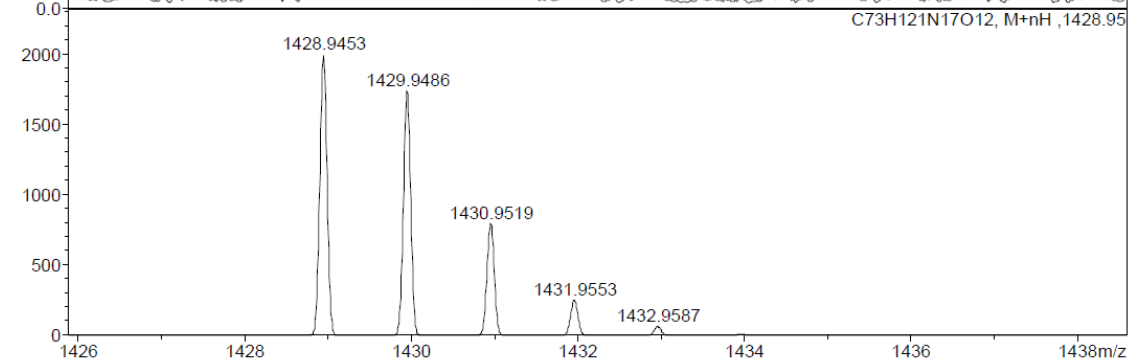
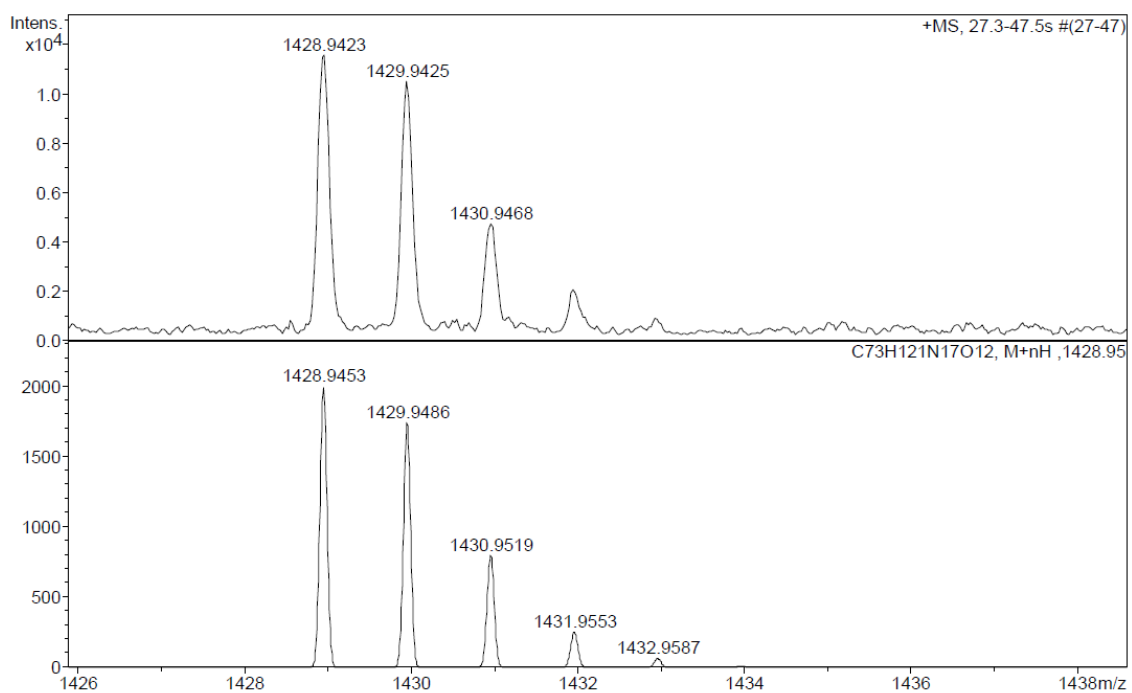
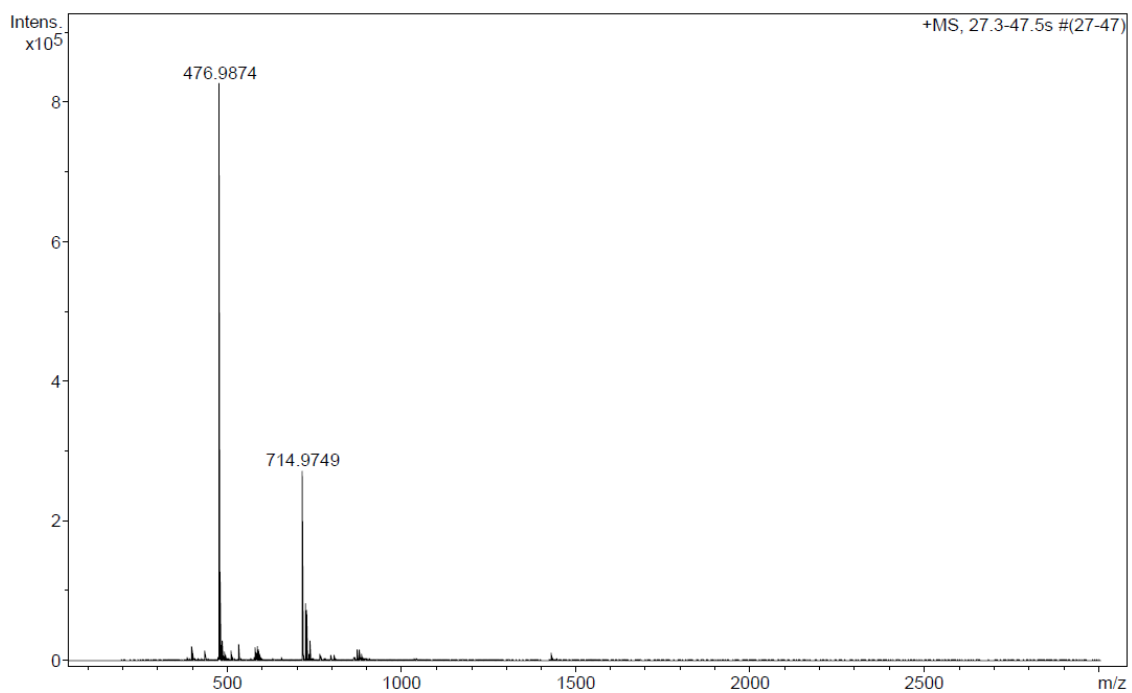
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP2-hexanoic-635 tub 13)

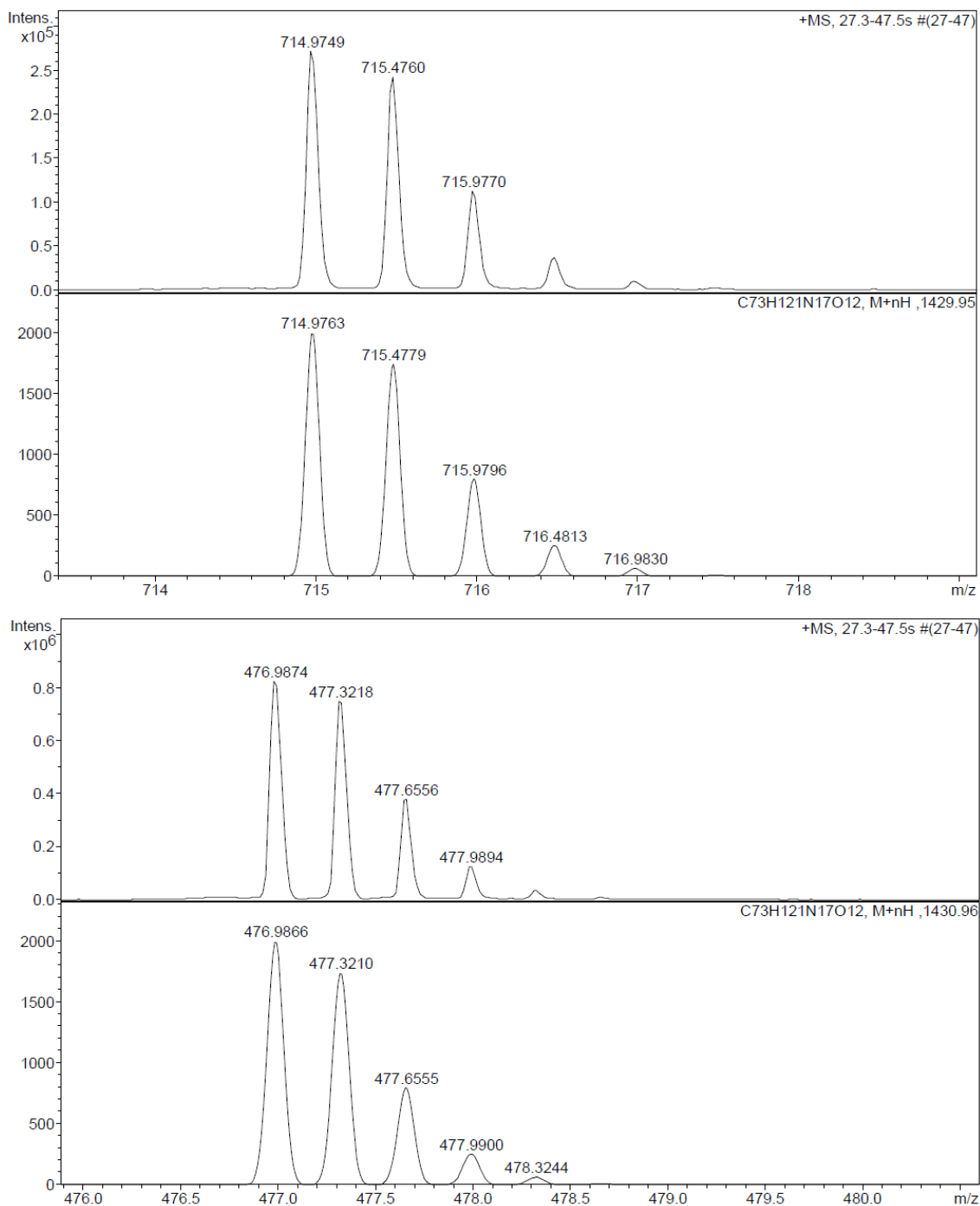
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,34 | 1539,287 | 115,245 | 100,00 |
| Total: | | 1539,287 | 115,245 | 100,00 |

ESI-MS (m/z) (CC-4-LysP2-hexanoic-635 tub 13)

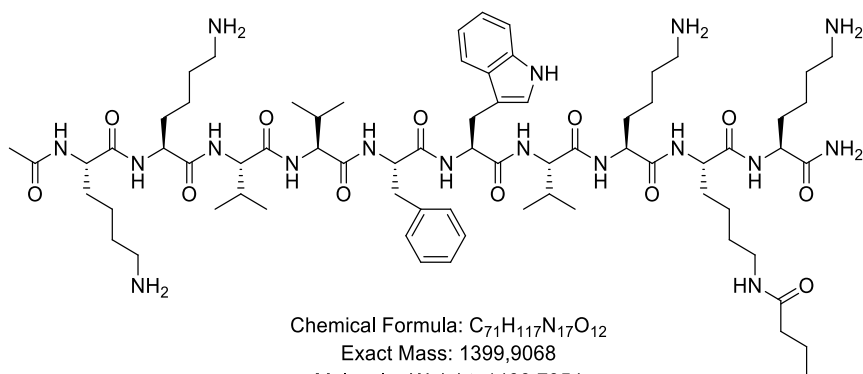
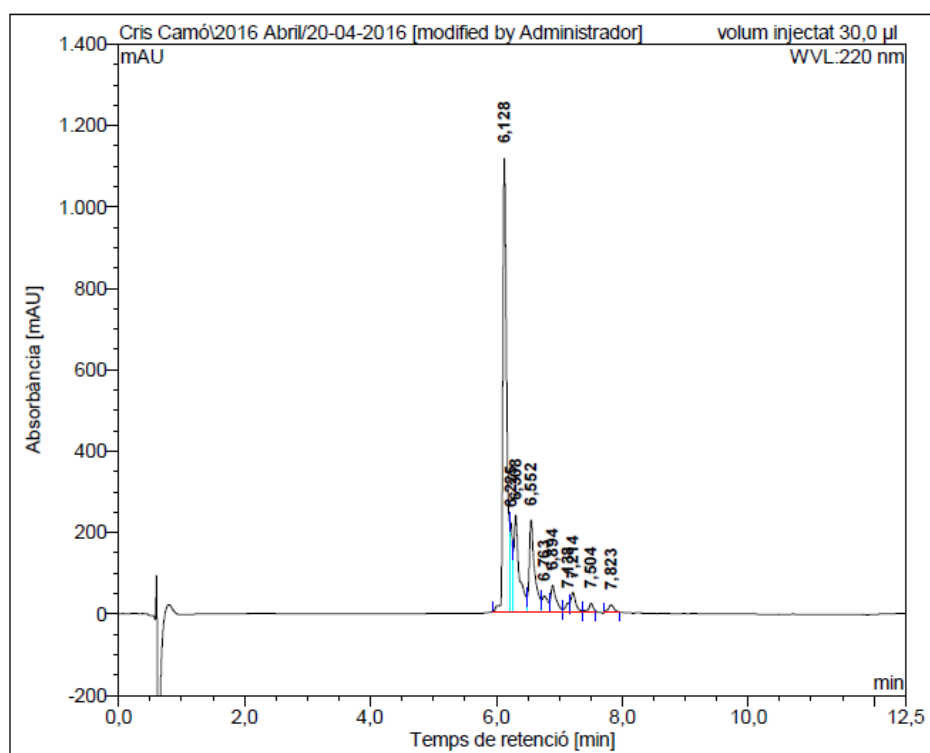
| |
|-------------------------|
| $[M+H]^+ = 1429.1$ |
| $[M+Na]^+ = 1451.1$ |
| $[M+2H]^{2+} = 715.0$ |
| $[M+H+Na]^{2+} = 726.0$ |
| $[M+3H]^{3+} = 477.1$ |

HRMS (ESI) (m/z) (CC-4-LysP2-hexanoic-635 tubs 9-15)



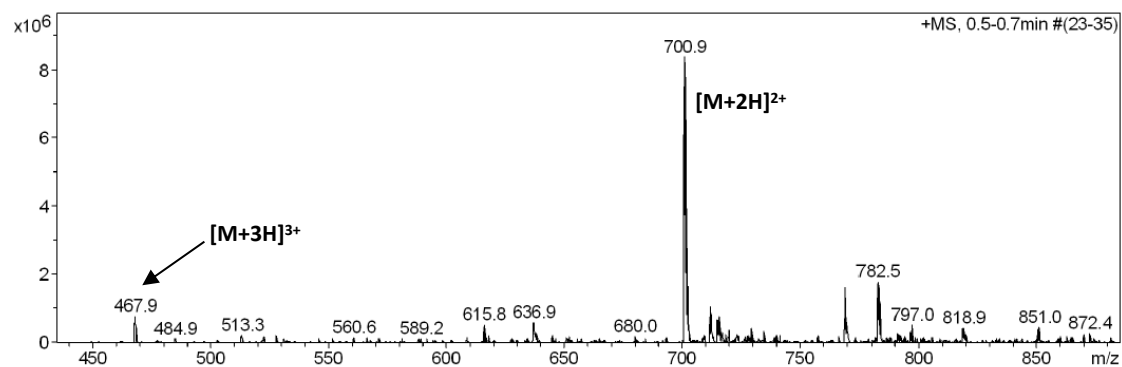
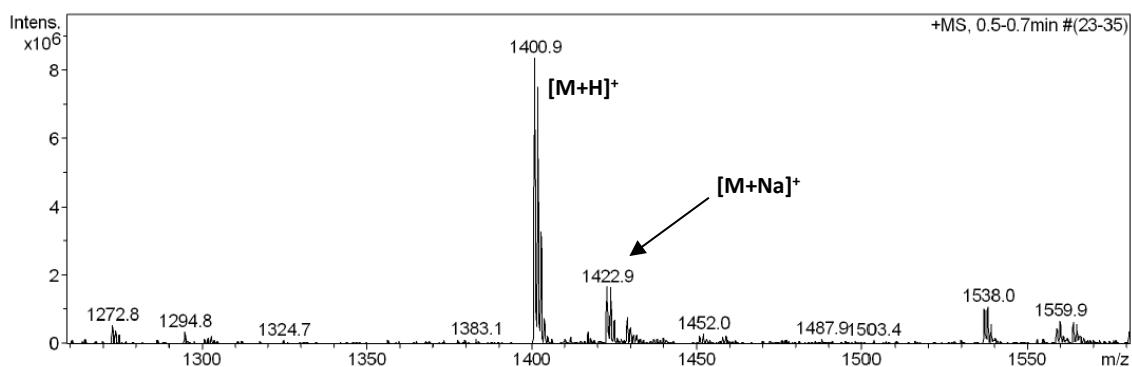
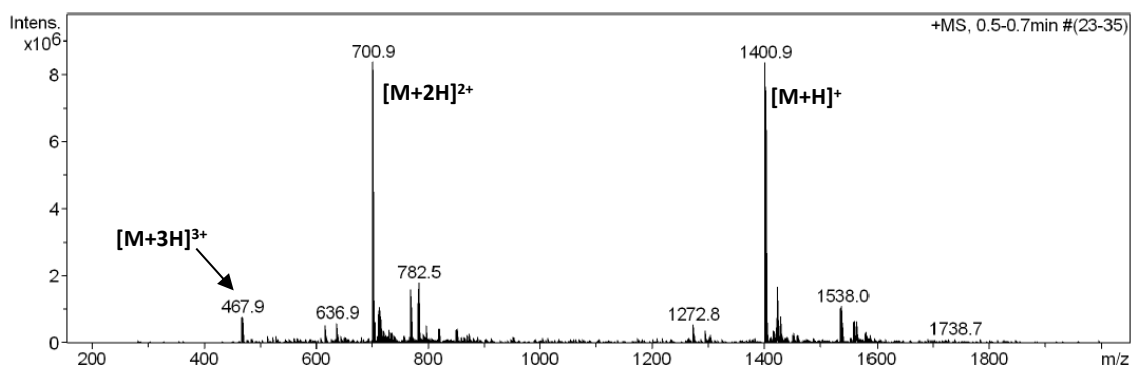


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]²⁺ | C ₇₃ H ₁₂₂ N ₁₇ O ₁₂ | 1428.9453 | 1428.9423 |
| [M+2H]²⁺ | C ₇₃ H ₁₂₃ N ₁₇ O ₁₂ | 714.9763 | 714.9749 |
| [M+3H]³⁺ | C ₇₃ H ₁₂₄ N ₁₇ O ₁₂ | 476.9866 | 476.9874 |

$\text{CH}_3\text{CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Lys(CO-C}_3\text{H}_7\text{)-Lys-NH}_2$ (**BP416**)
**IMPURE PRODUCT****HPLC ($\lambda = 220$ nm) (CC-4-LysP2-butíric-637 impur)**

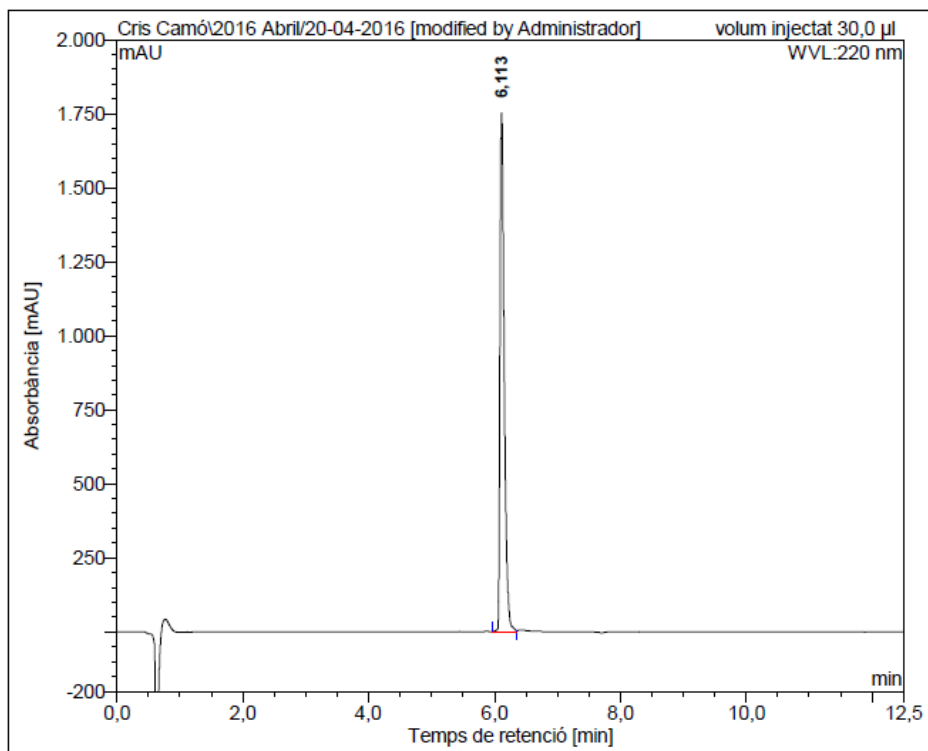
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,13 | 1113,308 | 77,578 | 50,17 |
| 2 | 6,23 | 220,570 | 11,111 | 7,19 |
| 3 | 6,31 | 236,412 | 23,679 | 15,31 |
| 4 | 6,55 | 225,611 | 22,773 | 14,73 |
| 5 | 6,76 | 38,314 | 3,887 | 2,51 |
| 6 | 6,89 | 64,809 | 6,395 | 4,14 |
| 7 | 7,14 | 21,339 | 1,495 | 0,97 |
| 8 | 7,21 | 47,483 | 4,286 | 2,77 |
| 9 | 7,50 | 20,477 | 1,657 | 1,07 |
| 10 | 7,82 | 17,417 | 1,778 | 1,15 |
| Total: | | 2005,739 | 154,640 | 100,00 |

ESI-MS (m/z) (CC-4-LysP2-butíric-481)

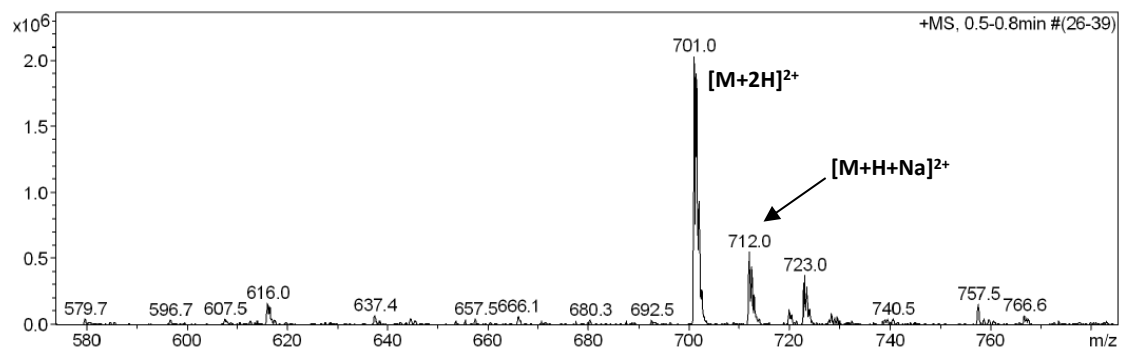
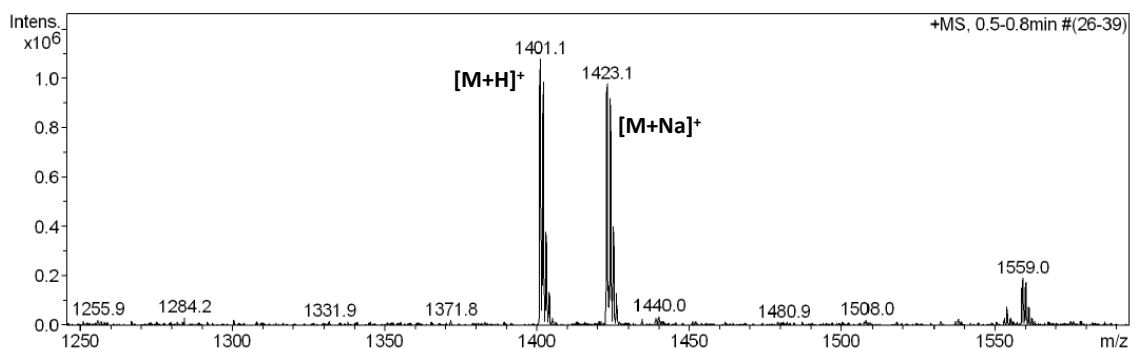
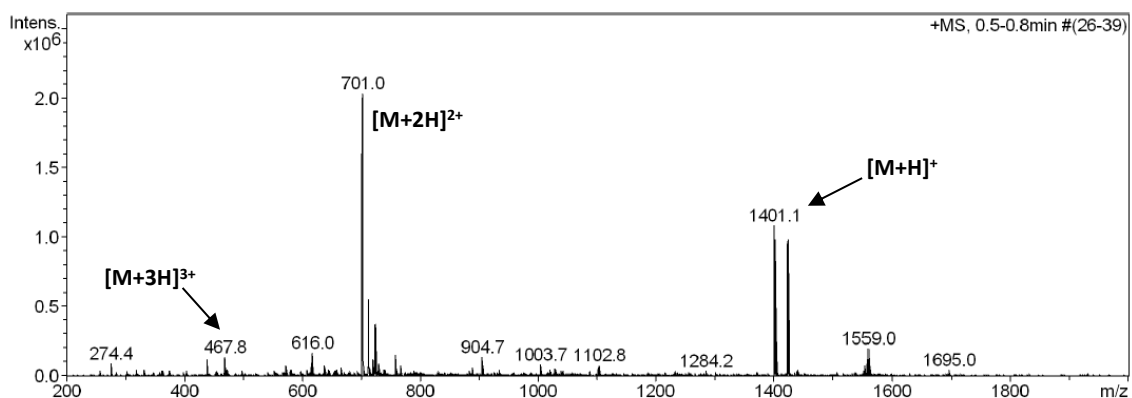


| |
|-----------------------|
| $[M+H]^+ = 1400.9$ |
| $[M+Na]^+ = 1422.9$ |
| $[M+2H]^{2+} = 700.9$ |
| $[M+3H]^{3+} = 467.9$ |

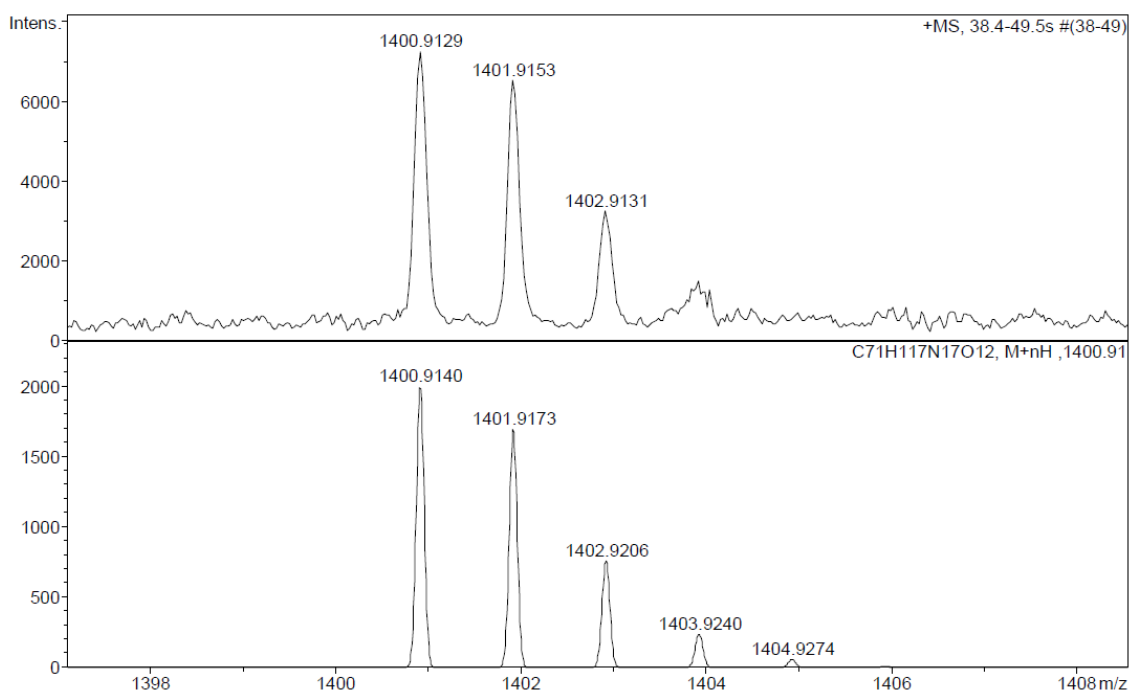
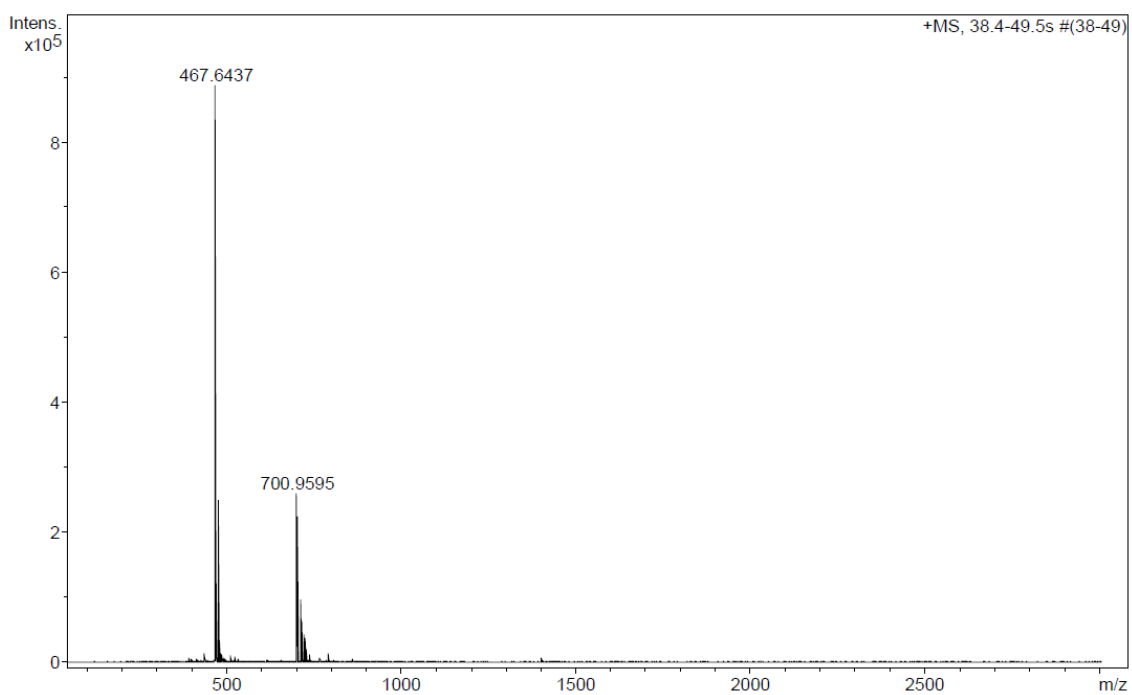
PURE PRODUCT

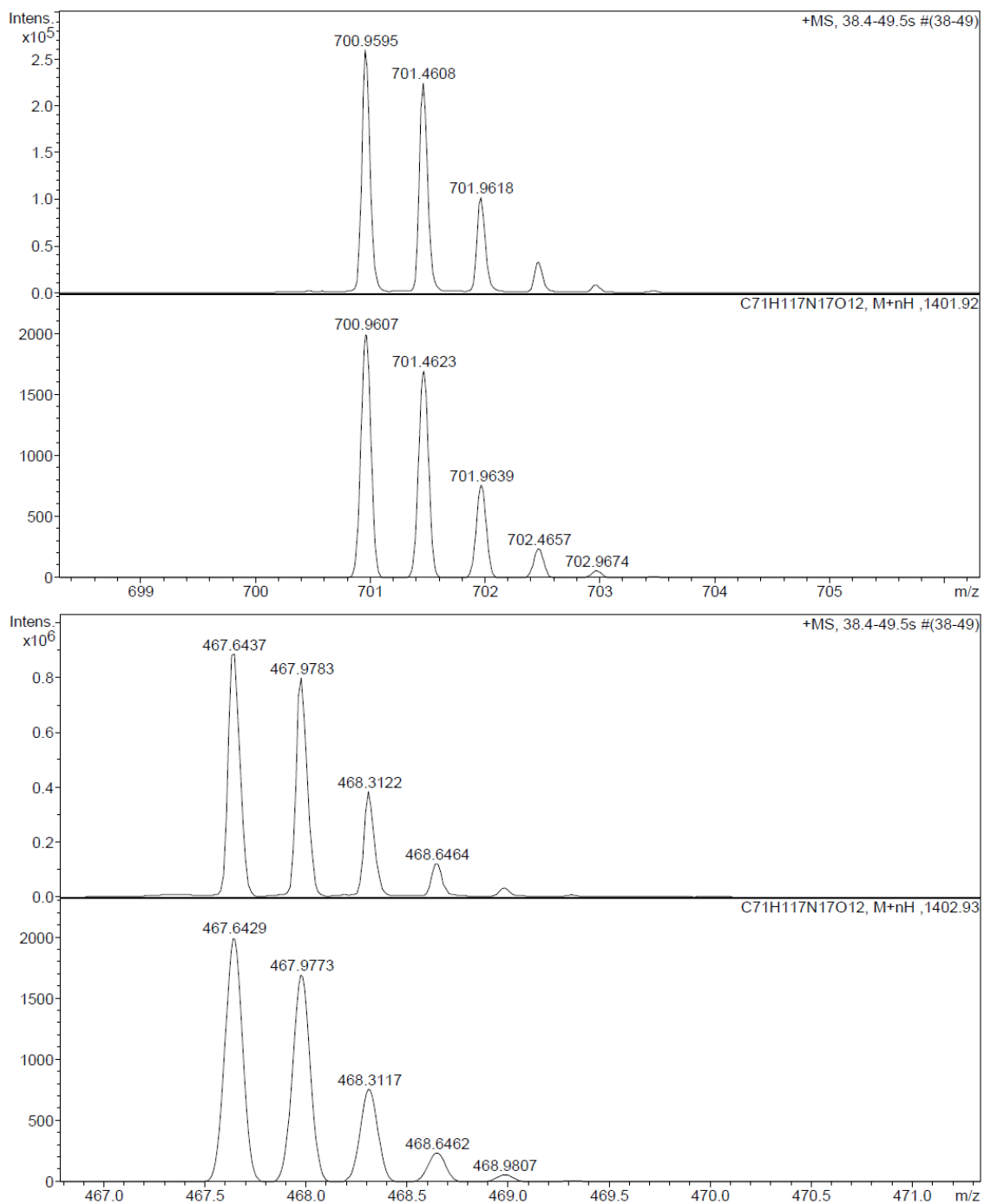
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP2-butíric-637 tub 13)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 1753,056 | 138,460 | 100,00 |
| Total: | | 1753,056 | 138,460 | 100,00 |

ESI-MS (*m/z*) (CC-4-LysP2-butiric-637 tub 13)

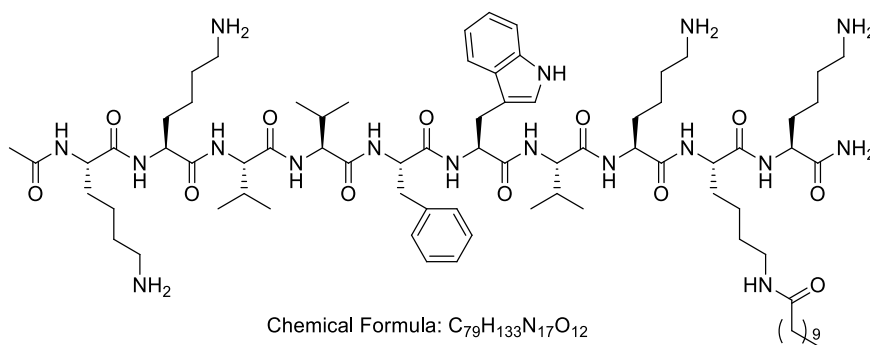
| |
|-------------------------|
| $[M+H]^+ = 1401.1$ |
| $[M+Na]^+ = 1423.1$ |
| $[M+2H]^{2+} = 701.0$ |
| $[M+H+Na]^{2+} = 712.0$ |
| $[M+3H]^{3+} = 467.8$ |

HRMS (ESI) (m/z) (CC-4-LysP2-butíric-637 tubs 9-14)



| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{71}H_{118}N_{17}O_{12}$ | 1400.9140 | 1400.9129 |
| $[M+2H]^{2+}$ | $C_{71}H_{119}N_{17}O_{12}$ | 700.9607 | 700.9595 |
| $[M+3H]^{3+}$ | $C_{71}H_{120}N_{17}O_{12}$ | 467.6429 | 467.6437 |

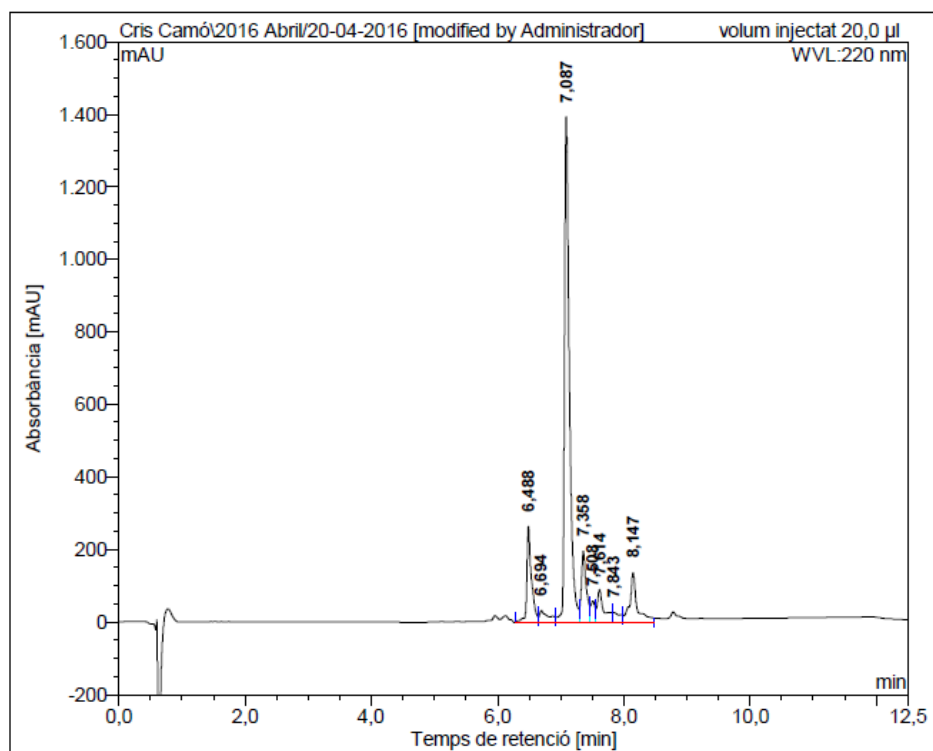
CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Lys(CO-C₁₁H₂₃)-Lys-NH₂ (**BP417**)



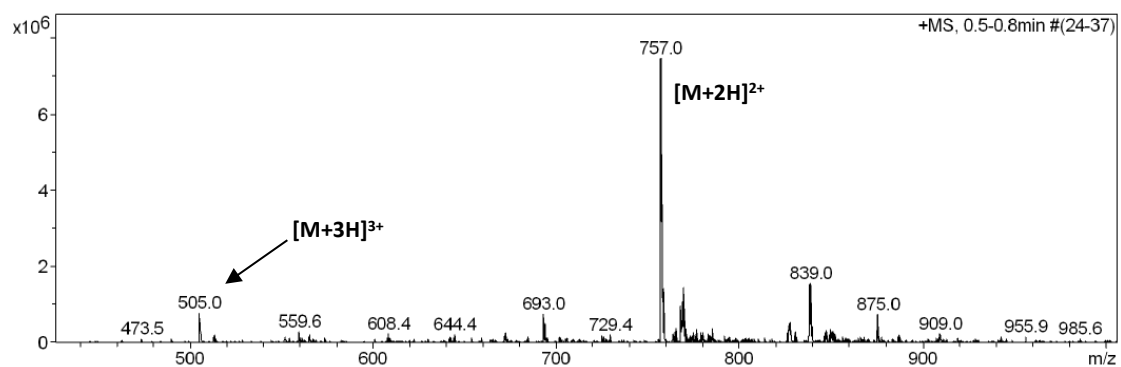
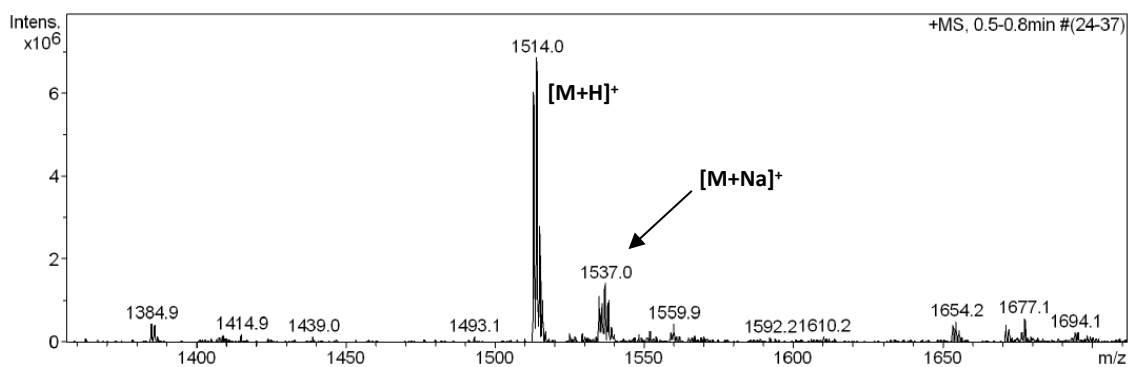
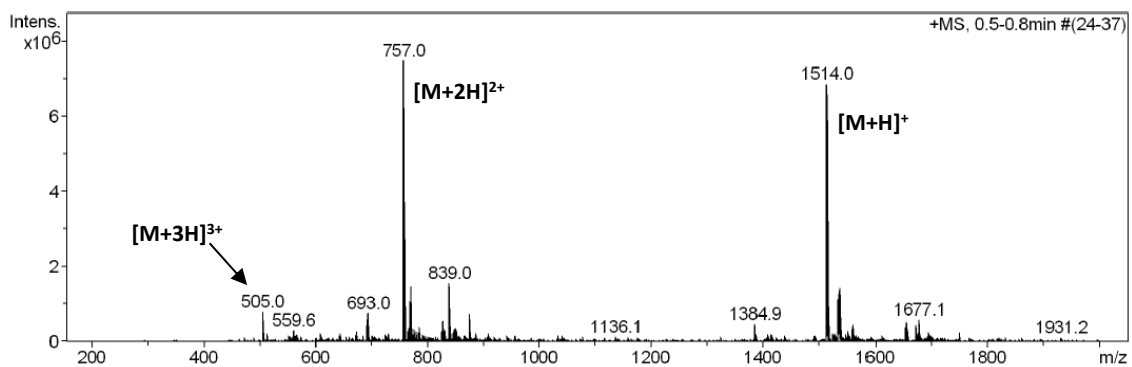
Chemical Formula: C₇₉H₁₃₃N₁₇O₁₂
 Exact Mass: 1512,0320
 Molecular Weight: 1513,0080

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP2-làuric-639 impur)

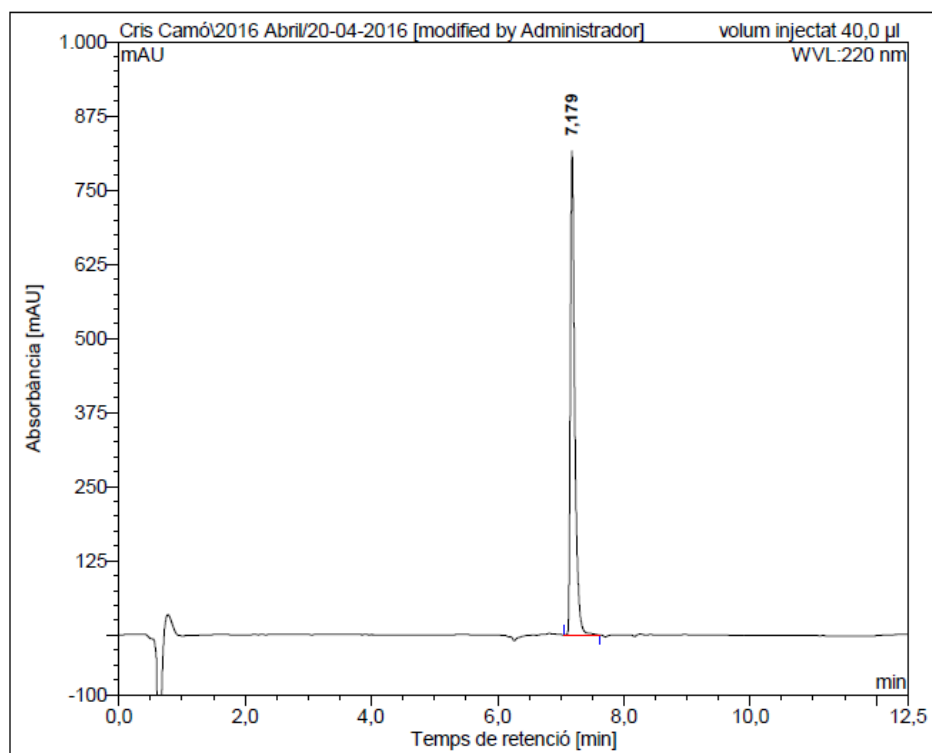


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,49 | 264,918 | 23,000 | 10,91 |
| 2 | 6,69 | 32,811 | 5,515 | 2,62 |
| 3 | 7,09 | 1394,433 | 125,250 | 59,43 |
| 4 | 7,36 | 195,727 | 18,025 | 8,55 |
| 5 | 7,51 | 59,827 | 4,873 | 2,31 |
| 6 | 7,61 | 90,601 | 11,043 | 5,24 |
| 7 | 7,84 | 27,858 | 4,036 | 1,92 |
| 8 | 8,15 | 137,683 | 19,013 | 9,02 |
| Total: | | 2203,858 | 210,756 | 100,00 |

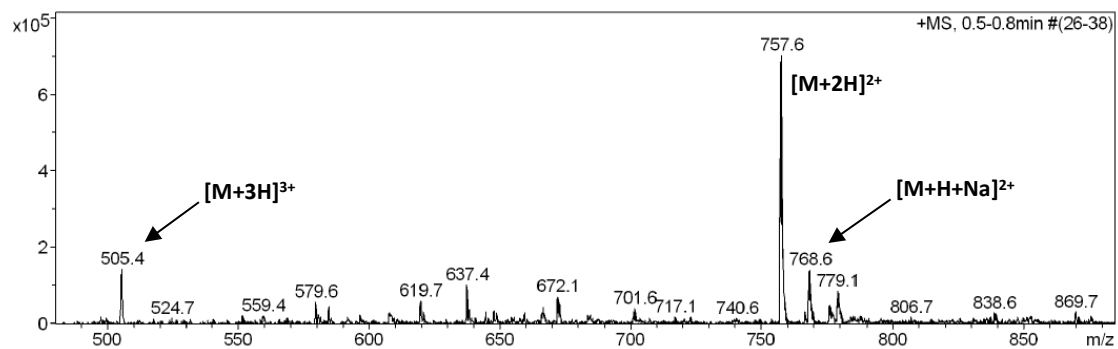
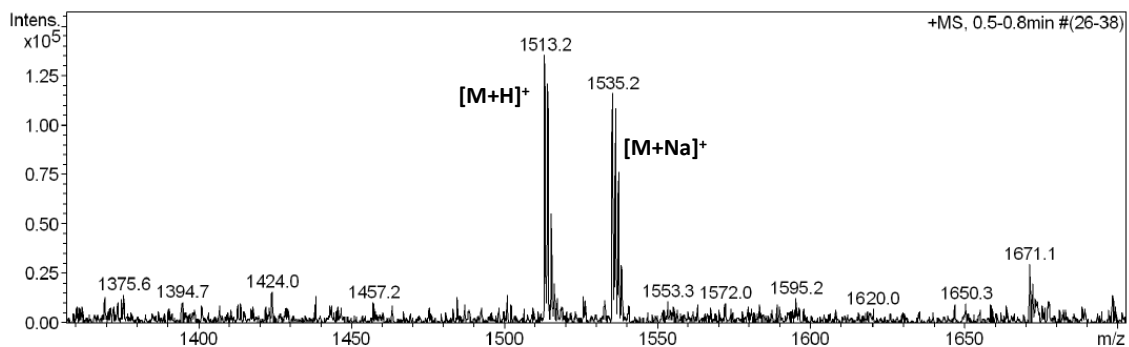
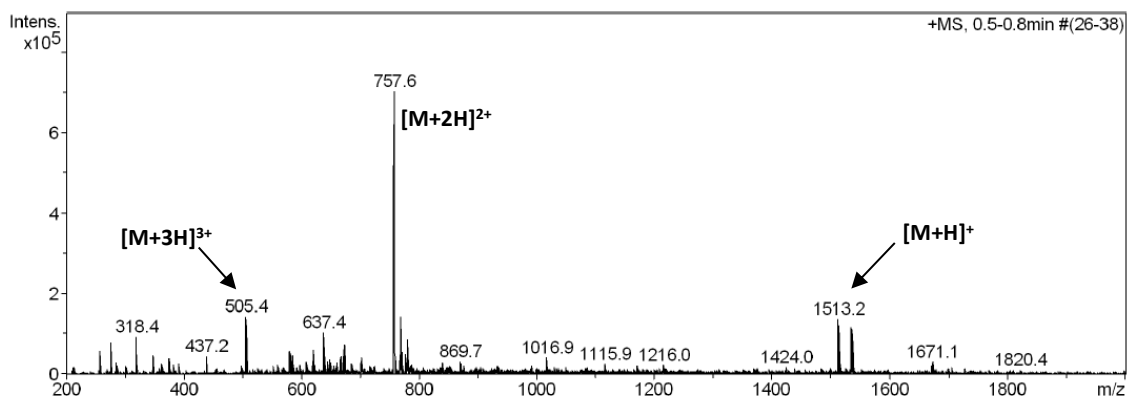
ESI-MS (m/z) (CC-4-LysP2-làuric-481)

| |
|-----------------------|
| $[M+H]^+ = 1514.0$ |
| $[M+Na]^+ = 1537.0$ |
| $[M+2H]^{2+} = 757.0$ |
| $[M+3H]^{3+} = 505.0$ |

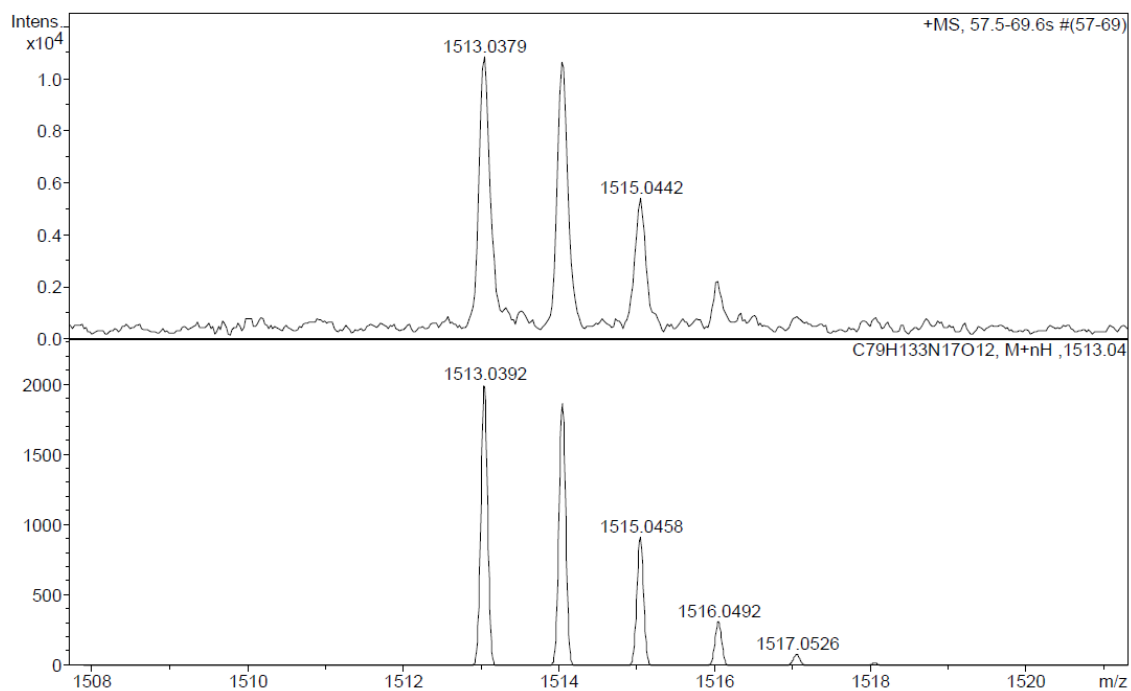
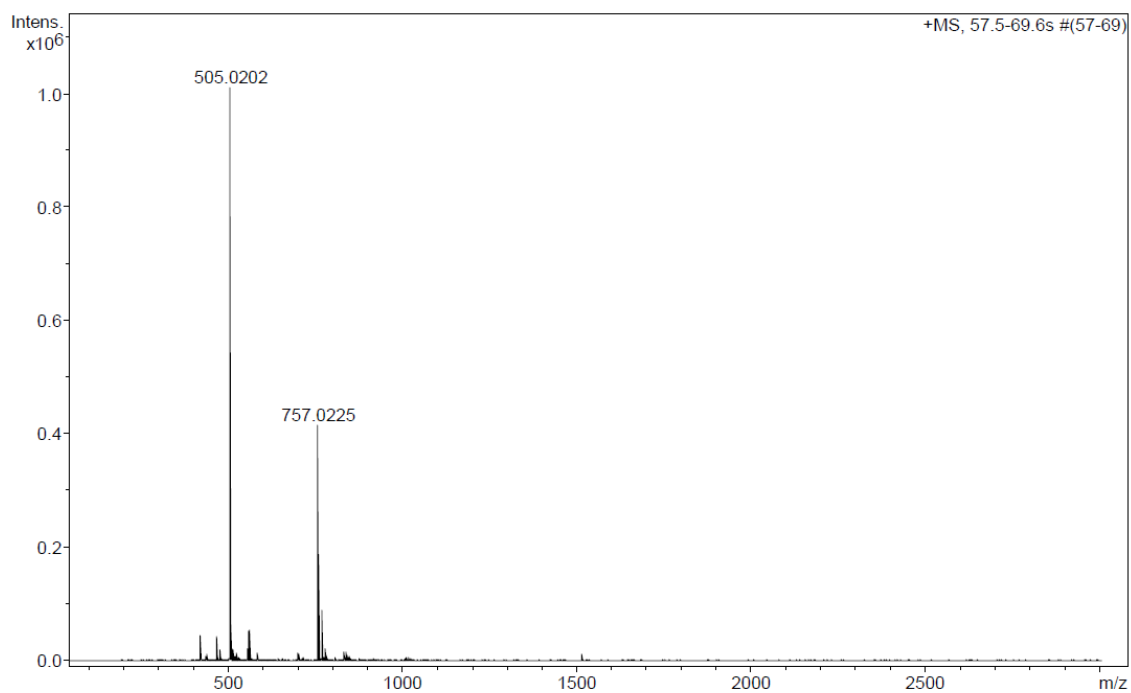
PURE PRODUCT

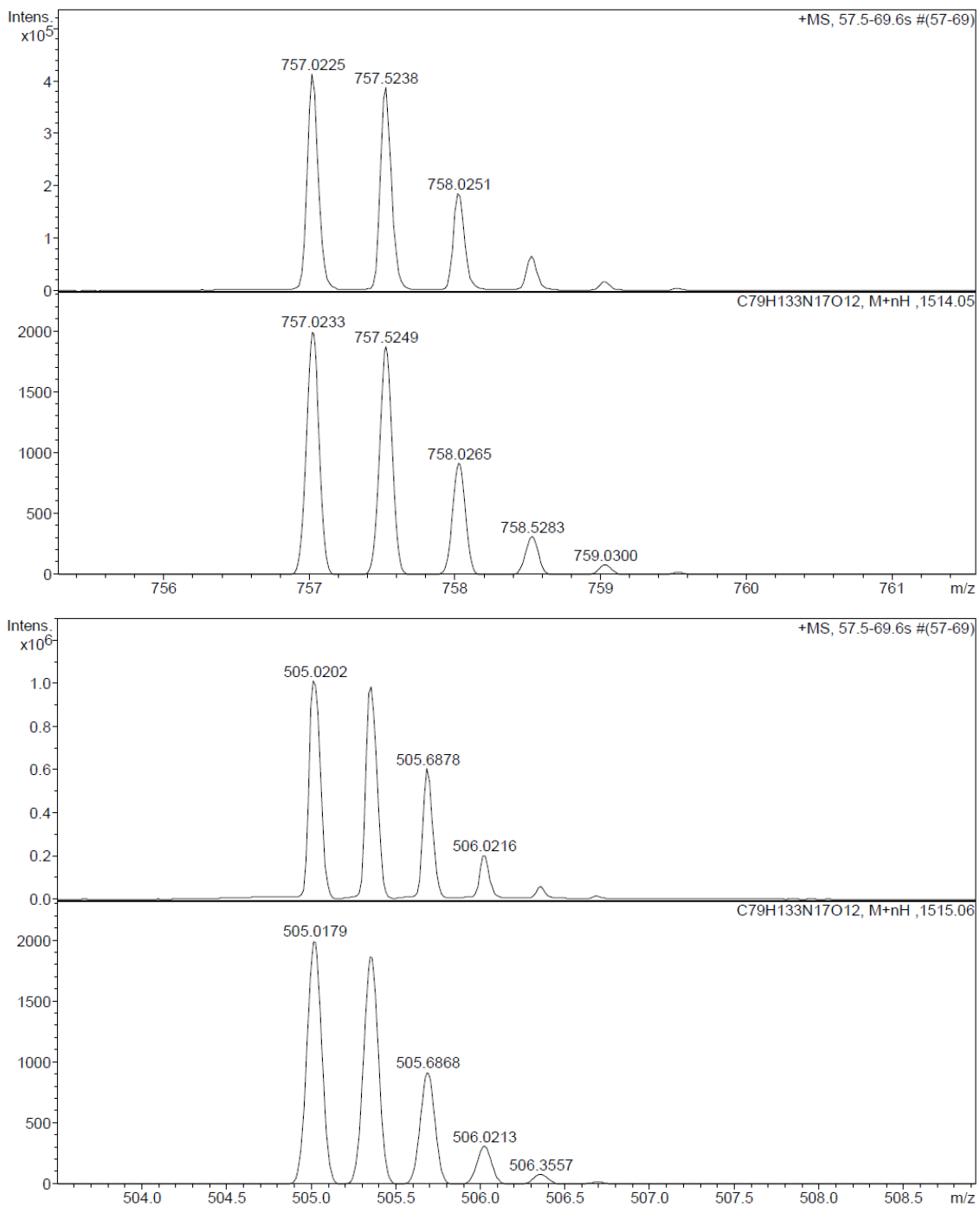
HPLC ($\lambda = 220$ nm) (CC-4-LysP2-làuric-639 tub 23)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,18 | 815,979 | 65,470 | 100,00 |
| Total: | | 815,979 | 65,470 | 100,00 |

ESI-MS (m/z) (CC-4-LysP2-làuric-639 tub 23)

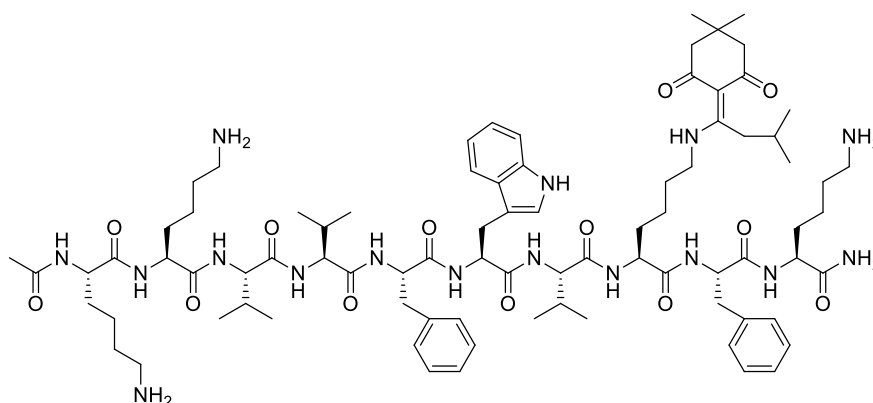
| |
|-------------------------|
| $[M+H]^+ = 1513.2$ |
| $[M+Na]^+ = 1535.2$ |
| $[M+2H]^{2+} = 757.6$ |
| $[M+H+Na]^{2+} = 768.6$ |
| $[M+3H]^{3+} = 505.4$ |

HRMS (ESI) (m/z) (CC-4-LysP2-làuric-639 tubs 18-25)



| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₉ H ₁₃₄ N ₁₇ O ₁₂ | 1513.0392 | 1513.0379 |
| [M+2H] ²⁺ | C ₇₉ H ₁₃₅ N ₁₇ O ₁₂ | 757.0233 | 757.0225 |
| [M+3H] ³⁺ | C ₇₉ H ₁₃₆ N ₁₇ O ₁₂ | 505.0179 | 505.0202 |

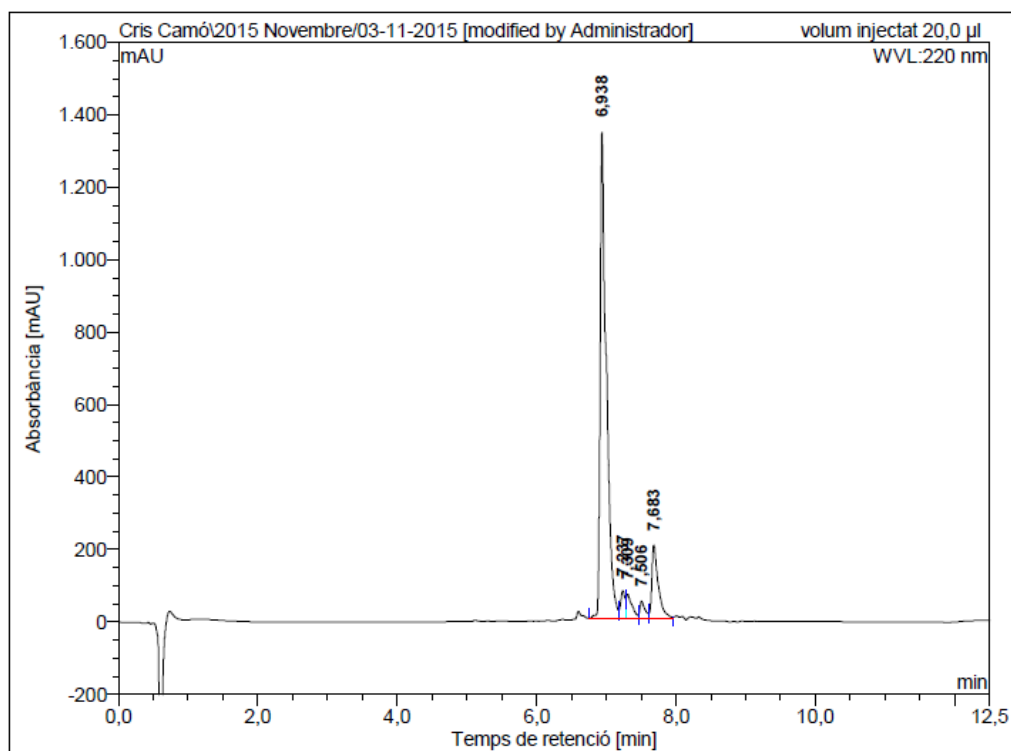
Lipopeptides derived from KSLW acylated at position 8

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys(ivDde)-Phe-Lys-NH₂Chemical Formula: C₈₃H₁₂₆N₁₆O₁₃

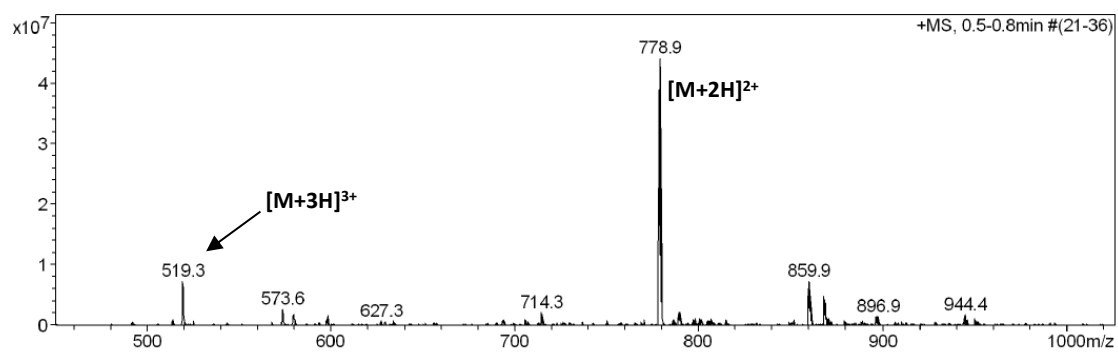
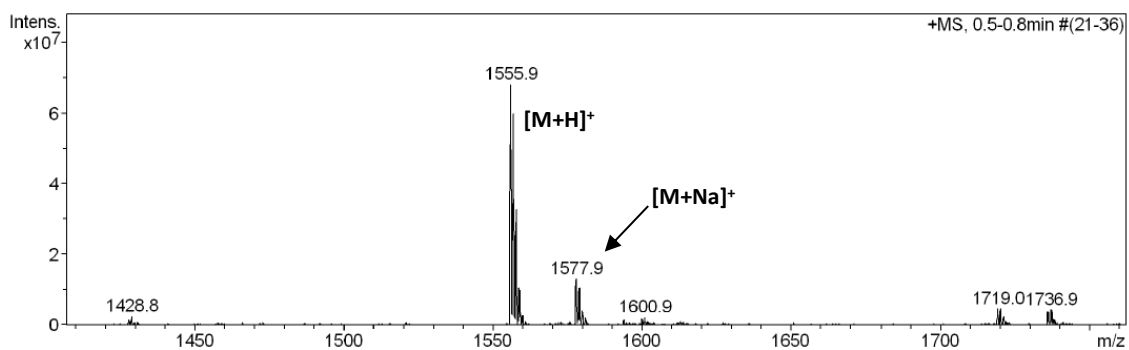
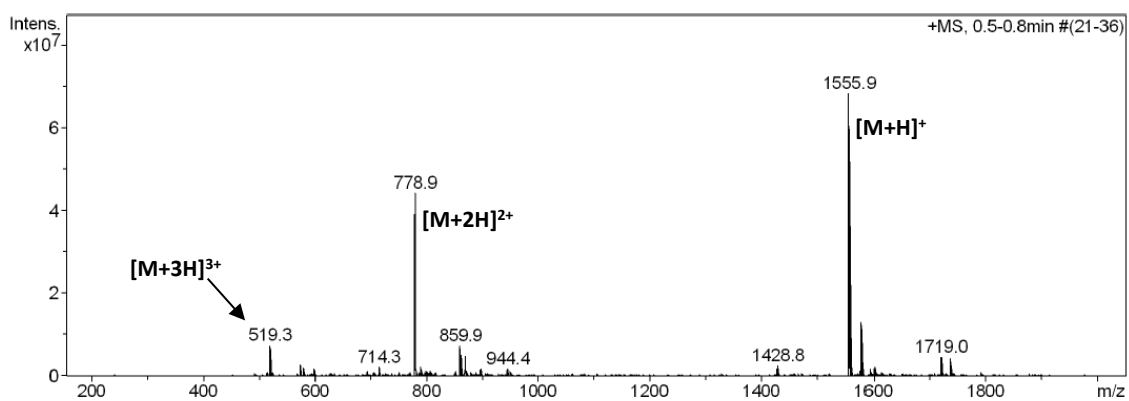
Exact Mass: 1554,9690

Molecular Weight: 1555,9879

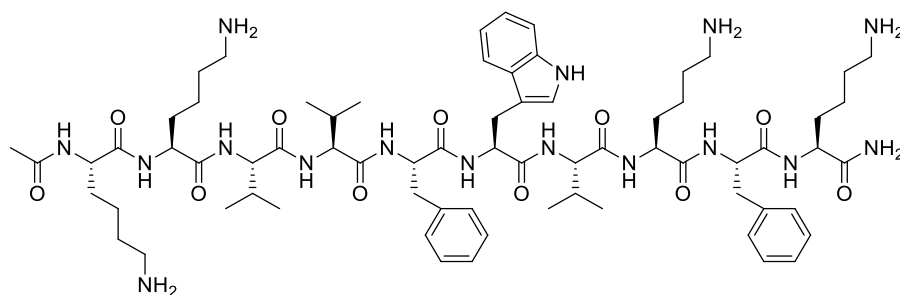
HPLC (λ = 220 nm) (CC-4-LysP3-413)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,94 | 1342,294 | 138,656 | 78,53 |
| 2 | 7,24 | 76,362 | 5,532 | 3,13 |
| 3 | 7,31 | 67,015 | 6,688 | 3,79 |
| 4 | 7,51 | 48,072 | 4,031 | 2,28 |
| 5 | 7,68 | 202,252 | 21,655 | 12,26 |
| Total: | | 1735,995 | 176,563 | 100,00 |

ESI-MS (m/z) (CC-4-LysP3-413)

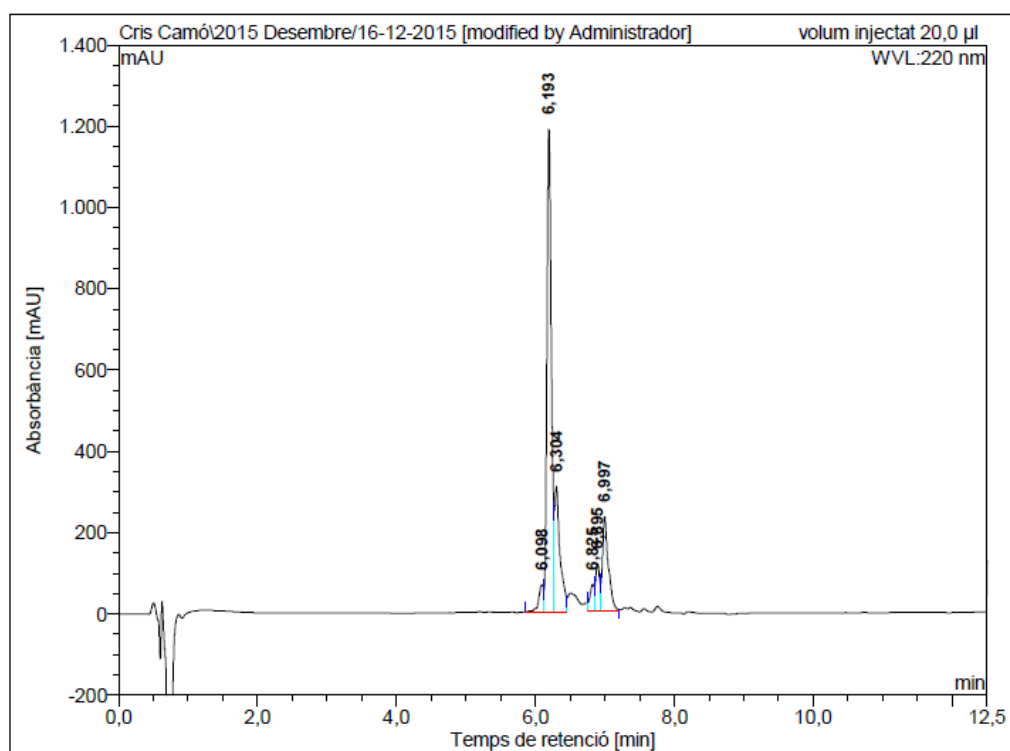
| |
|-----------------------|
| $[M+H]^+ = 1555.9$ |
| $[M+Na]^+ = 1577.9$ |
| $[M+2H]^{2+} = 778.9$ |
| $[M+3H]^{3+} = 519.3$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Phe-Lys-NH₂Chemical Formula: C₇₀H₁₀₈N₁₆O₁₁

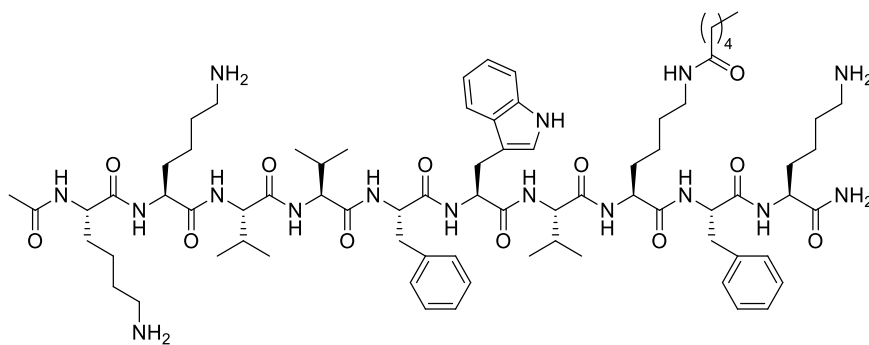
Exact Mass: 1348,8383

Molecular Weight: 1349,7071

HPLC (λ = 220 nm) (CC-4-LysP3-hexanoic-473)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,10 | 66,683 | 5,598 | 3,55 |
| 2 | 6,19 | 1187,614 | 89,081 | 56,52 |
| 3 | 6,30 | 308,514 | 28,117 | 17,84 |
| 4 | 6,83 | 64,764 | 4,349 | 2,76 |
| 5 | 6,89 | 115,937 | 7,943 | 5,04 |
| 6 | 7,00 | 232,259 | 22,534 | 14,30 |
| Total: | | 1975,770 | 157,621 | 100,00 |

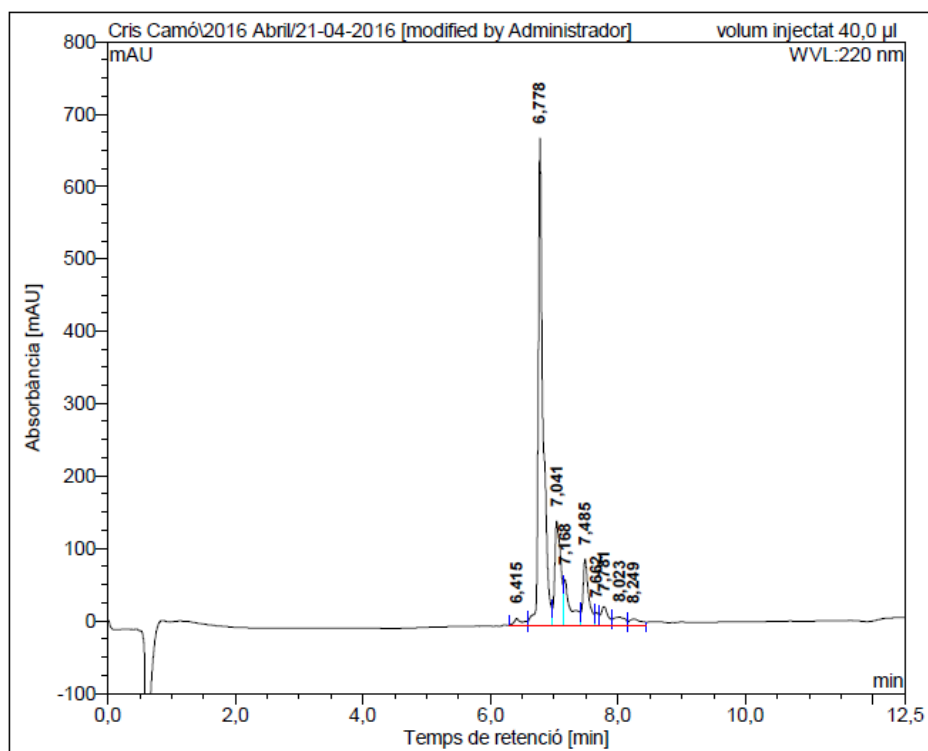
CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys(CO-C₅H₁₁)-Phe-Lys-NH₂ (**BP418**)Chemical Formula: C₇₆H₁₁₈N₁₆O₁₂

Exact Mass: 1446,9115

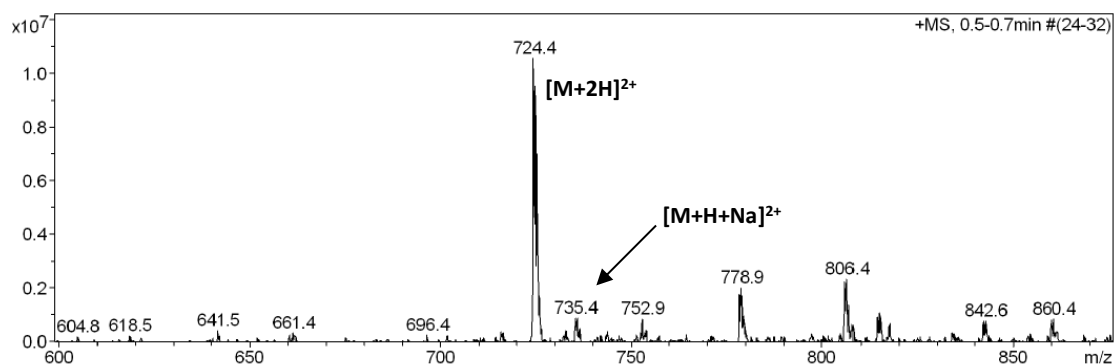
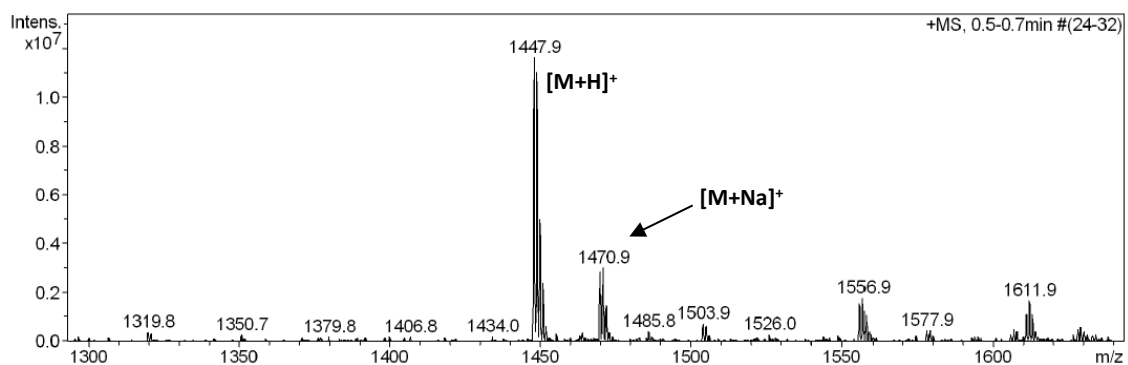
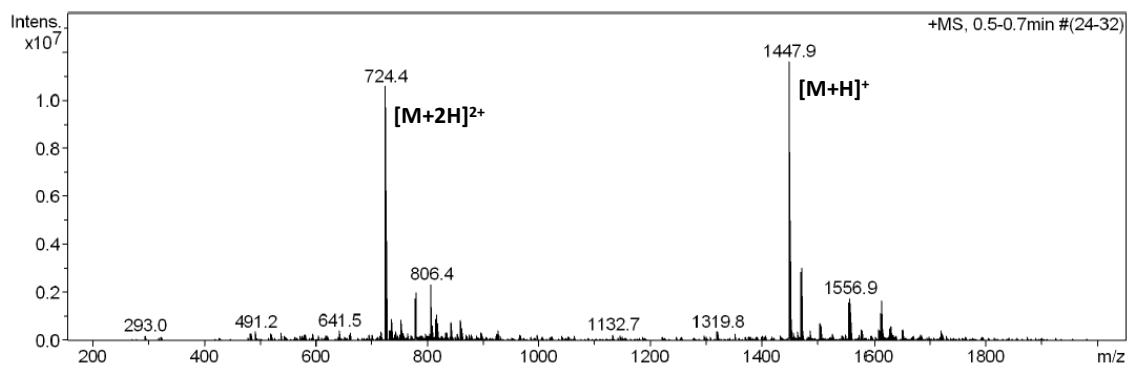
Molecular Weight: 1447,8501

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP3-hexanoic-641 impur)

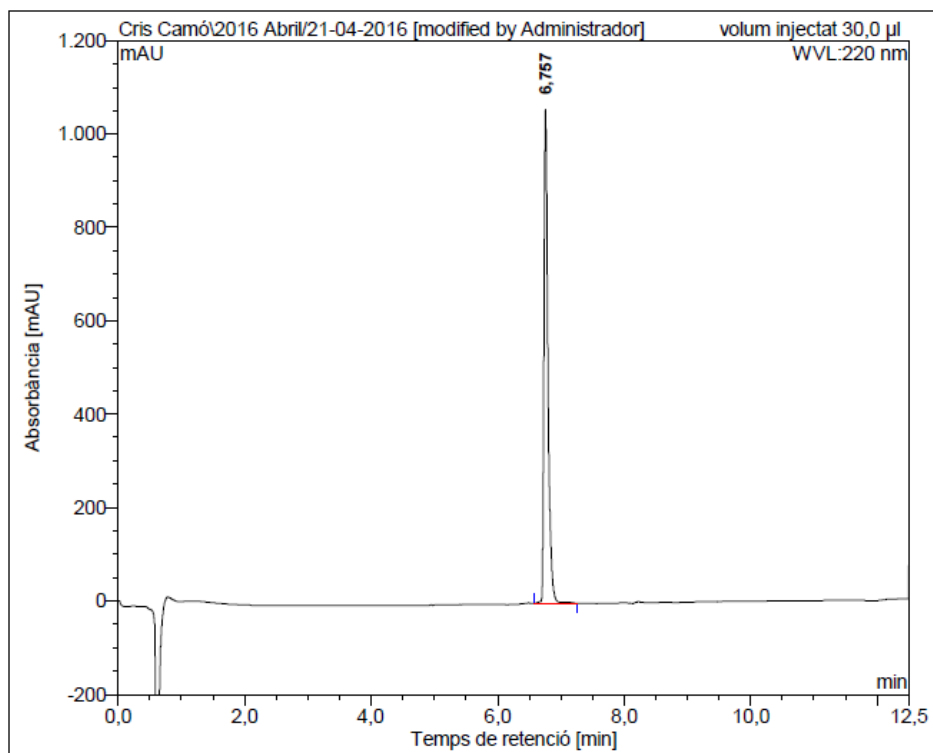


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,41 | 9,105 | 1,438 | 1,39 |
| 2 | 6,78 | 673,564 | 59,905 | 58,03 |
| 3 | 7,04 | 144,374 | 15,341 | 14,86 |
| 4 | 7,17 | 63,058 | 8,321 | 8,06 |
| 5 | 7,49 | 91,323 | 9,313 | 9,02 |
| 6 | 7,66 | 17,658 | 1,316 | 1,27 |
| 7 | 7,78 | 26,132 | 3,336 | 3,23 |
| 8 | 8,02 | 11,609 | 2,376 | 2,30 |
| 9 | 8,25 | 8,905 | 1,879 | 1,82 |
| Total: | | 1045,730 | 103,225 | 100,00 |

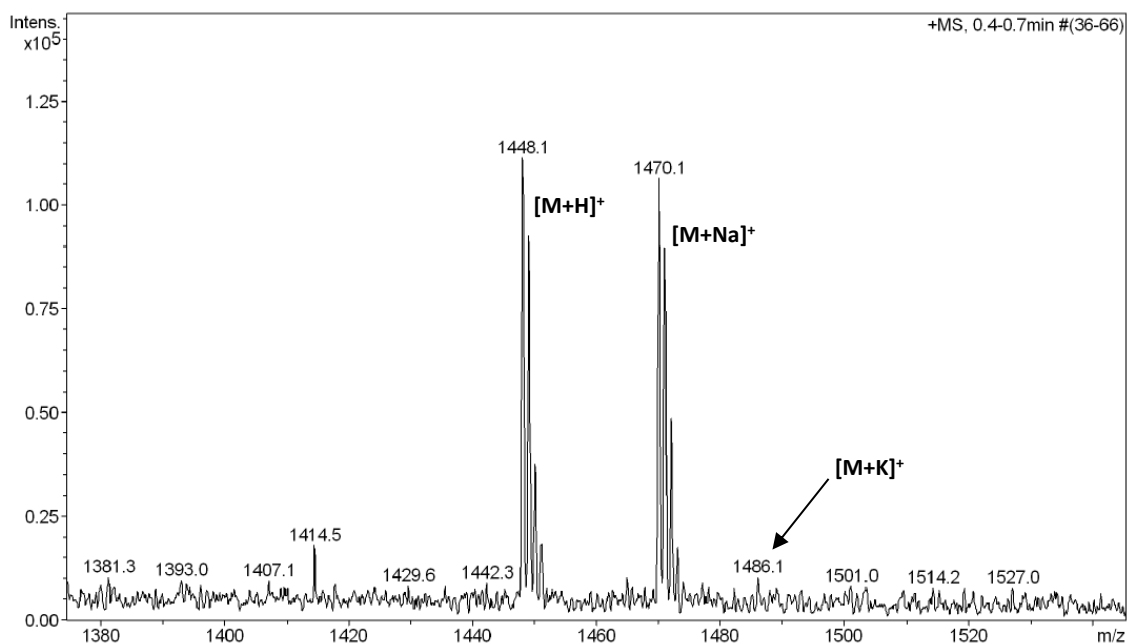
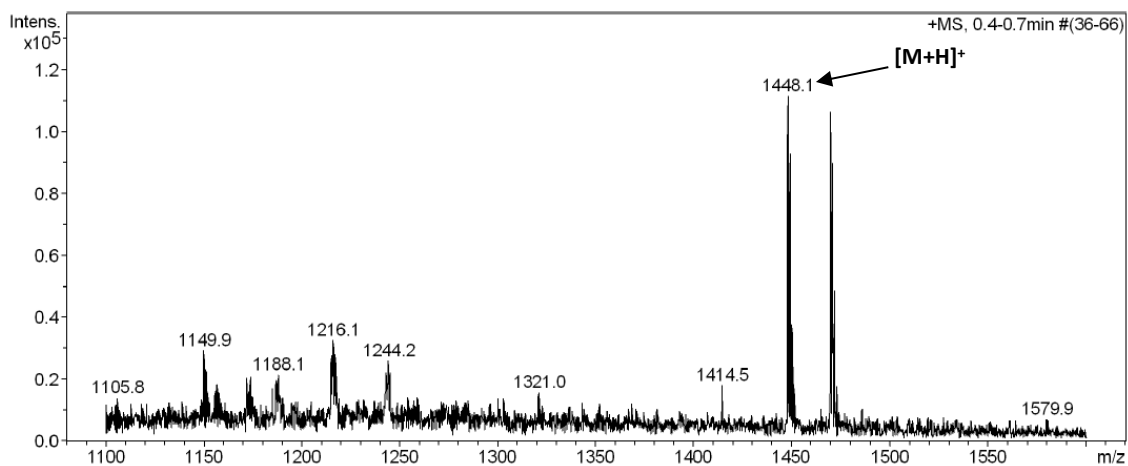
ESI-MS (m/z) (CC-4-LysP3-hexanoic-481)

| |
|-------------------------|
| $[M+H]^+ = 1447.9$ |
| $[M+Na]^+ = 1469.9$ |
| $[M+2H]^{2+} = 724.4$ |
| $[M+H+Na]^{2+} = 735.4$ |

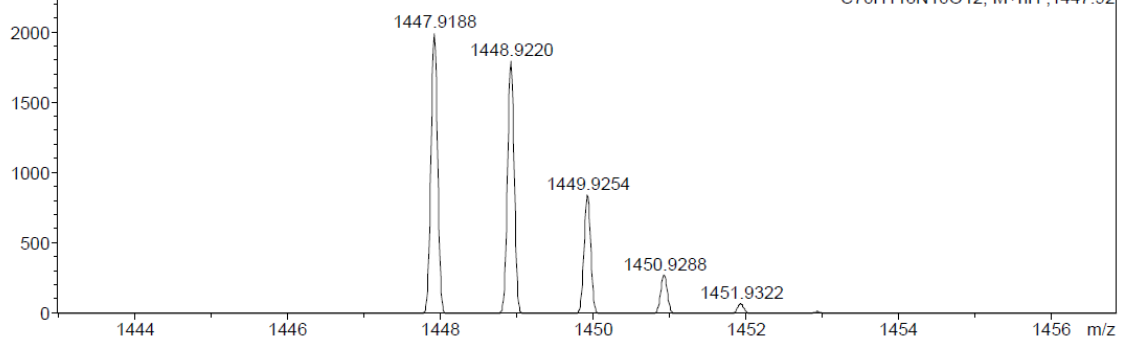
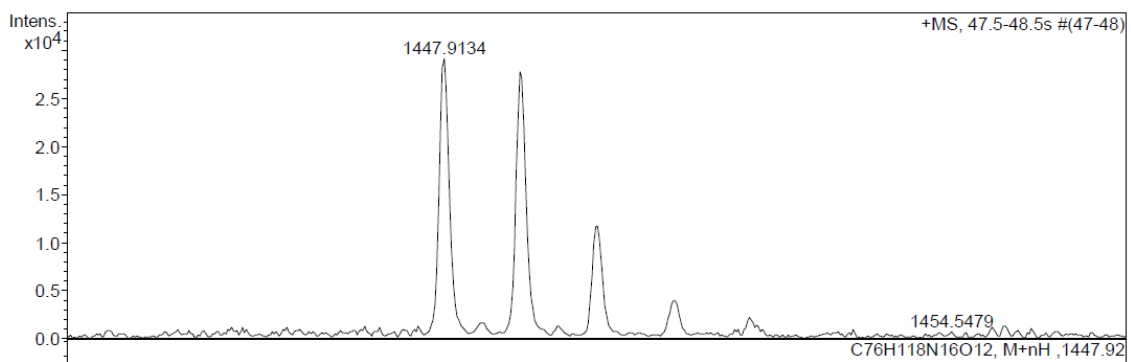
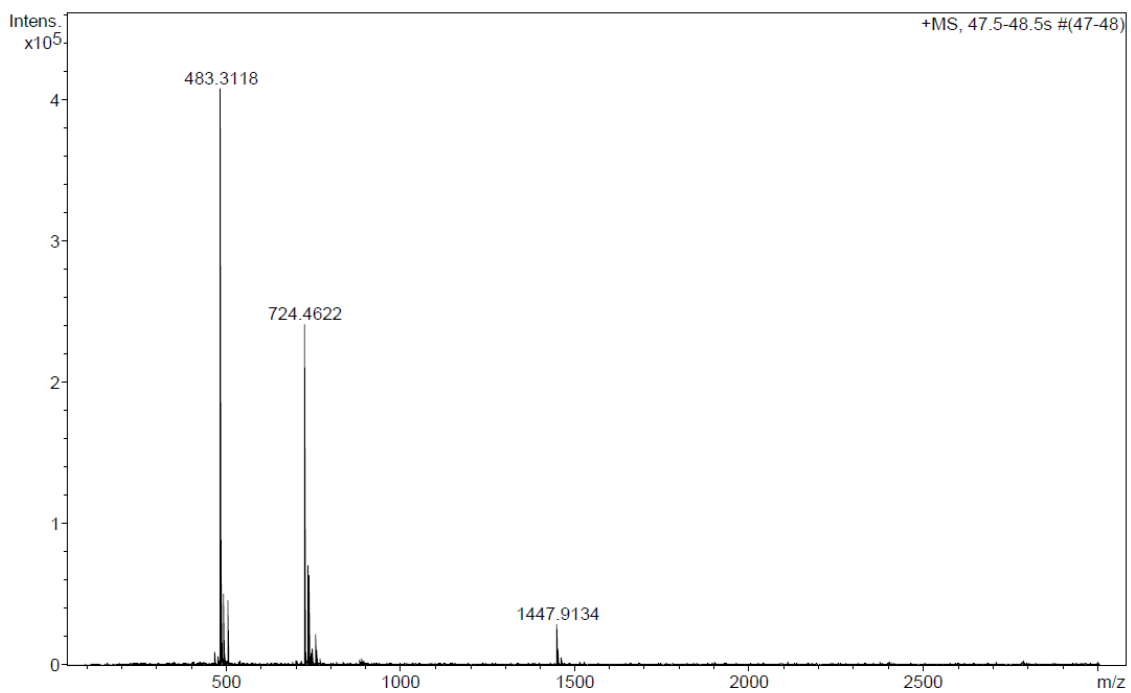
PURE PRODUCT

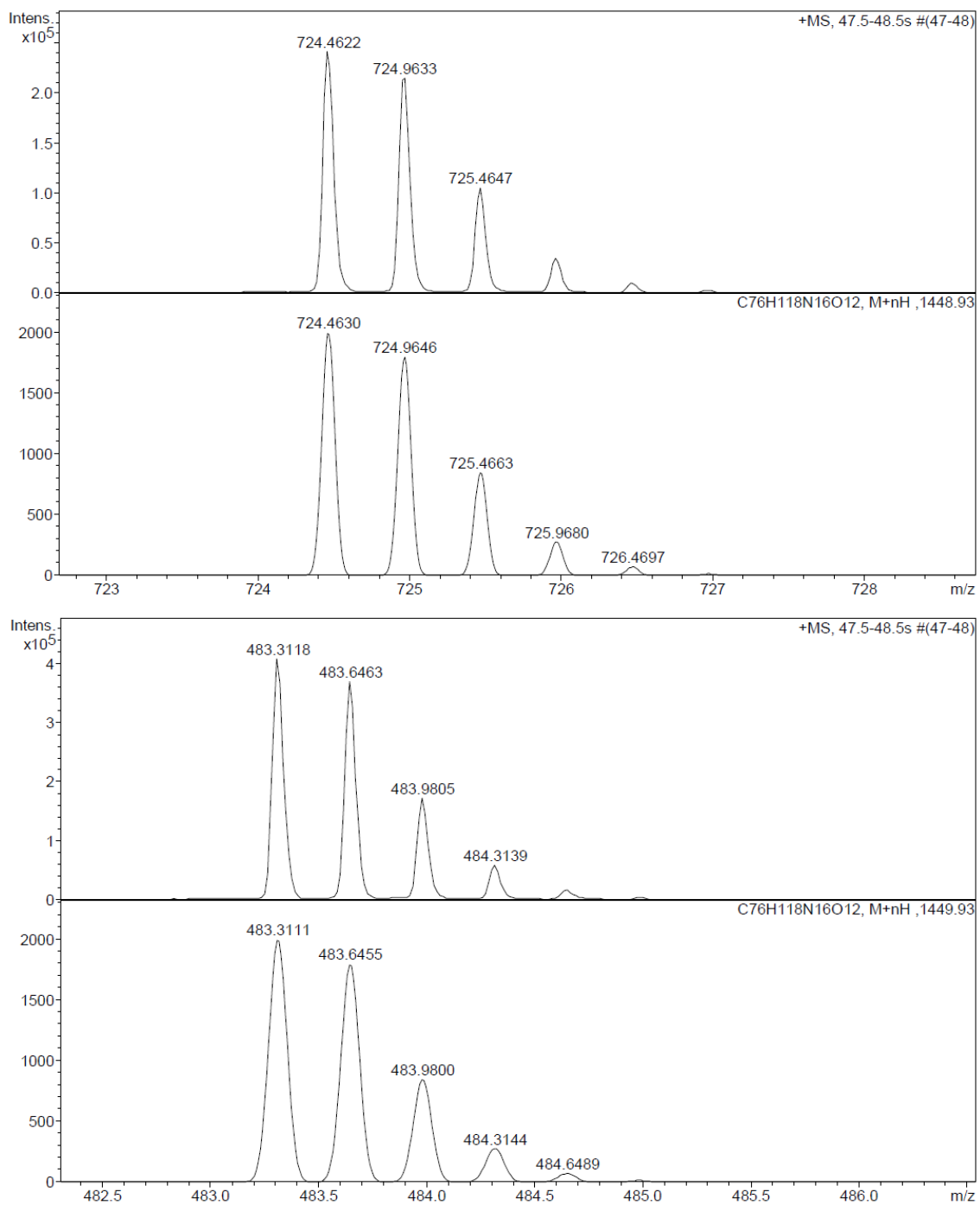
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP3-hexanoic-641 tub 14)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,76 | 1057,808 | 77,141 | 100,00 |
| Total: | | 1057,808 | 77,141 | 100,00 |

ESI-MS (m/z) (CC-4-LysP3-hexanoic-641 tub 14)

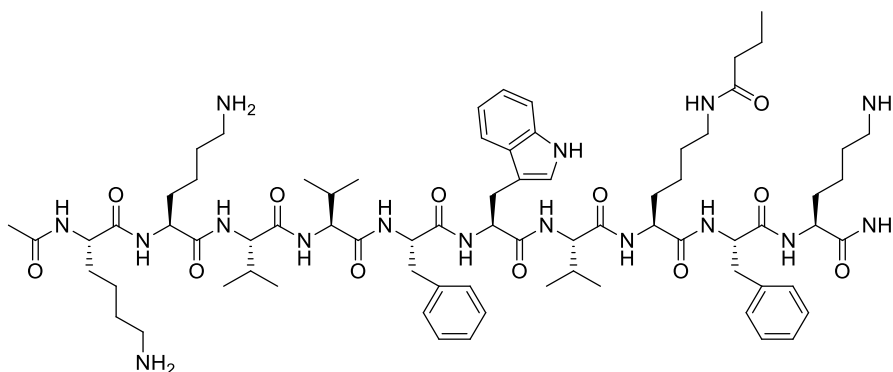
| |
|---------------------|
| $[M+H]^+ = 1448.1$ |
| $[M+Na]^+ = 1470.1$ |
| $[M+K]^+ = 1486.1$ |

HRMS (ESI) (m/z) (CC-4-LysP3-hexanoic-641 tubs 12-15)



| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{76}H_{119}N_{16}O_{12}$ | 1447.9188 | 1447.9134 |
| $[M+2H]^{2+}$ | $C_{76}H_{120}N_{16}O_{12}$ | 724.4630 | 724.4622 |
| $[M+3H]^{3+}$ | $C_{76}H_{121}N_{16}O_{12}$ | 483.3111 | 483.3118 |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys(CO-C₃H₇)-Phe-Lys-NH₂ (BP419)



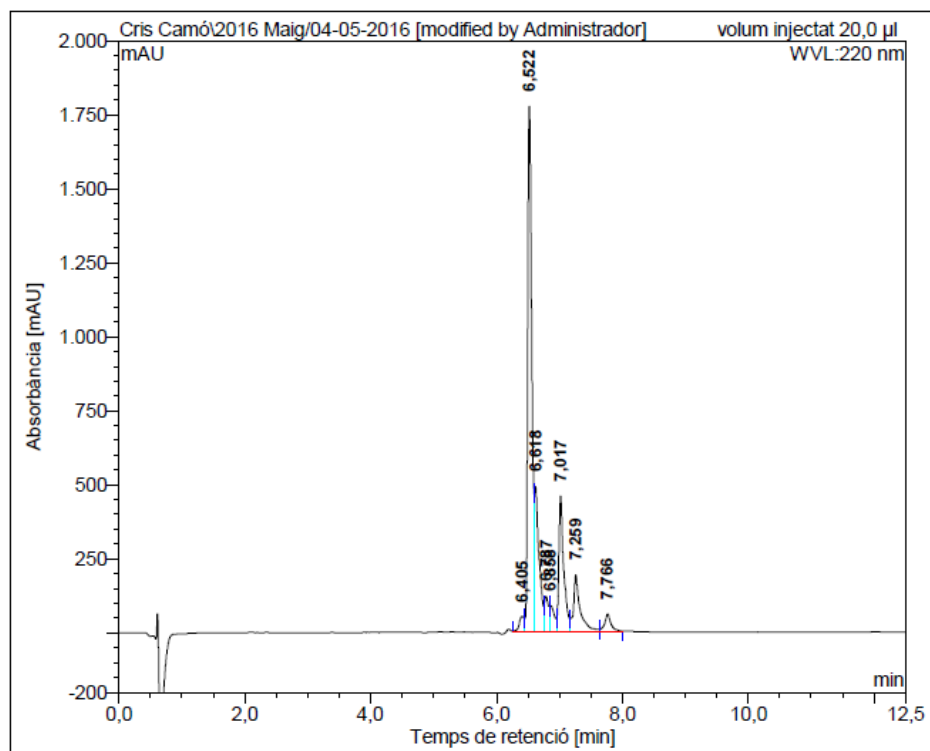
Chemical Formula: C₇₄H₁₁₄N₁₆O₁₂

Exact Mass: 1418,8802

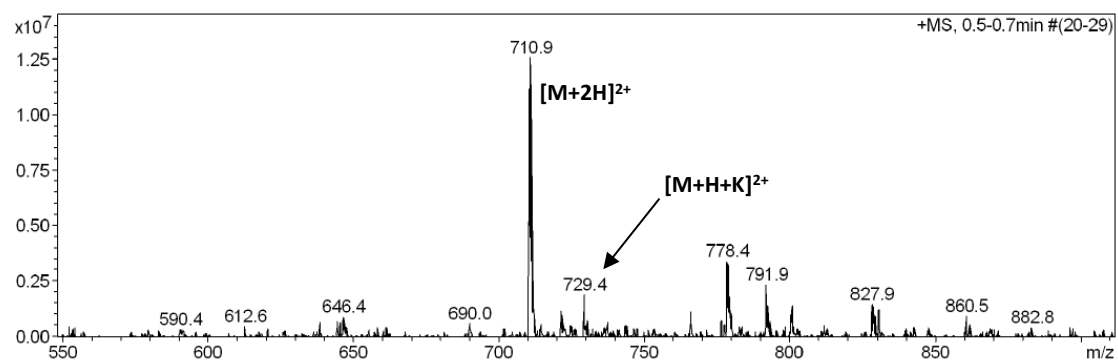
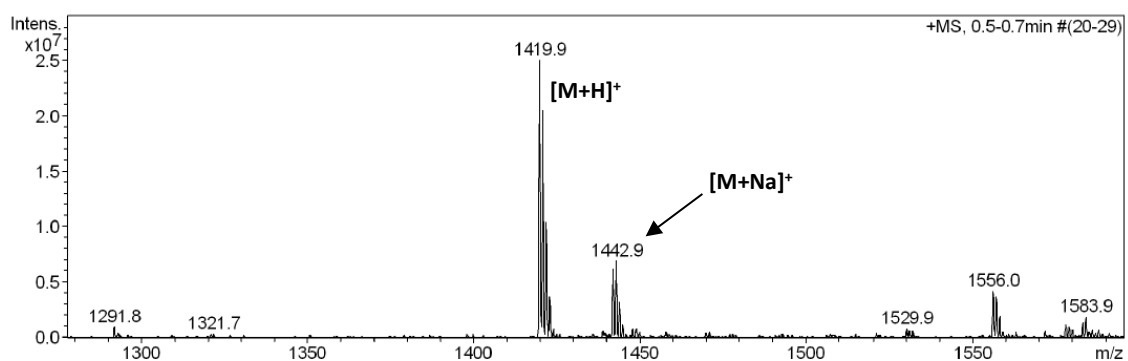
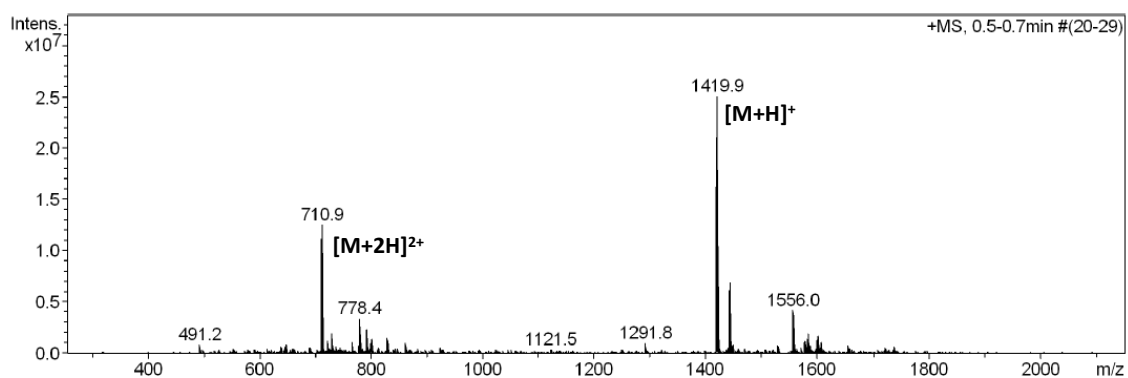
Molecular Weight: 1419,7970

IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-4-LysP3-butíric-661 impur)

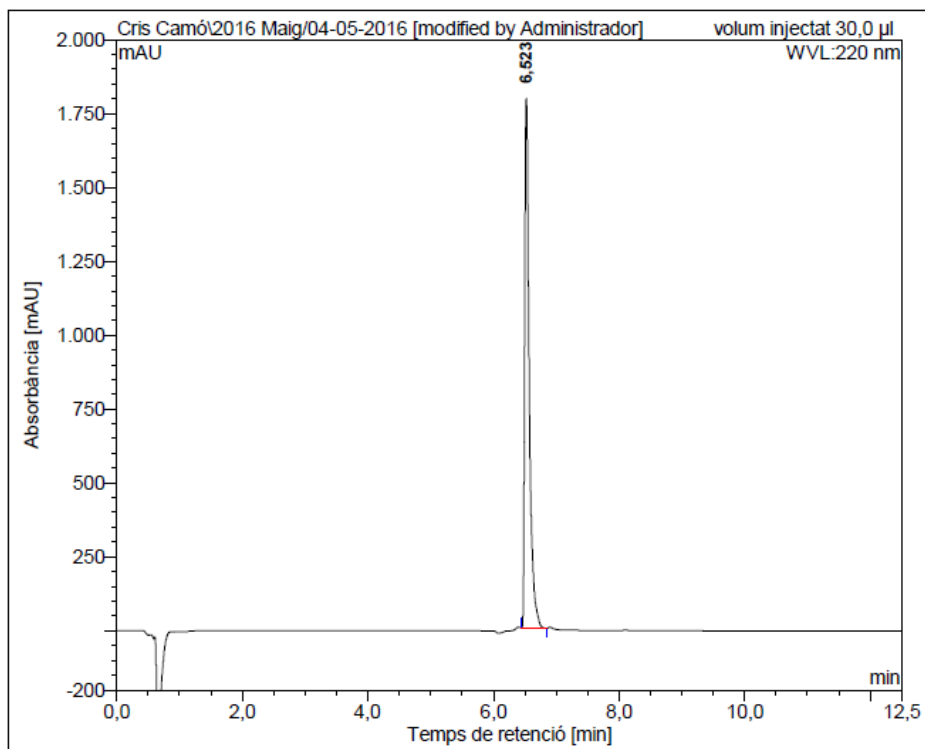


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,40 | 49,678 | 4,636 | 1,72 |
| 2 | 6,52 | 1773,432 | 133,943 | 49,76 |
| 3 | 6,62 | 488,890 | 43,091 | 16,01 |
| 4 | 6,79 | 117,508 | 8,627 | 3,20 |
| 5 | 6,86 | 87,158 | 7,831 | 2,91 |
| 6 | 7,02 | 456,141 | 41,067 | 15,26 |
| 7 | 7,26 | 189,665 | 23,390 | 8,69 |
| 8 | 7,77 | 57,863 | 6,604 | 2,45 |
| Total: | | 3220,335 | 269,190 | 100,00 |

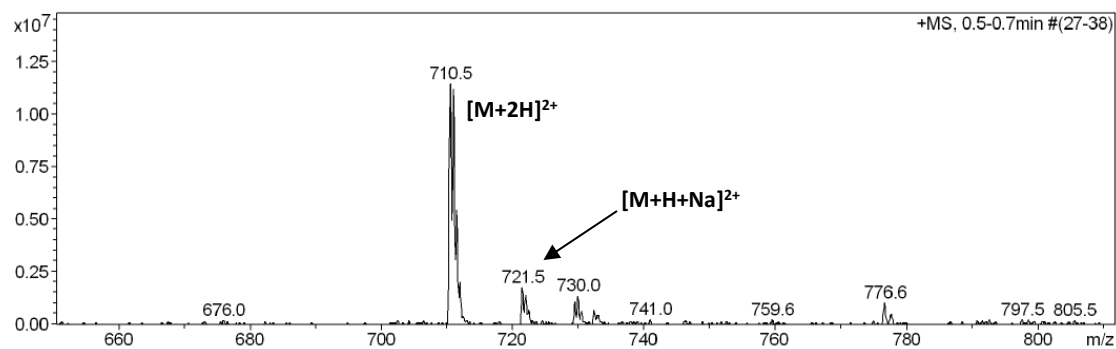
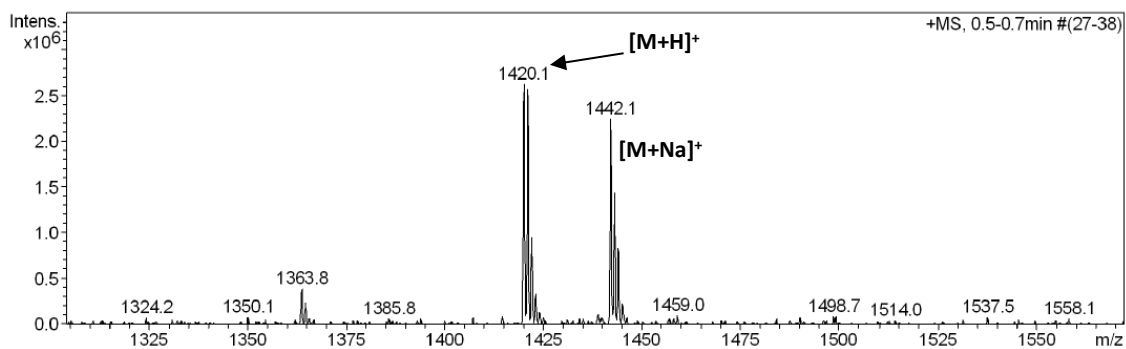
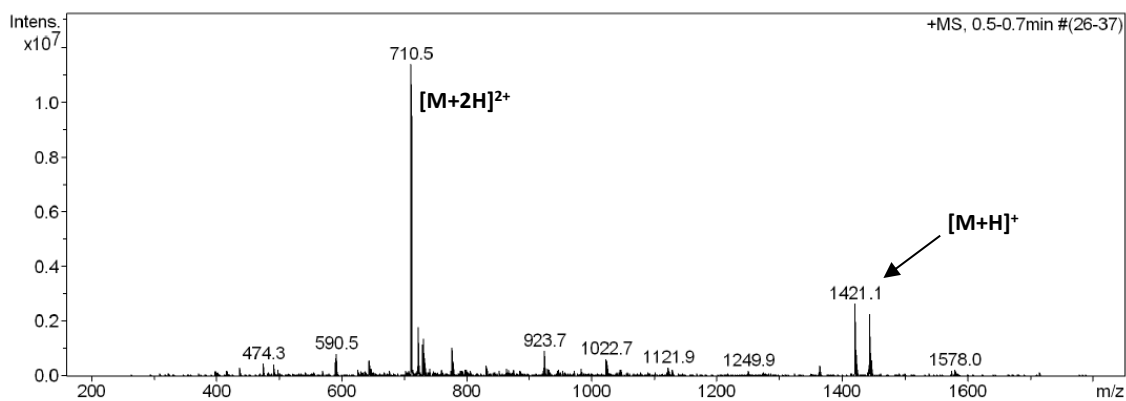
ESI-MS (m/z) (CC-4-LysP3-butíric-498)

| |
|------------------------|
| $[M+H]^+ = 1419.9$ |
| $[M+Na]^+ = 1441.9$ |
| $[M+2H]^{2+} = 710.9$ |
| $[M+H+K]^{2+} = 729.4$ |

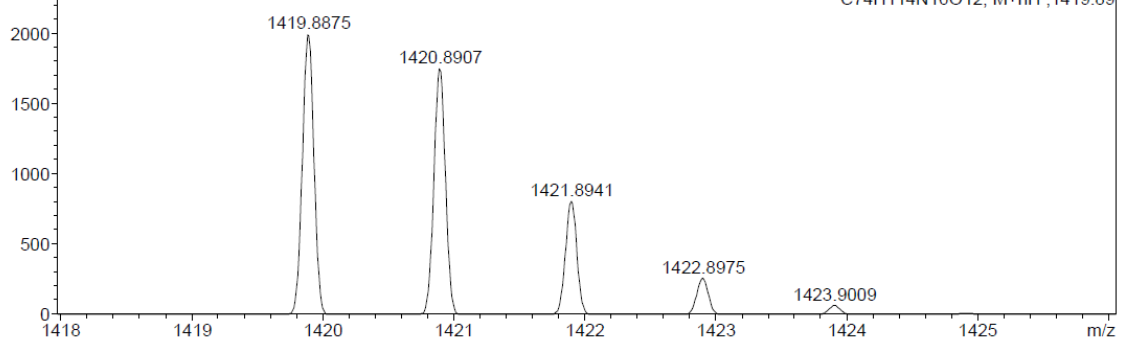
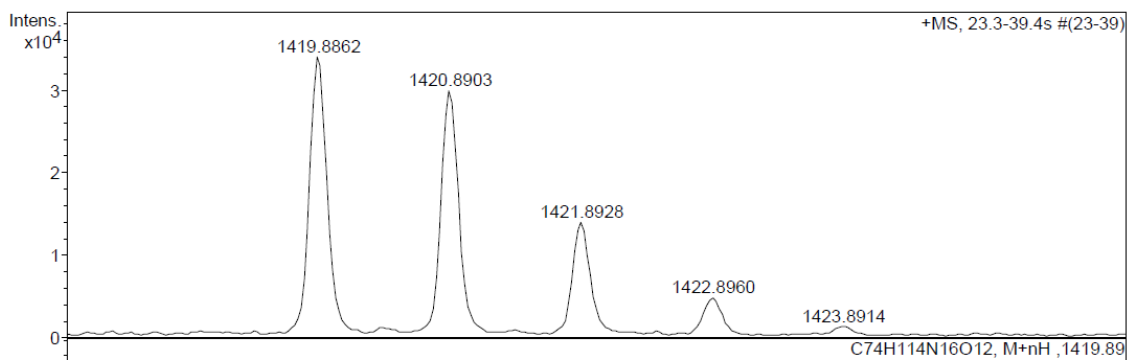
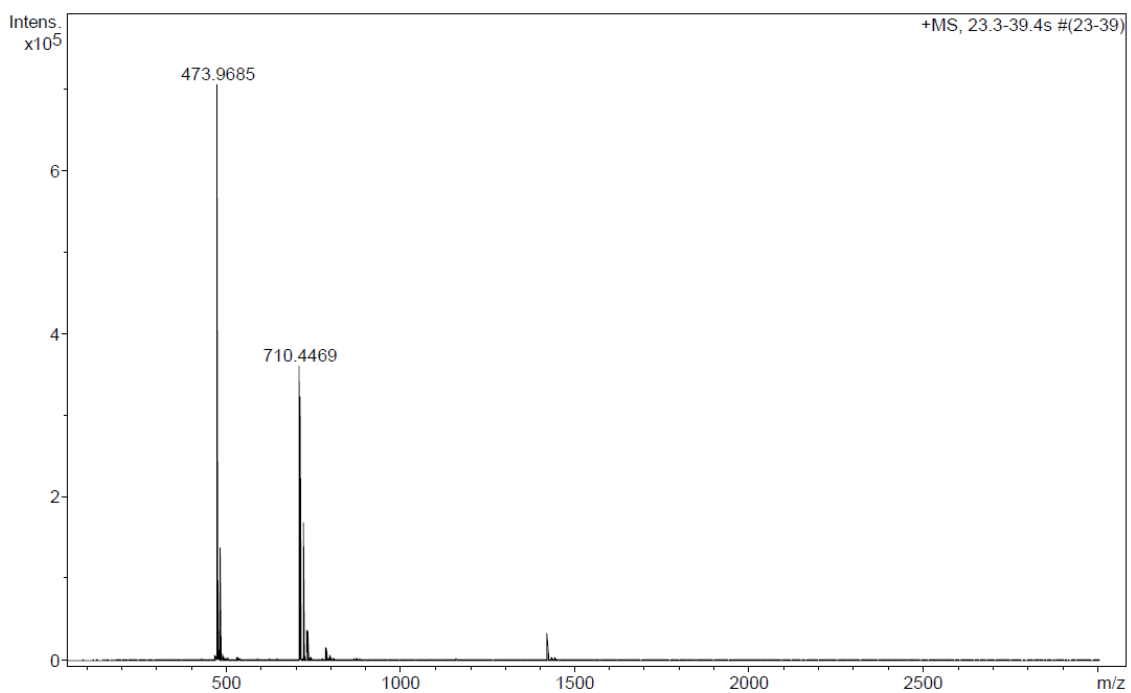
PURE PRODUCT

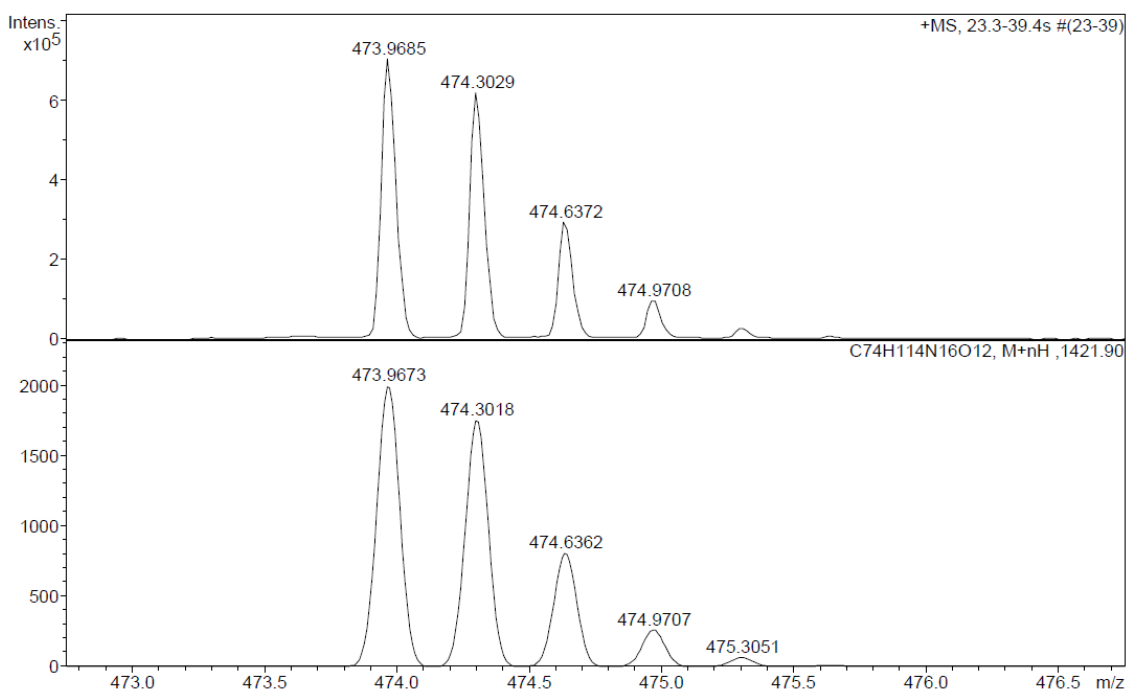
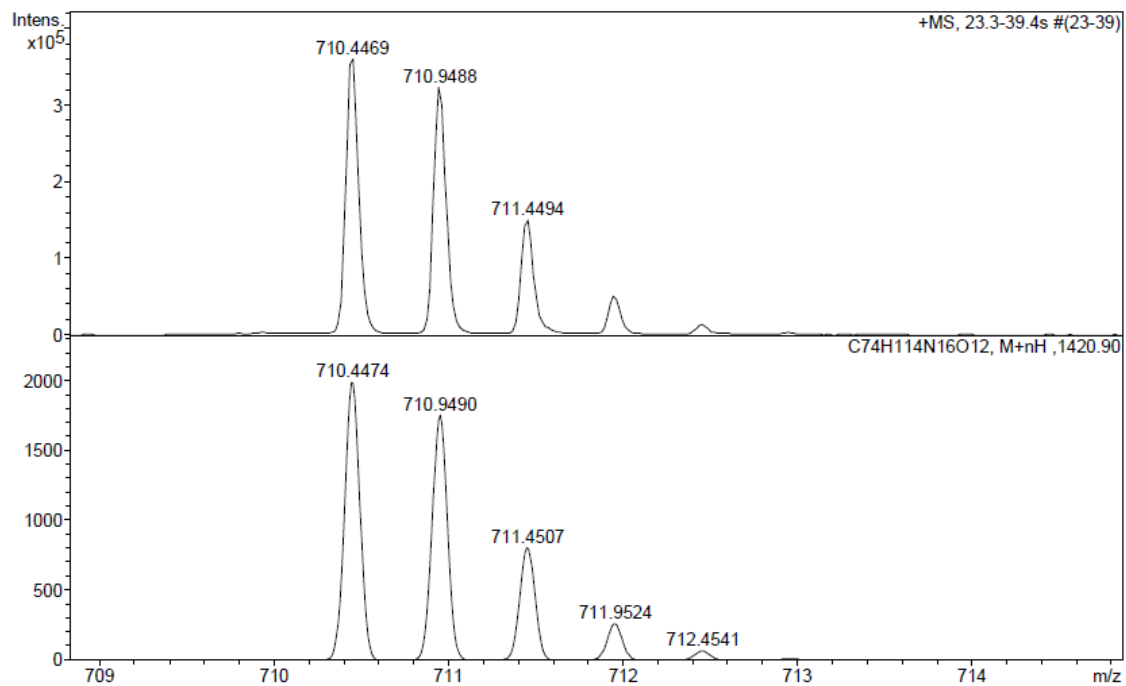
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP3-butíric-661 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,52 | 1790,776 | 151,833 | 100,00 |
| Total: | | 1790,776 | 151,833 | 100,00 |

ESI-MS (m/z) (CC-4-LysP3-butíric-661 tub 16)

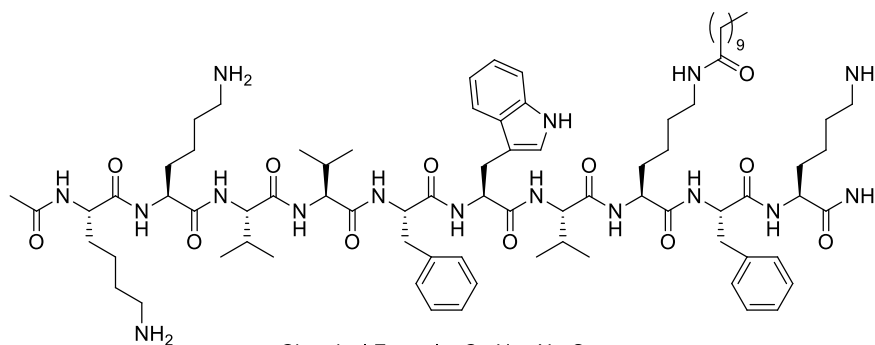
| |
|-------------------------|
| $[M+H]^+ = 1420.1$ |
| $[M+Na]^+ = 1442.1$ |
| $[M+2H]^{2+} = 710.5$ |
| $[M+H+Na]^{2+} = 721.5$ |

HRMS (ESI) (m/z) (CC-4-LysP3-butíric-661 tubs 12-16)



| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₄ H ₁₁₅ N ₁₆ O ₁₂ | 1419.8875 | 1419.8862 |
| [M+2H] ²⁺ | C ₇₄ H ₁₁₆ N ₁₆ O ₁₂ | 710.4474 | 710.4469 |
| [M+3H] ³⁺ | C ₇₄ H ₁₁₇ N ₁₆ O ₁₂ | 473.9673 | 473.9685 |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys(CO-C₁₁H₂₃)-Phe-Lys-NH₂ (**BP420**)



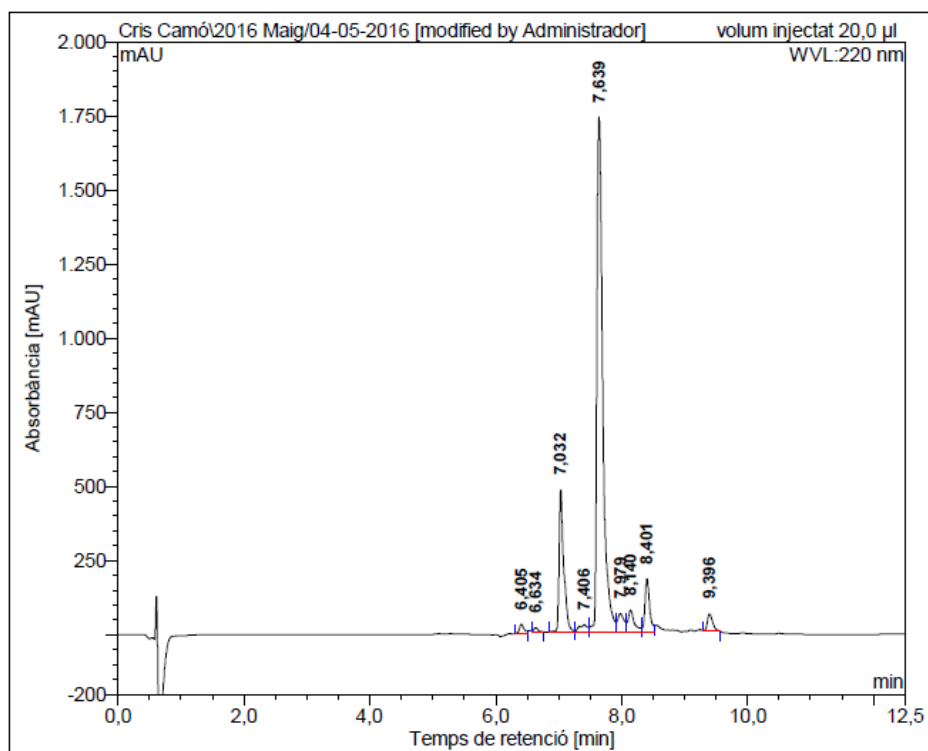
Chemical Formula: C₈₂H₁₃₀N₁₆O₁₂

Exact Mass: 1531,0054

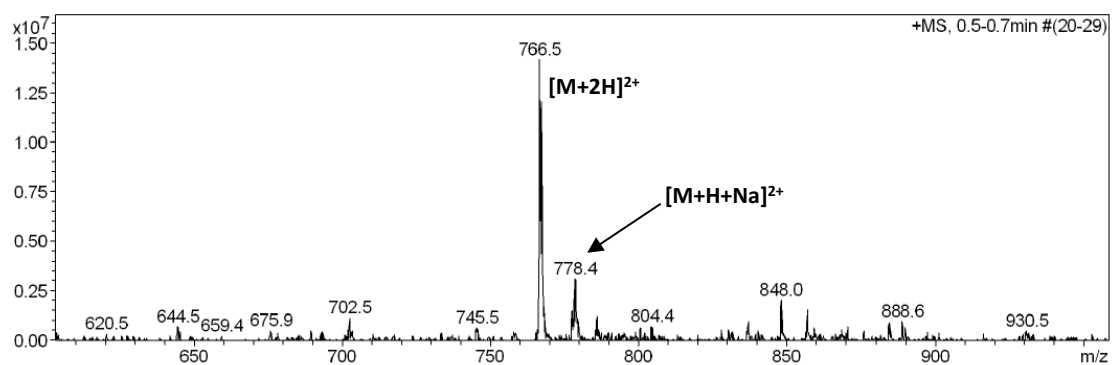
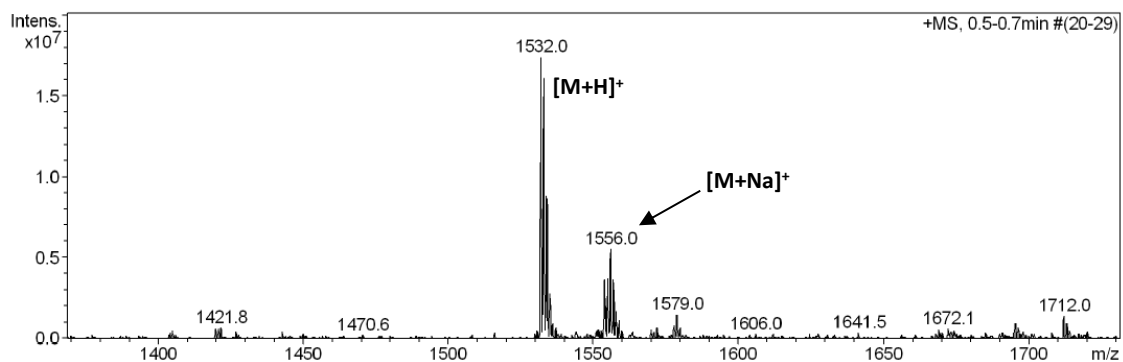
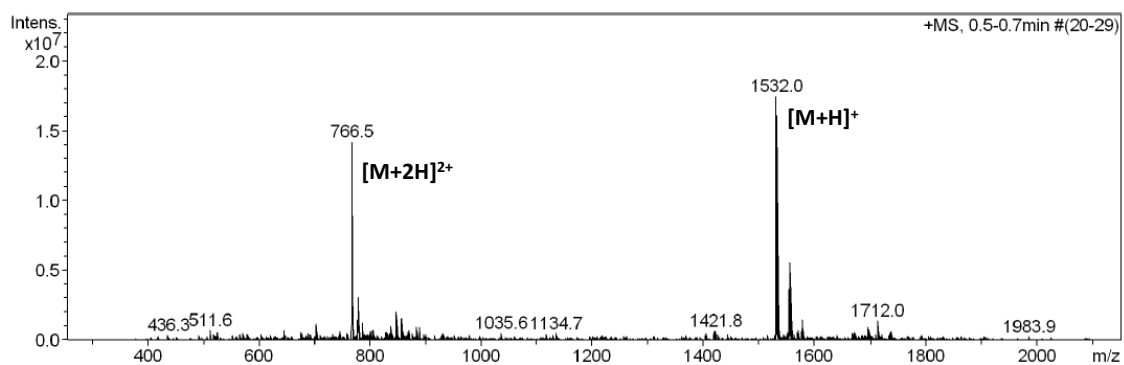
Molecular Weight: 1532,0096

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP3-làuric-663 impur)

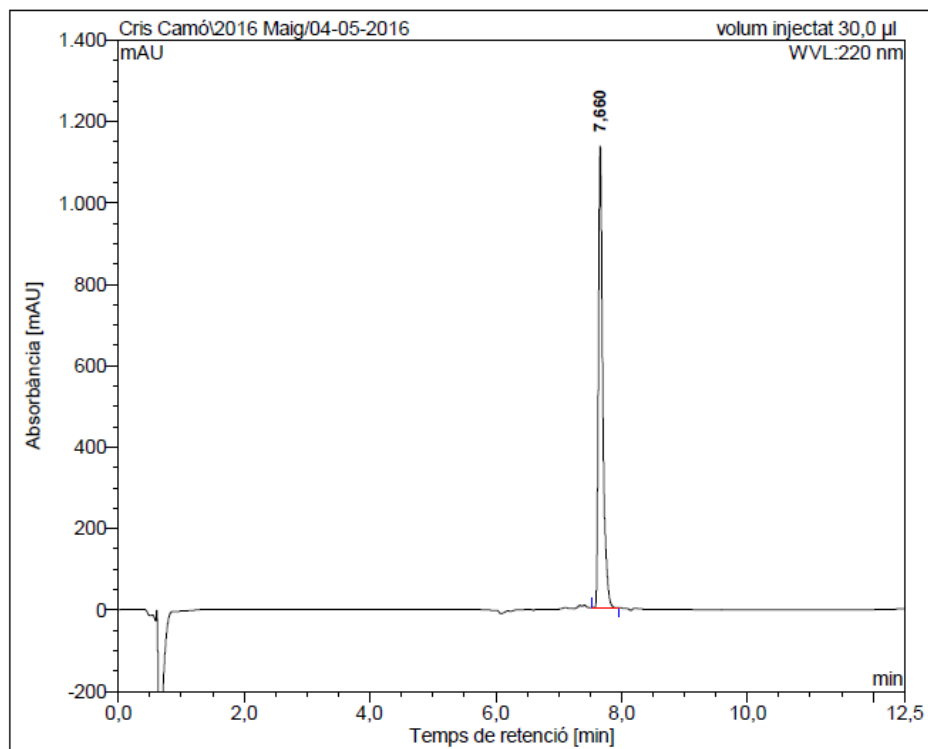


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,41 | 31,662 | 2,828 | 1,03 |
| 2 | 6,63 | 14,247 | 1,156 | 0,42 |
| 3 | 7,03 | 480,534 | 40,826 | 14,87 |
| 4 | 7,41 | 24,535 | 3,581 | 1,30 |
| 5 | 7,64 | 1737,625 | 188,897 | 68,82 |
| 6 | 7,98 | 62,231 | 7,788 | 2,84 |
| 7 | 8,14 | 73,973 | 8,711 | 3,17 |
| 8 | 8,40 | 179,546 | 15,414 | 5,62 |
| 9 | 9,40 | 56,182 | 5,282 | 1,92 |
| Total: | | 2660,535 | 274,482 | 100,00 |

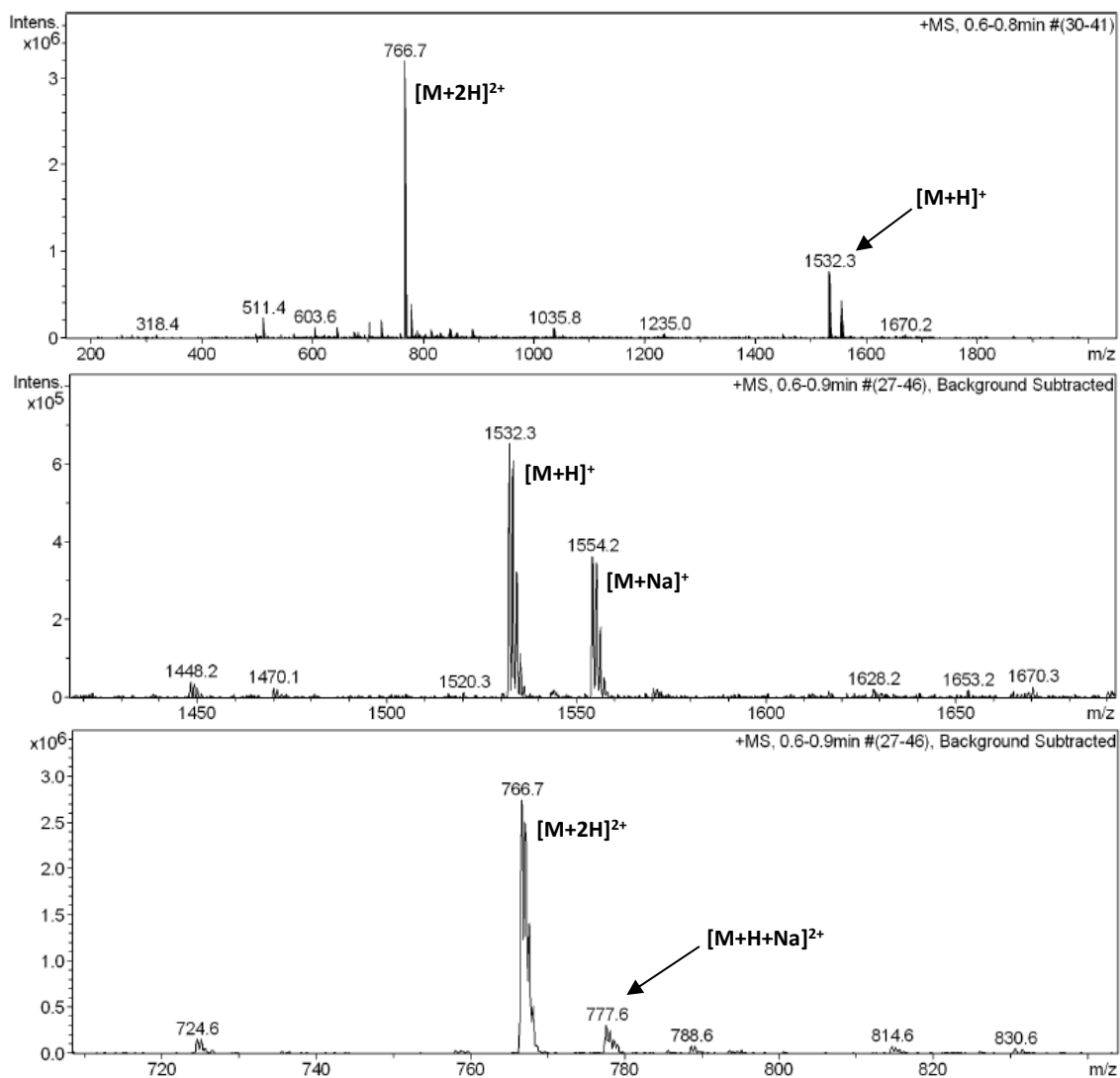
ESI-MS (m/z) (CC-4-LysP3-làuric-498)

| |
|-------------------------|
| $[M+H]^+ = 1532.0$ |
| $[M+Na]^+ = 1554.0$ |
| $[M+2H]^{2+} = 766.5$ |
| $[M+H+Na]^{2+} = 778.4$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP3-làuric-663 tub 26)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,66 | 1135,270 | 91,789 | 100,00 |
| Total: | | 1135,270 | 91,789 | 100,00 |

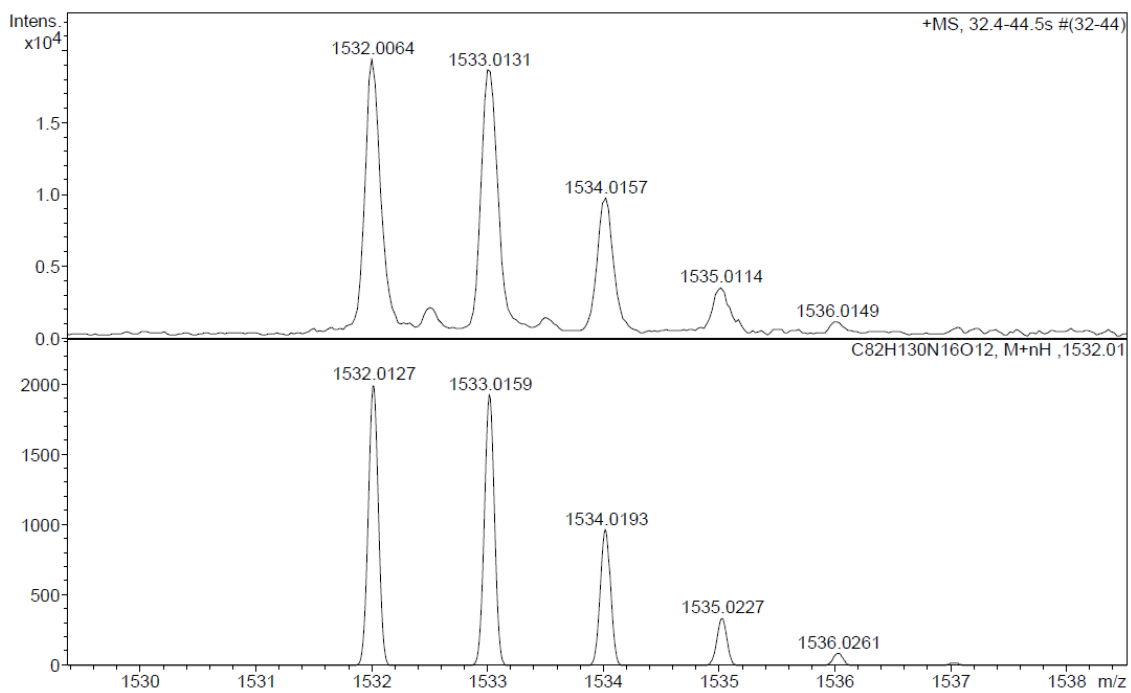
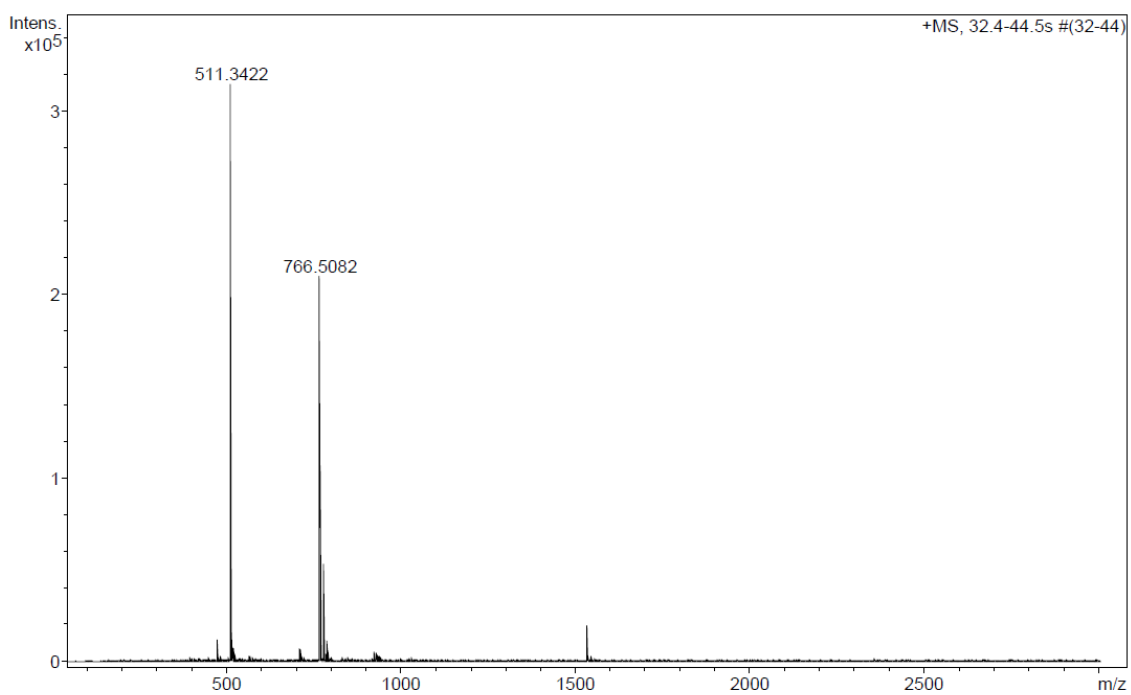
ESI-MS (m/z) (CC-4-LysP3-làuric-663 tub 26)

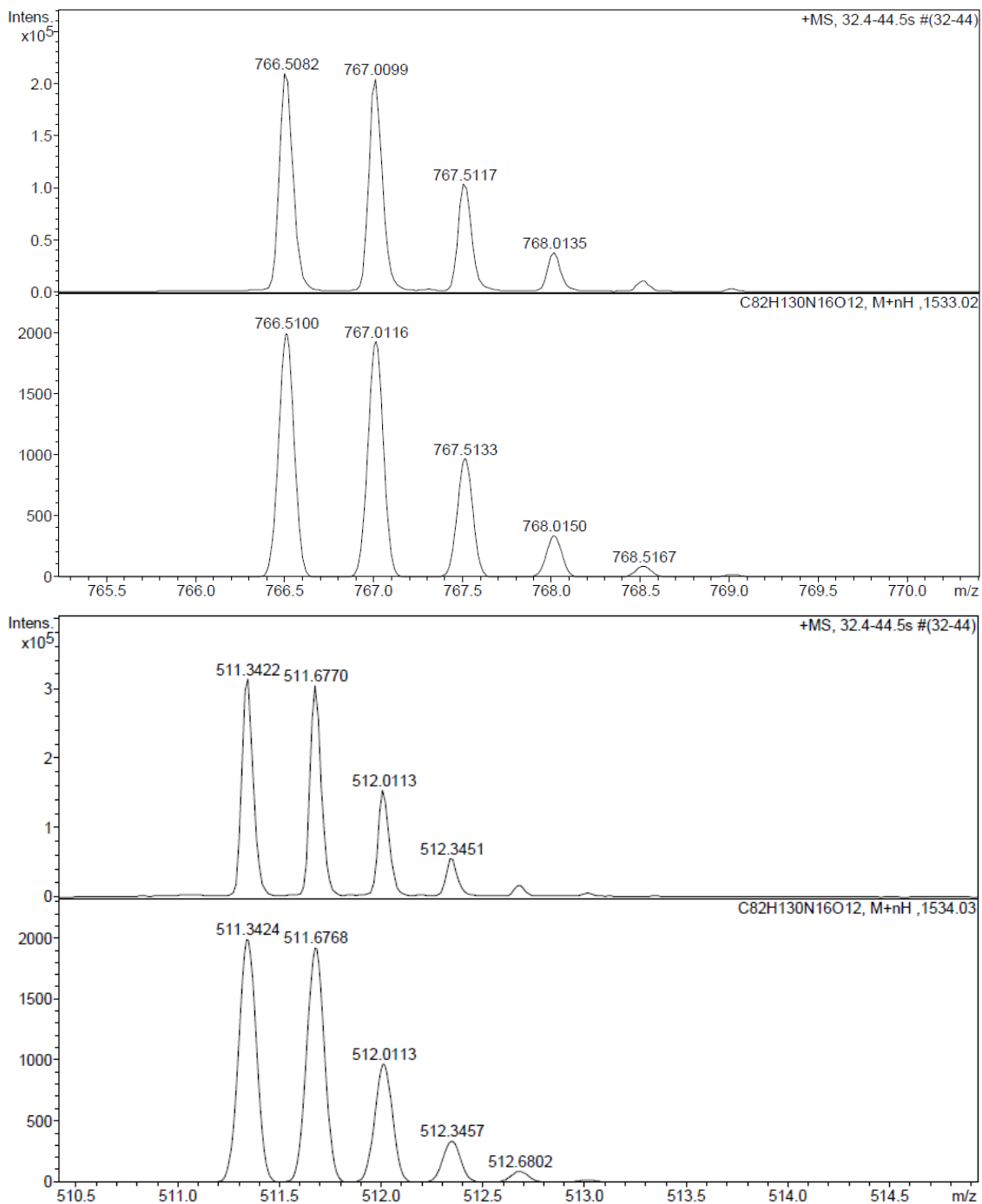
$$[M+H]^+ = 1532.2$$

$$[M+Na]^+ = 1554.3$$

$$[M+2H]^{2+} = 767.1$$

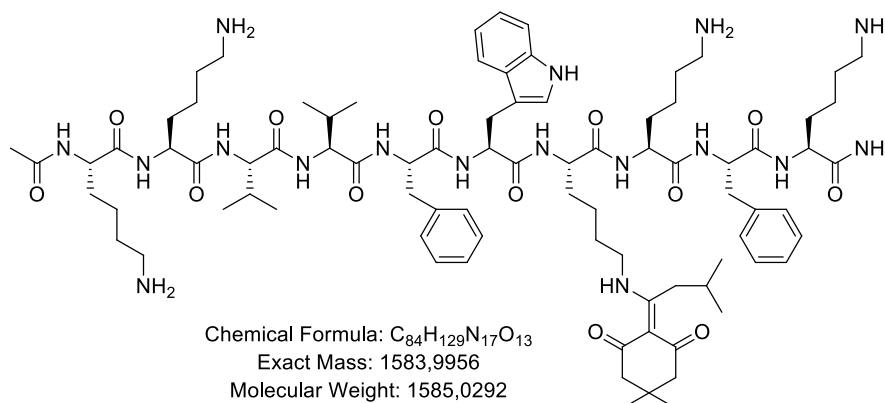
$$[M+H+Na]^{2+} = 777.6$$

HRMS (ESI) (m/z) (CC-4-LysP3-làuric-663 tubs 24-27)

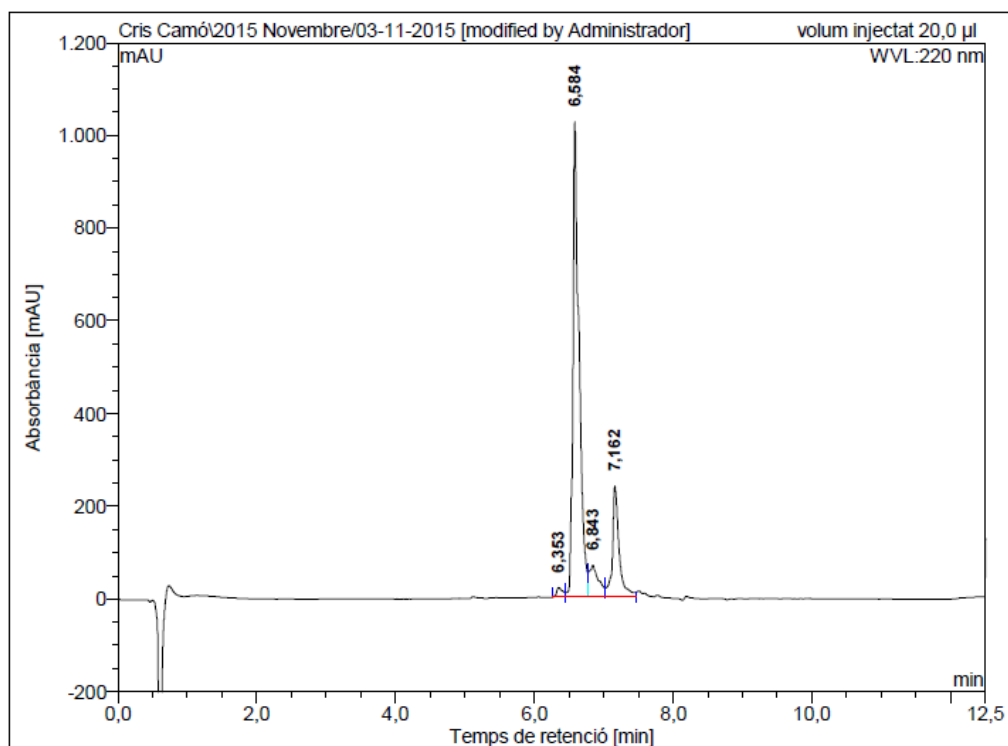


| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{82}H_{131}N_{16}O_{12}$ | 1532.0127 | 1532.0064 |
| $[M+2H]^{2+}$ | $C_{82}H_{132}N_{16}O_{12}$ | 766.5100 | 766.5082 |
| $[M+3H]^{3+}$ | $C_{82}H_{133}N_{16}O_{12}$ | 511.3424 | 511.3422 |

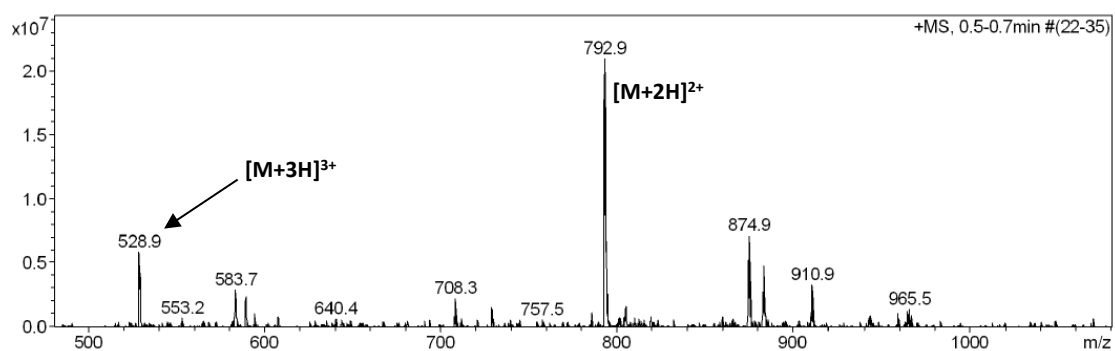
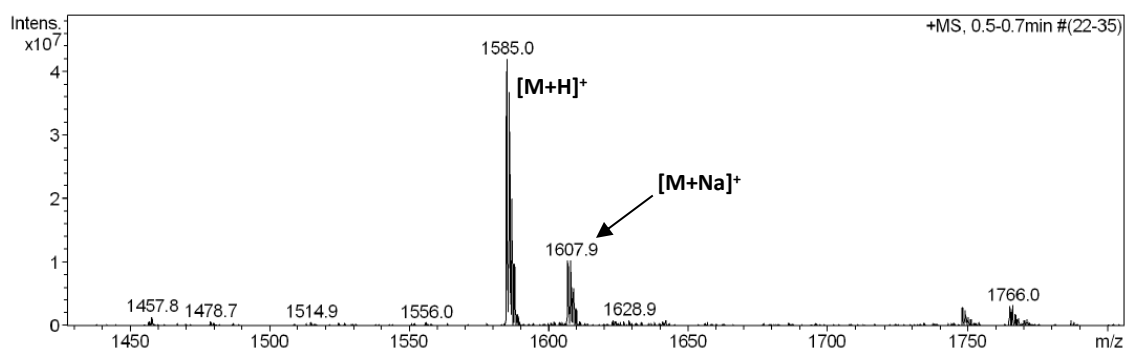
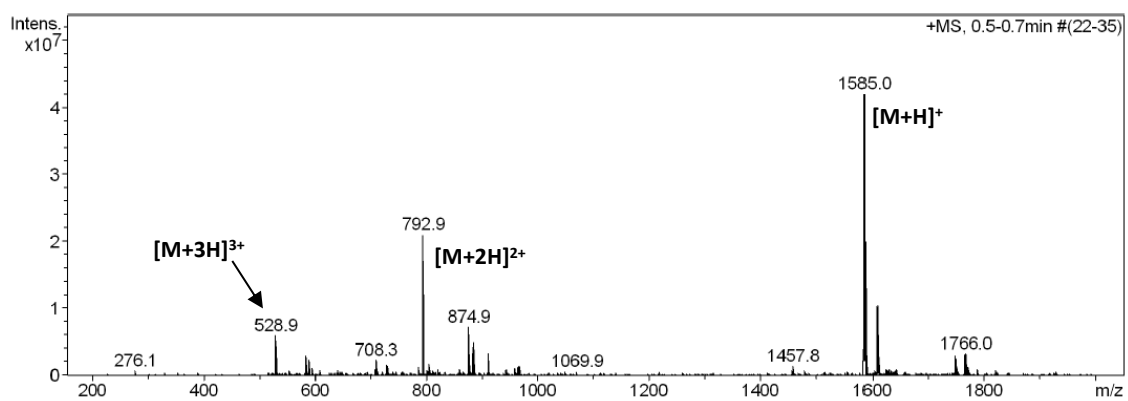
Lipopeptides derived from KSLW acylated at position 7

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Lys(ivDde)-Lys-Phe-Lys-NH₂

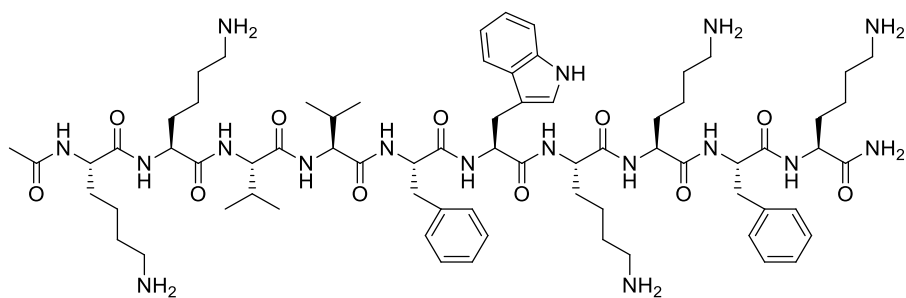
HPLC (λ = 220 nm) (CC-4-LysP4-413)



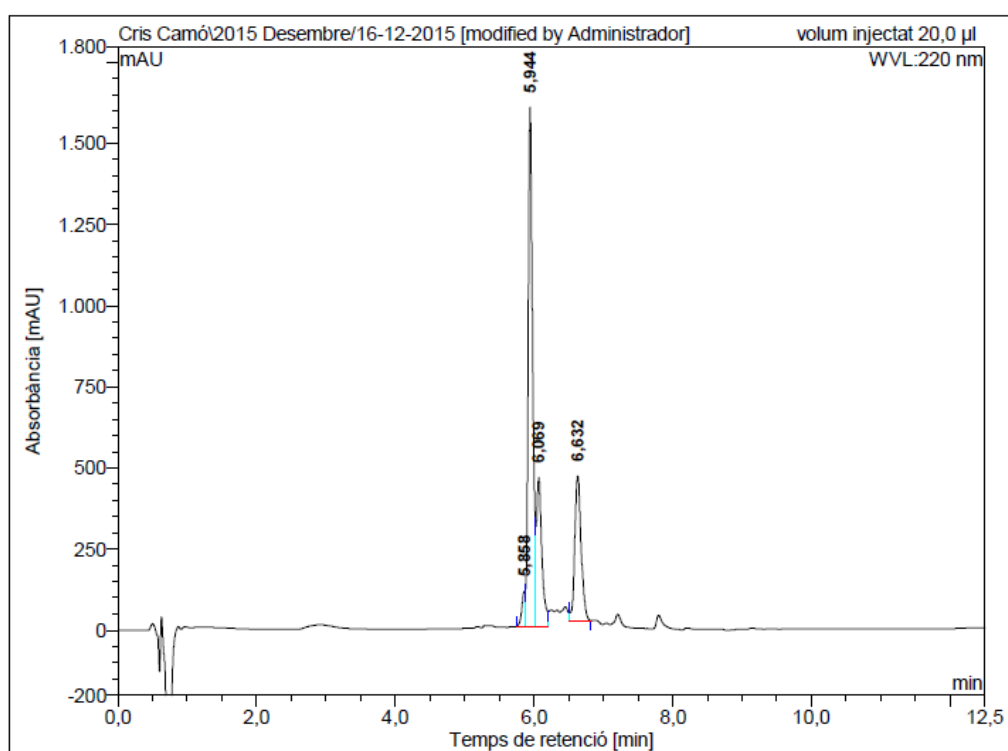
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,35 | 20,465 | 2,097 | 1,44 |
| 2 | 6,58 | 1024,203 | 105,831 | 72,44 |
| 3 | 6,84 | 69,352 | 11,166 | 7,64 |
| 4 | 7,16 | 239,407 | 26,990 | 18,48 |
| Total: | | 1353,427 | 146,084 | 100,00 |

ESI-MS (m/z) (CC-4-LysP4-413)

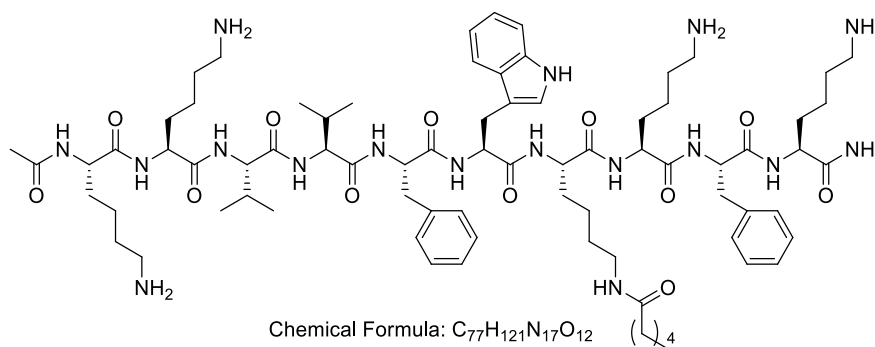
| |
|-----------------------|
| $[M+H]^+ = 1585.0$ |
| $[M+Na]^+ = 1607.9$ |
| $[M+2H]^{2+} = 792.9$ |
| $[M+3H]^{3+} = 528.9$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Lys-Lys-Phe-Lys-NH₂

Chemical Formula: C₇₁H₁₁₁N₁₇O₁₁
Exact Mass: 1377,8649
Molecular Weight: 1378,7483

HPLC ($\lambda = 220$ nm) (CC4-LysP4-hexanoic-473)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 5,86 | 108,467 | 5,815 | 2,69 |
| 2 | 5,94 | 1600,113 | 121,600 | 56,34 |
| 3 | 6,07 | 459,983 | 40,807 | 18,91 |
| 4 | 6,63 | 445,582 | 47,598 | 22,05 |
| Total: | | 2614,144 | 215,820 | 100,00 |

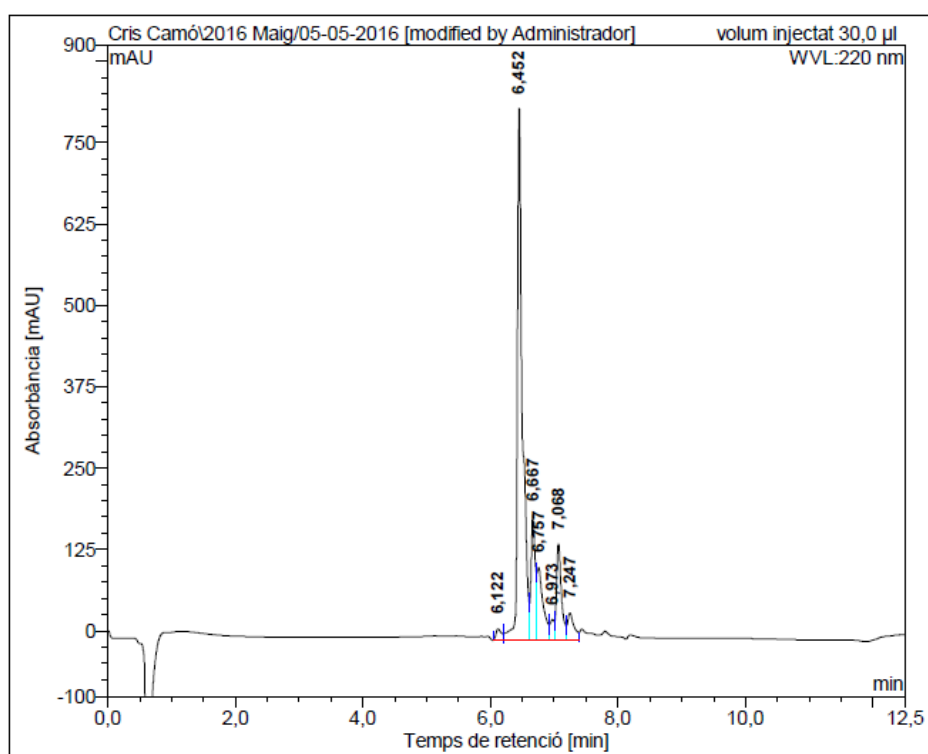
CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Lys(CO-C₅H₁₁)-Lys-Phe-Lys-NH₂ (BP421)Chemical Formula: C₇₇H₁₂₁N₁₇O₁₂

Exact Mass: 1475,9381

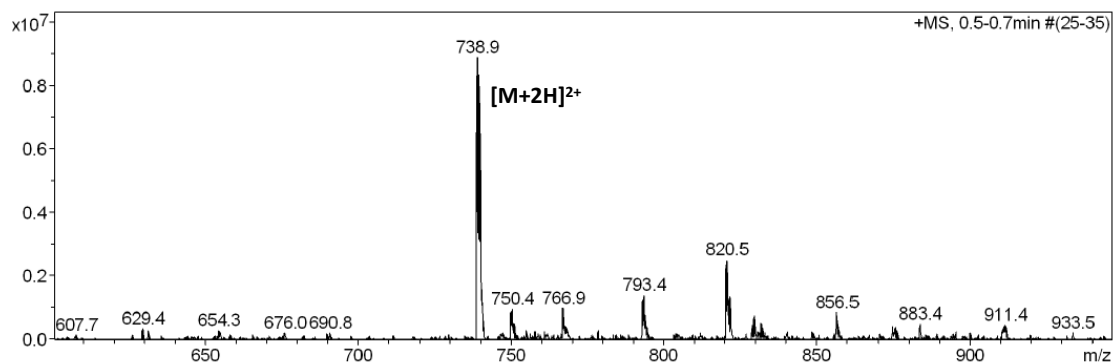
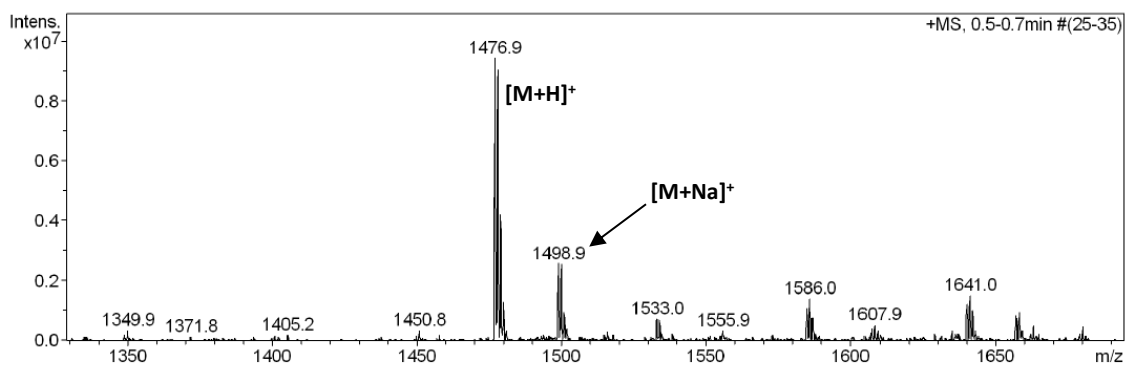
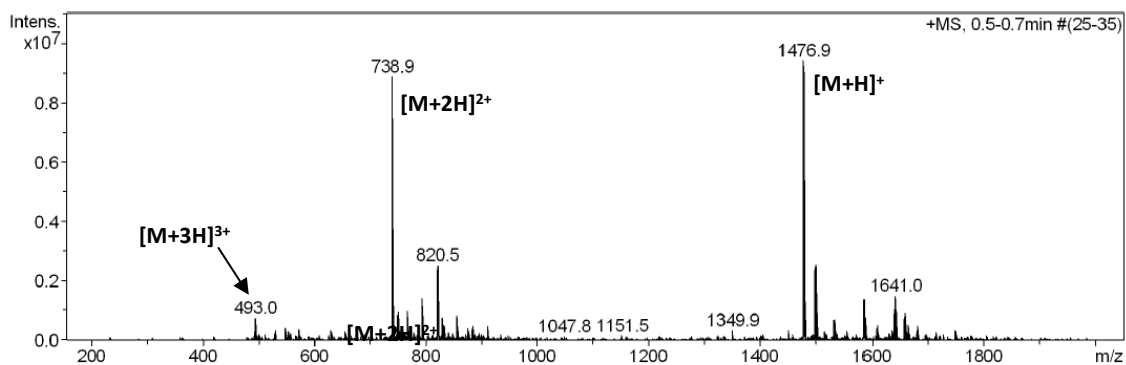
Molecular Weight: 1476,8913

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP4-hexanoic-665 impur)

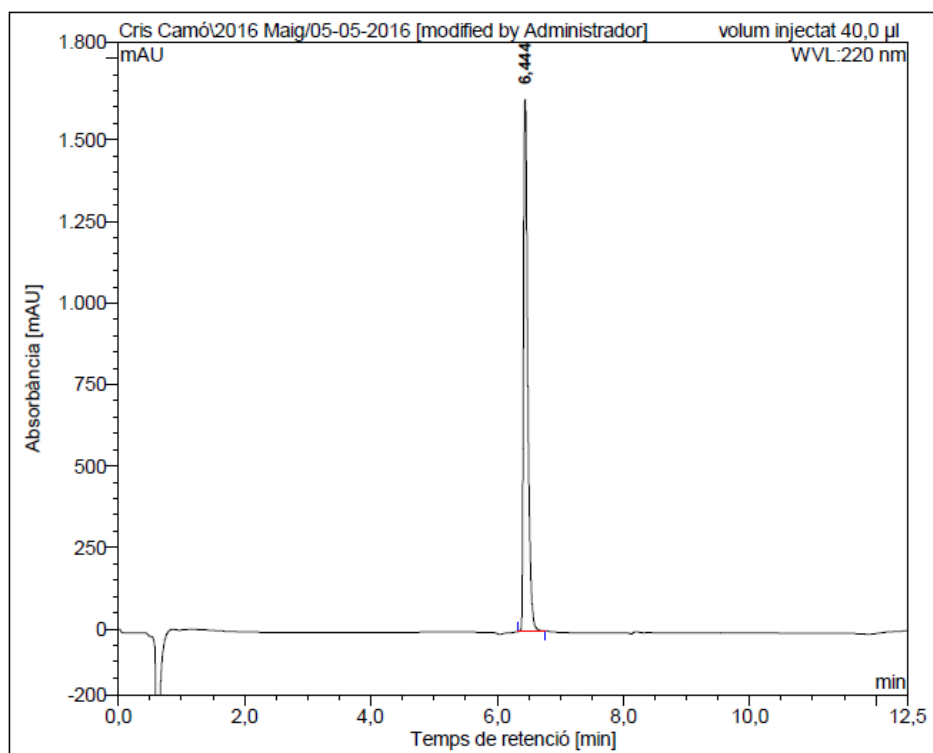


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,12 | 17,825 | 1,765 | 1,40 |
| 2 | 6,45 | 816,971 | 75,418 | 60,00 |
| 3 | 6,67 | 191,954 | 14,910 | 11,86 |
| 4 | 6,76 | 111,950 | 12,463 | 9,92 |
| 5 | 6,97 | 32,070 | 2,663 | 2,12 |
| 6 | 7,07 | 148,547 | 13,404 | 10,66 |
| 7 | 7,25 | 42,176 | 5,074 | 4,04 |
| Total: | | 1361,492 | 125,696 | 100,00 |

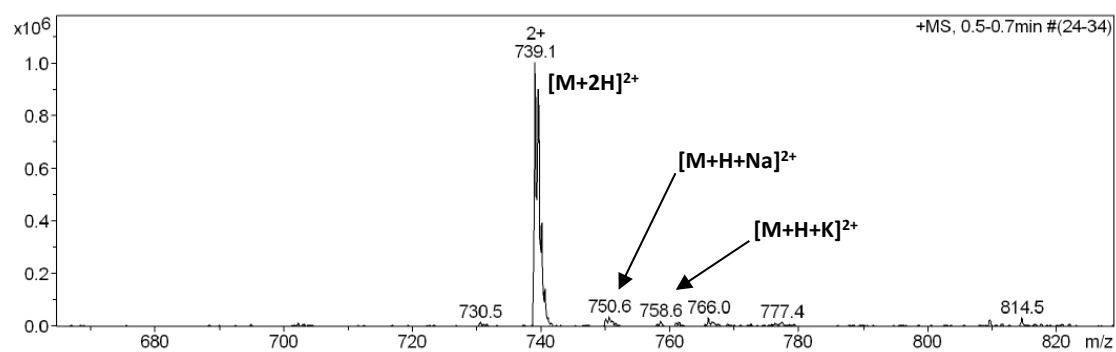
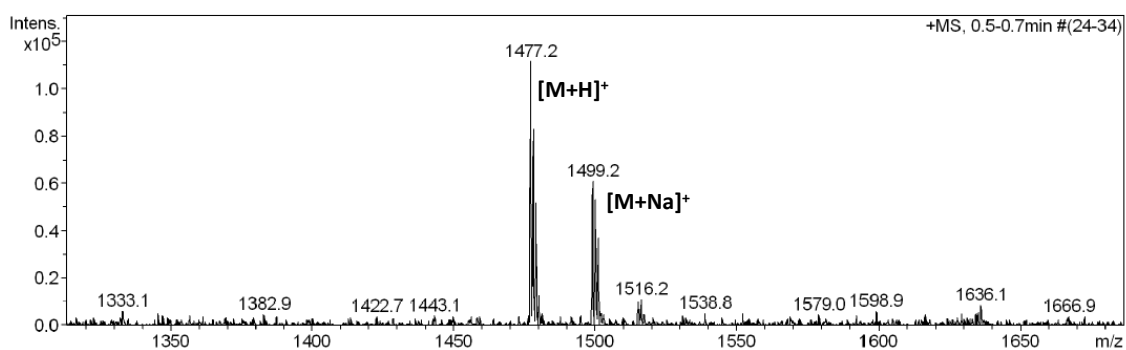
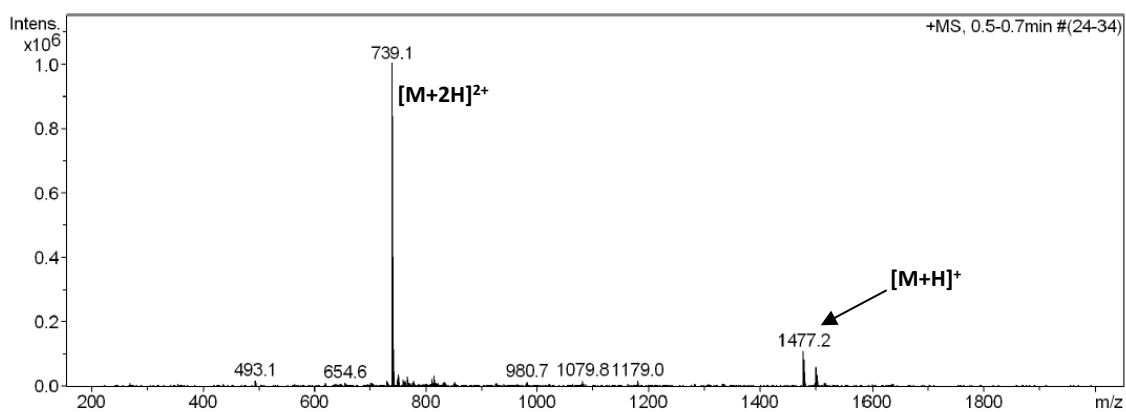
ESI-MS (m/z) (CC-4-LysP4-hexanoic-481)

| |
|-------------------------|
| $[M+H]^+ = 1476.9$ |
| $[M+Na]^+ = 1498.9$ |
| $[M+2H]^{2+} = 738.9$ |
| $[M+H+Na]^{2+} = 750.4$ |
| $[M+3H]^{3+} = 493.0$ |

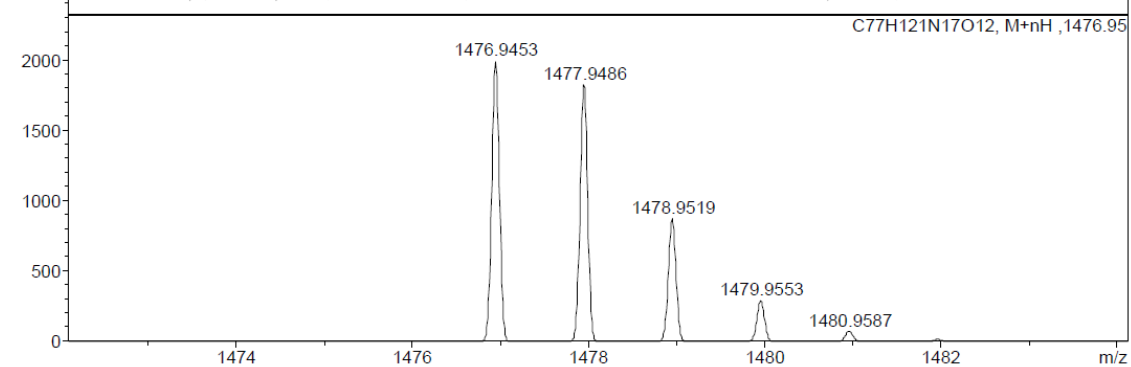
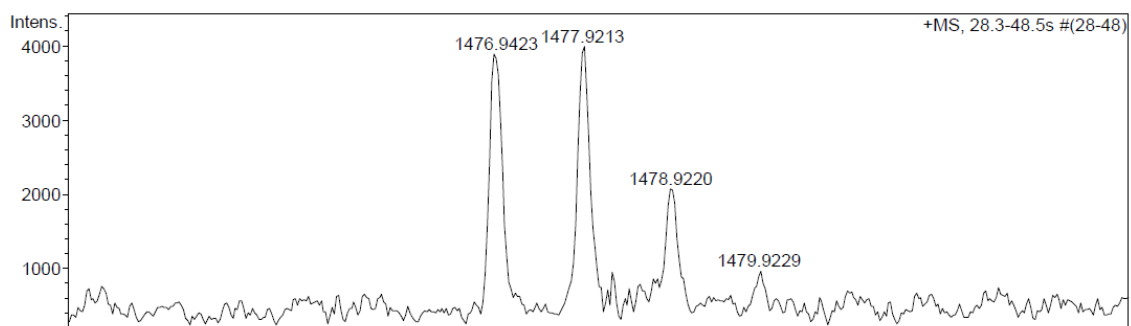
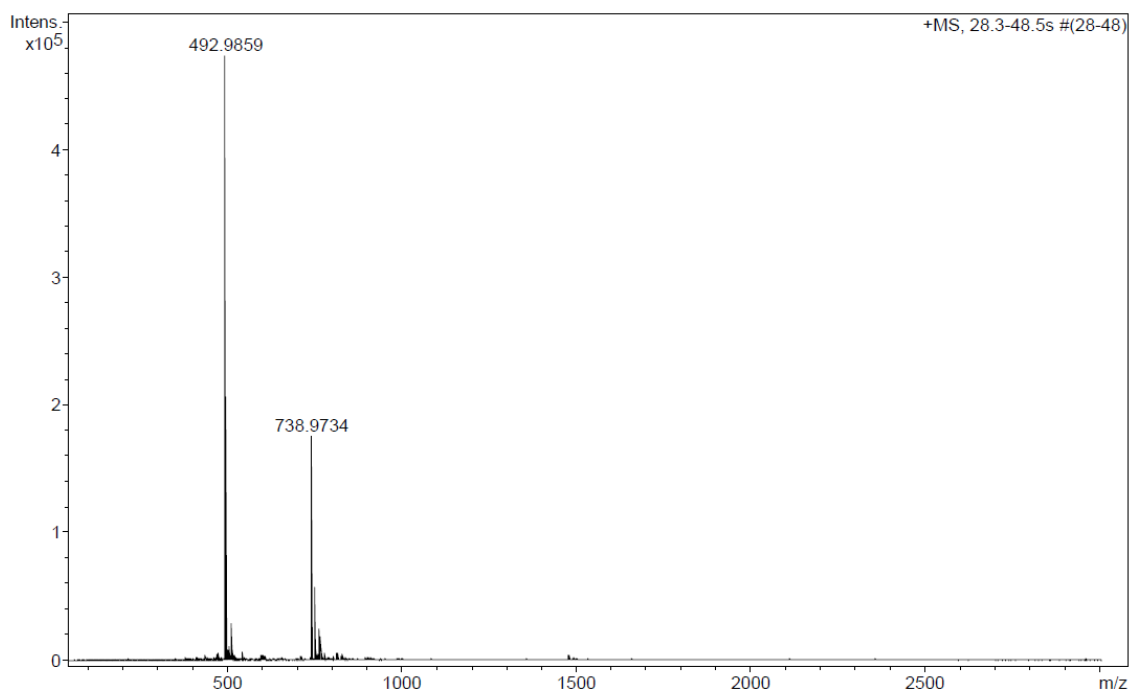
PURE PRODUCT

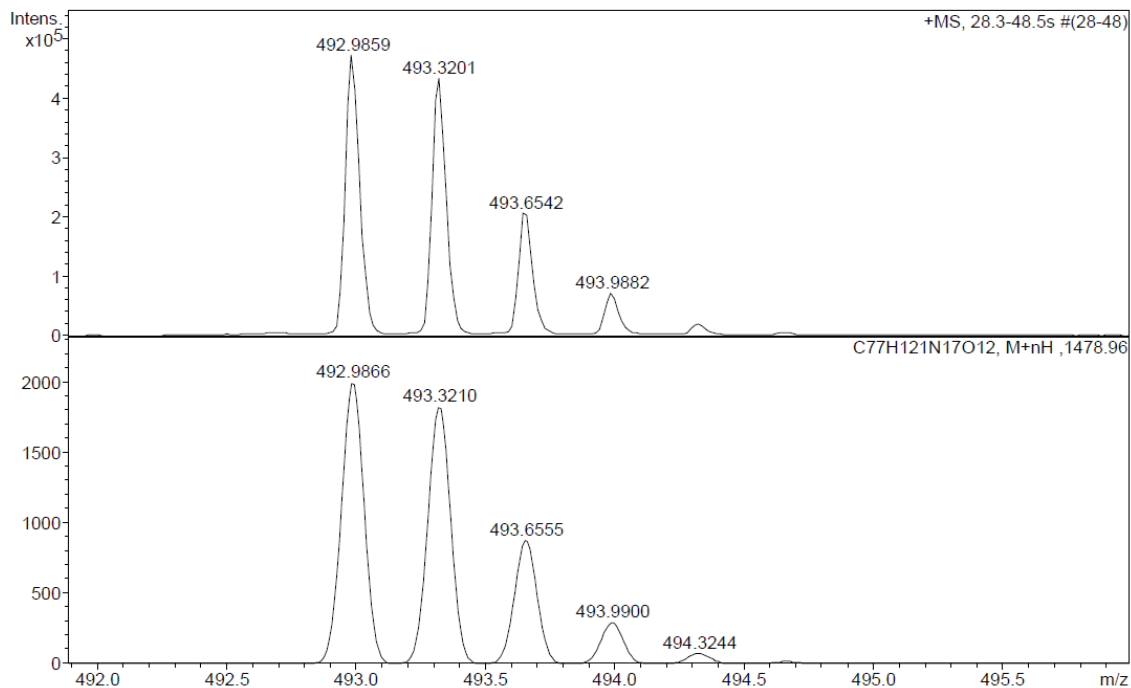
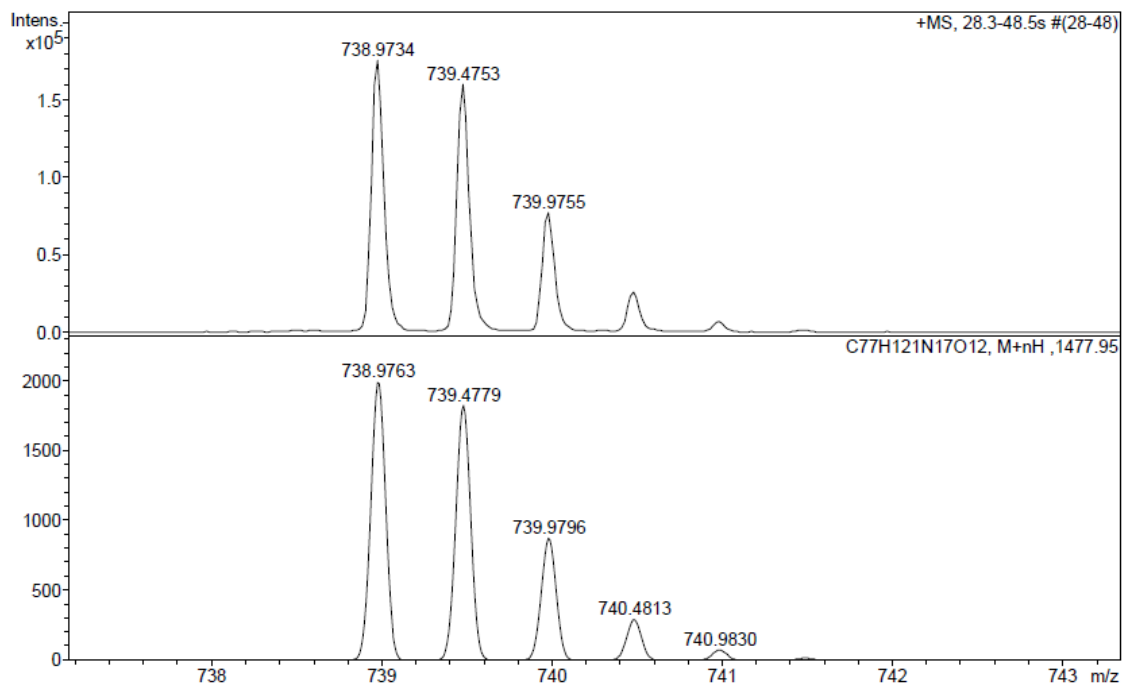
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP4-hexanoic-665 tub 13)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,44 | 1630,490 | 125,261 | 100,00 |
| Total: | | 1630,490 | 125,261 | 100,00 |

ESI-MS (m/z) (CC-4-LysP4-hexanoic-665 tub 13)

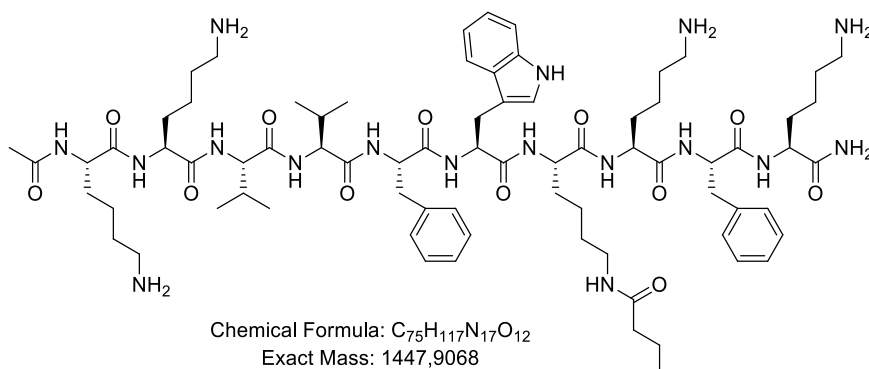
| |
|-------------------------|
| $[M+H]^+ = 1477.2$ |
| $[M+Na]^+ = 1499.2$ |
| $[M+2H]^{2+} = 739.1$ |
| $[M+H+Na]^{2+} = 750.6$ |
| $[M+H+K]^{2+} = 758.6$ |

HRMS (ESI) (m/z) (CC-4-LysP4-hexanoic-665 tubs 9-14)



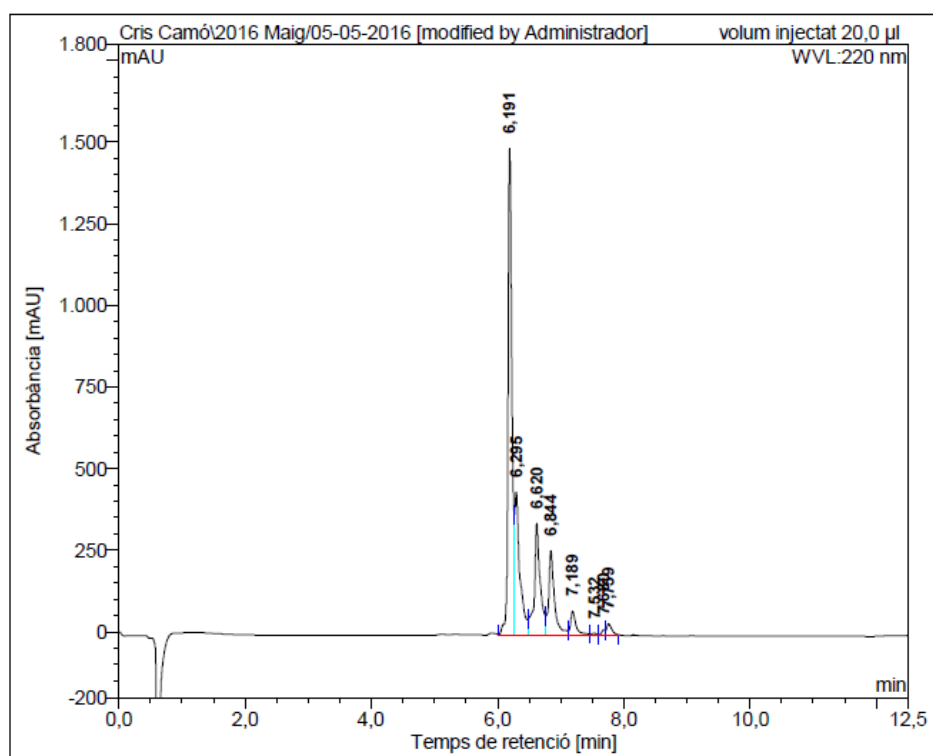
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₇ H ₁₂₂ N ₁₇ O ₁₂ | 1476.9453 | 1476.9423 |
| [M+2H] ²⁺ | C ₇₇ H ₁₂₃ N ₁₇ O ₁₂ | 738.9763 | 738.9734 |
| [M+3H] ³⁺ | C ₇₇ H ₁₂₄ N ₁₇ O ₁₂ | 492.9866 | 492.9859 |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Lys(CO-C₃H₇)-Lys-Phe-Lys-NH₂ (BP422)



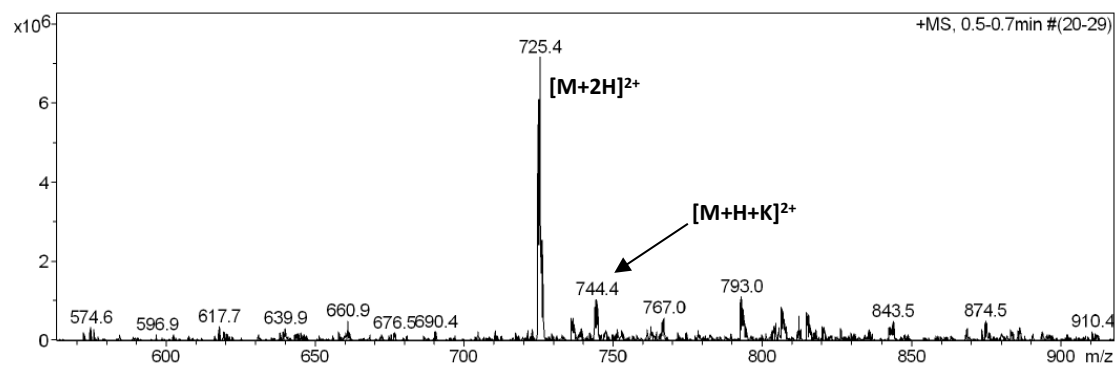
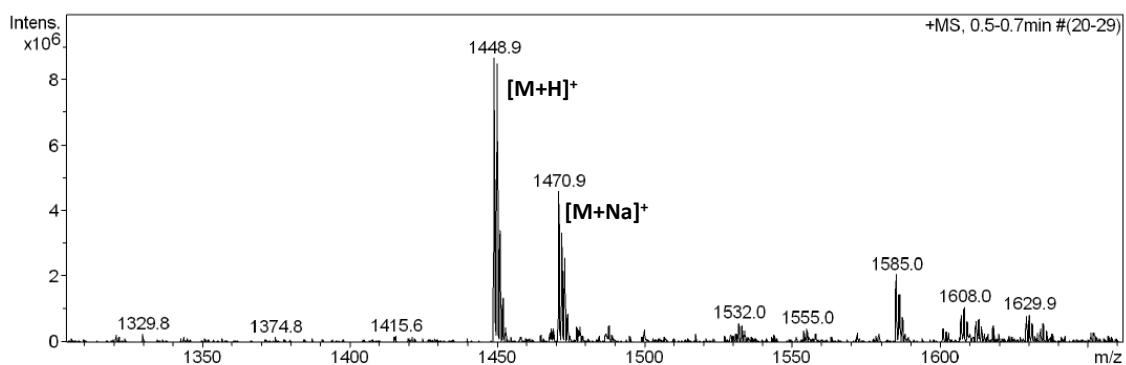
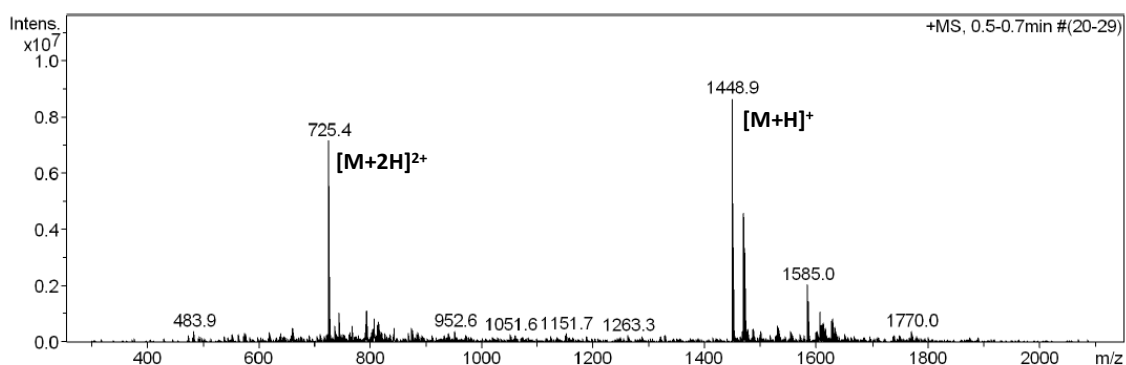
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP4-butíric-667 impur)



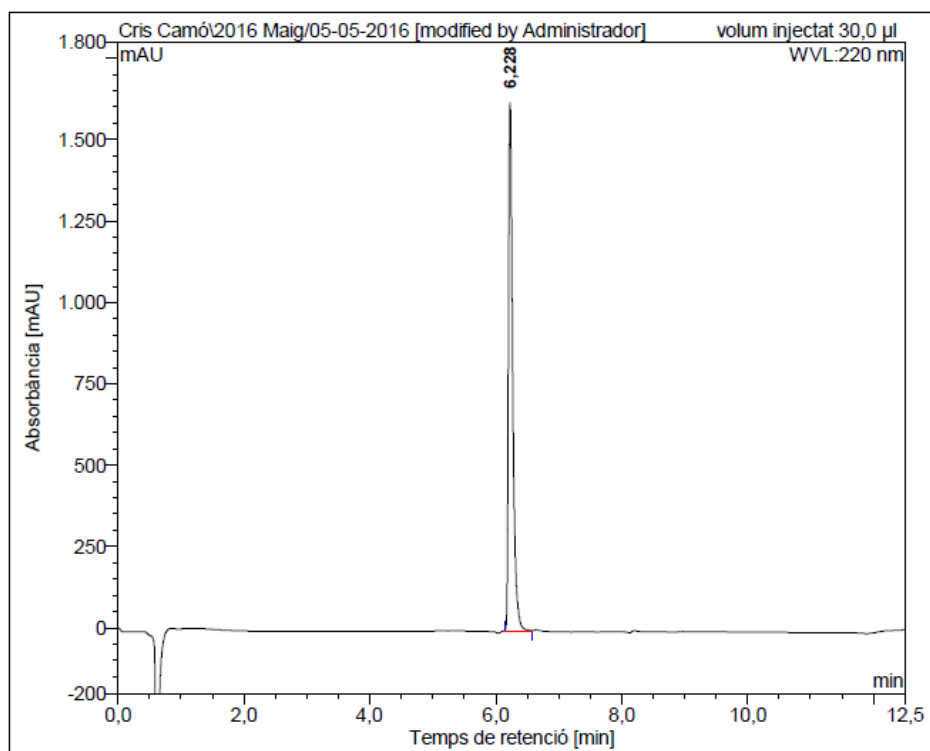
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,19 | 1488,601 | 108,053 | 47,75 |
| 2 | 6,29 | 436,379 | 41,853 | 18,49 |
| 3 | 6,62 | 342,153 | 38,297 | 16,92 |
| 4 | 6,84 | 256,776 | 26,684 | 11,79 |
| 5 | 7,19 | 71,592 | 7,126 | 3,15 |
| 6 | 7,53 | 4,452 | 0,381 | 0,17 |
| 7 | 7,68 | 14,778 | 0,878 | 0,39 |
| 8 | 7,76 | 33,623 | 3,028 | 1,34 |
| Total: | | 2648,354 | 226,300 | 100,00 |

ESI-MS (m/z) (CC-4-LysP4-butíric-498)



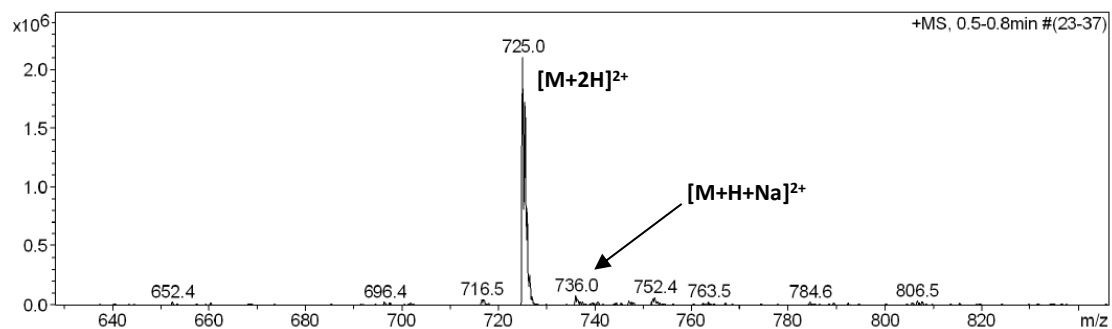
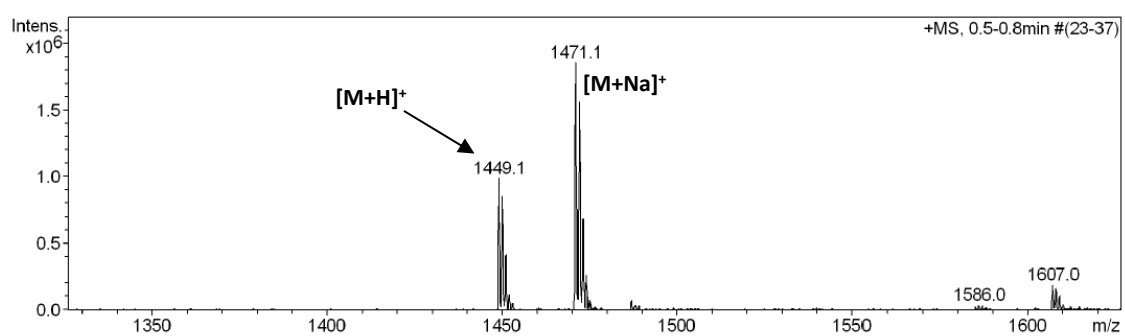
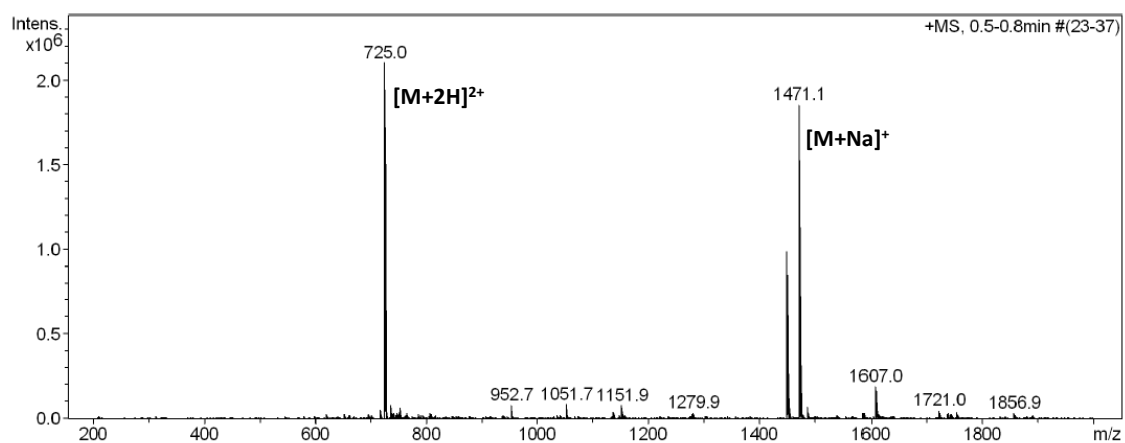
| |
|------------------------|
| $[M+H]^+ = 1448.9$ |
| $[M+Na]^+ = 1470.9$ |
| $[M+2H]^{2+} = 725.4$ |
| $[M+H+K]^{2+} = 744.4$ |

PURE PRODUCT

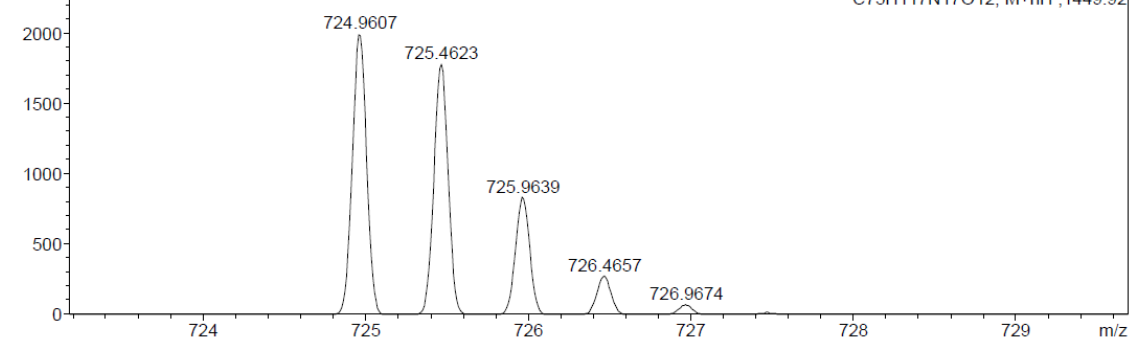
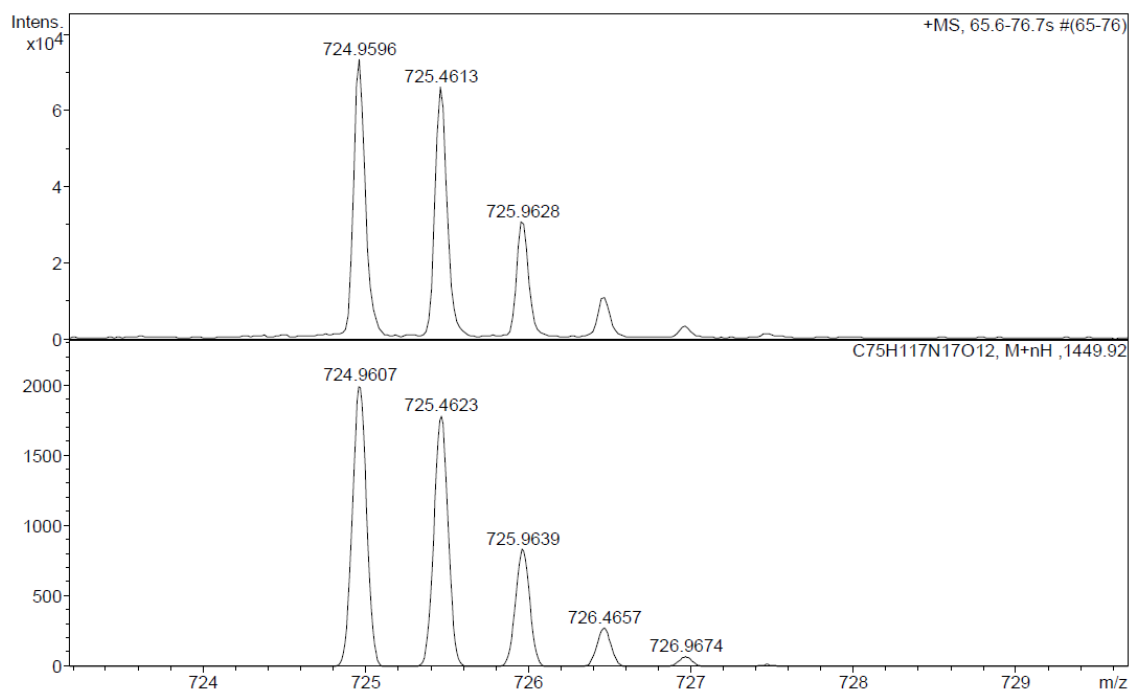
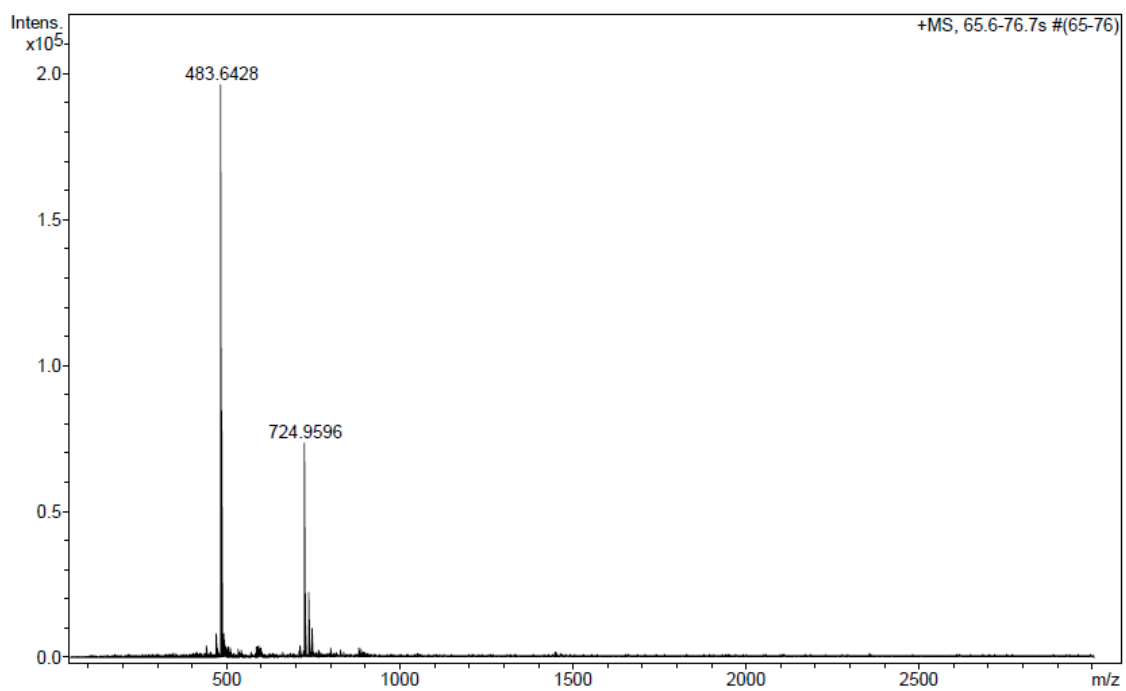
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP4-butíric-667 tub 13)

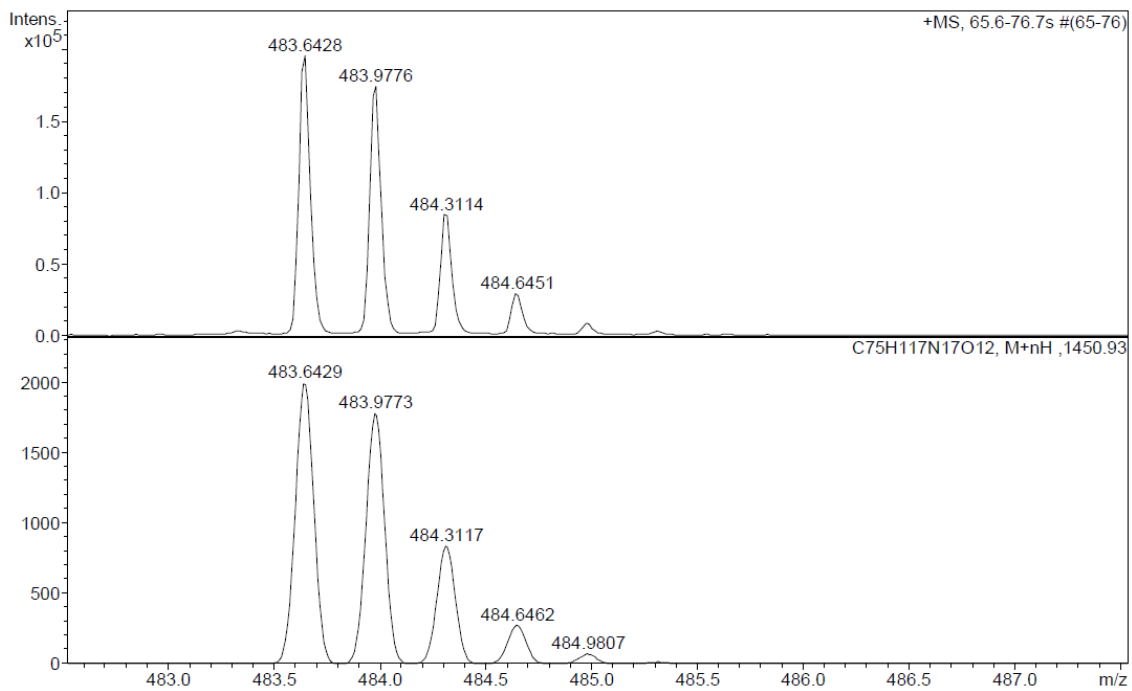
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,23 | 1620,914 | 127,888 | 100,00 |
| Total: | | 1620,914 | 127,888 | 100,00 |

ESI-MS (m/z) (CC-4-LysP4-butiric-667 tub 13)



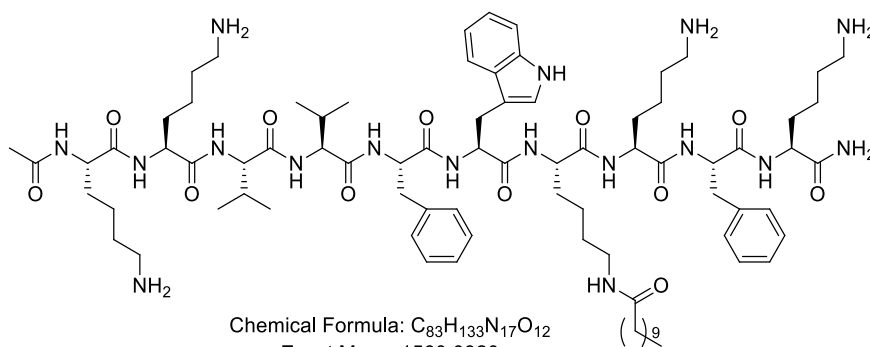
| |
|-------------------------|
| $[M+H]^+ = 1449.1$ |
| $[M+Na]^+ = 1471.1$ |
| $[M+2H]^{2+} = 725.0$ |
| $[M+H+Na]^{2+} = 736.0$ |

HRMS (ESI) (m/z) (CC-4-LysP4-butíric-tubs 8-13)



| | Molecular formula | Calculated | Found |
|----------------------------|--|-------------------|--------------|
| [M+2H]²⁺ | C ₇₅ H ₁₁₉ N ₁₇ O ₁₂ | 724.9607 | 724.9596 |
| [M+3H]³⁺ | C ₇₅ H ₁₂₀ N ₁₇ O ₁₂ | 483.6429 | 483.6428 |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Lys(CO-C₁₁H₂₃)-Lys-Phe-Lys-NH₂ (**BP423**)



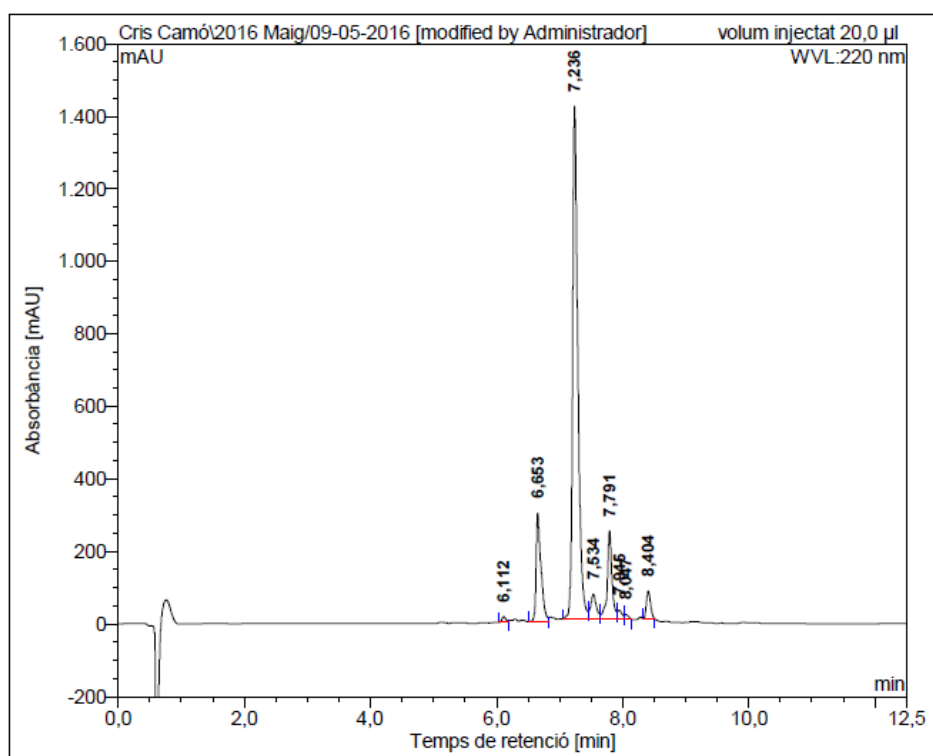
Chemical Formula: C₈₃H₁₃₃N₁₇O₁₂

Exact Mass: 1560,0320

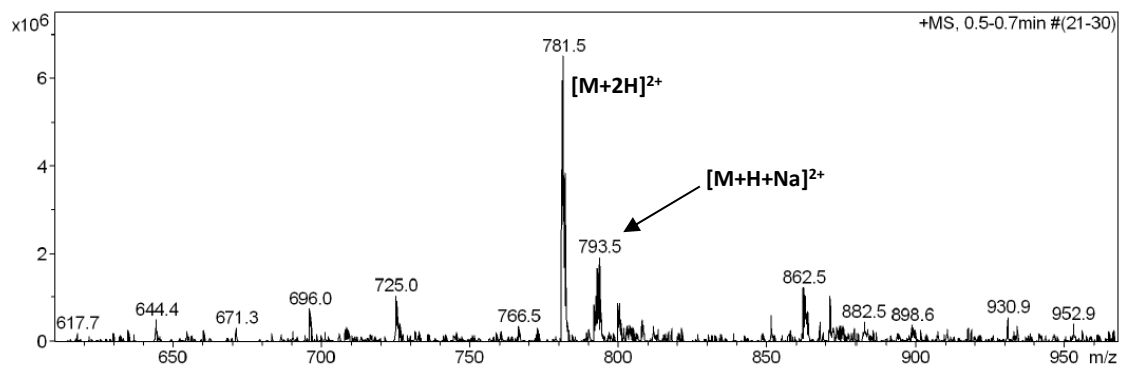
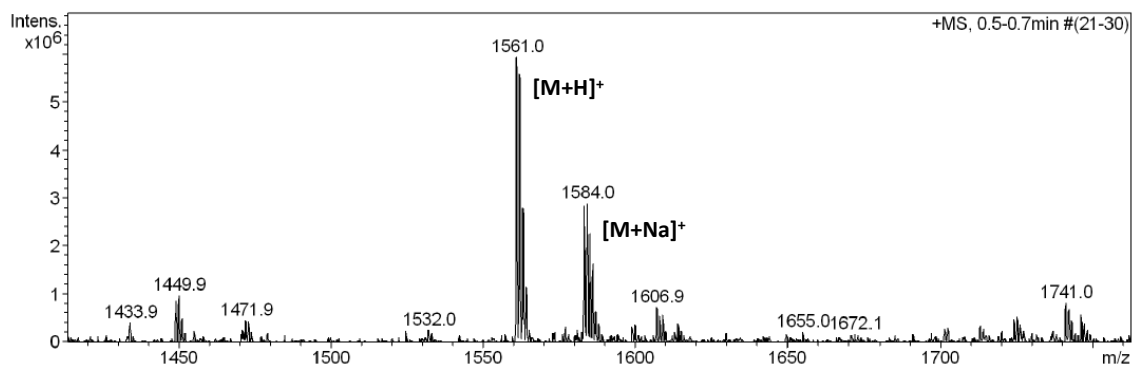
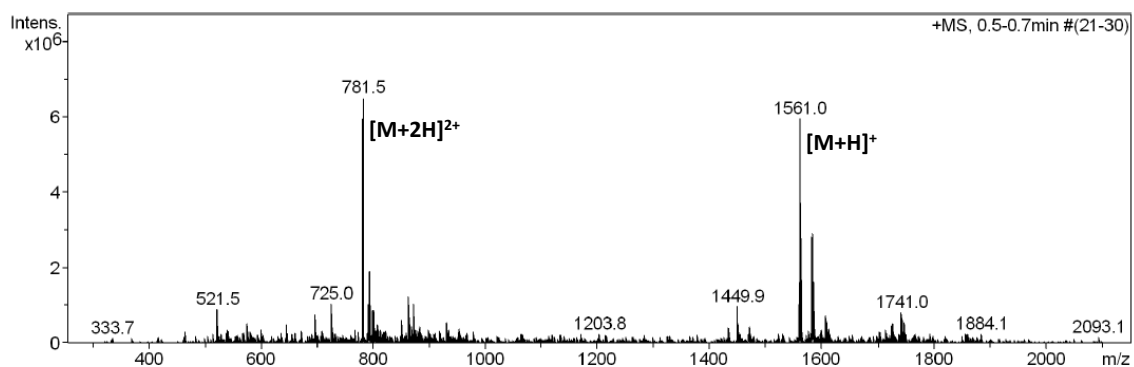
Molecular Weight: 1561,0508

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP4-làuric-669 impur)

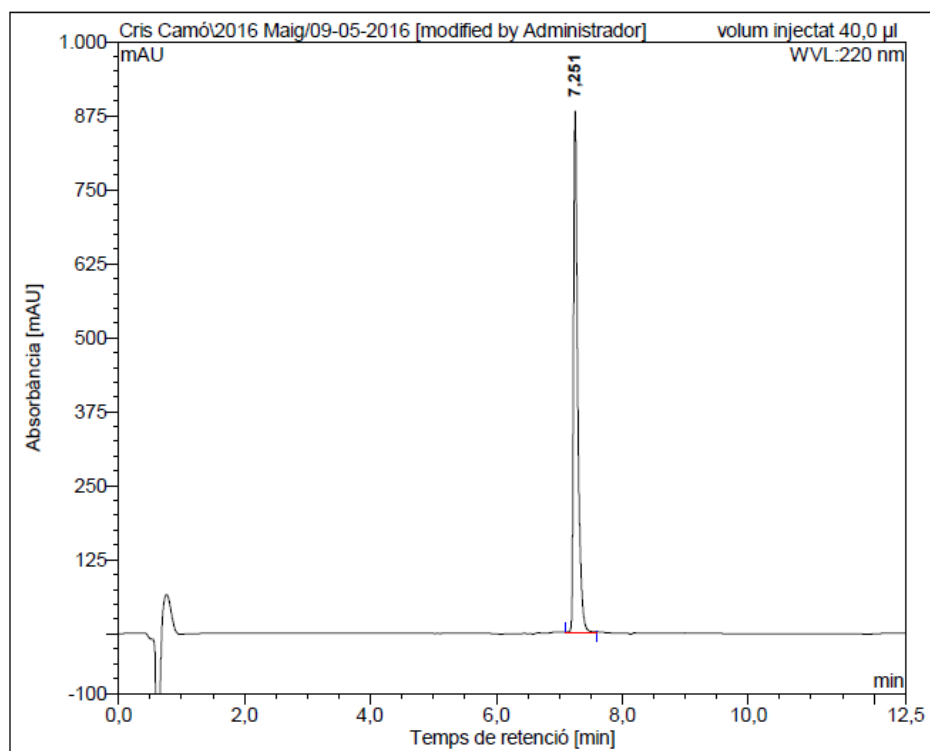


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 16,262 | 1,260 | 0,62 |
| 2 | 6,65 | 298,895 | 26,700 | 13,06 |
| 3 | 7,24 | 1414,835 | 138,964 | 67,99 |
| 4 | 7,53 | 69,150 | 7,286 | 3,56 |
| 5 | 7,79 | 243,421 | 21,466 | 10,50 |
| 6 | 7,95 | 24,958 | 1,972 | 0,96 |
| 7 | 8,05 | 12,695 | 1,045 | 0,51 |
| 8 | 8,40 | 75,988 | 5,697 | 2,79 |
| Total: | | 2156,204 | 204,391 | 100,00 |

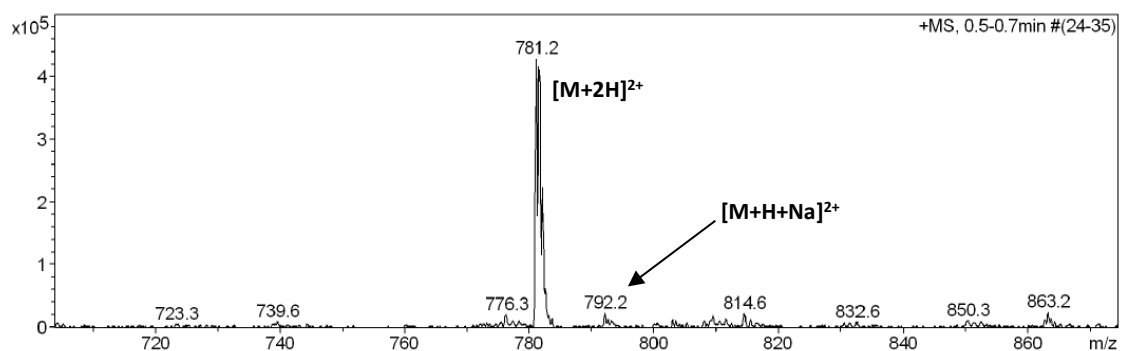
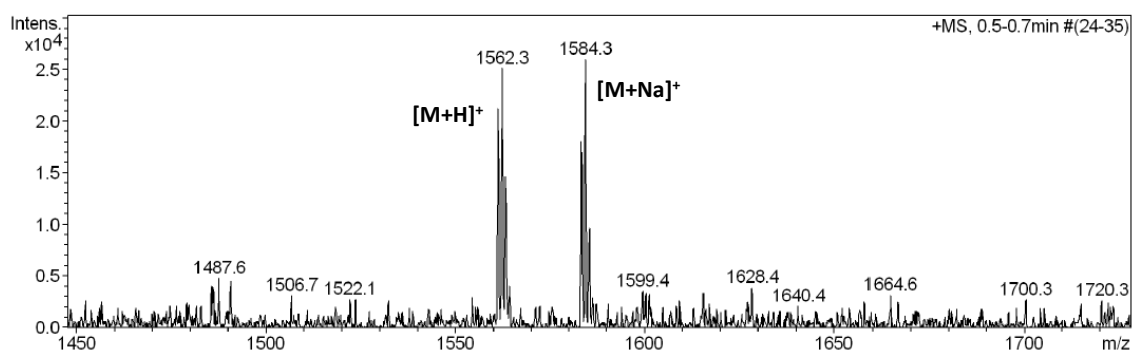
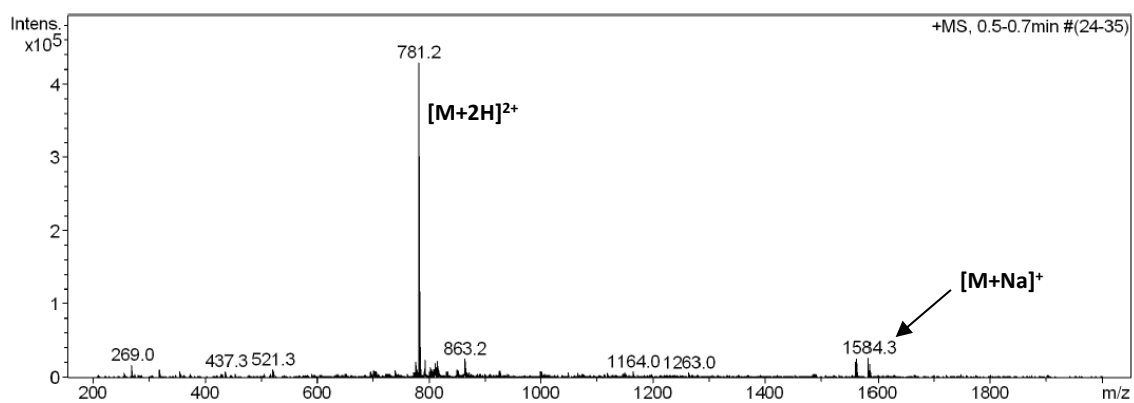
ESI-MS (m/z) (CC-4-LysP4-làuric-498)

| |
|-------------------------|
| $[M+H]^+ = 1561.0$ |
| $[M+Na]^+ = 1583.0$ |
| $[M+2H]^{2+} = 781.5$ |
| $[M+H+Na]^{2+} = 793.5$ |

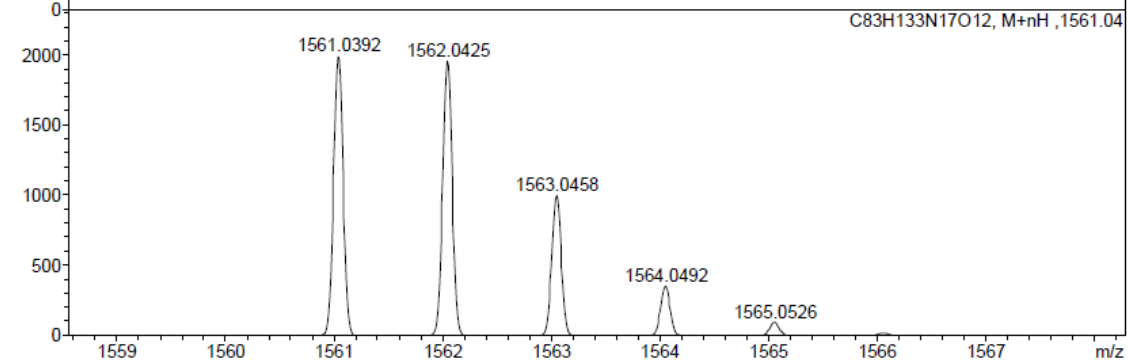
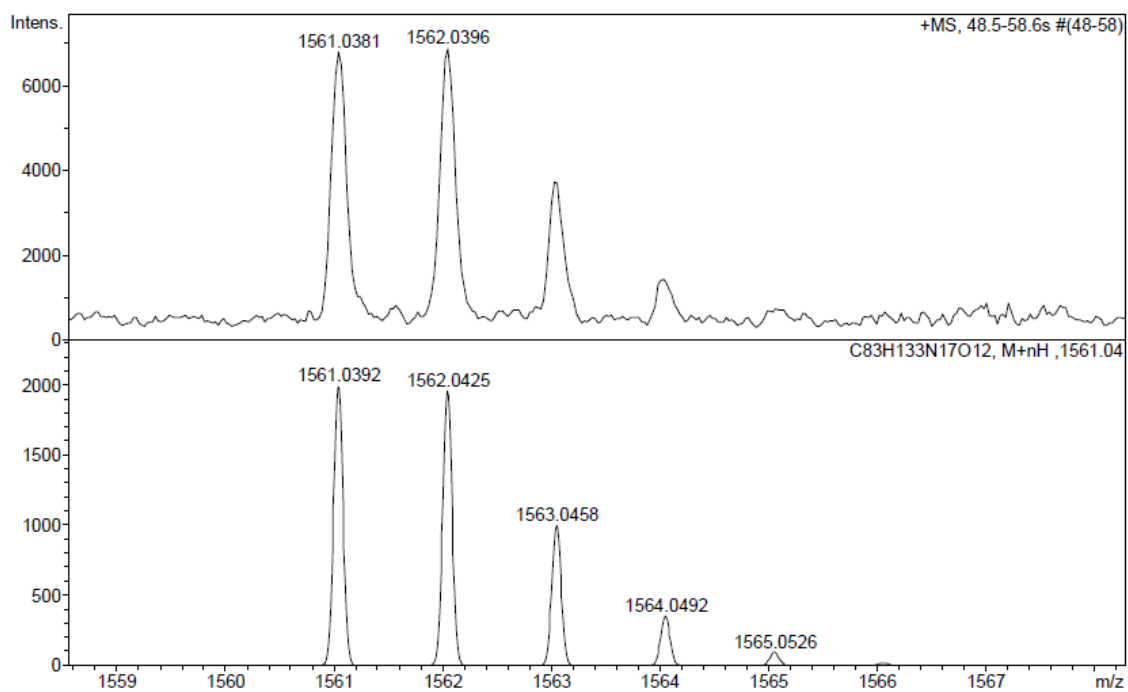
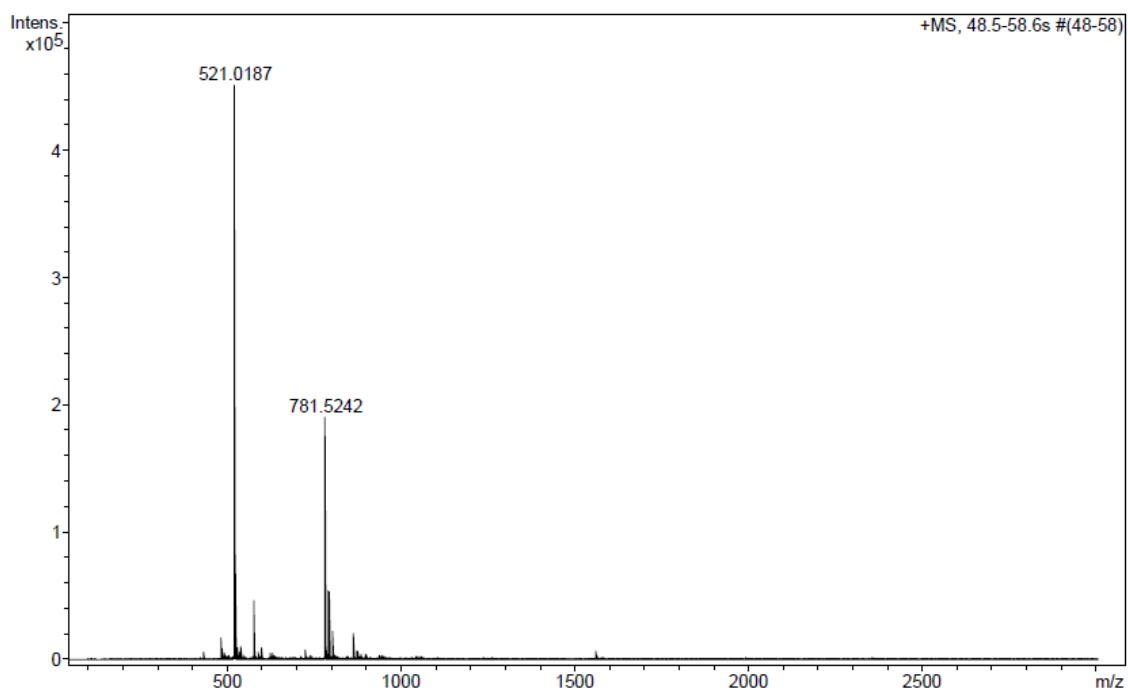
PURE PRODUCT

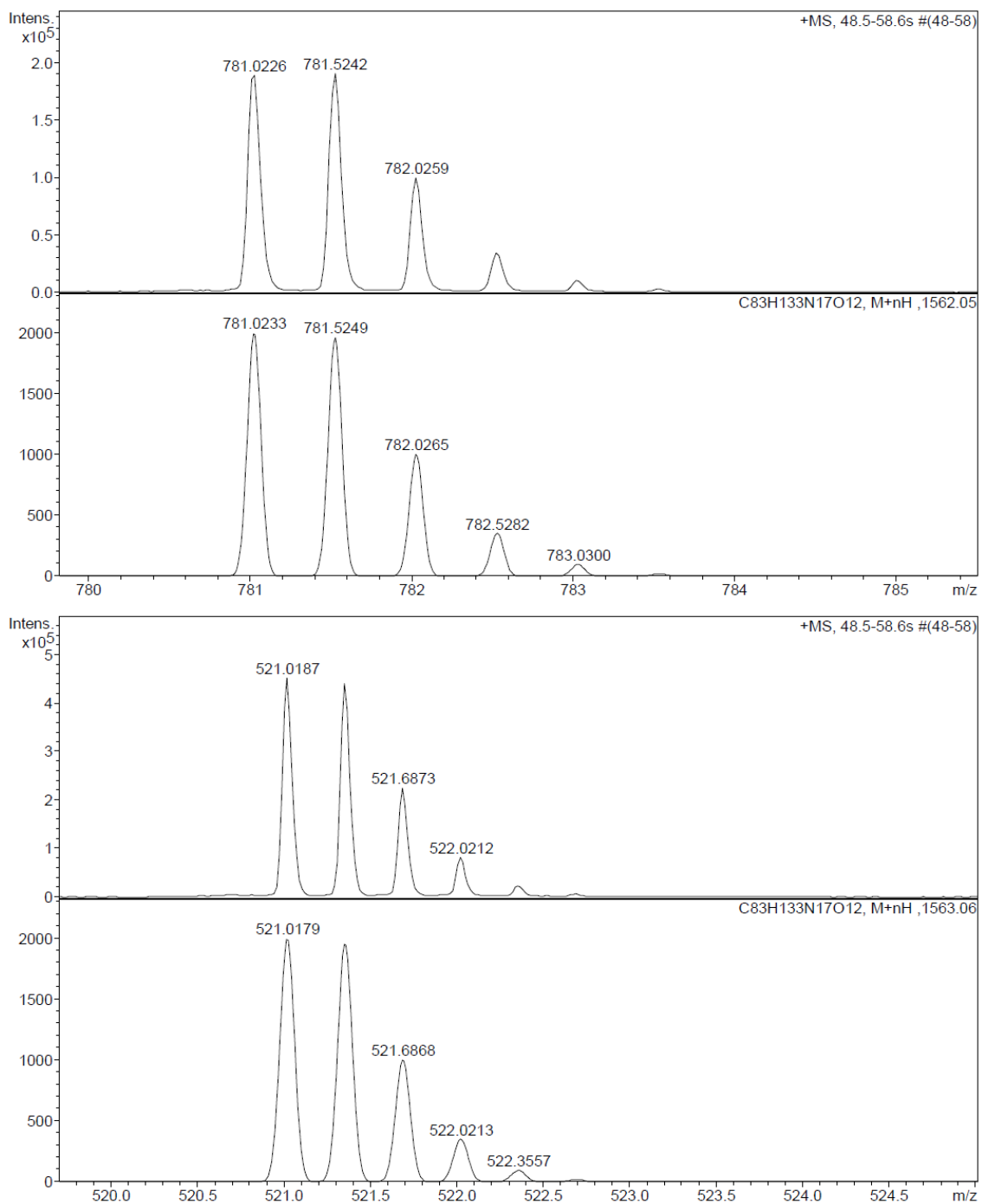
HPLC ($\lambda = 220$ nm) (CC-4-LysP4-làuric-669 tub 22)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,25 | 880,604 | 69,373 | 100,00 |
| Total: | | 880,604 | 69,373 | 100,00 |

ESI-MS (m/z) (CC-4-LysP4-làuric-669 tub 22)

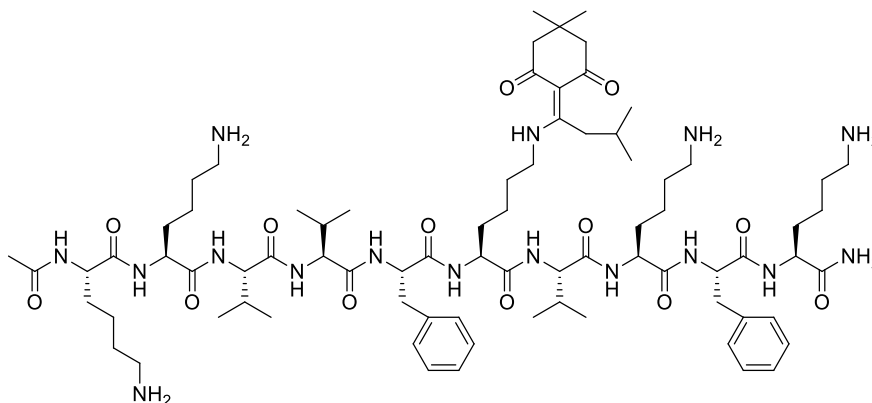
| |
|-------------------------|
| $[M+H]^+ = 1561.3$ |
| $[M+Na]^+ = 1583.3$ |
| $[M+2H]^{2+} = 781.2$ |
| $[M+H+Na]^{2+} = 792.2$ |

HRMS (ESI) (m/z) (CC-4-LysP4-làuric-669 tubs 18-25)



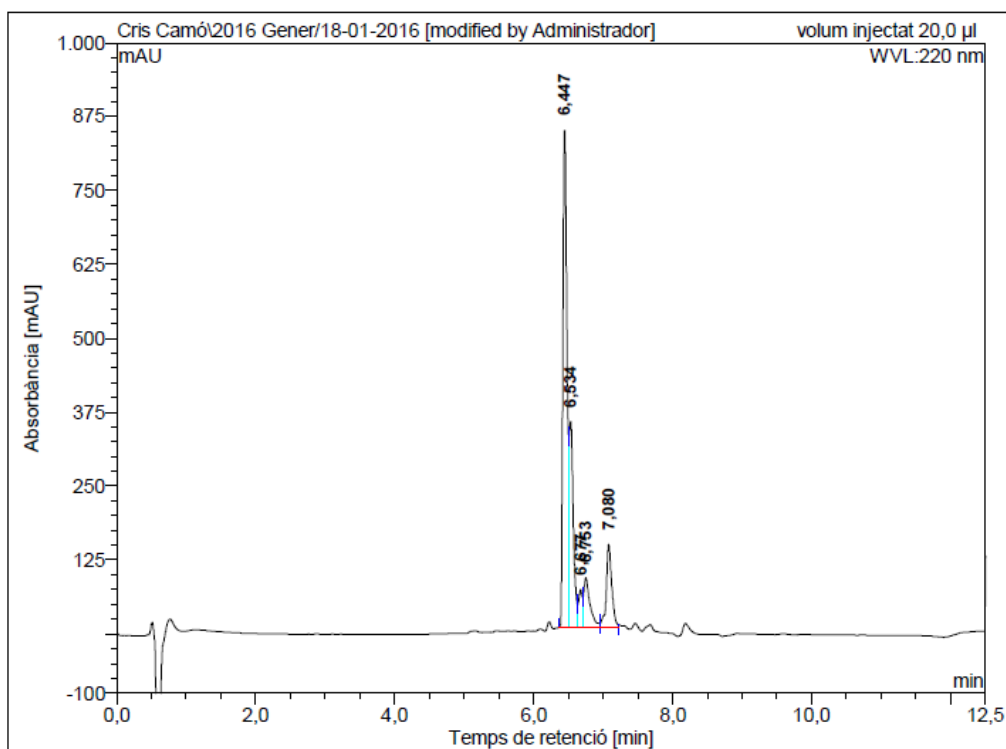
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{83}H_{134}N_{17}O_{12}$ | 1561.0392 | 1561.0381 |
| $[M+2H]^{2+}$ | $C_{83}H_{135}N_{17}O_{12}$ | 781.0233 | 781.0226 |
| $[M+3H]^{3+}$ | $C_{83}H_{136}N_{17}O_{12}$ | 521.0179 | 521.0187 |

Lipopeptides derived from KSLW acylated at position 6

 $\text{CH}_3\text{CO-Lys-Lys-Val-Val-Phe-Lys(ivDde)-Val-Lys-Phe-Lys-NH}_2$
Chemical Formula: $\text{C}_{78}\text{H}_{128}\text{N}_{16}\text{O}_{13}$

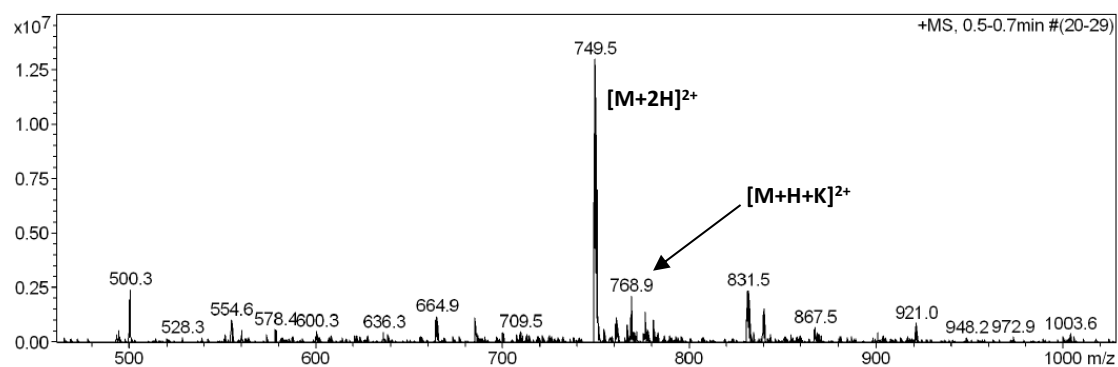
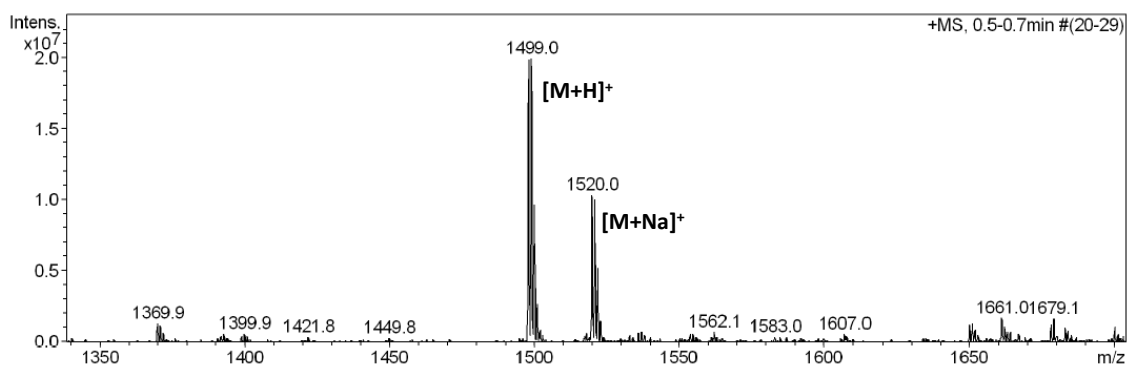
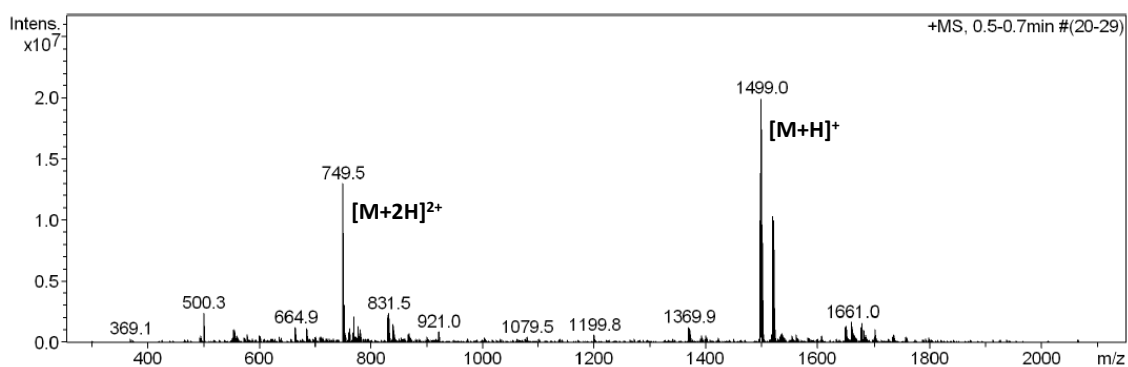
Exact Mass: 1496,9847

Molecular Weight: 1497,9503

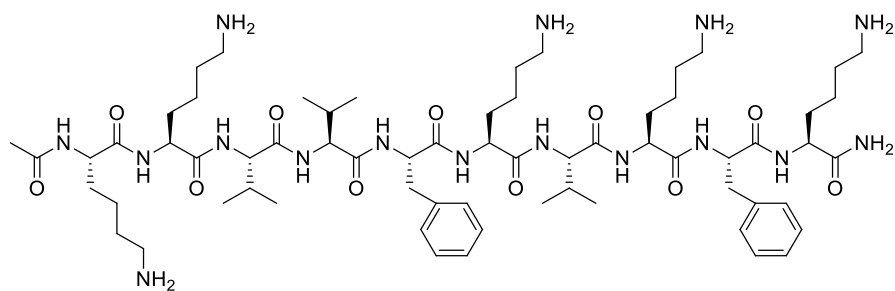
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP5-501)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,45 | 840,036 | 56,500 | 52,41 |
| 2 | 6,53 | 347,428 | 25,433 | 23,59 |
| 3 | 6,68 | 63,698 | 3,860 | 3,58 |
| 4 | 6,75 | 83,821 | 9,147 | 8,48 |
| 5 | 7,08 | 140,674 | 12,864 | 11,93 |
| Total: | | 1475,658 | 107,804 | 100,00 |

ESI-MS (m/z) (CC-4-LysP5-501)



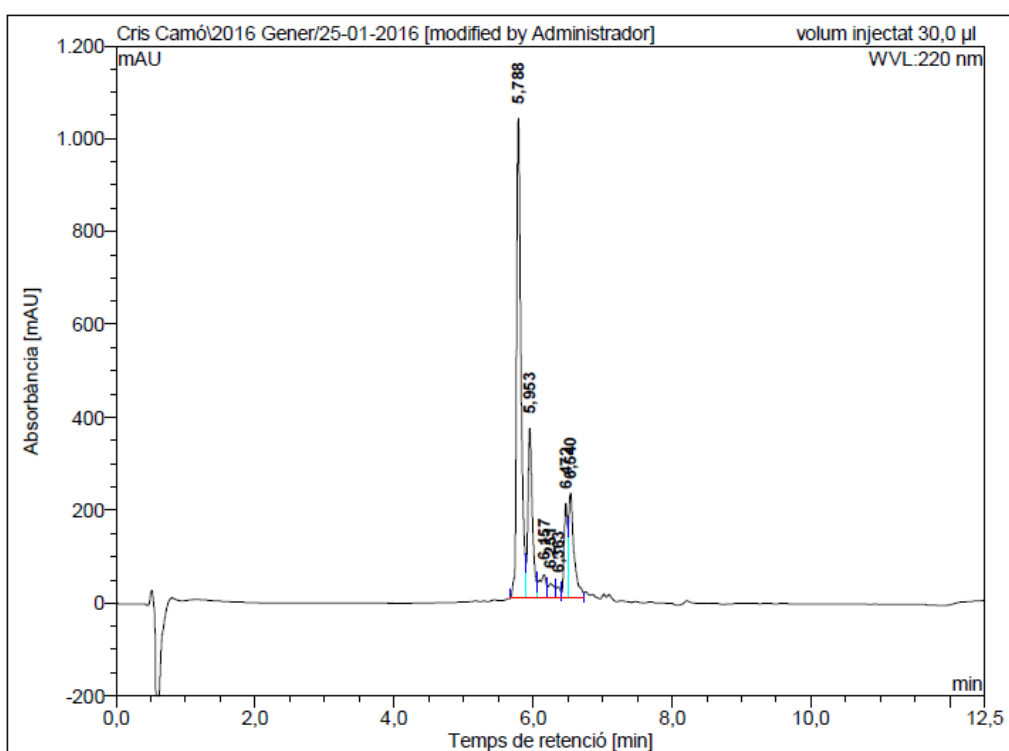
| |
|------------------------|
| $[M+H]^+ = 1498.0$ |
| $[M+Na]^+ = 1520.0$ |
| $[M+2H]^{2+} = 749.5$ |
| $[M+H+K]^{2+} = 768.9$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Lys-Val-Lys-Phe-Lys-NH₂Chemical Formula: C₆₅H₁₁₀N₁₆O₁₁

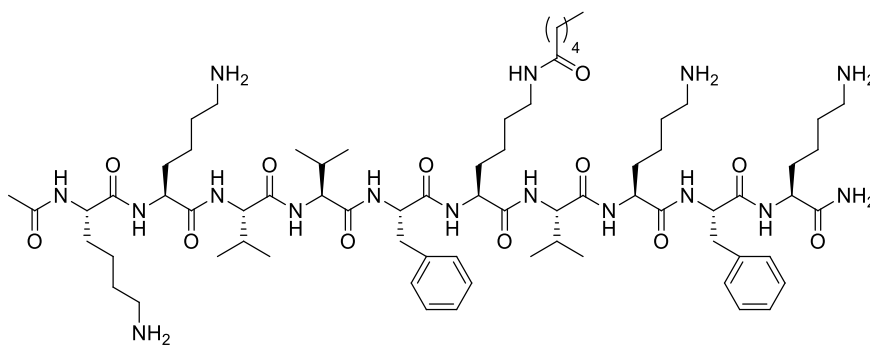
Exact Mass: 1290,8540

Molecular Weight: 1291,6695

HPLC (λ = 220 nm) (CC-4-LysP5-hexanoic-517)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,79 | 1033,817 | 76,230 | 52,15 |
| 2 | 5,95 | 365,680 | 27,004 | 18,47 |
| 3 | 6,16 | 50,941 | 5,985 | 4,09 |
| 4 | 6,25 | 32,129 | 3,139 | 2,15 |
| 5 | 6,36 | 25,033 | 1,969 | 1,35 |
| 6 | 6,47 | 204,781 | 11,093 | 7,59 |
| 7 | 6,54 | 226,313 | 20,765 | 14,20 |
| Total: | | 1938,695 | 146,185 | 100,00 |

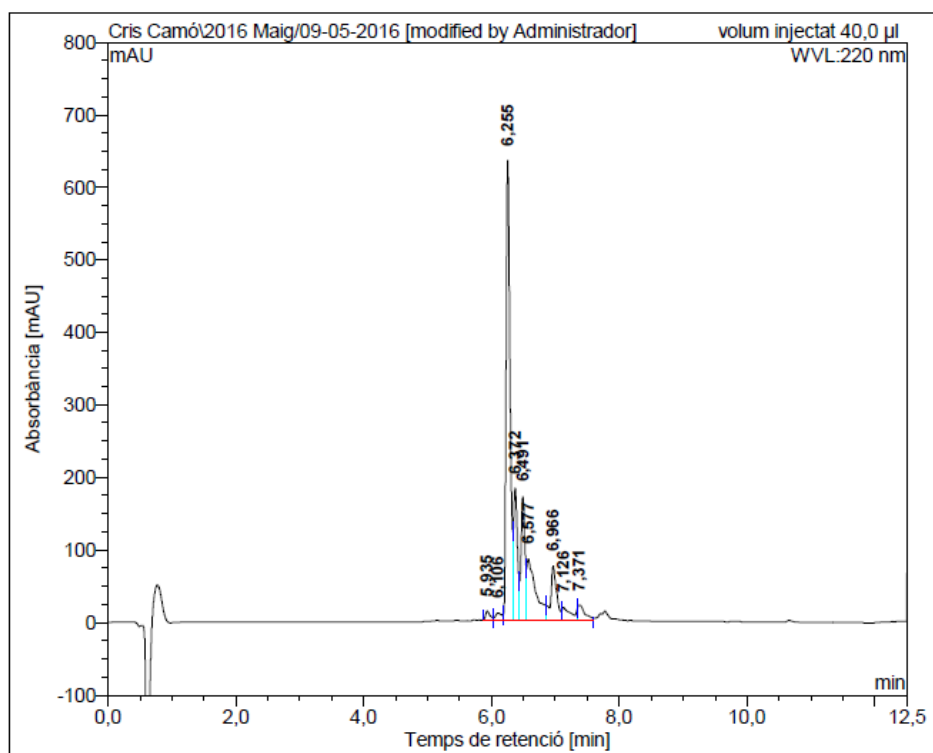
CH₃CO-Lys-Lys-Val-Val-Phe-Lys(CO-C₅H₁₁)-Val-Lys-Phe-Lys-NH₂ (BP424)Chemical Formula: C₇₁H₁₂₀N₁₆O₁₂

Exact Mass: 1388,9272

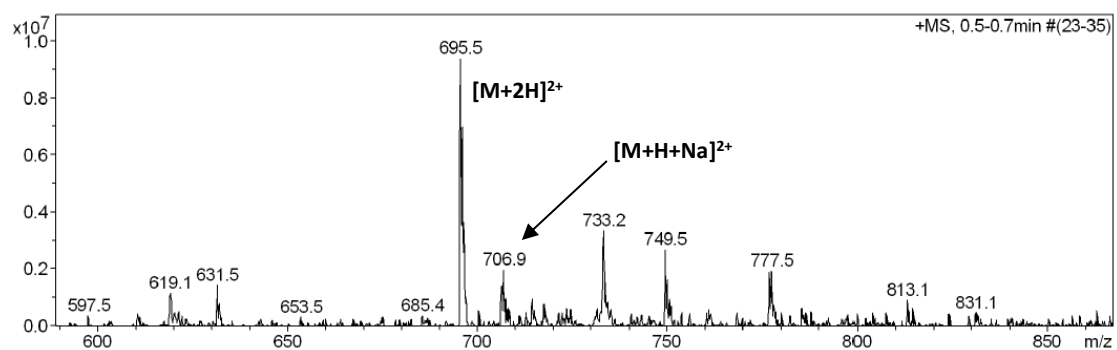
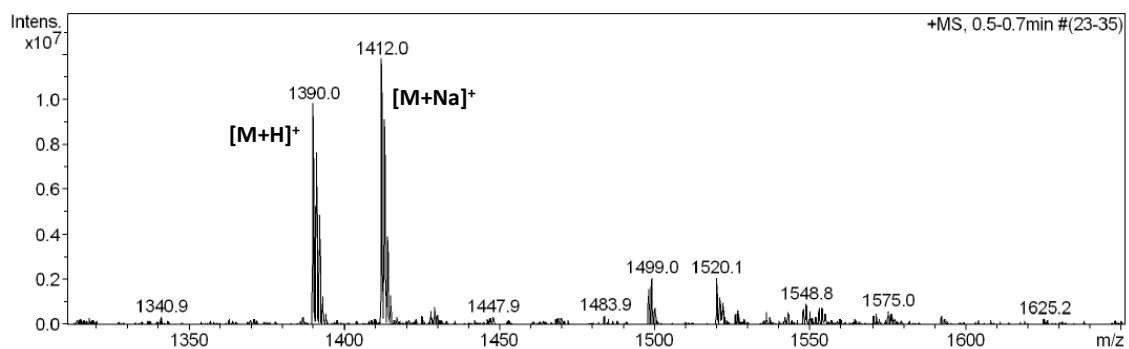
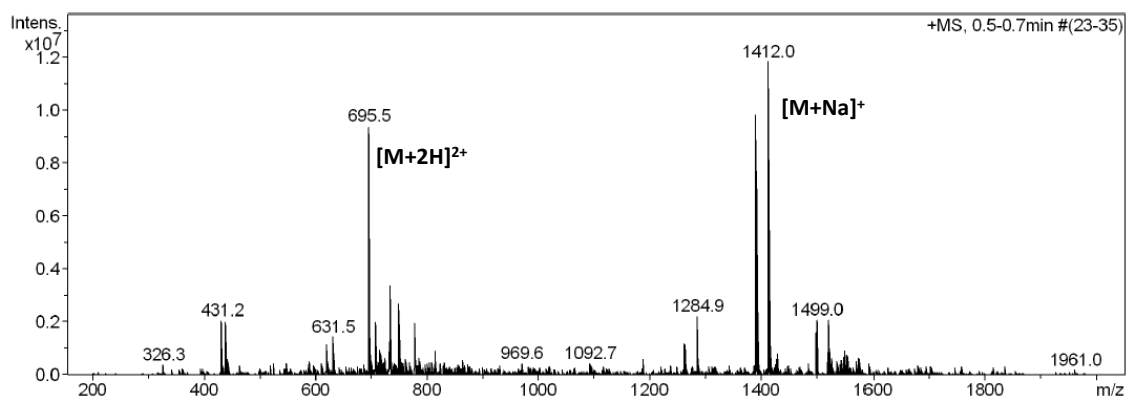
Molecular Weight: 1389,8125

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP5-hexanoic-671 impur)

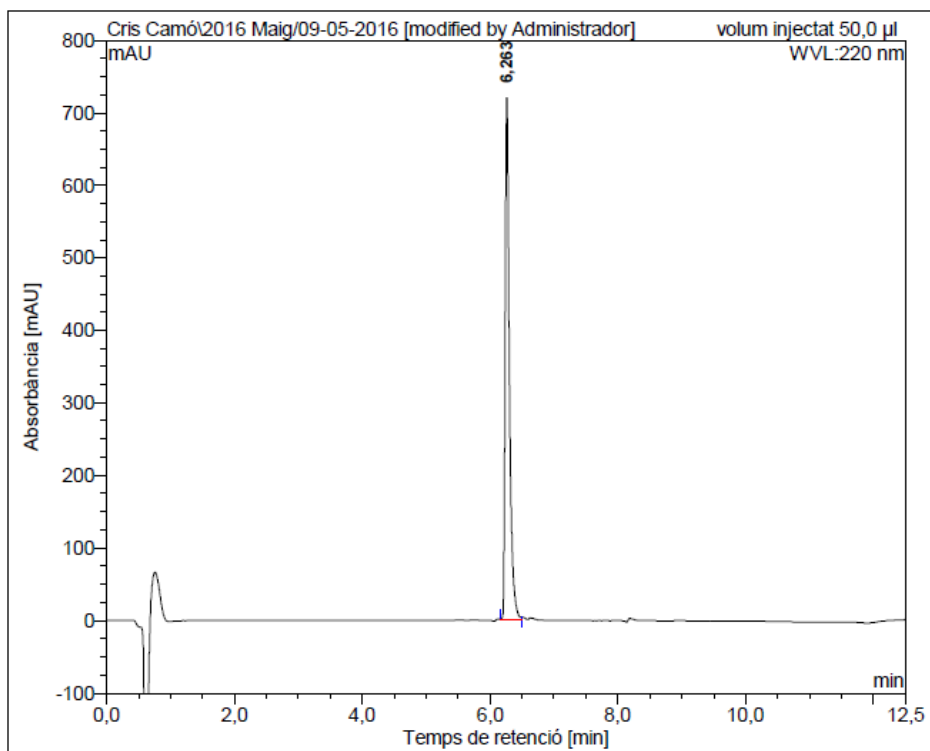


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,93 | 12,317 | 0,996 | 0,99 |
| 2 | 6,11 | 9,788 | 1,058 | 1,05 |
| 3 | 6,25 | 633,992 | 45,632 | 45,28 |
| 4 | 6,37 | 182,074 | 13,554 | 13,45 |
| 5 | 6,49 | 170,188 | 11,987 | 11,89 |
| 6 | 6,58 | 84,734 | 13,904 | 13,80 |
| 7 | 6,97 | 74,649 | 8,052 | 7,99 |
| 8 | 7,13 | 17,546 | 2,859 | 2,84 |
| 9 | 7,37 | 20,568 | 2,733 | 2,71 |
| Total: | | 1205,857 | 100,775 | 100,00 |

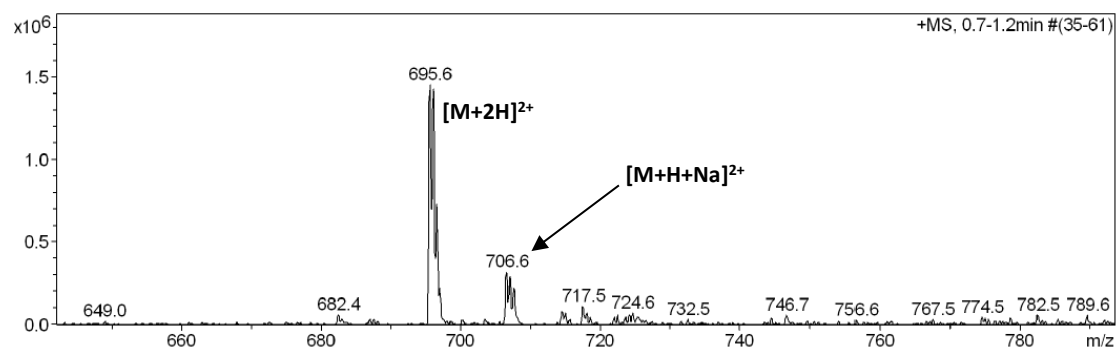
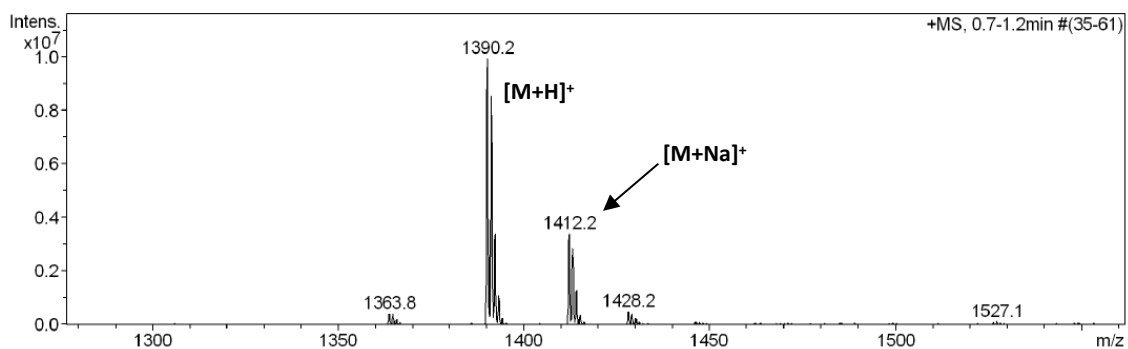
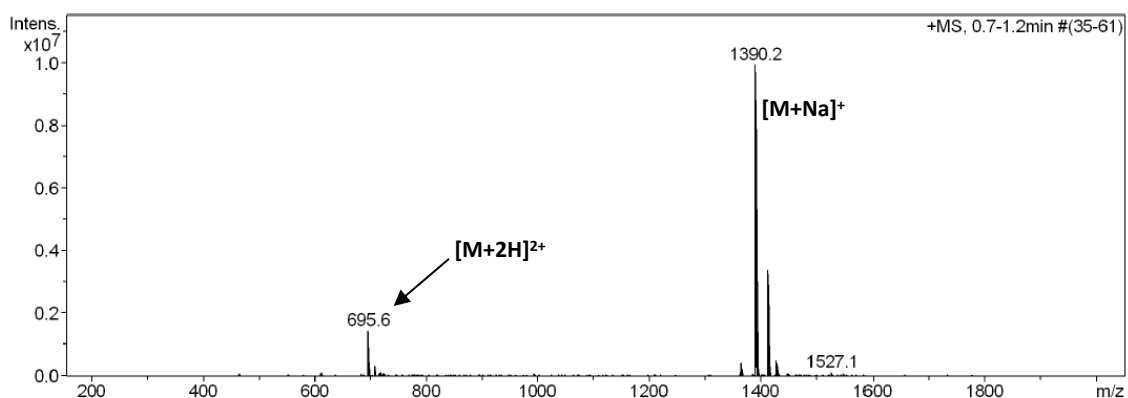
ESI-MS (m/z) (CC-4-LysP5-hexanoic-525)

| |
|-------------------------|
| $[M+H]^+ = 1390.0$ |
| $[M+Na]^+ = 1412.0$ |
| $[M+2H]^{2+} = 695.5$ |
| $[M+H+Na]^{2+} = 706.9$ |

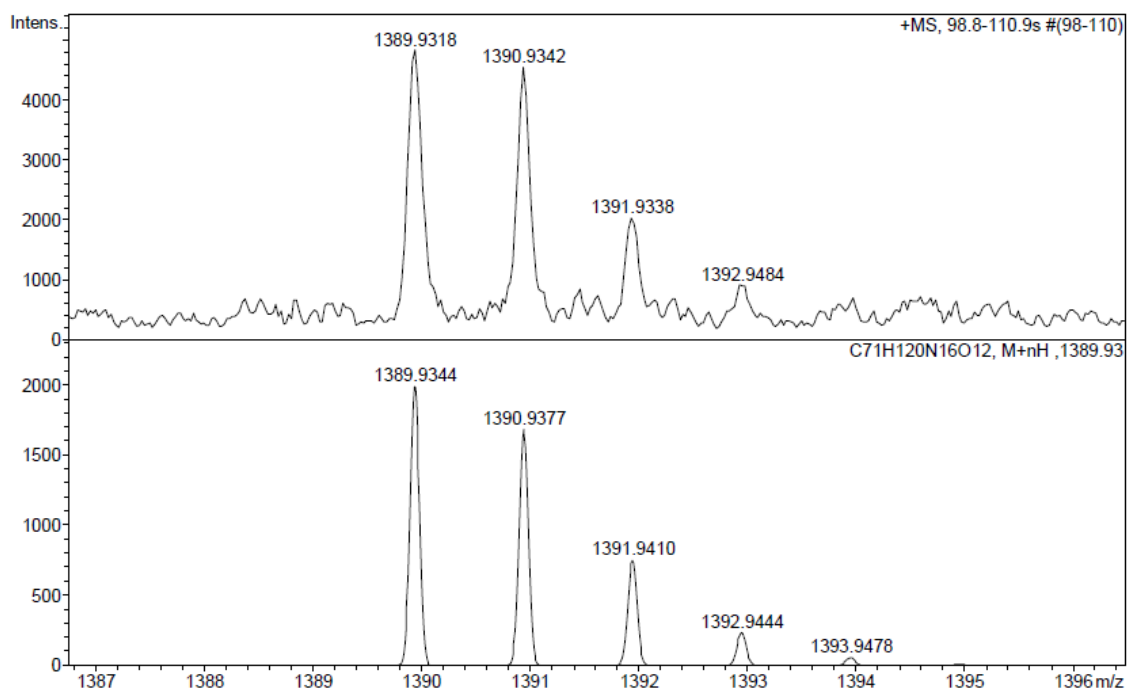
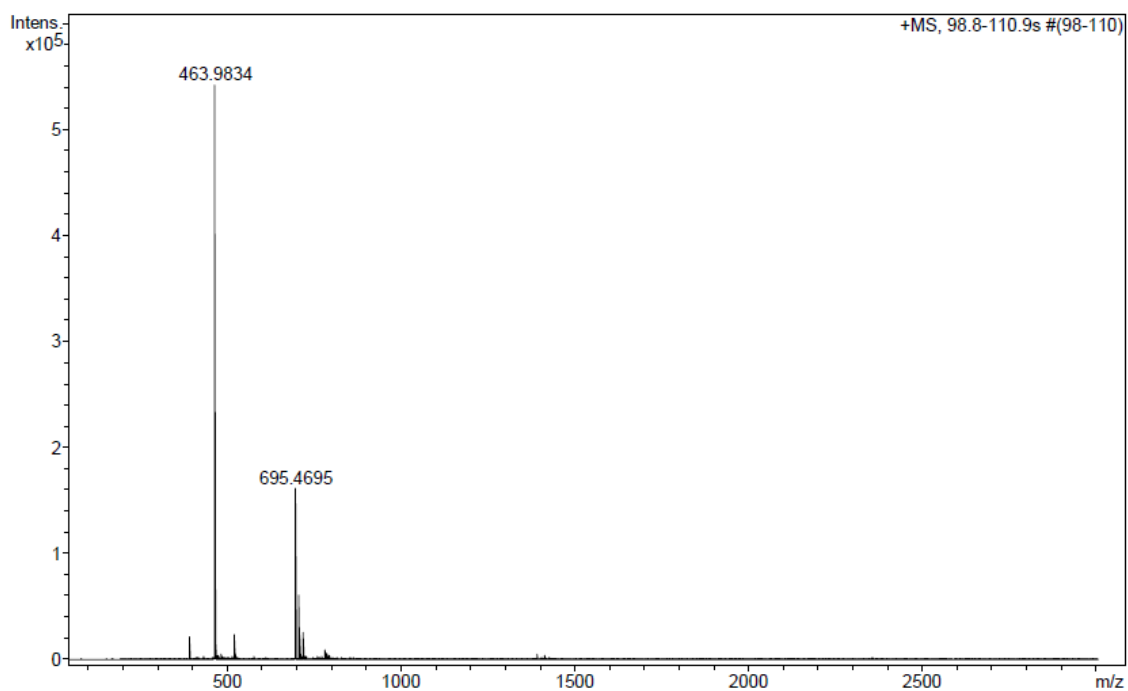
PURE PRODUCT

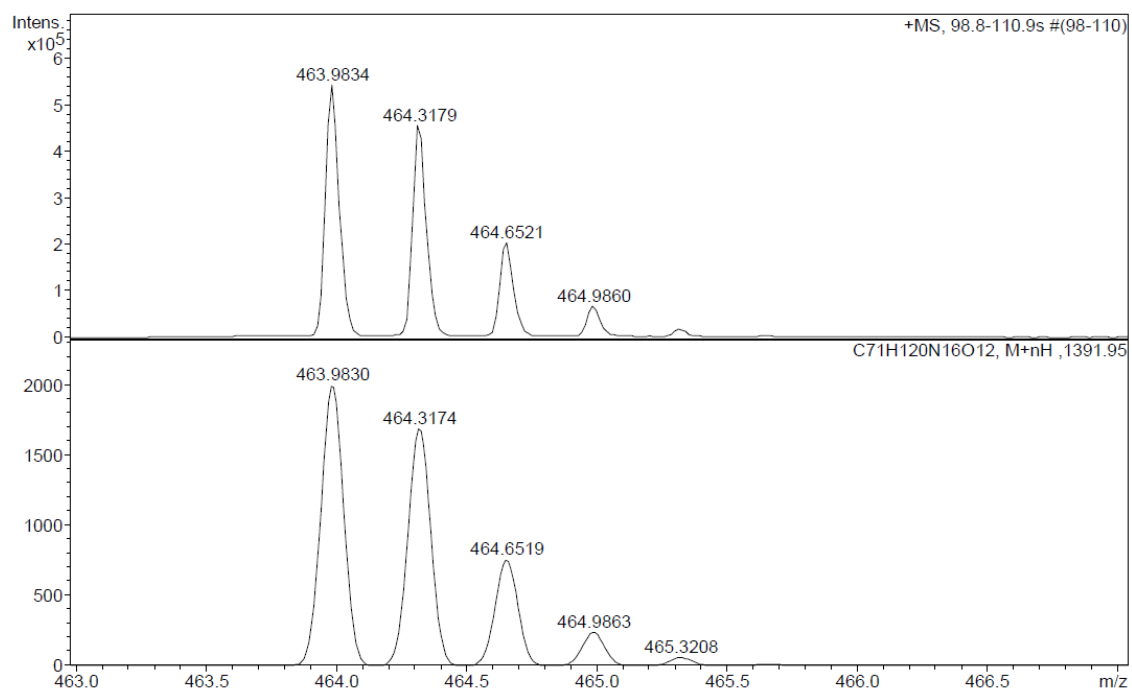
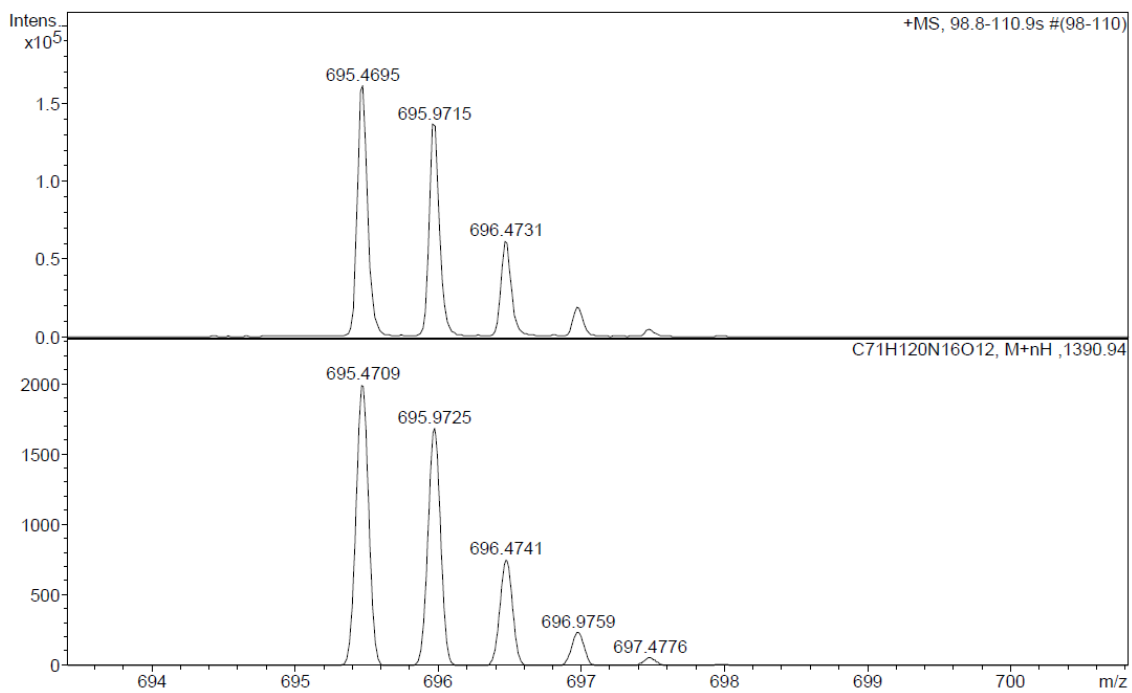
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP5-hexanoic-671 tub 14)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 719,295 | 55,511 | 100,00 |
| Total: | | 719,295 | 55,511 | 100,00 |

ESI-MS (m/z) (CC-4-LysP5-hexanoic-671 tub 14)

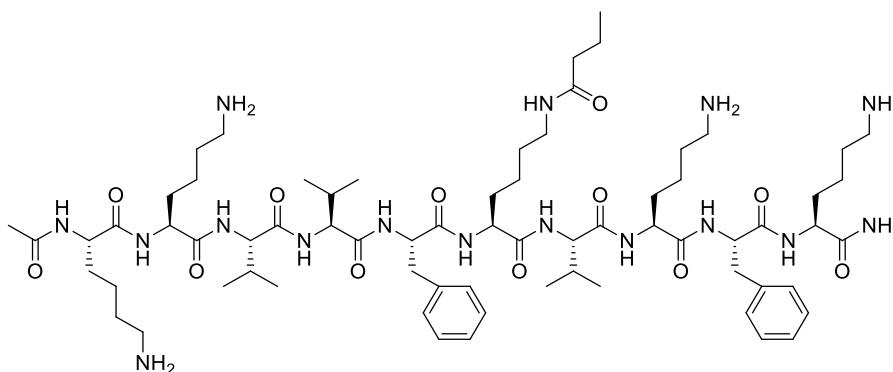
| |
|-------------------------|
| $[M+H]^+ = 1390.2$ |
| $[M+Na]^+ = 1412.2$ |
| $[M+K]^+ = 1428.2$ |
| $[M+2H]^{2+} = 695.6$ |
| $[M+H+Na]^{2+} = 706.6$ |

HRMS (ESI) (m/z) (CC-4-LysP5-hexanoic-671 tubs 10-14)



| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₇₁ H ₁₂₁ N ₁₆ O ₁₂ | 1389.9344 | 1389.9318 |
| [M+2H]²⁺ | C ₇₁ H ₁₂₂ N ₁₆ O ₁₂ | 695.4709 | 695.4695 |
| [M+3H]³⁺ | C ₇₁ H ₁₂₃ N ₁₆ O ₁₂ | 463.9830 | 463.9834 |

CH₃CO-Lys-Lys-Val-Val-Phe-Lys(CO-C₃H₇)-Val-Lys-Phe-Lys-NH₂ (**BP425**)



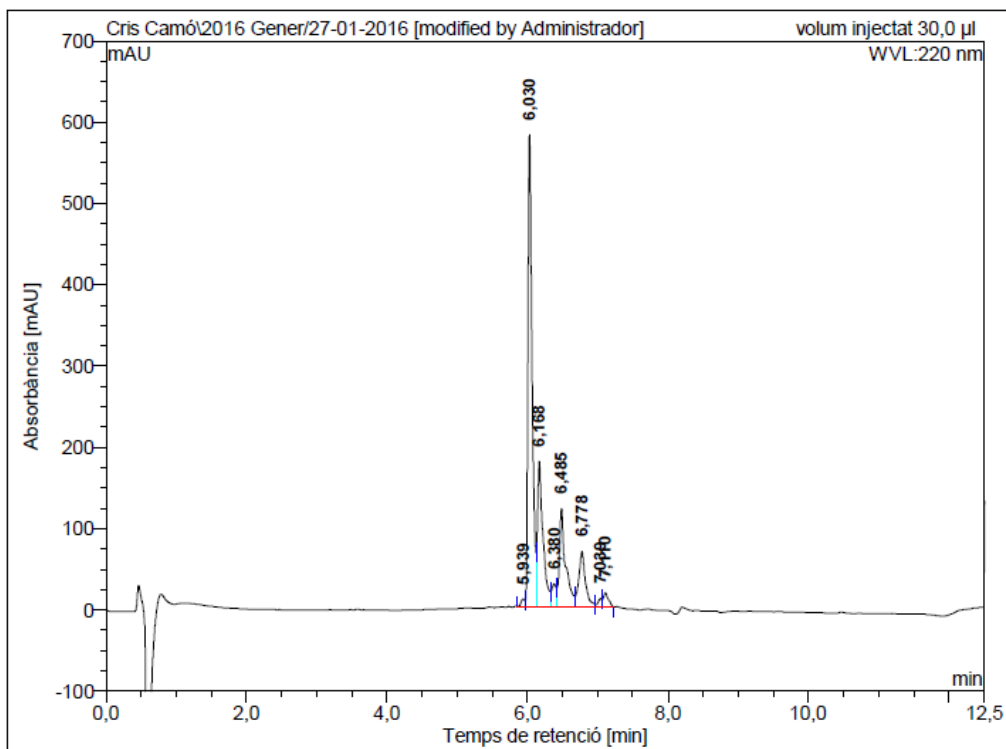
Chemical Formula: C₆₉H₁₁₆N₁₆O₁₂

Exact Mass: 1360,8959

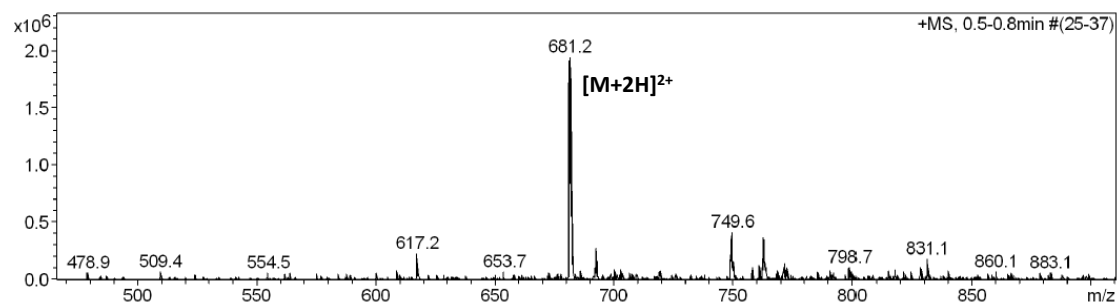
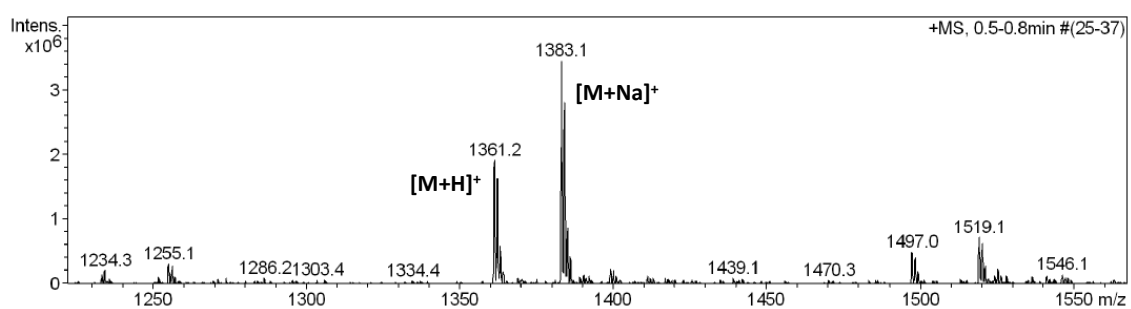
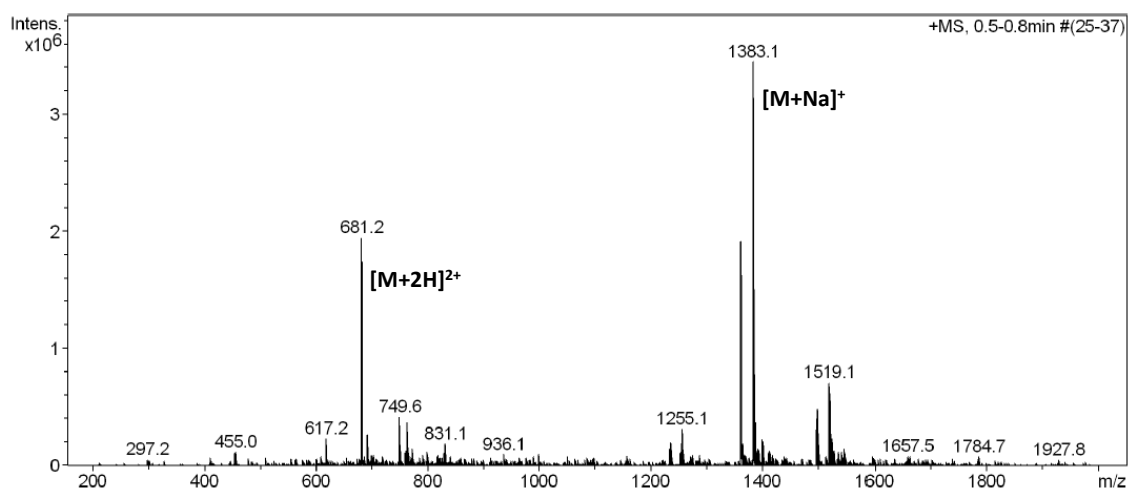
Molecular Weight: 1361,7593

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP5-butíric-525)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,94 | 9,761 | 0,595 | 0,73 |
| 2 | 6,03 | 581,063 | 39,607 | 48,64 |
| 3 | 6,17 | 179,098 | 16,768 | 20,59 |
| 4 | 6,38 | 28,347 | 2,078 | 2,55 |
| 5 | 6,48 | 121,071 | 12,747 | 15,65 |
| 6 | 6,78 | 68,301 | 7,495 | 9,21 |
| 7 | 7,04 | 10,097 | 0,691 | 0,85 |
| 8 | 7,11 | 17,232 | 1,443 | 1,77 |
| Total: | | 1014,971 | 81,424 | 100,00 |

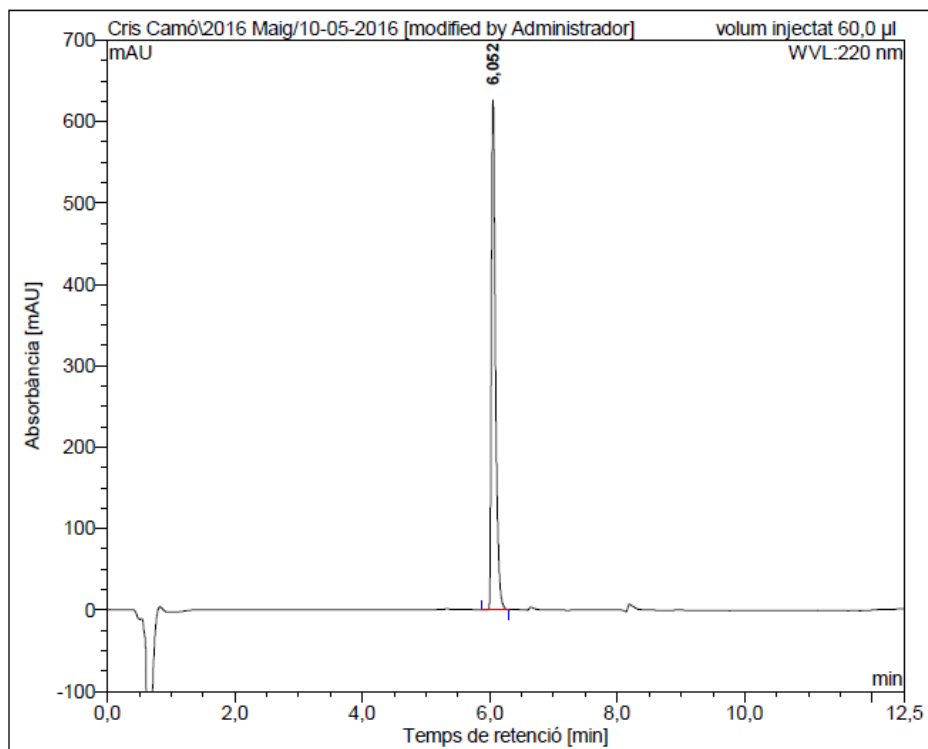
ESI-MS (m/z) (CC-4-LysP5-butíric-525)

$$[M+H]^+ = 1361.2$$

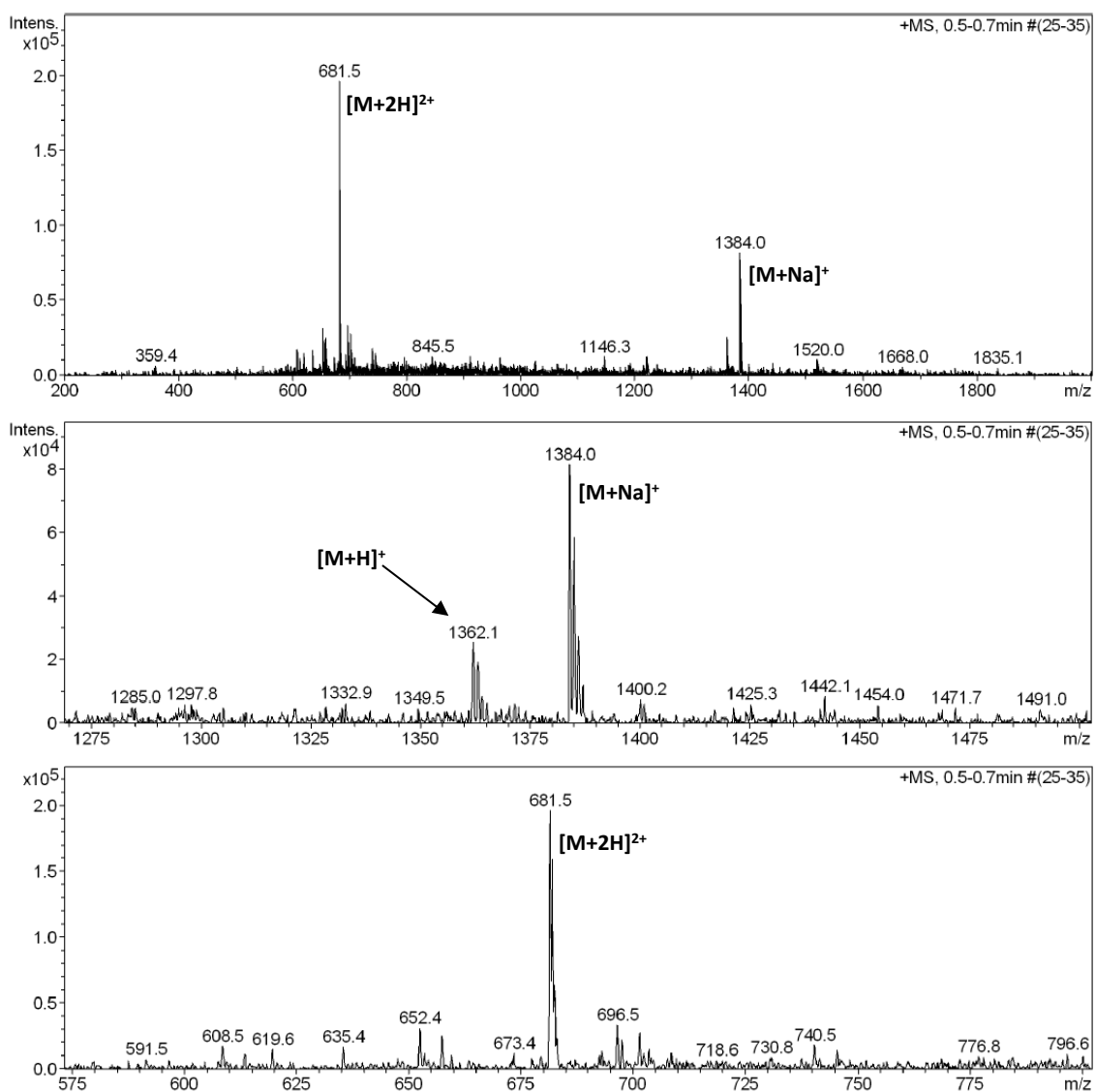
$$[M+Na]^+ = 1383.1$$

$$[M+2H]^{2+} = 681.2$$

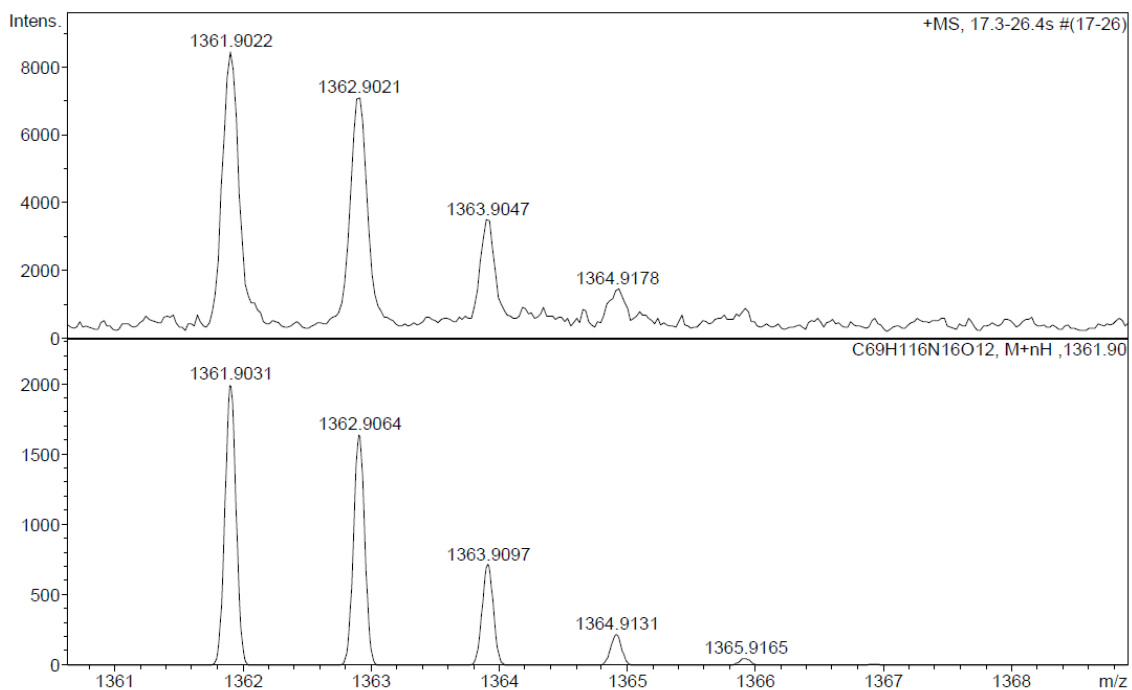
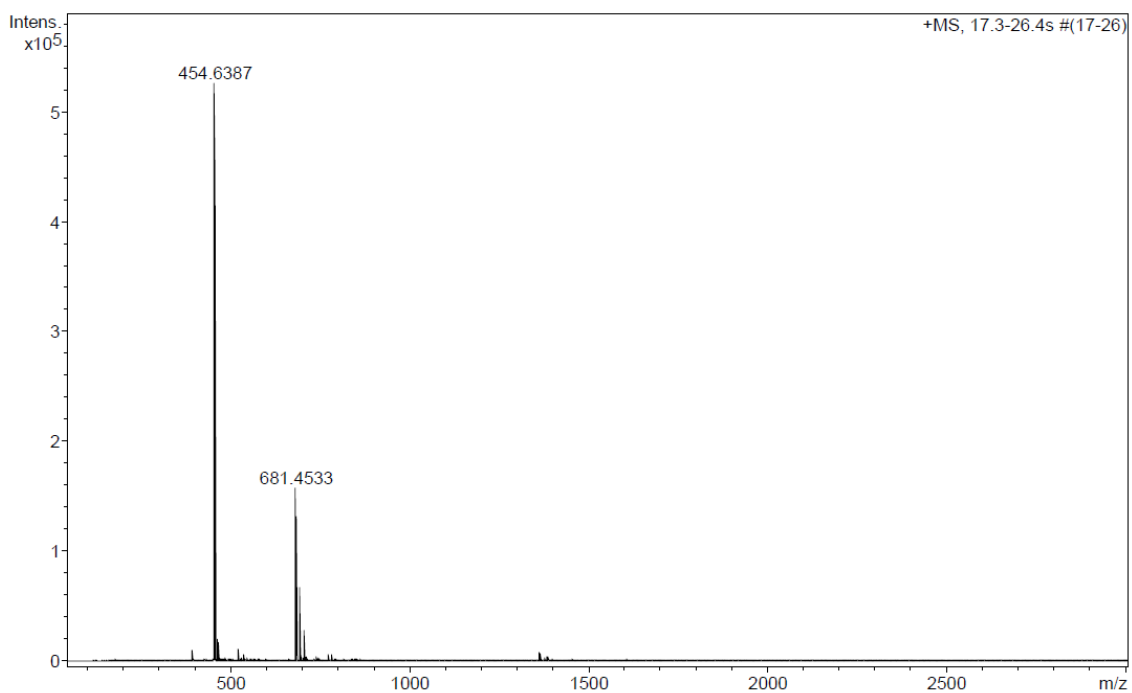
PURE PRODUCT

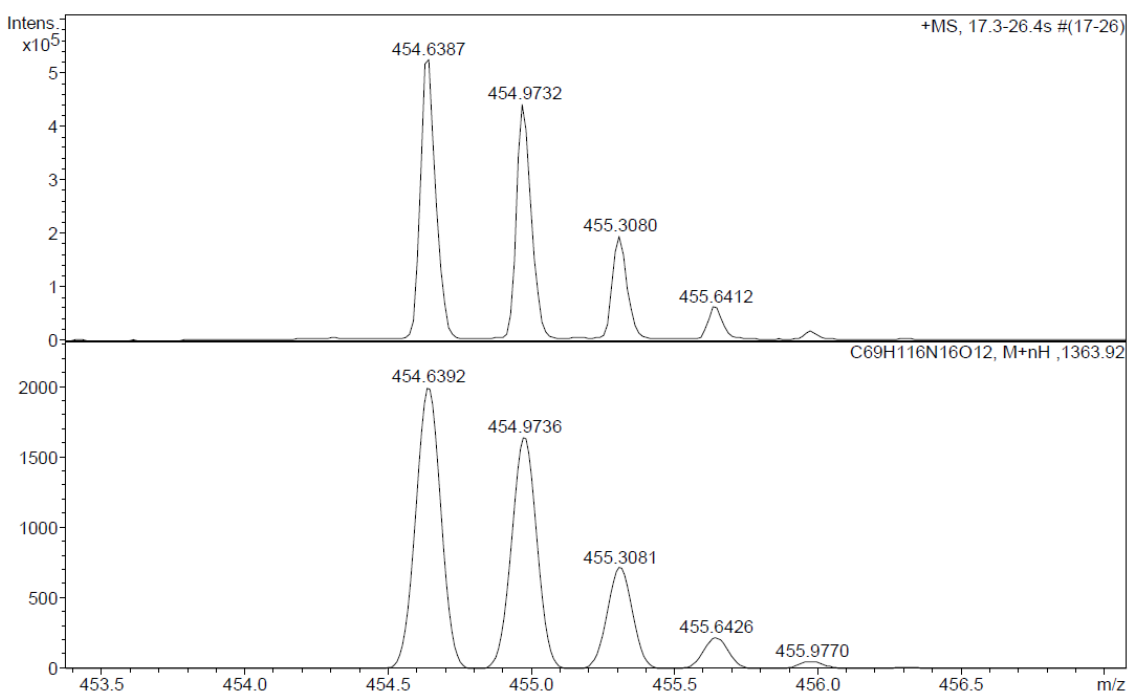
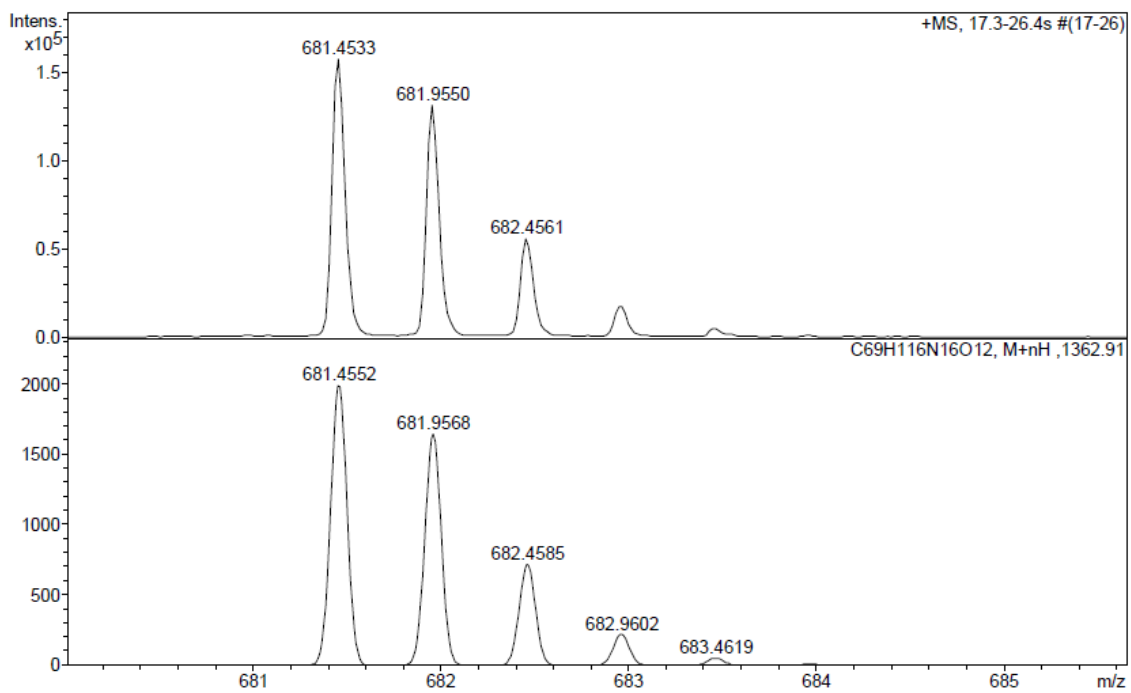
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP5-butíric-673 tub 10)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,05 | 626,402 | 46,683 | 100,00 |
| Total: | | 626,402 | 46,683 | 100,00 |

ESI-MS (*m/z*) (CC-4-LysP5-butíric-673 tub 10)

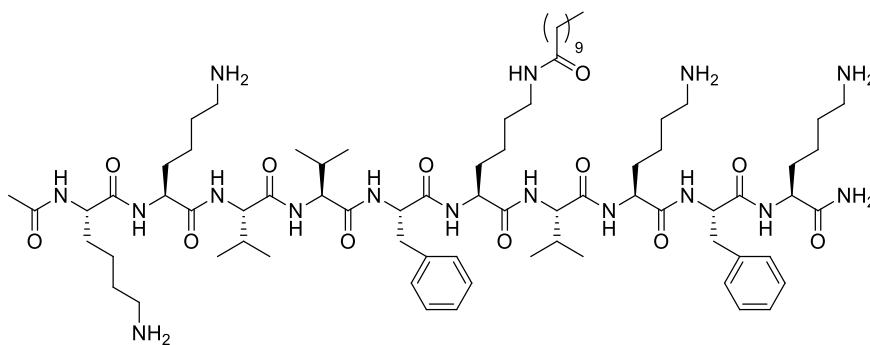
| |
|------------------------------|
| [M+H] ⁺ = 1362.1 |
| [M+Na] ⁺ = 1384.0 |
| [M+2H] ²⁺ = 681.5 |

HRMS (ESI) (m/z) (CC-4-LysP5-butíric-673 tubs 8-10)



| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₉ H ₁₁₇ N ₁₆ O ₁₂ | 1361.9031 | 1361.9022 |
| [M+2H]²⁺ | C ₆₉ H ₁₁₈ N ₁₆ O ₁₂ | 681.4552 | 681.4533 |
| [M+3H]³⁺ | C ₆₉ H ₁₁₉ N ₁₆ O ₁₂ | 454.6392 | 454.6387 |

CH₃CO-Lys-Lys-Val-Val-Phe-Lys(CO-C₁₁H₂₃)-Val-Lys-Phe-Lys-NH₂ (**BP426**)



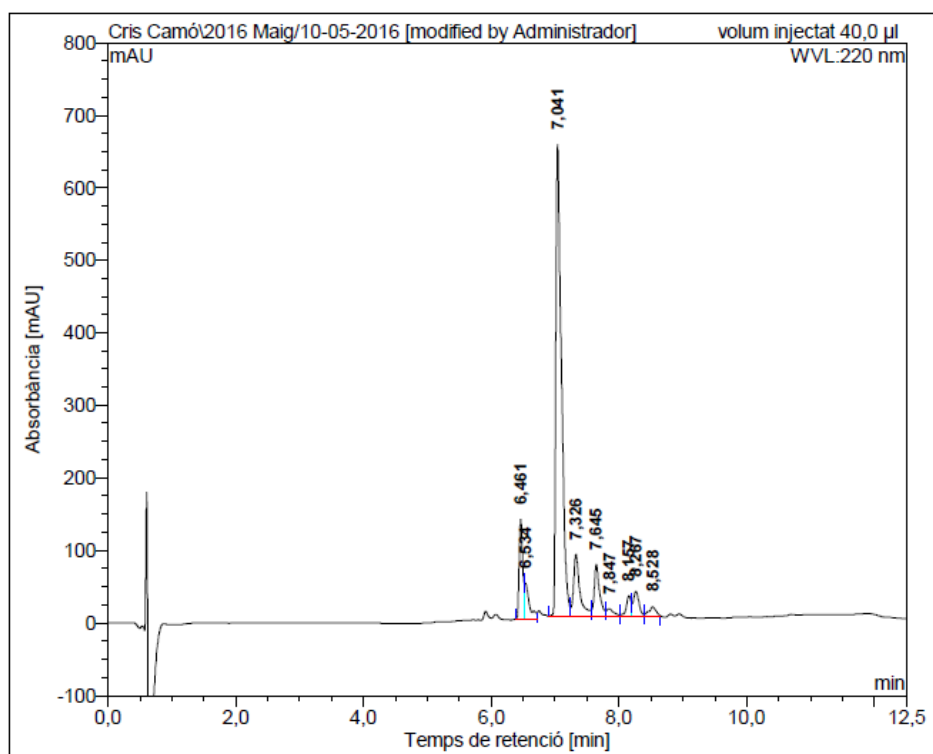
Chemical Formula: C₇₇H₁₃₂N₁₆O₁₂

Exact Mass: 1473,0211

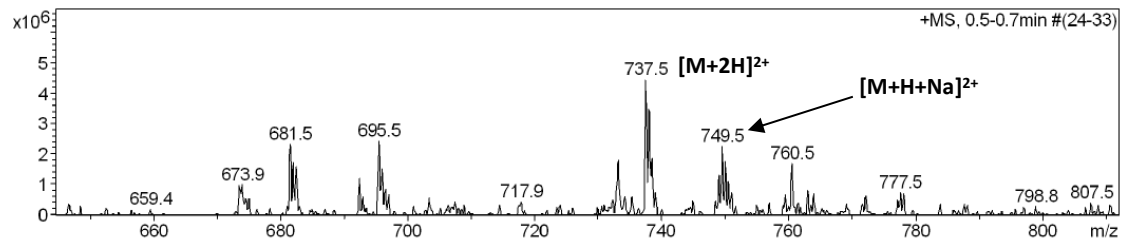
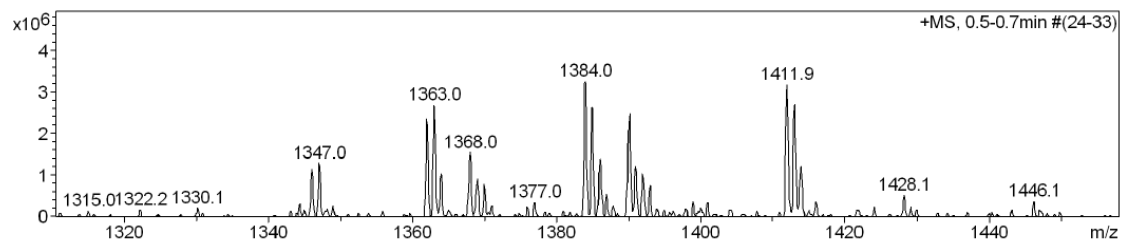
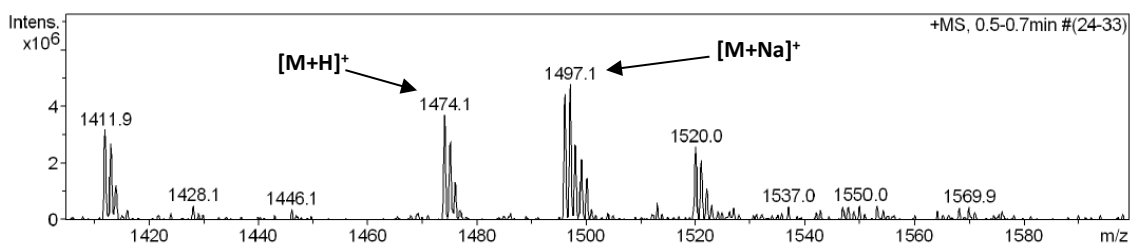
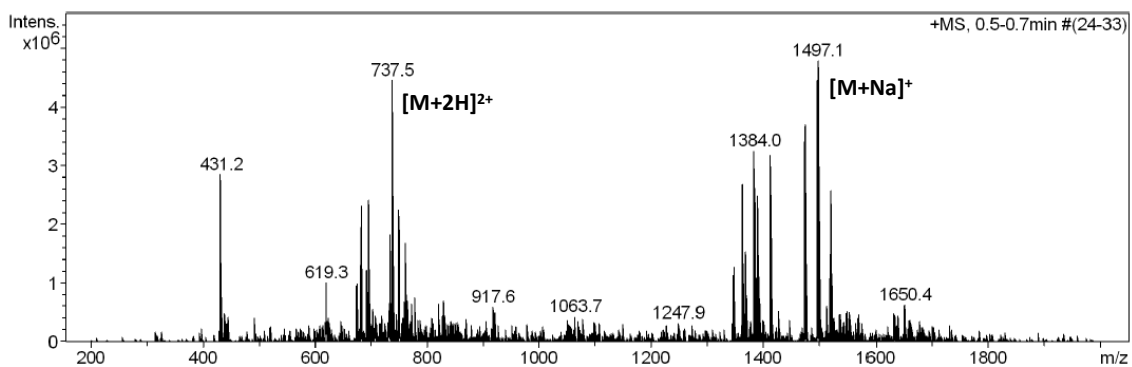
Molecular Weight: 1473,9720

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP5-làuric-675 impur)

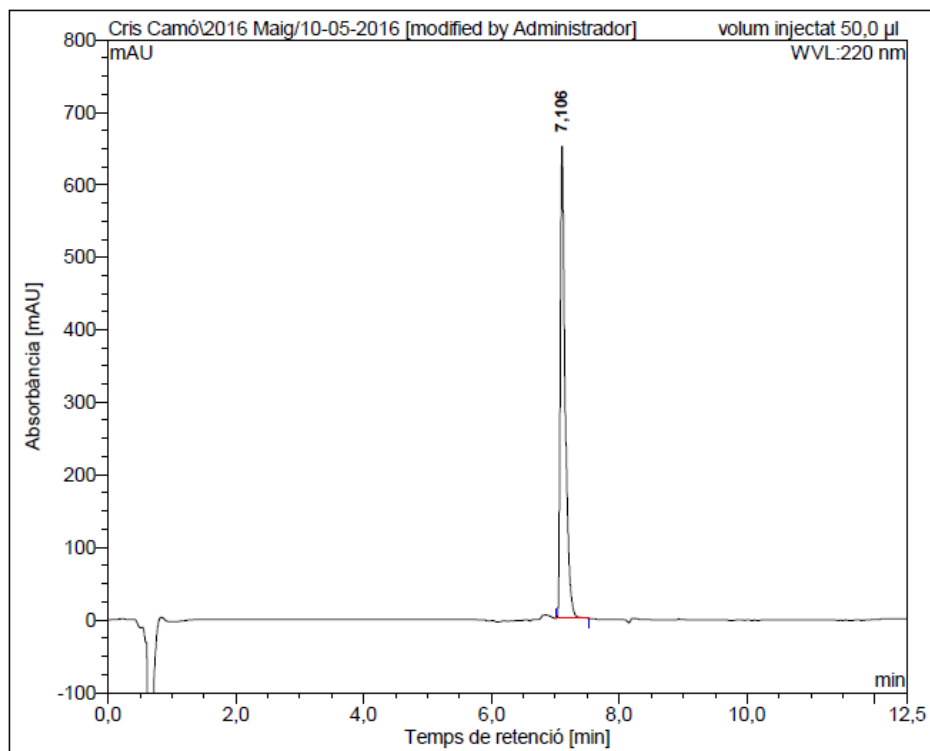


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,46 | 136,746 | 8,918 | 8,49 |
| 2 | 6,53 | 49,058 | 4,231 | 4,03 |
| 3 | 7,04 | 650,273 | 66,102 | 62,94 |
| 4 | 7,33 | 85,386 | 9,869 | 9,40 |
| 5 | 7,65 | 71,040 | 7,028 | 6,69 |
| 6 | 7,85 | 10,088 | 1,294 | 1,23 |
| 7 | 8,16 | 28,231 | 2,512 | 2,39 |
| 8 | 8,27 | 34,216 | 3,412 | 3,25 |
| 9 | 8,53 | 12,650 | 1,659 | 1,58 |
| Total: | | 1077,687 | 105,026 | 100,00 |

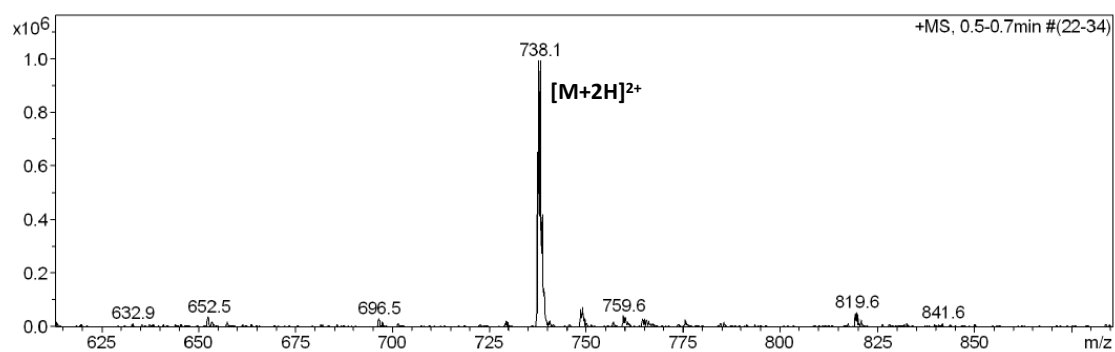
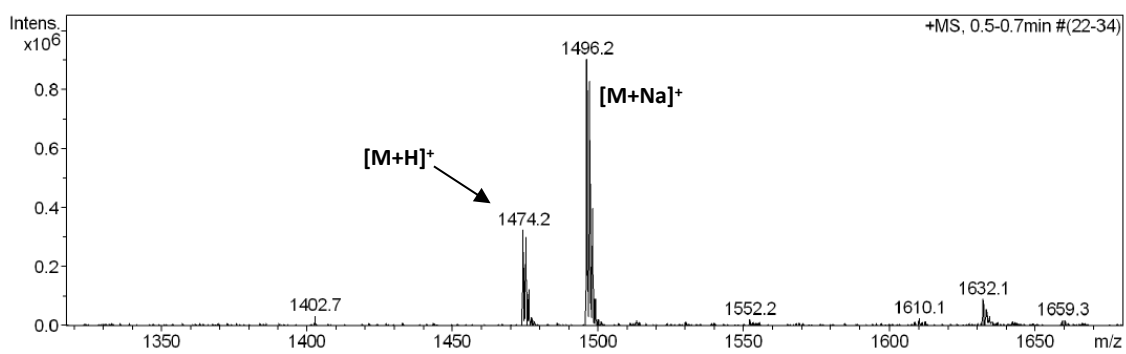
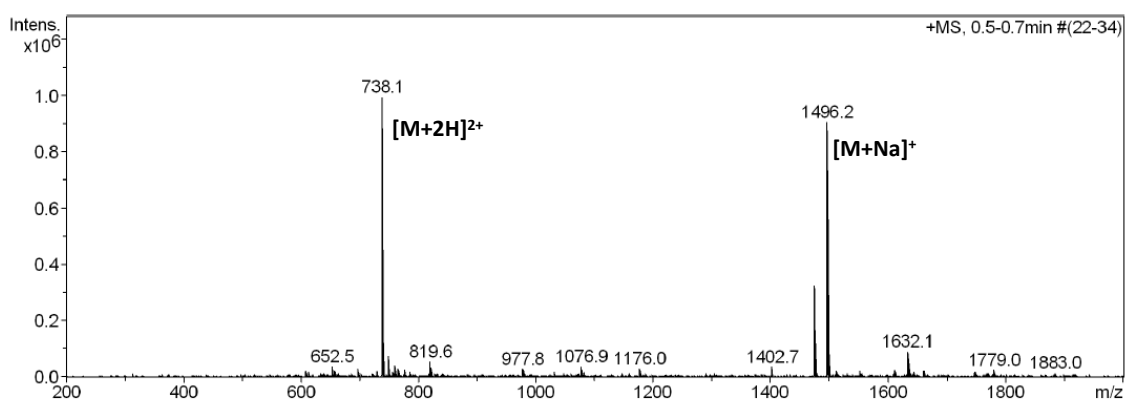
ESI-MS (m/z) (CC-4-LysP5-làuric-525)

| |
|-------------------------|
| $[M+H]^+$ = 1474.1 |
| $[M+Na]^+$ = 1496.1 |
| $[M+2H]^{2+}$ = 737.5 |
| $[M+H+Na]^{2+}$ = 749.5 |

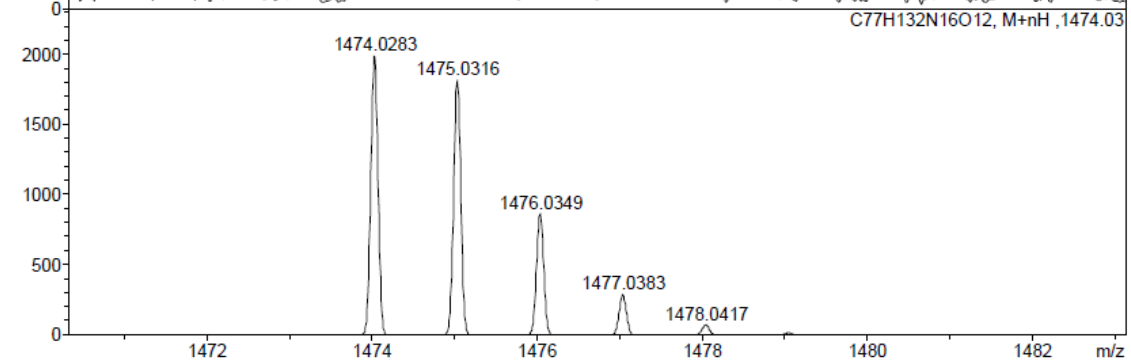
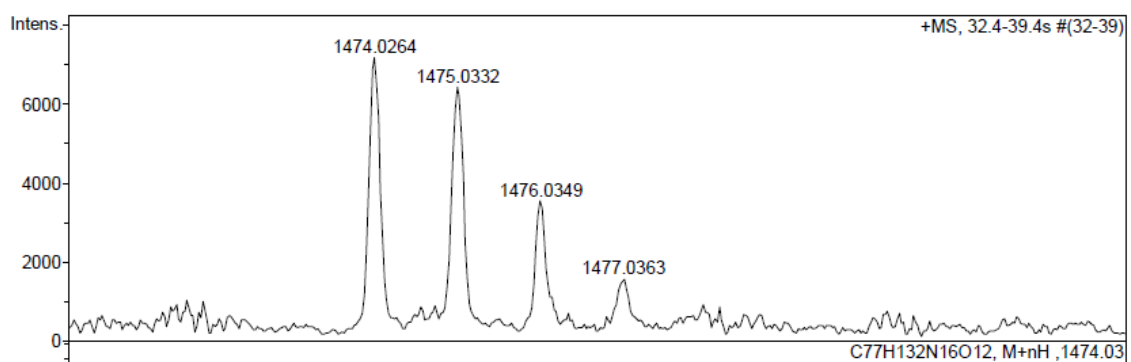
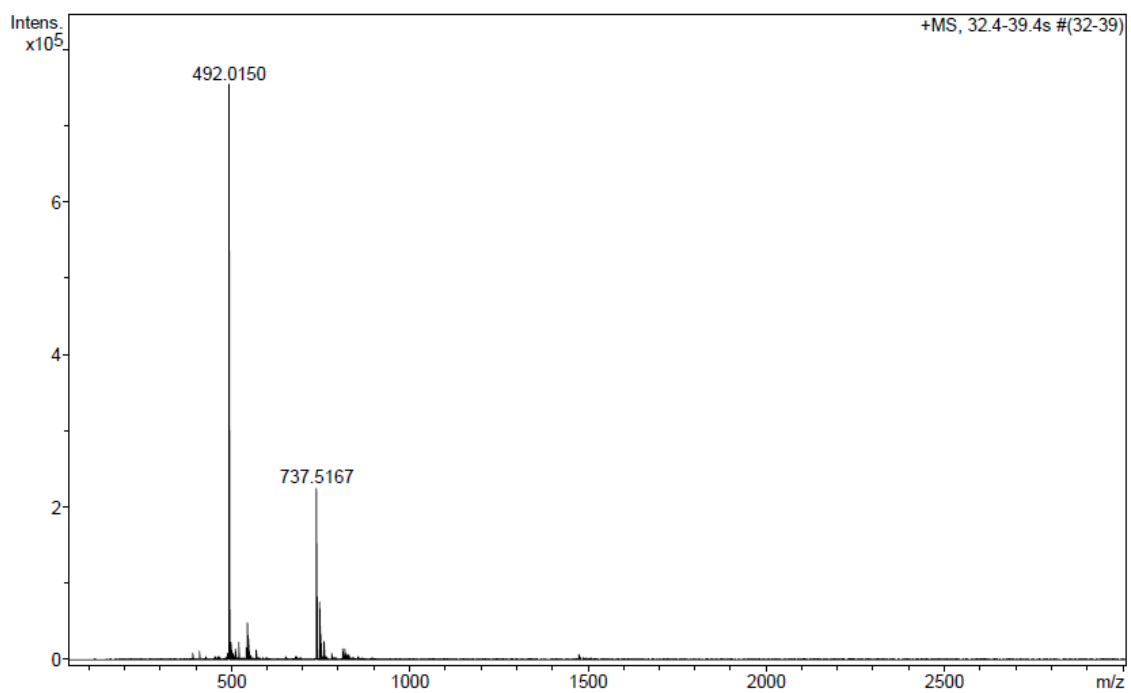
PURE PRODUCT

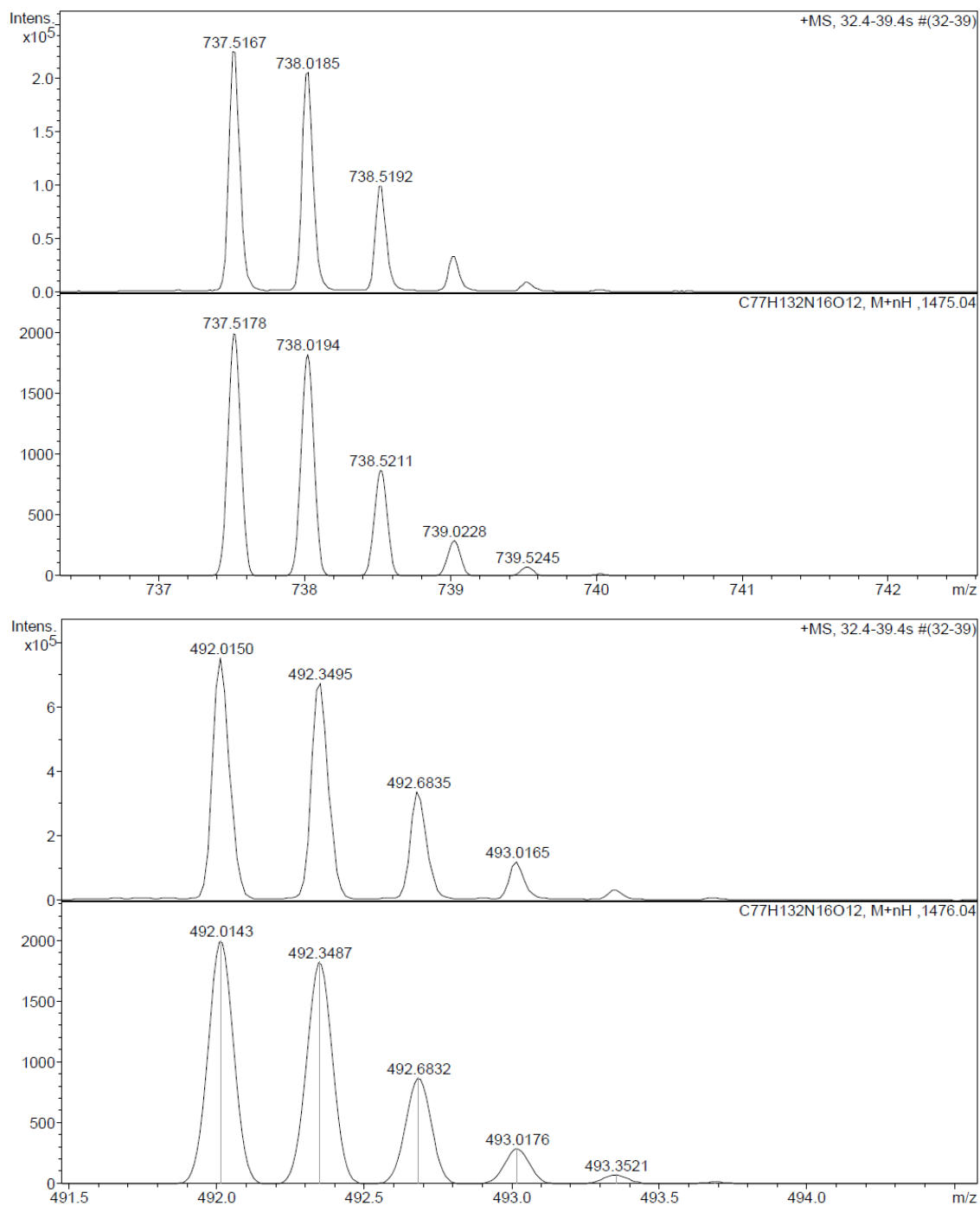
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP5-làuric-675 tub 21)

| No. | Temps retenció min | alçada mAU | Àrea mAU*min | Àrea relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,11 | 650,918 | 58,242 | 100,00 |
| Total: | | 650,918 | 58,242 | 100,00 |

ESI-MS (m/z) (CC-4-LysP5-làuric-675 tub 21)

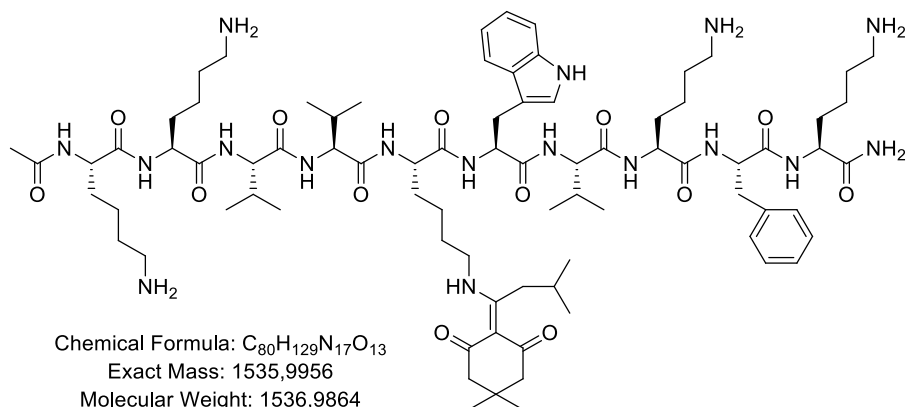
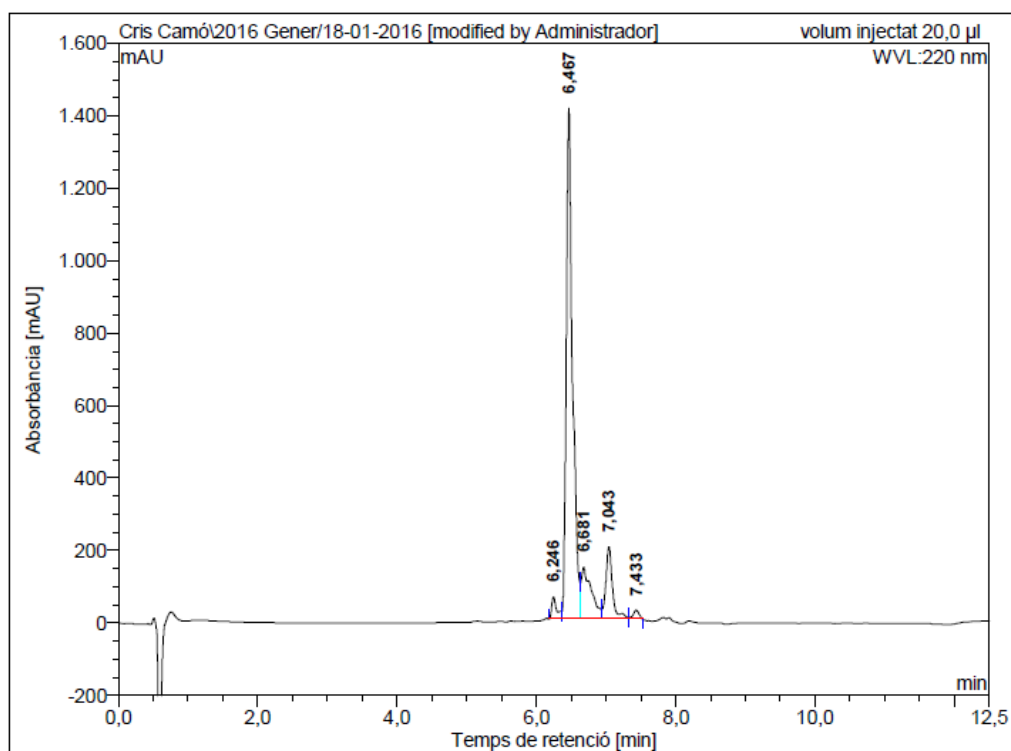
| |
|-----------------------|
| $[M+H]^+ = 1474.2$ |
| $[M+Na]^+ = 1496.2$ |
| $[M+2H]^{2+} = 738.1$ |

HRMS (ESI) (m/z) (CC-4-LysP5-làuric-675 tubs 16-22)

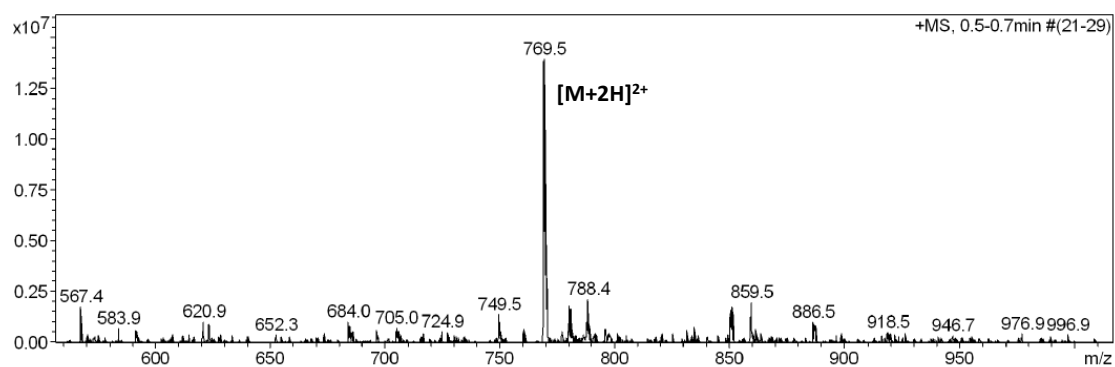
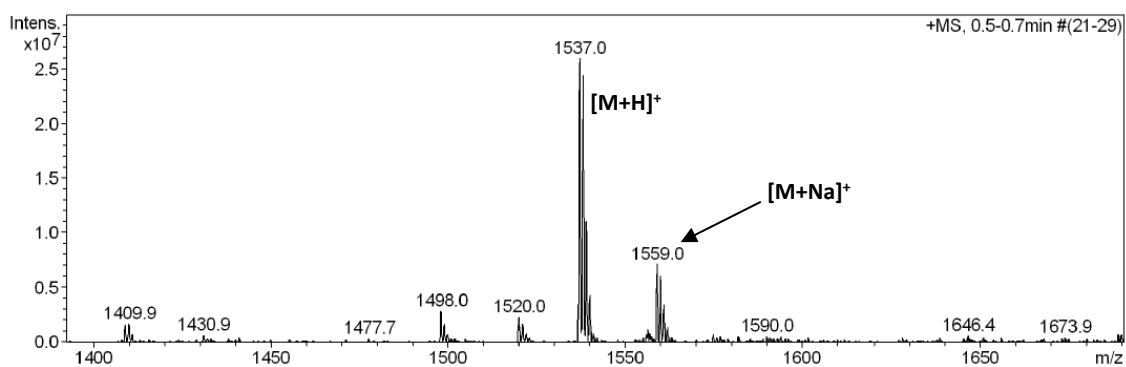
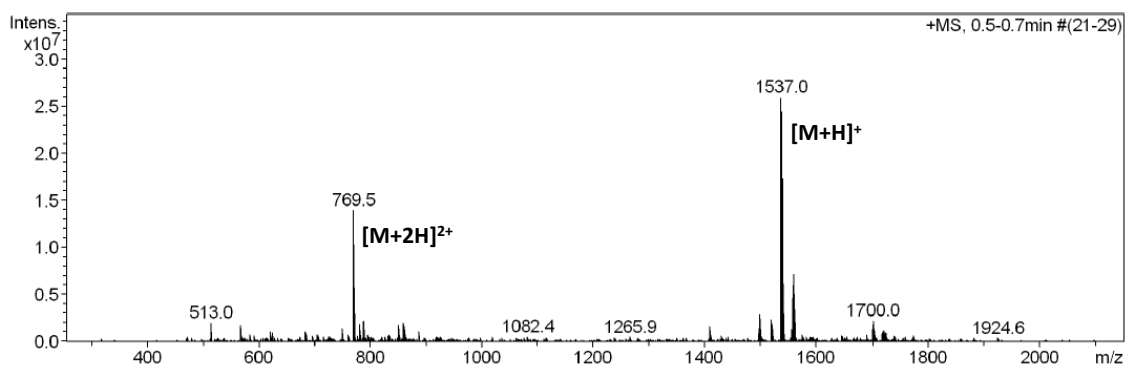


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₇₇ H ₁₃₃ N ₁₆ O ₁₂ | 1474.0283 | 1474.0264 |
| [M+2H]²⁺ | C ₇₇ H ₁₃₄ N ₁₆ O ₁₂ | 737.5178 | 737.5167 |
| [M+3H]³⁺ | C ₇₇ H ₁₃₅ N ₁₆ O ₁₂ | 492.0143 | 492.0150 |

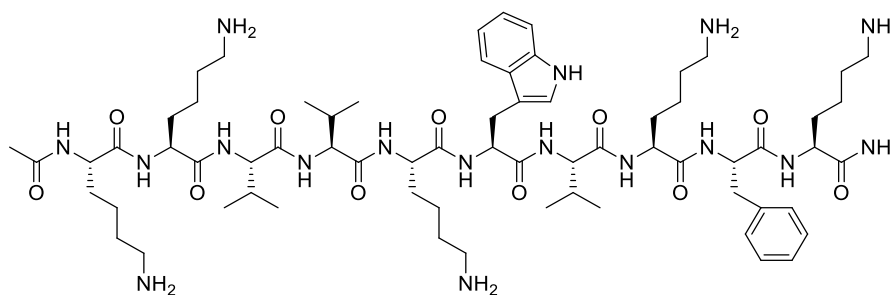
Lipopeptides derived from KSLW acylated at position 5

 $\text{CH}_3\text{CO-Lys-Lys-Val-Val-Lys(ivDde)-Trp-Val-Lys-Phe-Lys-NH}_2$
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP6-501)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,25 | 60,541 | 5,138 | 2,55 |
| 2 | 6,47 | 1411,021 | 146,519 | 72,59 |
| 3 | 6,68 | 143,364 | 25,417 | 12,59 |
| 4 | 7,04 | 200,075 | 22,420 | 11,11 |
| 5 | 7,43 | 24,461 | 2,346 | 1,16 |
| Total: | | 1839,462 | 201,840 | 100,00 |

ESI-MS (m/z) (CC-4-LysP6-501)

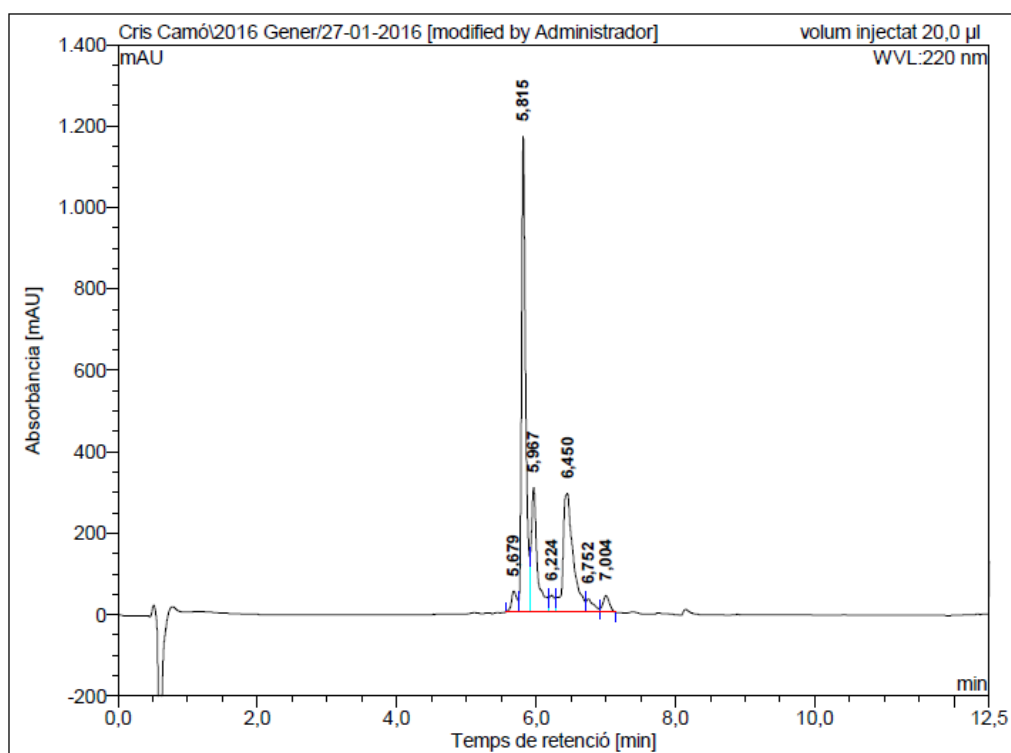
| |
|-----------------------|
| $[M+H]^+ = 1537.0$ |
| $[M+Na]^+ = 1559.0$ |
| $[M+2H]^{2+} = 769.5$ |

CH₃CO-Lys-Lys-Val-Val-Lys-Trp-Val-Lys-Phe-Lys-NH₂Chemical Formula: C₆₇H₁₁₁N₁₇O₁₁

Exact Mass: 1329,8649

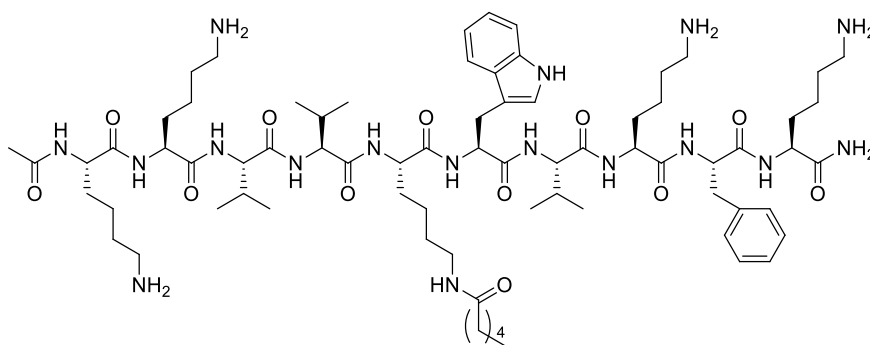
Molecular Weight: 1330,7055

HPLC (λ = 220 nm) (CC-4-LysP6-hexanoic-521)



| No. | Temps retenció min | alçada mAU | Area mAU·min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,68 | 52,174 | 4,816 | 2,70 |
| 2 | 5,82 | 1167,719 | 79,096 | 44,38 |
| 3 | 5,97 | 305,279 | 31,791 | 17,84 |
| 4 | 6,22 | 41,484 | 3,776 | 2,12 |
| 5 | 6,45 | 291,691 | 50,074 | 28,09 |
| 6 | 6,75 | 32,916 | 4,225 | 2,37 |
| 7 | 7,00 | 40,899 | 4,458 | 2,50 |
| Total: | | 1932,163 | 178,238 | 100,00 |

CH₃CO-Lys-Lys-Val-Val-Lys(CO-C₅H₁₁)-Trp-Val-Lys-Phe-Lys-NH₂ (BP427)



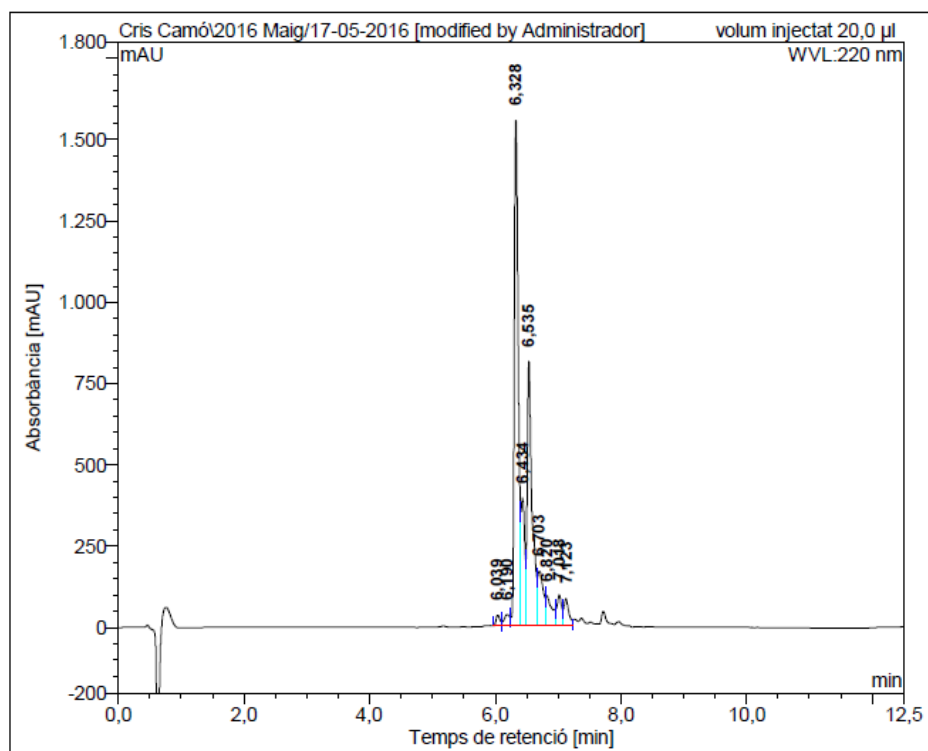
Chemical Formula: C₇₃H₁₂₁N₁₇O₁₂

Exact Mass: 1427,9381

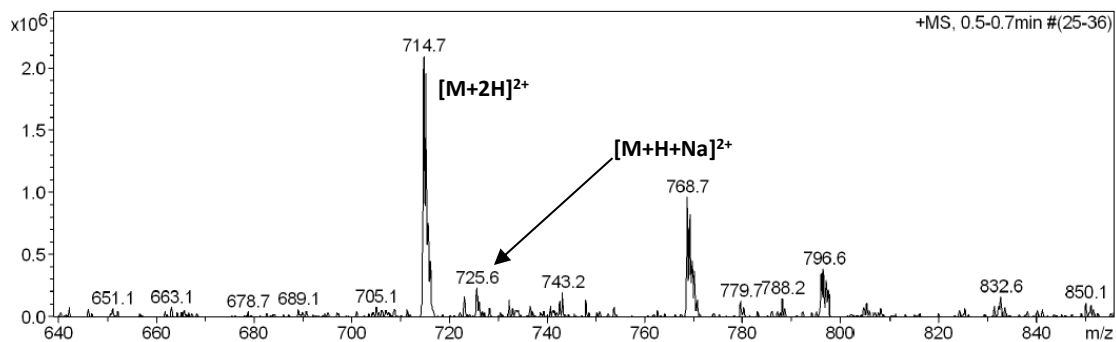
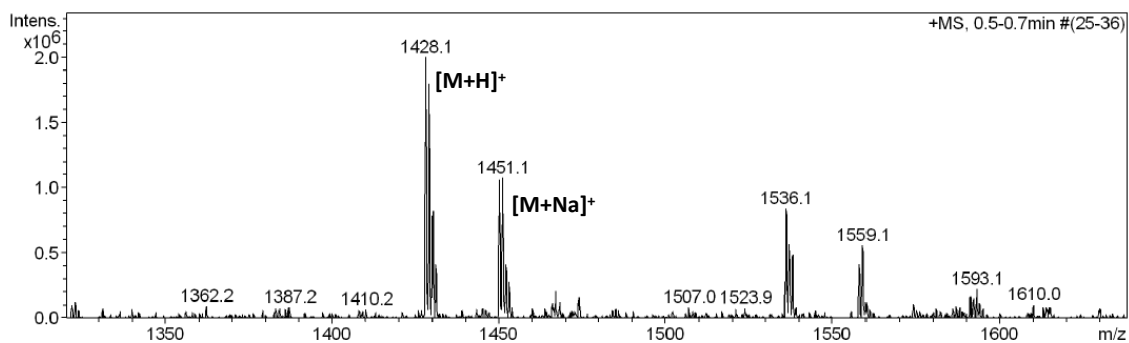
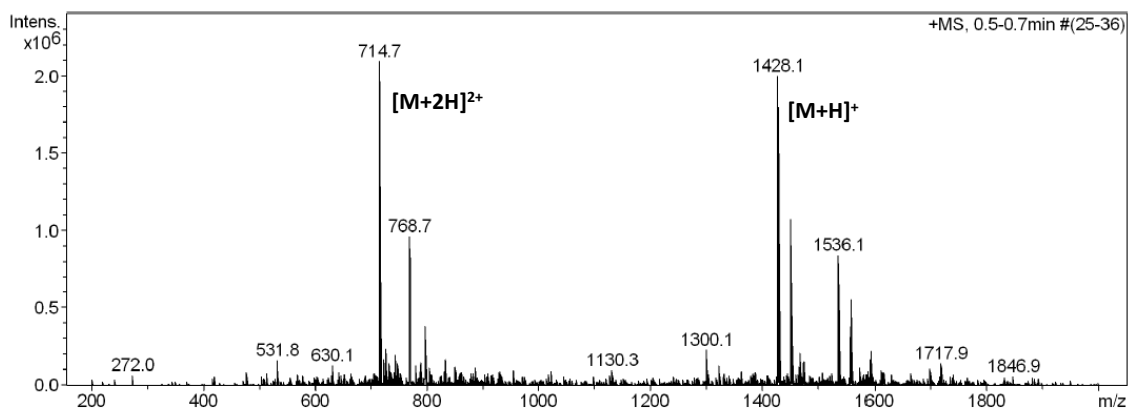
Molecular Weight: 1428,8485

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP6-hexanoic-677 impur)

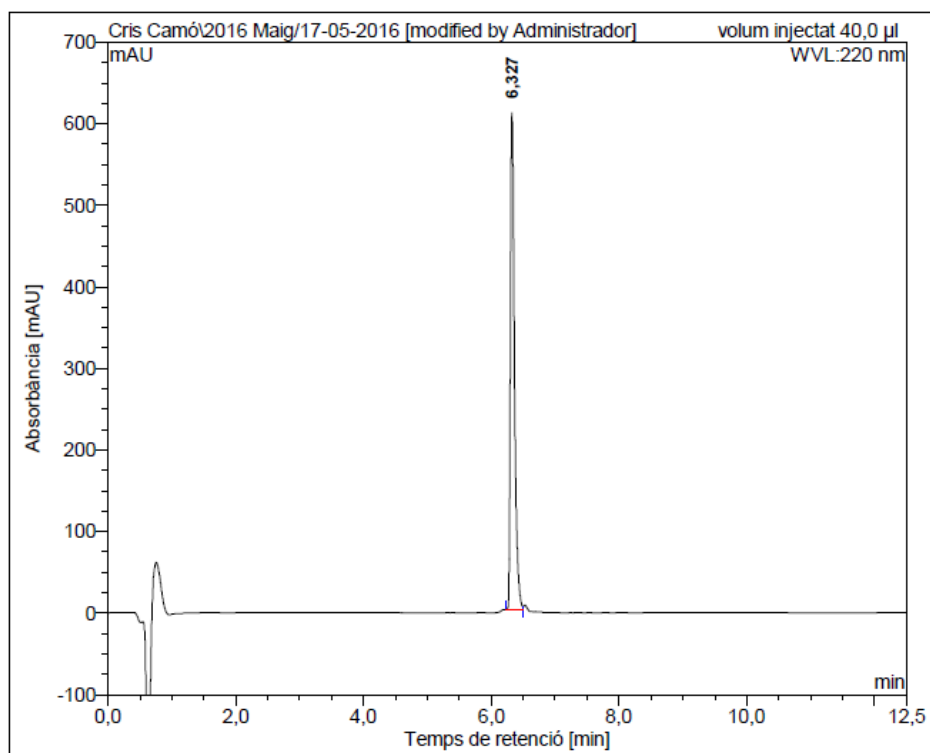


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,04 | 32,231 | 2,319 | 0,88 |
| 2 | 6,19 | 34,392 | 3,602 | 1,36 |
| 3 | 6,33 | 1552,717 | 114,505 | 43,38 |
| 4 | 6,43 | 393,121 | 25,604 | 9,70 |
| 5 | 6,54 | 812,412 | 73,667 | 27,91 |
| 6 | 6,70 | 167,146 | 18,402 | 6,97 |
| 7 | 6,82 | 91,815 | 9,566 | 3,62 |
| 8 | 7,02 | 94,178 | 8,588 | 3,25 |
| 9 | 7,12 | 83,225 | 7,714 | 2,92 |
| Total: | | 3261,237 | 263,968 | 100,00 |

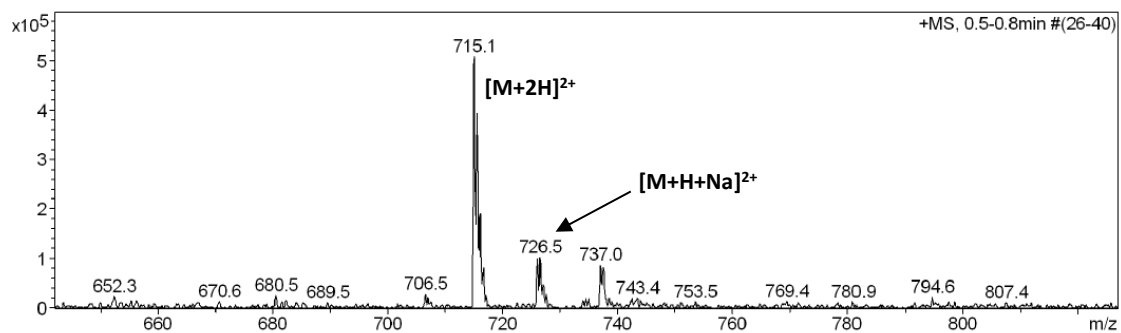
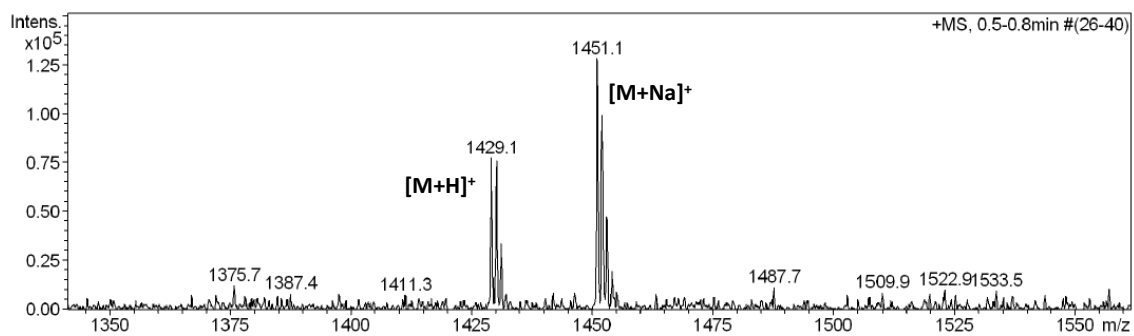
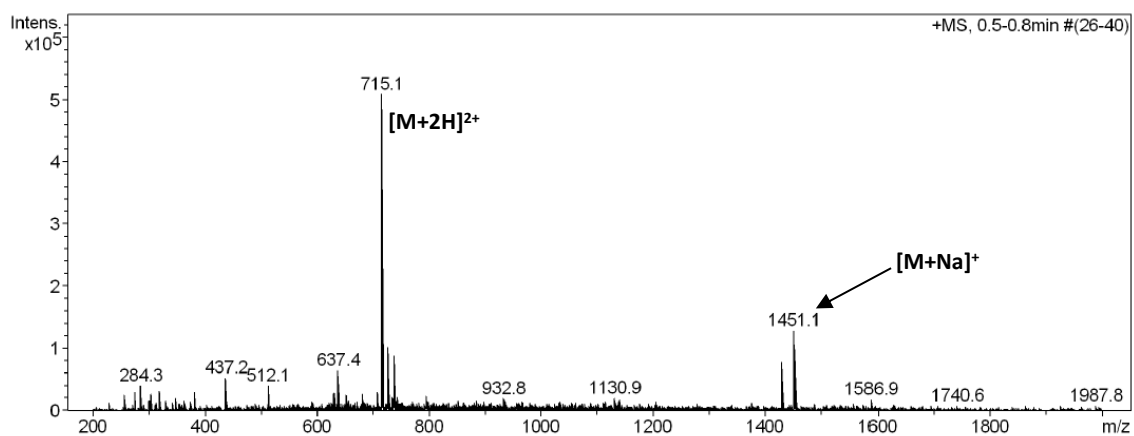
ESI-MS (m/z) (CC-4-LysP6-hexanoic-527)

| |
|-------------------------|
| $[M+H]^+ = 1428.1$ |
| $[M+Na]^+ = 1450.1$ |
| $[M+2H]^{2+} = 714.7$ |
| $[M+H+Na]^{2+} = 725.6$ |

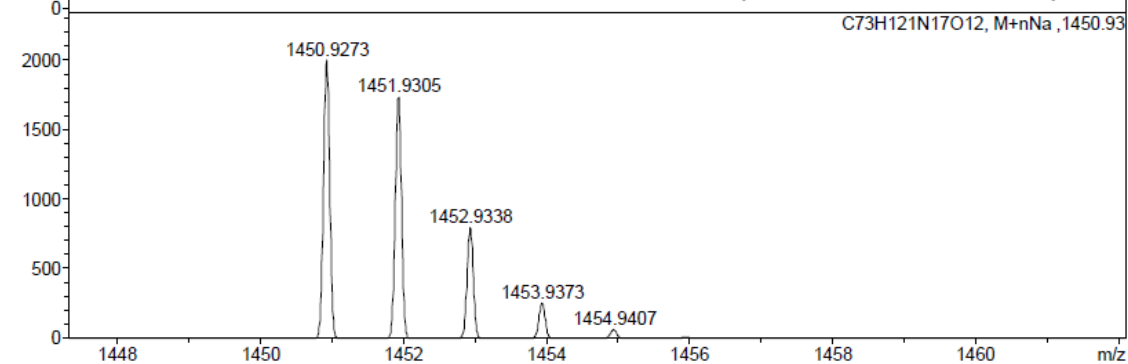
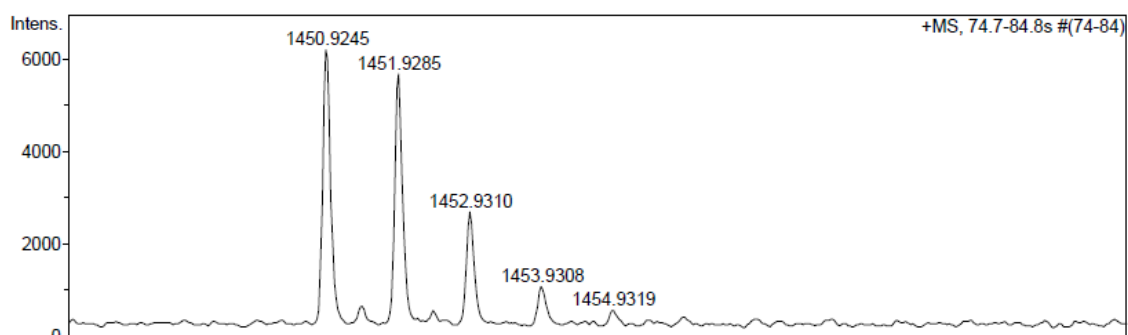
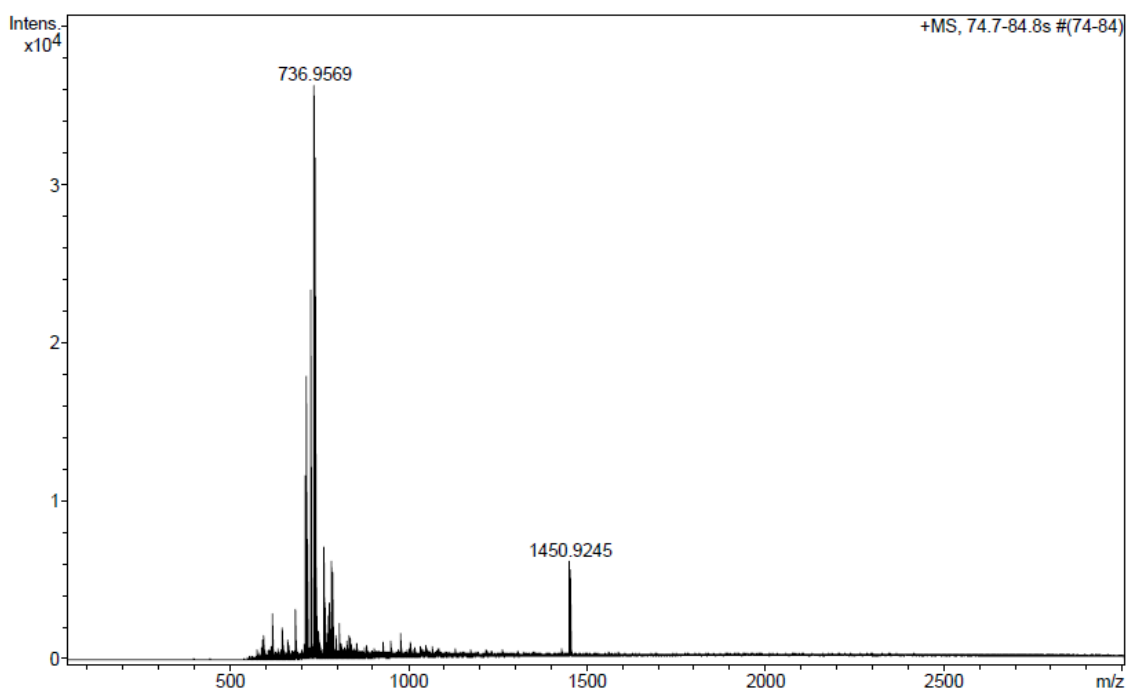
PURE PRODUCT

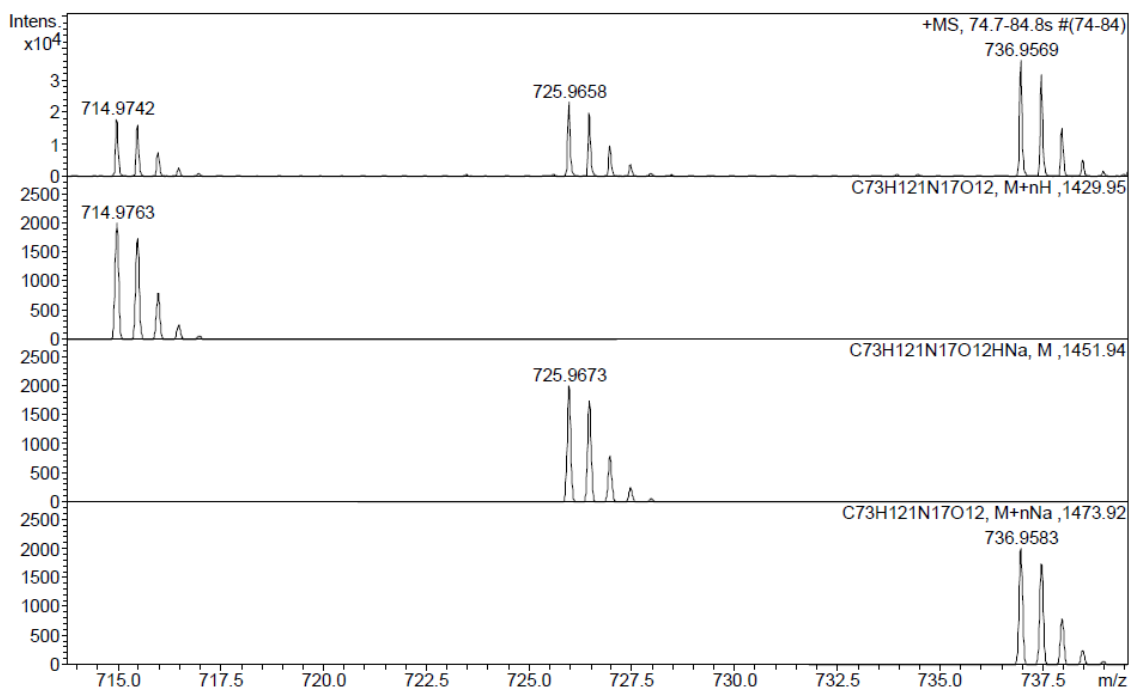
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP6-hexanoic-677 tub 22)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,33 | 609,543 | 44,731 | 100,00 |
| Total: | | 609,543 | 44,731 | 100,00 |

ESI-MS (m/z) (CC-4-LysP6-hexanoic-677 tub 22)

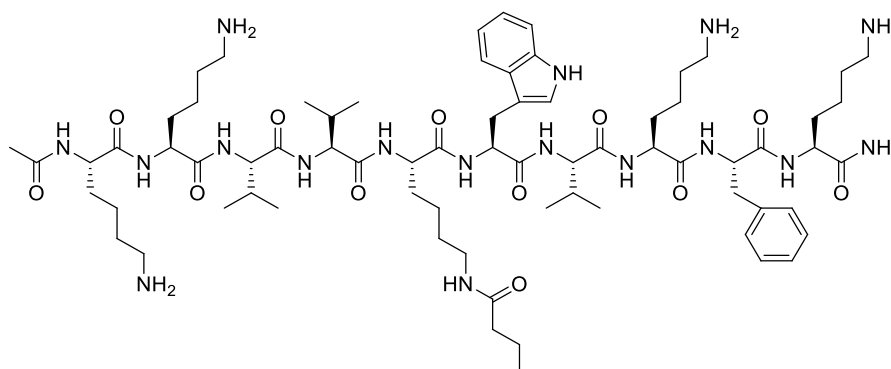
| |
|-------------------------|
| $[M+H]^+ = 1429.1$ |
| $[M+Na]^+ = 1451.1$ |
| $[M+2H]^{2+} = 715.1$ |
| $[M+H+Na]^{2+} = 726.5$ |

HRMS (m/z) (CC-4-LysP6-hexanoic-677 tubs 16-23)



| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₃ H ₁₂₁ N ₁₇ O ₁₂ Na | 1450.9273 | 1450.9245 |
| [M+2Na] ²⁺ | C ₇₃ H ₁₂₁ N ₁₇ O ₁₂ Na ₂ | 736.9583 | 736.9569 |
| [M+H+Na] ²⁺ | C ₇₃ H ₁₂₂ N ₁₇ O ₁₂ Na | 725.9673 | 725.9658 |
| [M+2H] ²⁺ | C ₇₃ H ₁₂₃ N ₁₇ O ₁₂ | 714.9763 | 714.9742 |

CH₃CO-Lys-Lys-Val-Val-Lys(CO-C₃H₇)-Trp-Val-Lys-Phe-Lys-NH₂ (**BP428**)



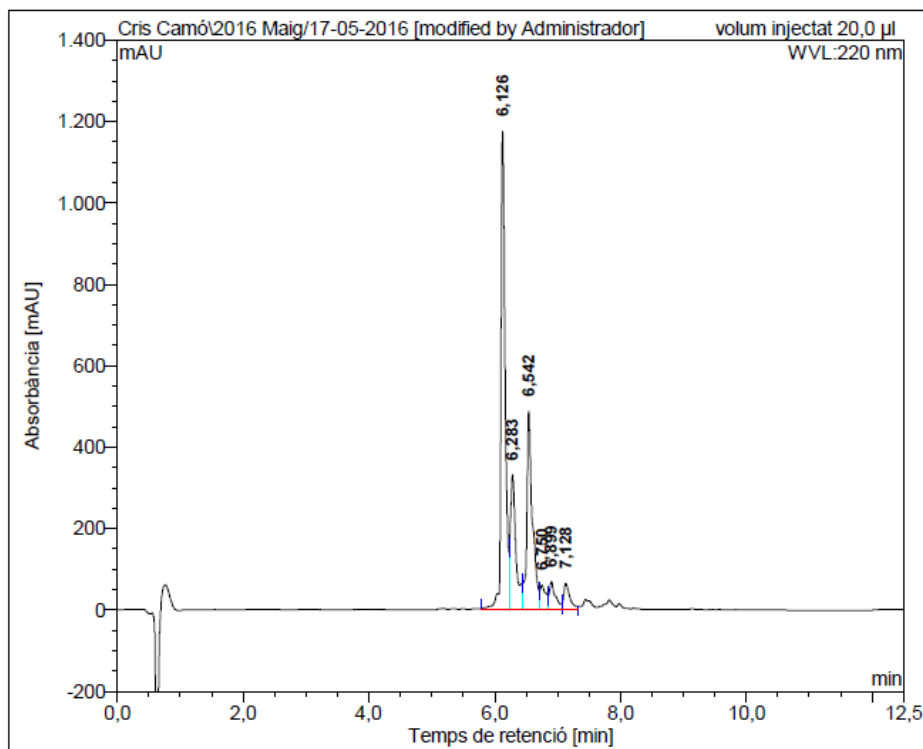
Chemical Formula: C₇₁H₁₁₇N₁₇O₁₂

Exact Mass: 1399,9068

Molecular Weight: 1400,7954

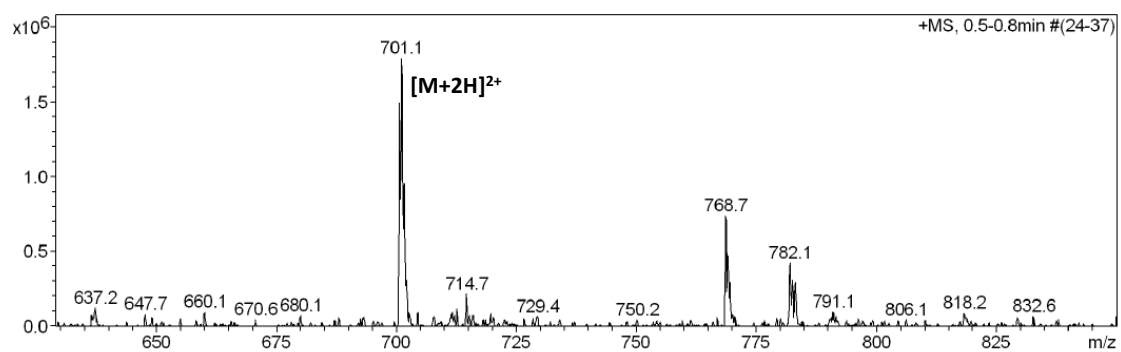
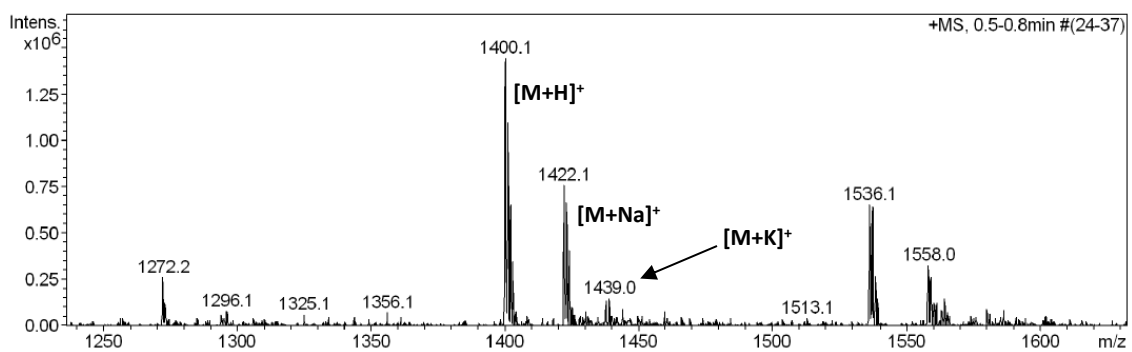
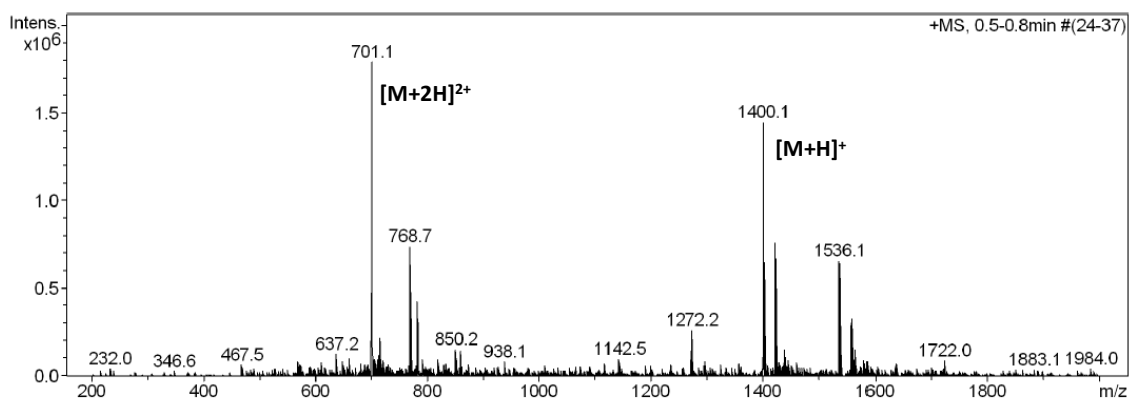
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP6-butíric-679 impur)



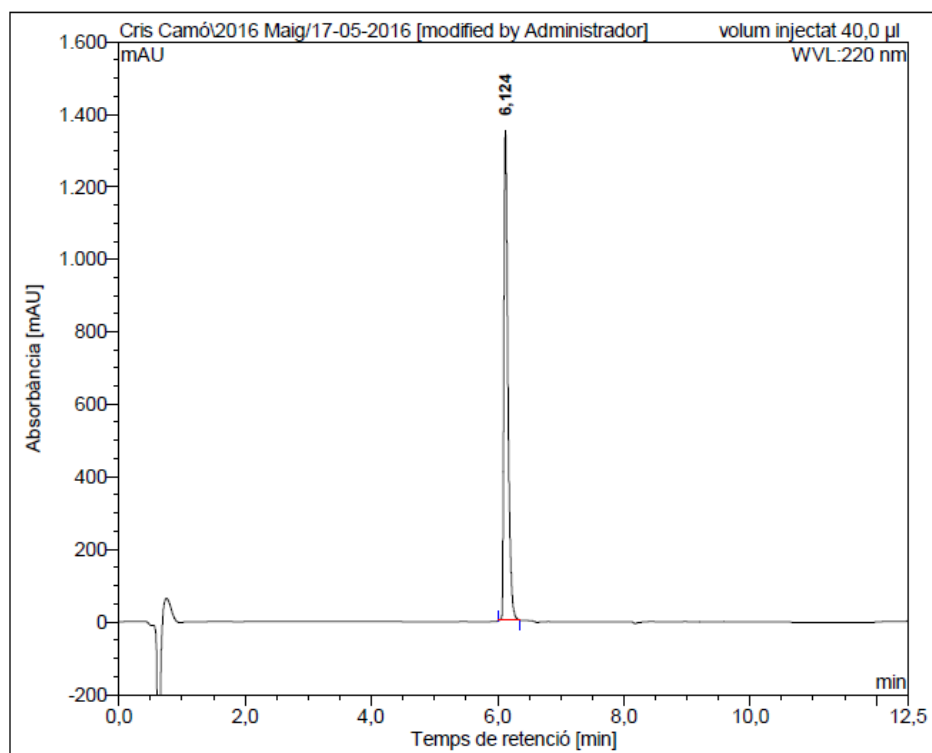
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,13 | 1173,035 | 90,023 | 46,23 |
| 2 | 6,28 | 329,200 | 33,645 | 17,28 |
| 3 | 6,54 | 486,367 | 50,644 | 26,01 |
| 4 | 6,75 | 58,272 | 6,140 | 3,15 |
| 5 | 6,90 | 67,084 | 7,361 | 3,78 |
| 6 | 7,13 | 62,865 | 6,901 | 3,54 |
| Total: | | 2176,824 | 194,714 | 100,00 |

ESI-MS (m/z) (CC-4-LysP6-butíric-527)

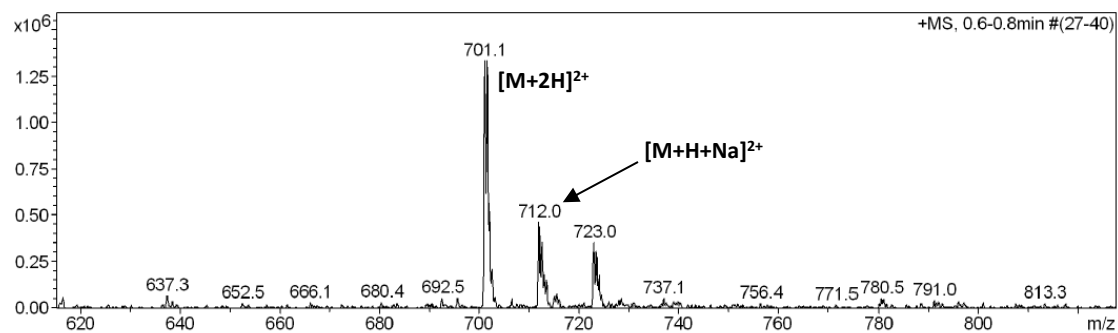
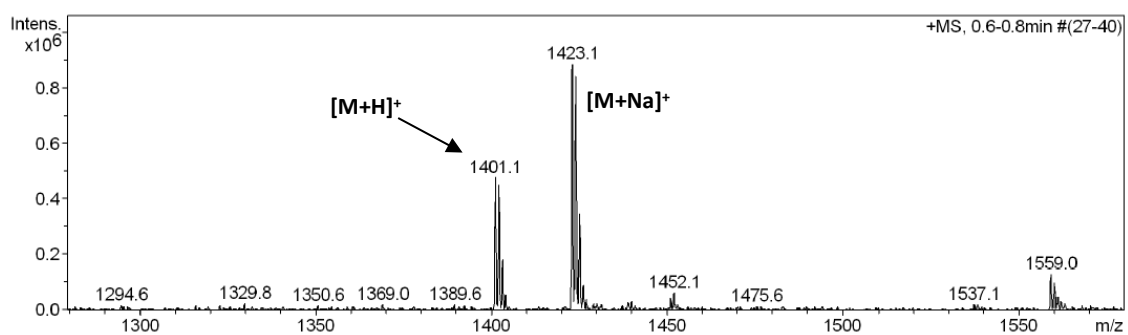
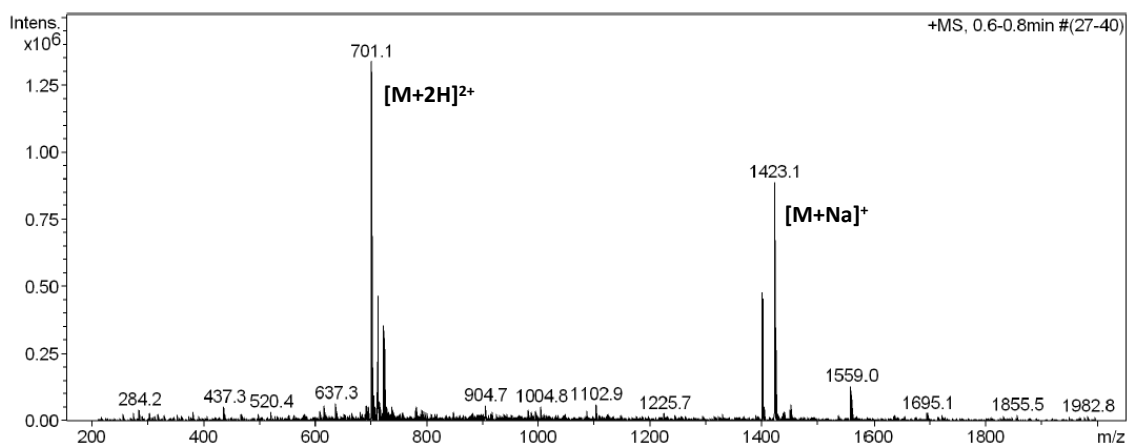


| |
|------------------------------|
| [M+H] ⁺ = 1400.1 |
| [M+Na] ⁺ = 1422.1 |
| [M+K] ⁺ = 1439.0 |
| [M+2H] ²⁺ = 701.1 |

PURE PRODUCT

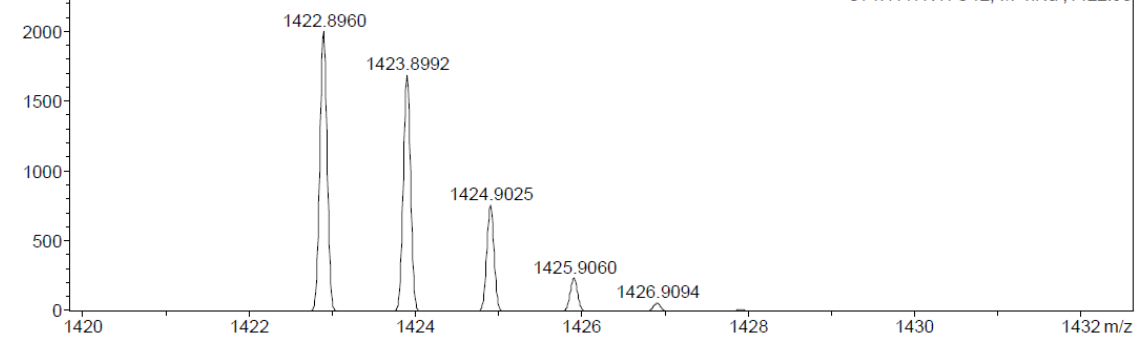
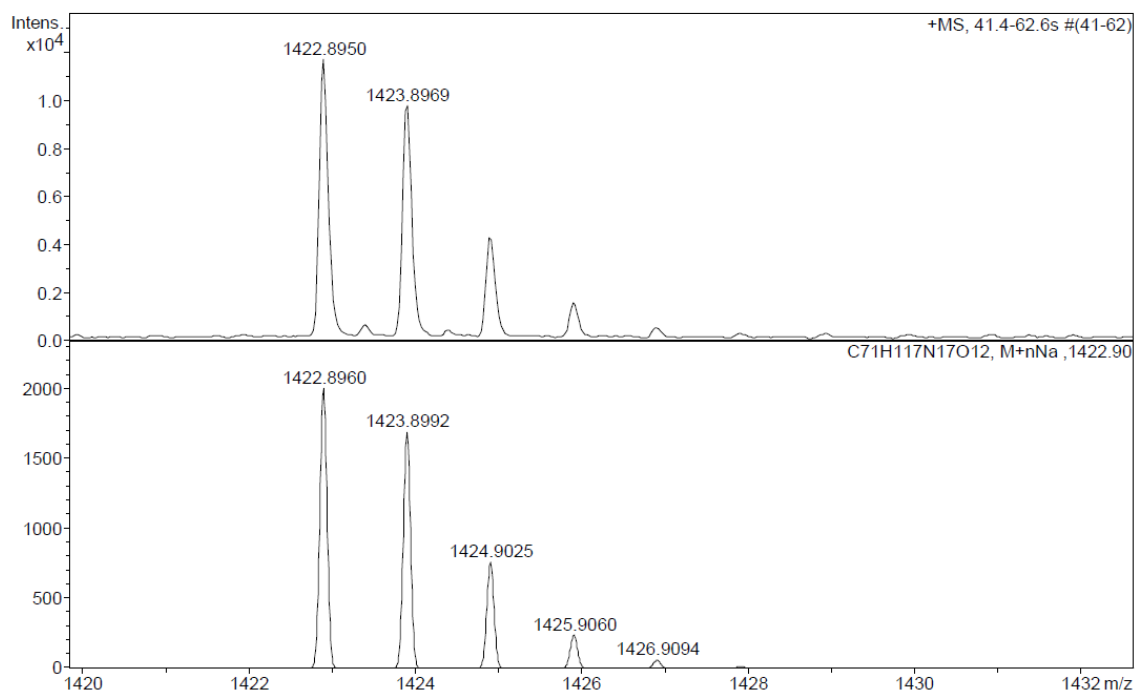
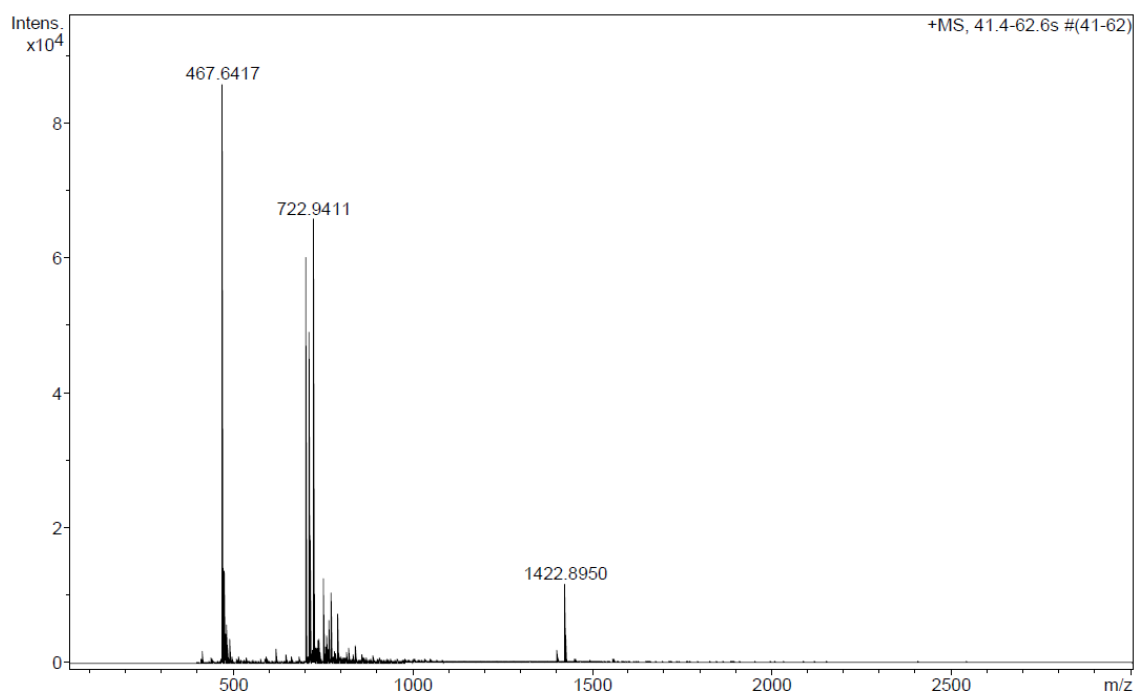
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP6-butíric-679 tub 18)

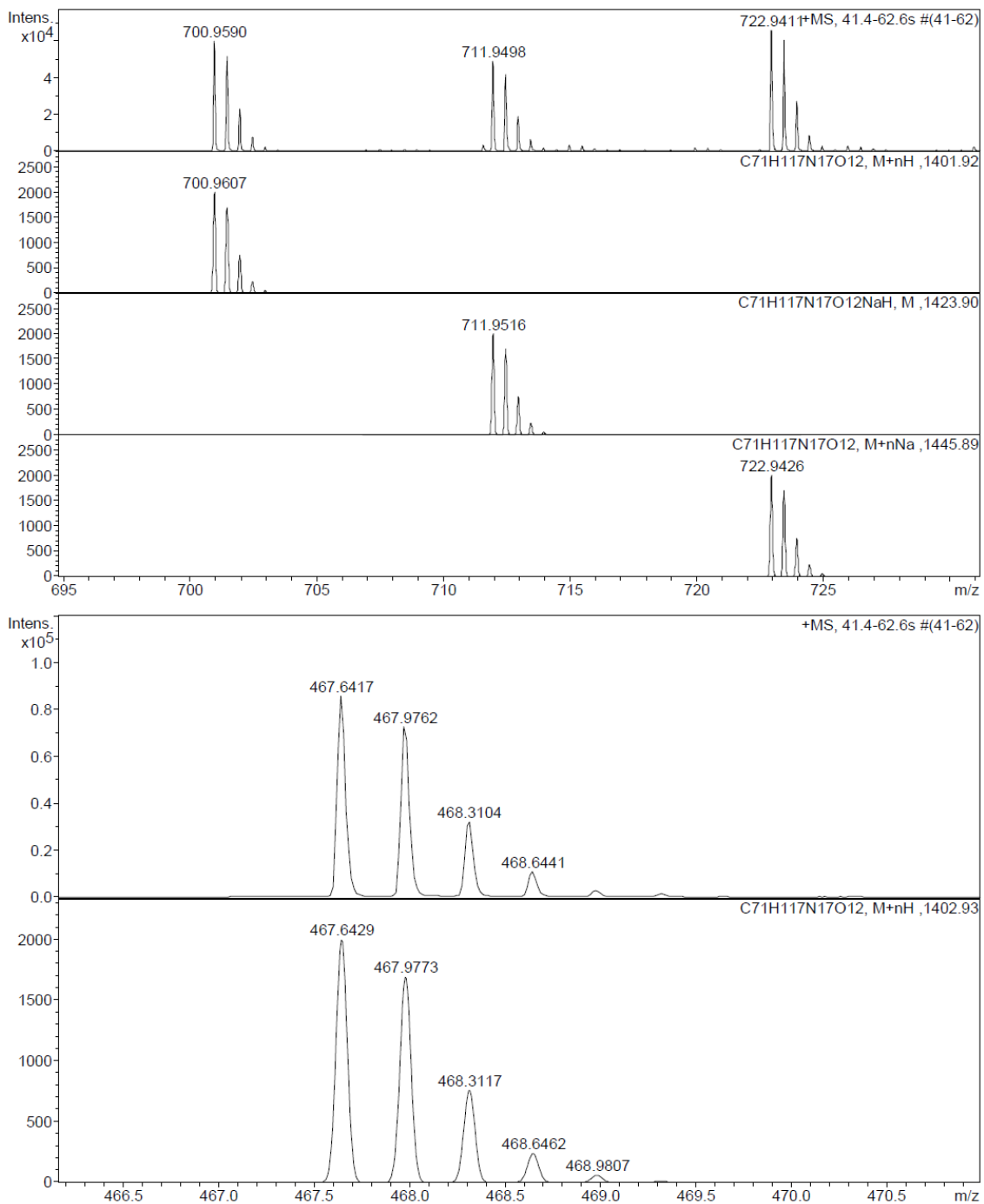
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,12 | 1350,532 | 99,190 | 100,00 |
| Total: | | 1350,532 | 99,190 | 100,00 |

ESI-MS (m/z) (CC-4-LysP6-butíric-679 tub 18)

| |
|-------------------------|
| $[M+H]^+ = 1401.1$ |
| $[M+Na]^+ = 1423.1$ |
| $[M+2H]^{2+} = 701.1$ |
| $[M+H+Na]^{2+} = 712.0$ |

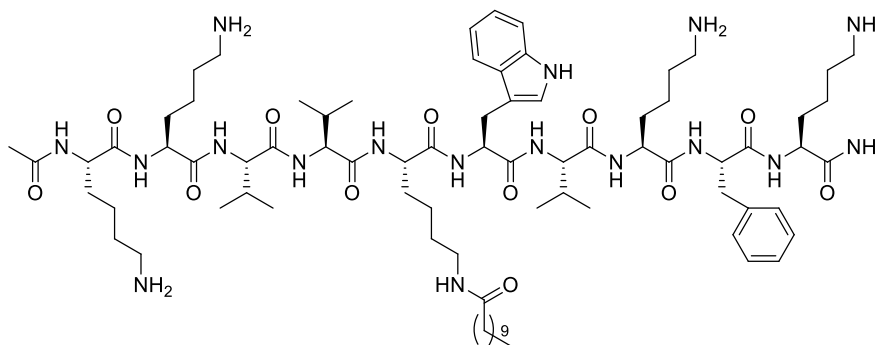
HRMS (m/z) (CC-4-LysP6-butíric-679 tubs 12-19)





| | Molecular formula | Calculated | Found |
|-----------------|---------------------------------|------------|-----------|
| $[M+Na]^+$ | $C_{71}H_{117}N_{17}O_{12}Na$ | 1422.8960 | 1422.8950 |
| $[M+2Na]^{2+}$ | $C_{71}H_{117}N_{17}O_{12}Na_2$ | 722.9426 | 722.9411 |
| $[M+H+Na]^{2+}$ | $C_{71}H_{118}N_{17}O_{12}Na$ | 711.9516 | 711.9498 |
| $[M+2H]^{2+}$ | $C_{71}H_{119}N_{17}O_{12}$ | 700.9607 | 700.9590 |
| $[M+3H]^{3+}$ | $C_{71}H_{120}N_{17}O_{12}$ | 467.6429 | 467.6417 |

CH₃CO-Lys-Lys-Val-Val-Lys(CO-C₁₁H₂₃)-Trp-Val-Lys-Phe-Lys-NH₂ (BP429)



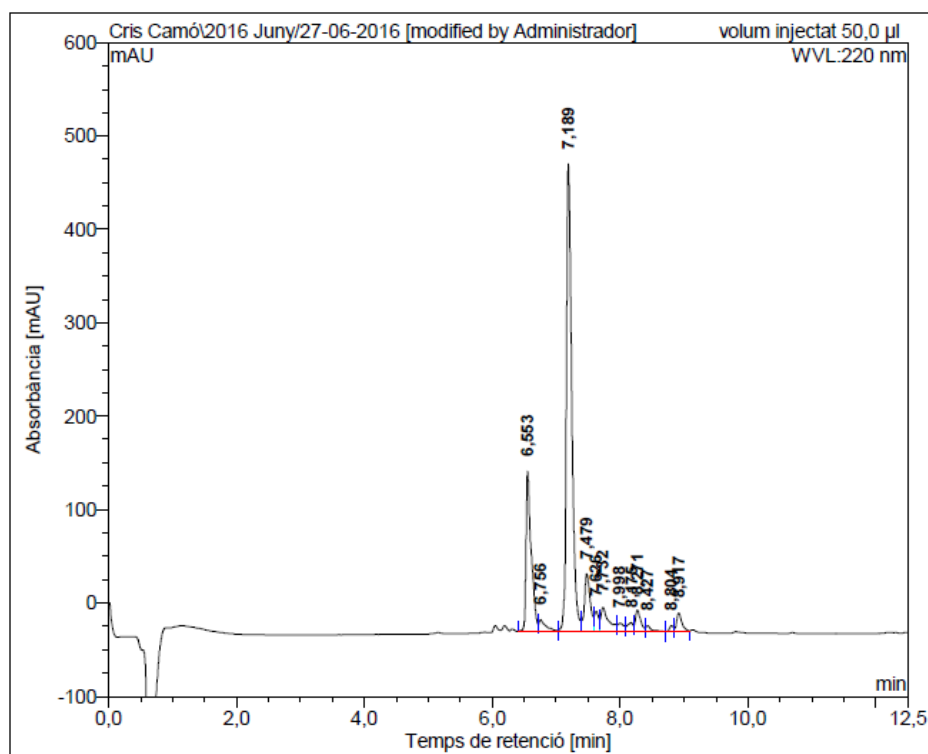
Chemical Formula: C₇₉H₁₃₃N₁₇O₁₂

Exact Mass: 1512,0320

Molecular Weight: 1513,0080

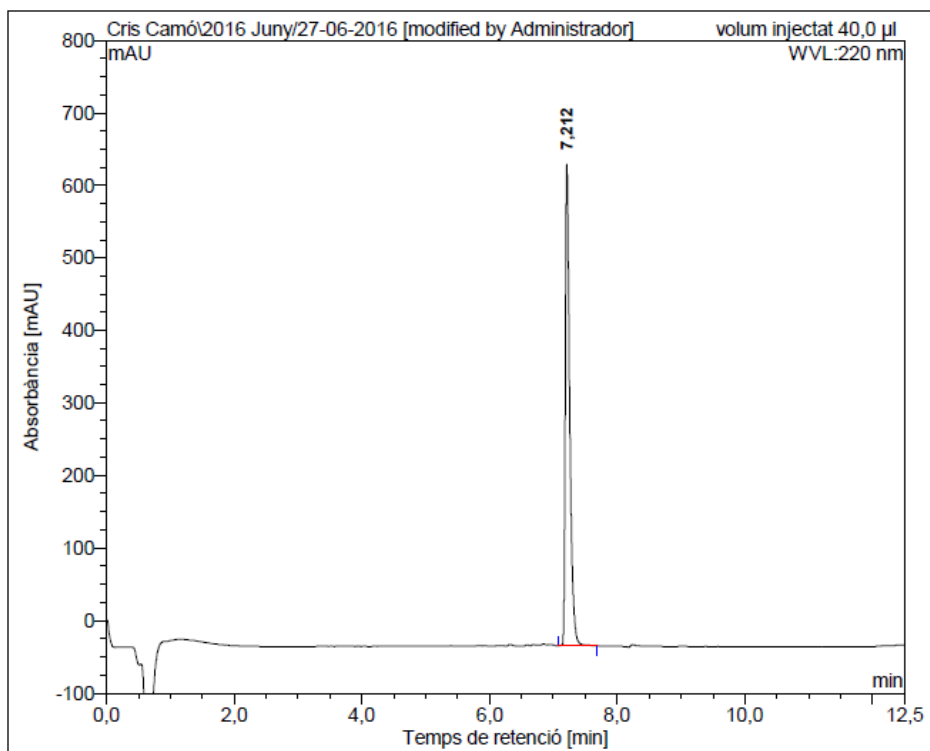
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP6-làuric-707 impur)

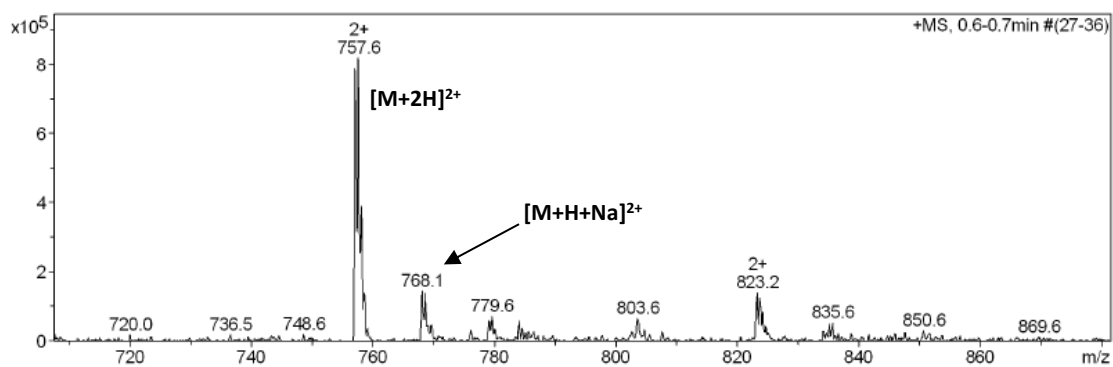
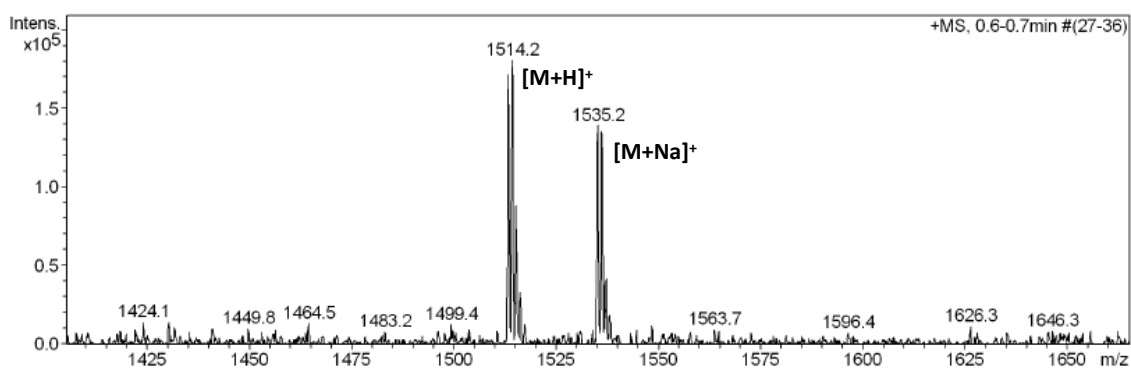
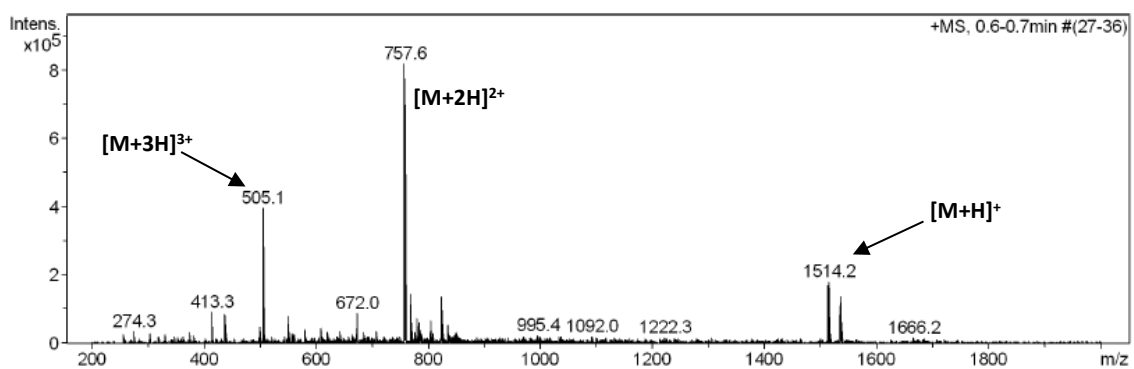


| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,55 | 171,453 | 16,104 | 18,85 |
| 2 | 6,76 | 12,643 | 1,668 | 1,95 |
| 3 | 7,19 | 500,975 | 48,645 | 56,93 |
| 4 | 7,48 | 61,664 | 6,384 | 7,47 |
| 5 | 7,63 | 21,356 | 1,833 | 2,14 |
| 6 | 7,73 | 25,957 | 3,598 | 4,21 |
| 7 | 8,00 | 8,924 | 1,070 | 1,25 |
| 8 | 8,18 | 9,524 | 0,952 | 1,11 |
| 9 | 8,27 | 22,787 | 2,202 | 2,58 |
| 10 | 8,43 | 6,066 | 0,635 | 0,74 |
| 11 | 8,80 | 6,487 | 0,455 | 0,53 |
| 12 | 8,92 | 19,993 | 1,908 | 2,23 |
| Total: | | 867,830 | 85,453 | 100,00 |

PURE PRODUCT

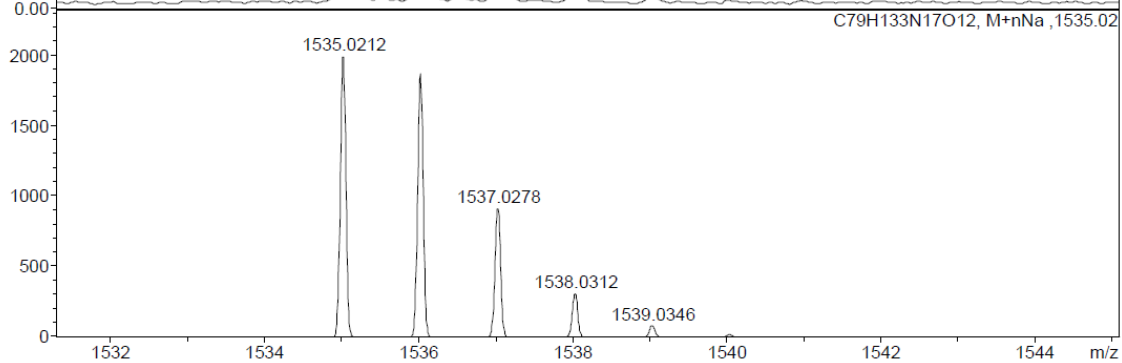
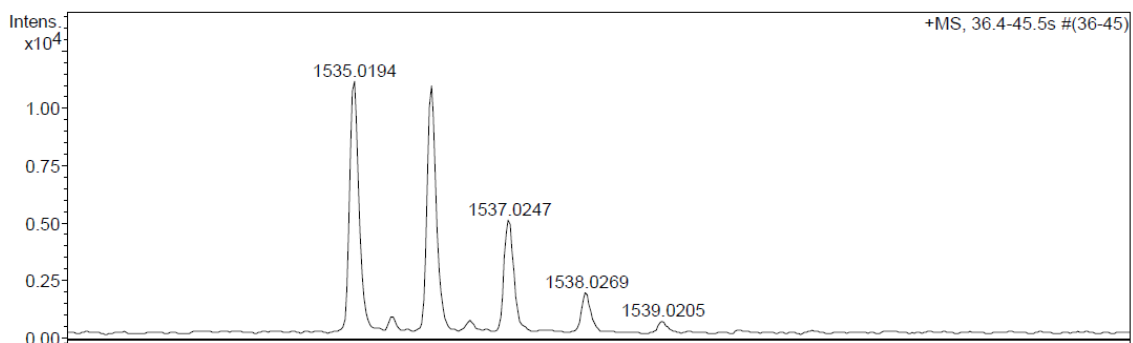
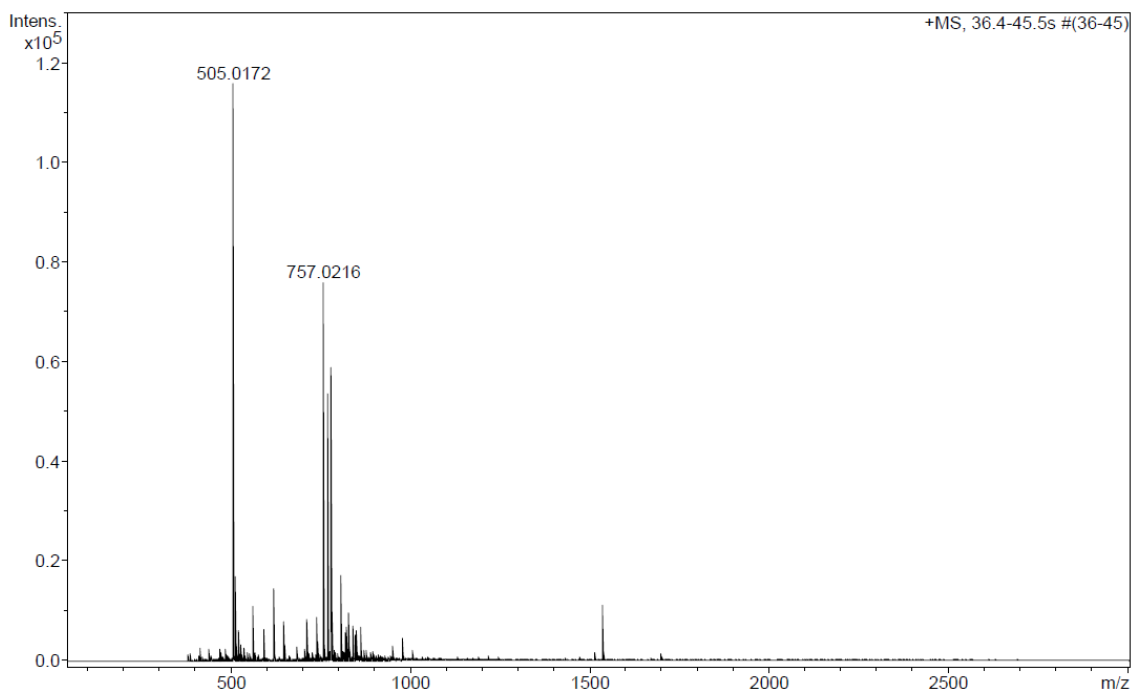
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP6-làuric-707 tub 19)

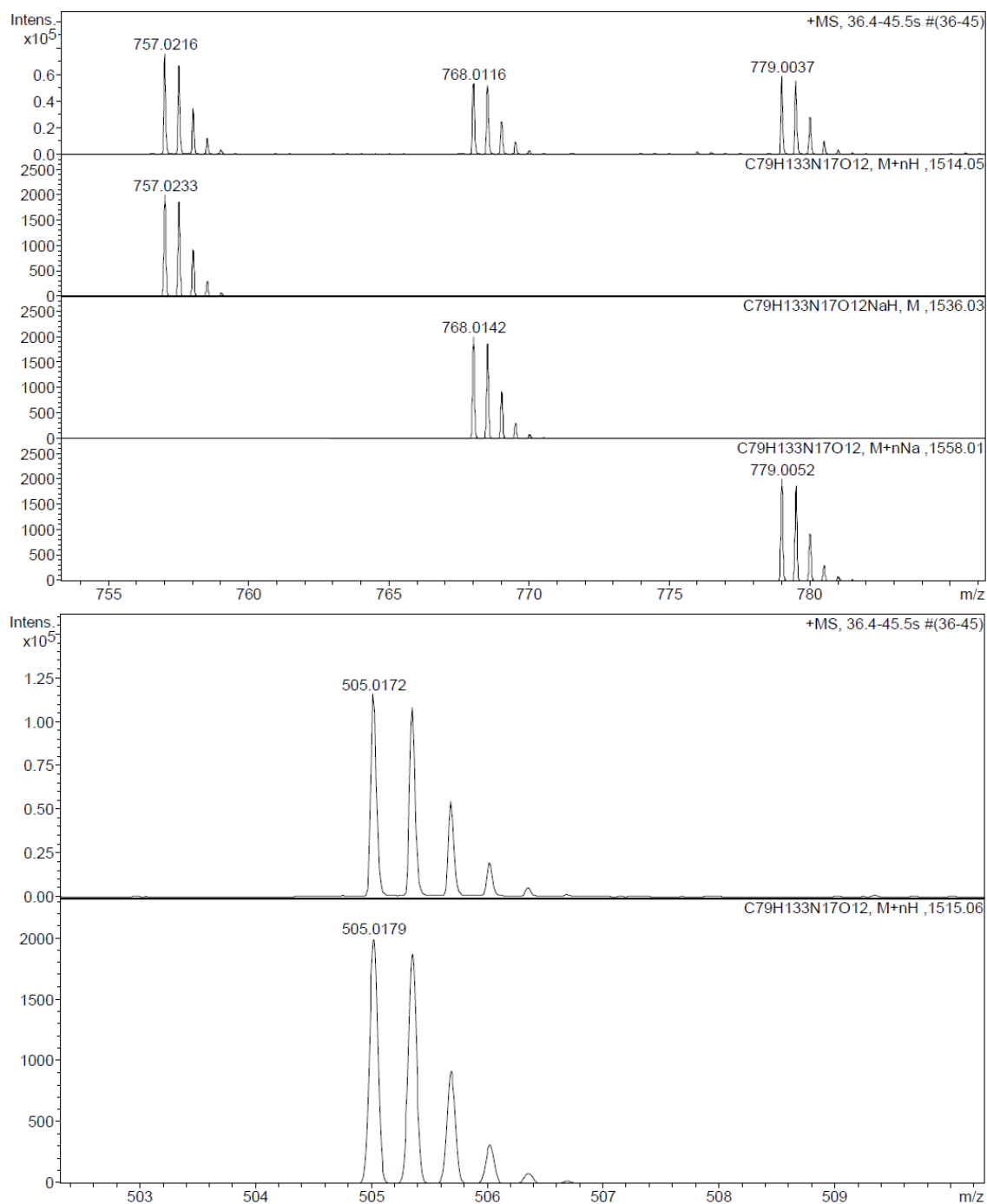
| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 7,21 | 664,695 | 53,796 | 100,00 |
| Total: | | 664,695 | 53,796 | 100,00 |

ESI-MS (m/z) (CC-4-LysP6-làuric-707 tub 19)

| |
|-------------------------|
| $[M+H]^+ = 1514.2$ |
| $[M+Na]^+ = 1535.2$ |
| $[M+2H]^{2+} = 757.6$ |
| $[M+H+Na]^{2+} = 768.1$ |
| $[M+2Na]^{2+} = 779.6$ |
| $[M+3H]^{3+} = 505.1$ |

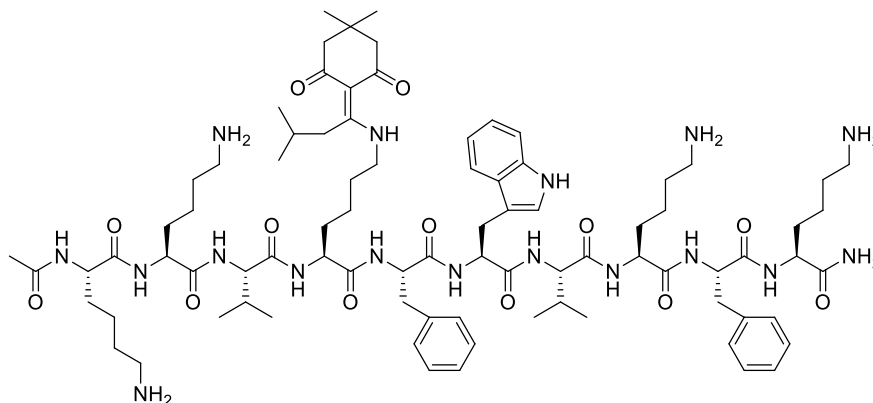
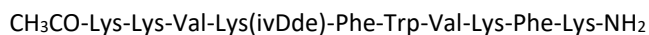
HRMS (m/z) (CC-4-LysP6-làuric-707-tubs 15-21)





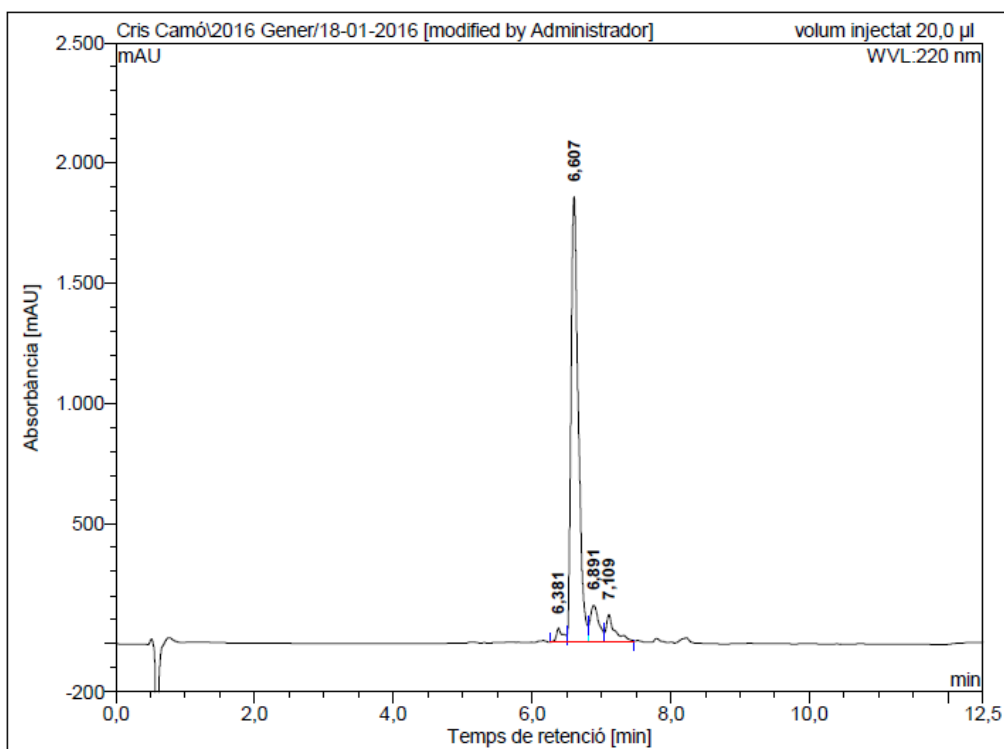
| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₉ H ₁₃₃ N ₁₇ O ₁₂ Na | 1535.0212 | 1535.0194 |
| [M+2Na] ²⁺ | C ₇₉ H ₁₃₃ N ₁₇ O ₁₂ Na ₂ | 779.0052 | 779.0037 |
| [M+H+Na] ²⁺ | C ₇₉ H ₁₃₄ N ₁₇ O ₁₂ Na | 768.0142 | 768.0116 |
| [M+2H] ²⁺ | C ₇₉ H ₁₃₅ N ₁₇ O ₁₂ | 757.0233 | 757.0216 |
| [M+3H] ³⁺ | C ₇₉ H ₁₃₆ N ₁₇ O ₁₂ | 505.0179 | 505.0172 |

Lipopeptides derived from KSLW acylated at position 4

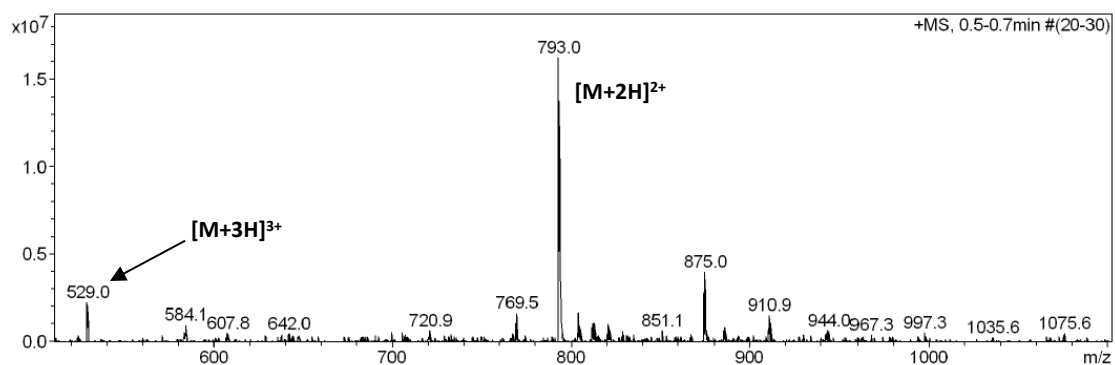
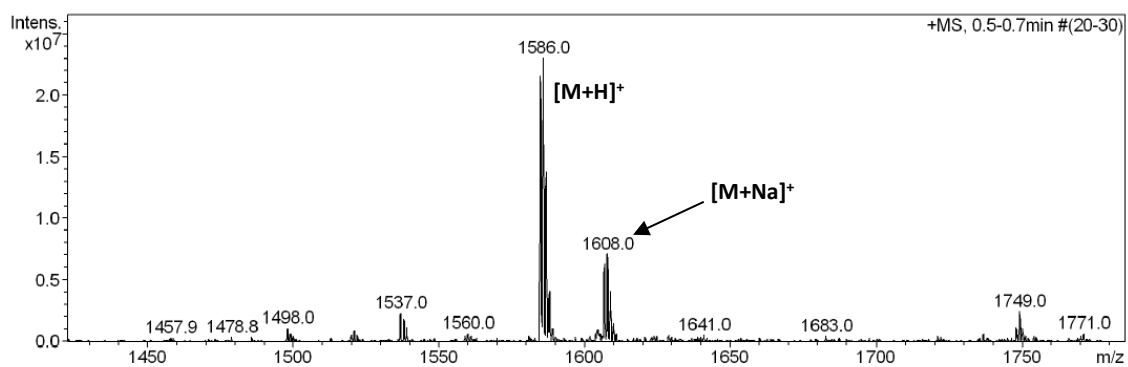
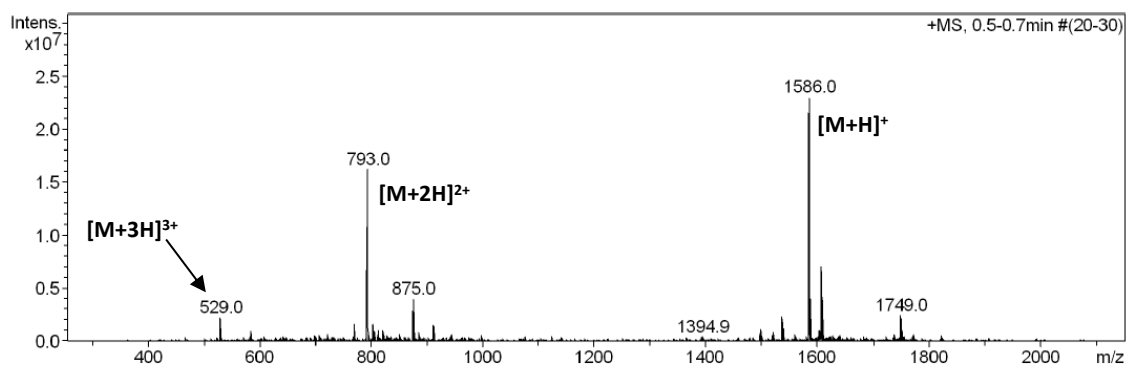
Chemical Formula: $\text{C}_{84}\text{H}_{129}\text{N}_{17}\text{O}_{13}$

Exact Mass: 1583,9956

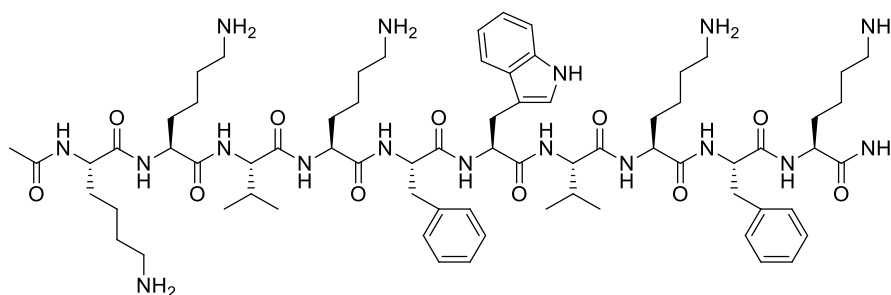
Molecular Weight: 1585,0292

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP7-501)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,38 | 57,089 | 6,028 | 2,23 |
| 2 | 6,61 | 1850,608 | 224,807 | 83,20 |
| 3 | 6,89 | 152,504 | 22,545 | 8,34 |
| 4 | 7,11 | 113,268 | 16,809 | 6,22 |
| Total: | | 2173,469 | 270,188 | 100,00 |

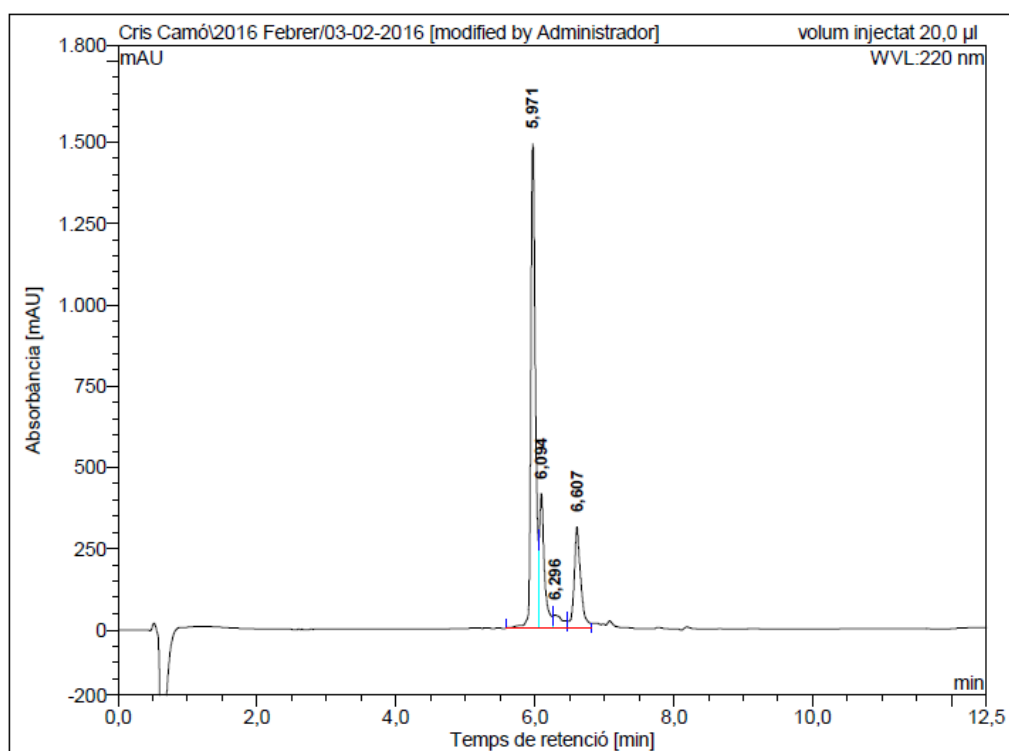
ESI-MS (m/z) (CC-4-LysP7-501)

| |
|-----------------------|
| $[M+H]^+ = 1586.0$ |
| $[M+Na]^+ = 1608.0$ |
| $[M+2H]^{2+} = 793.0$ |
| $[M+3H]^{3+} = 529.0$ |

CH₃CO-Lys-Lys-Val-Lys-Phe-Trp-Val-Lys-Phe-Lys-NH₂Chemical Formula: C₇₁H₁₁₁N₁₇O₁₁

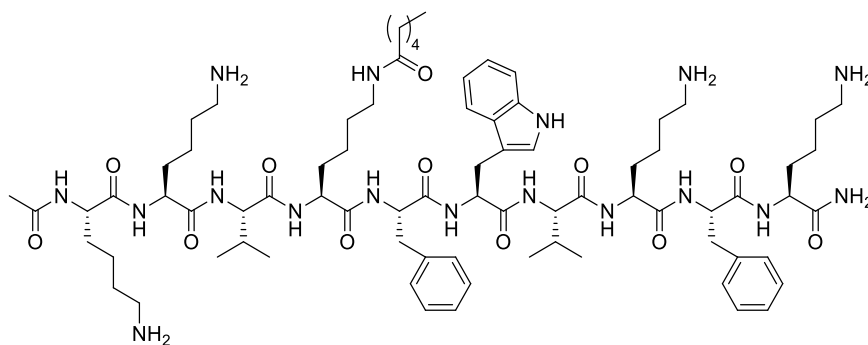
Exact Mass: 1377,8649

Molecular Weight: 1378,7483

HPLC ($\lambda = 220$ nm)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,97 | 1490,516 | 112,791 | 59,01 |
| 2 | 6,09 | 414,921 | 36,553 | 19,12 |
| 3 | 6,30 | 41,771 | 6,586 | 3,45 |
| 4 | 6,61 | 312,600 | 35,206 | 18,42 |
| Total: | | 2259,808 | 191,136 | 100,00 |

CH₃CO-Lys-Lys-Val-Lys(CO-C₅H₁₁)-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP430)



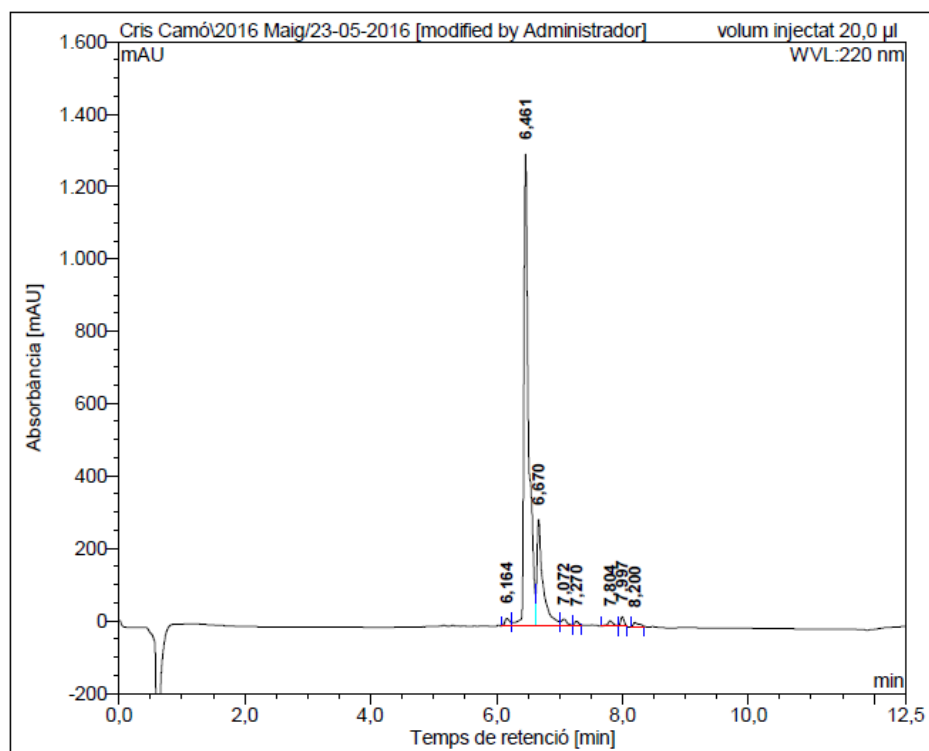
Chemical Formula: C₇₇H₁₂₁N₁₇O₁₂

Exact Mass: 1475,9381

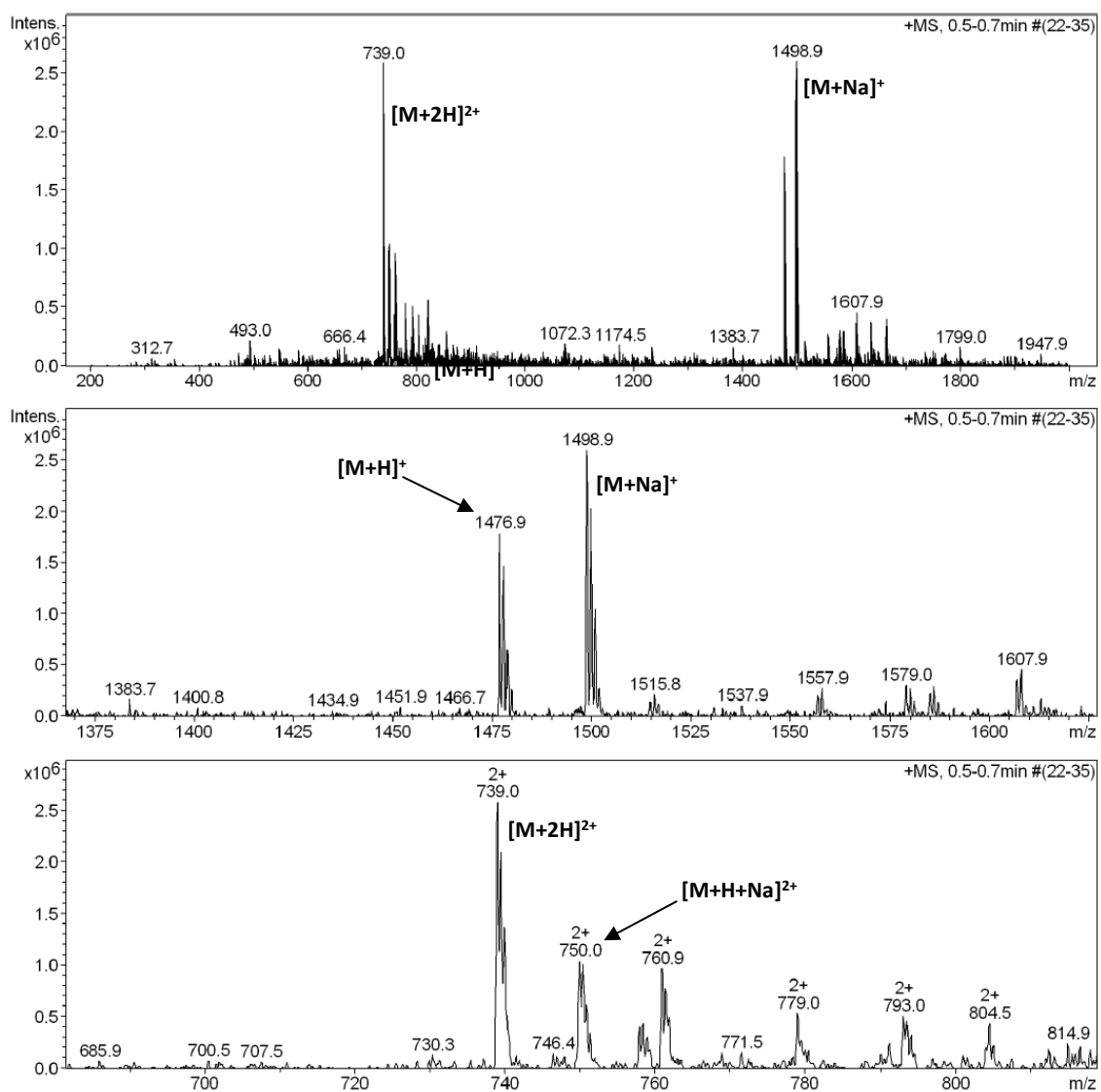
Molecular Weight: 1476,8913

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP7-hexanoic-683 impur)

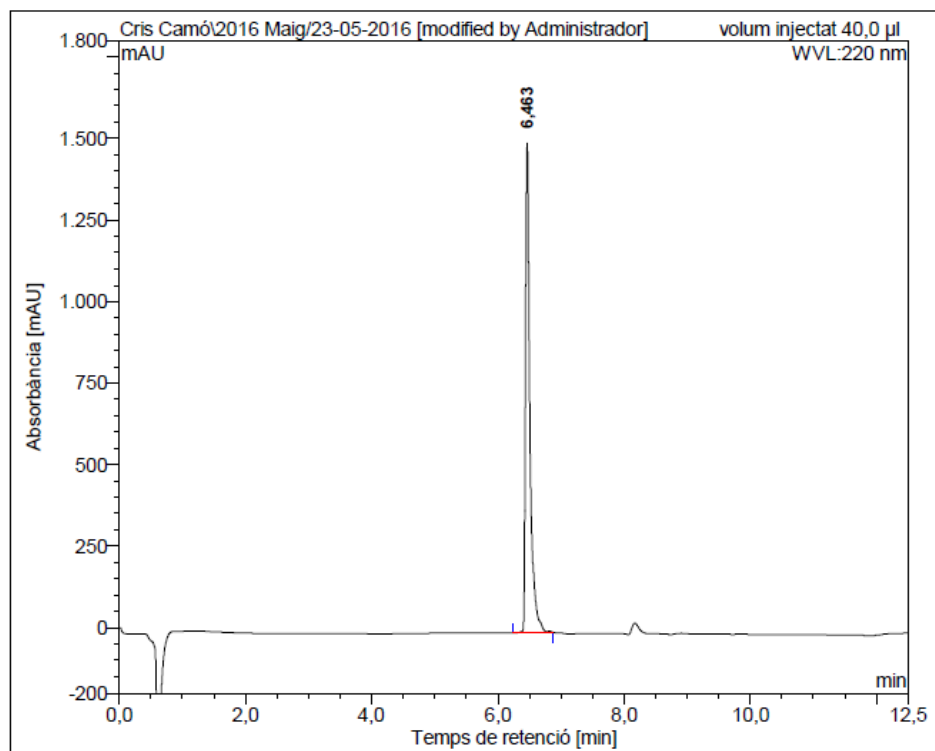


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,16 | 20,021 | 1,862 | 1,19 |
| 2 | 6,46 | 1303,876 | 115,180 | 73,64 |
| 3 | 6,67 | 293,700 | 32,181 | 20,57 |
| 4 | 7,07 | 18,471 | 2,004 | 1,28 |
| 5 | 7,27 | 12,571 | 1,037 | 0,66 |
| 6 | 7,80 | 14,171 | 1,380 | 0,88 |
| 7 | 8,00 | 25,732 | 1,618 | 1,03 |
| 8 | 8,20 | 10,758 | 1,149 | 0,73 |
| Total: | | 1699,299 | 156,411 | 100,00 |

ESI-MS (m/z) (CC-4-LysP7-hexanoic-541)

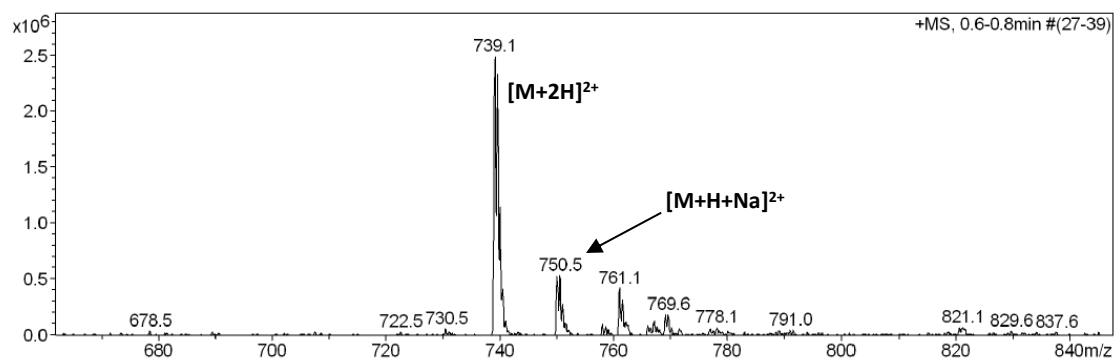
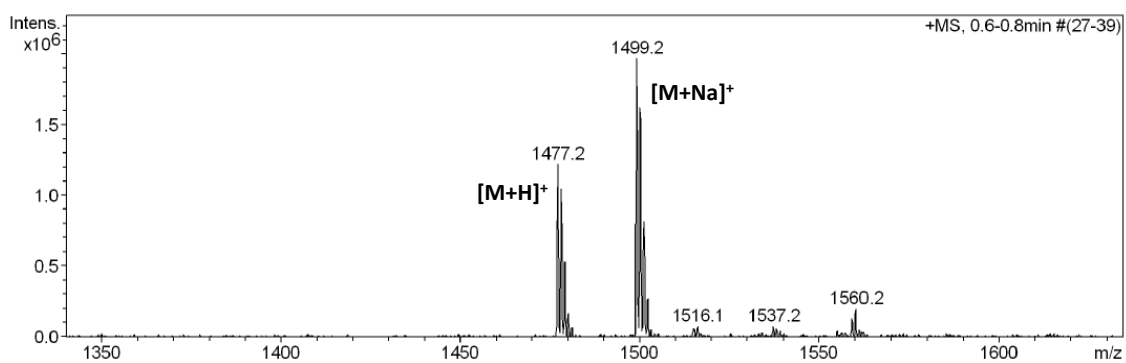
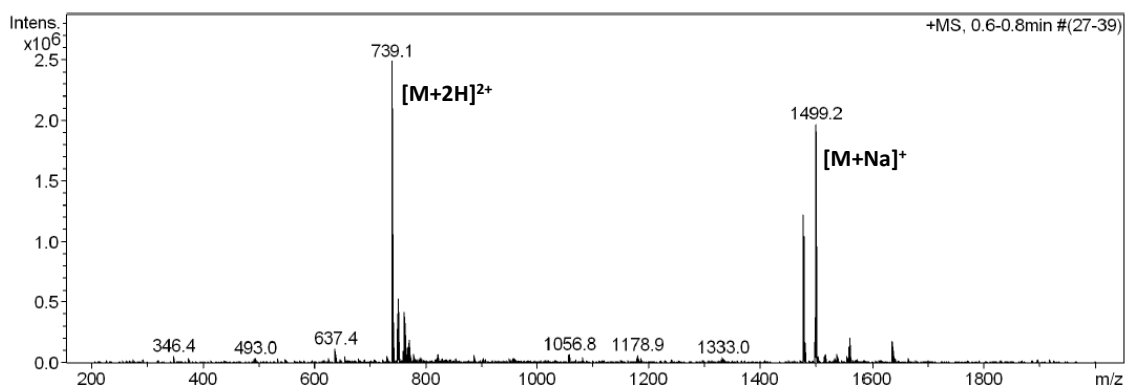
| |
|-------------------------|
| $[M+H]^+ = 1476.9$ |
| $[M+Na]^+ = 1498.9$ |
| $[M+2H]^{2+} = 739.0$ |
| $[M+H+Na]^{2+} = 750.0$ |

PURE PRODUCT

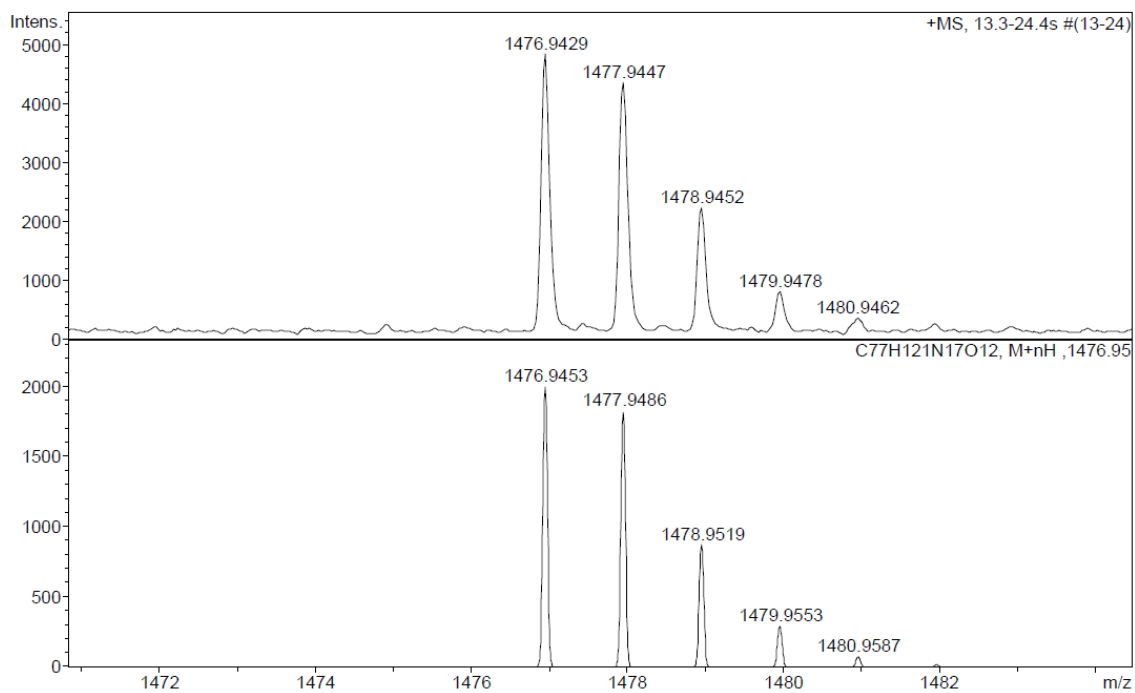
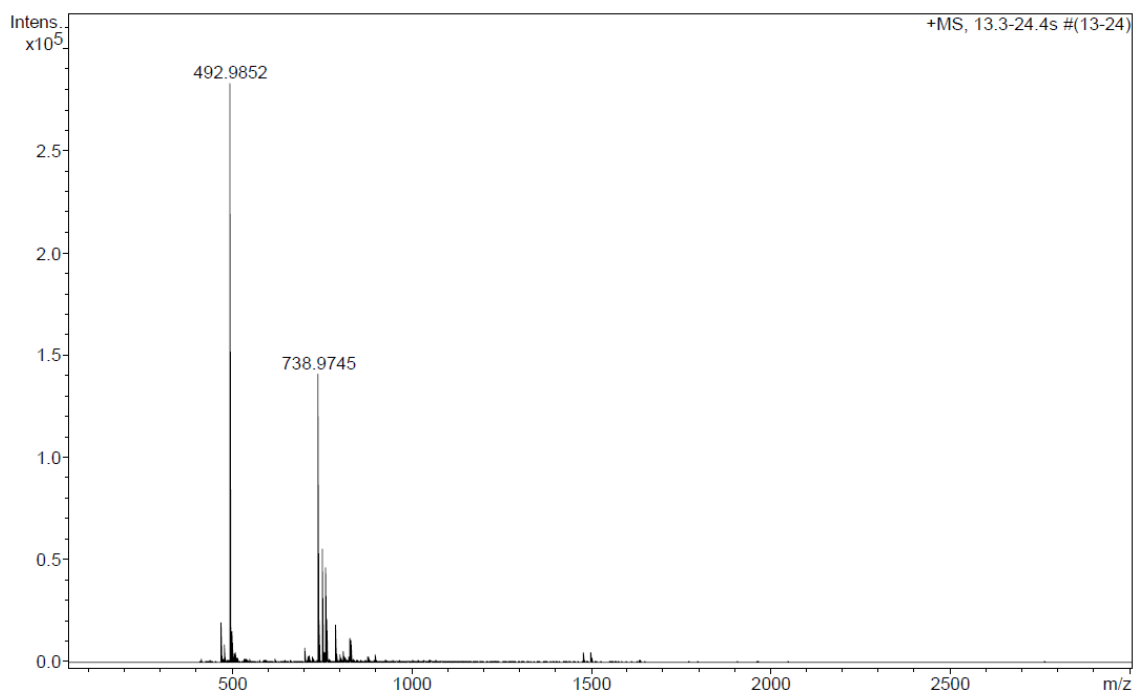
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP7-hexanoic-683 tub 17)

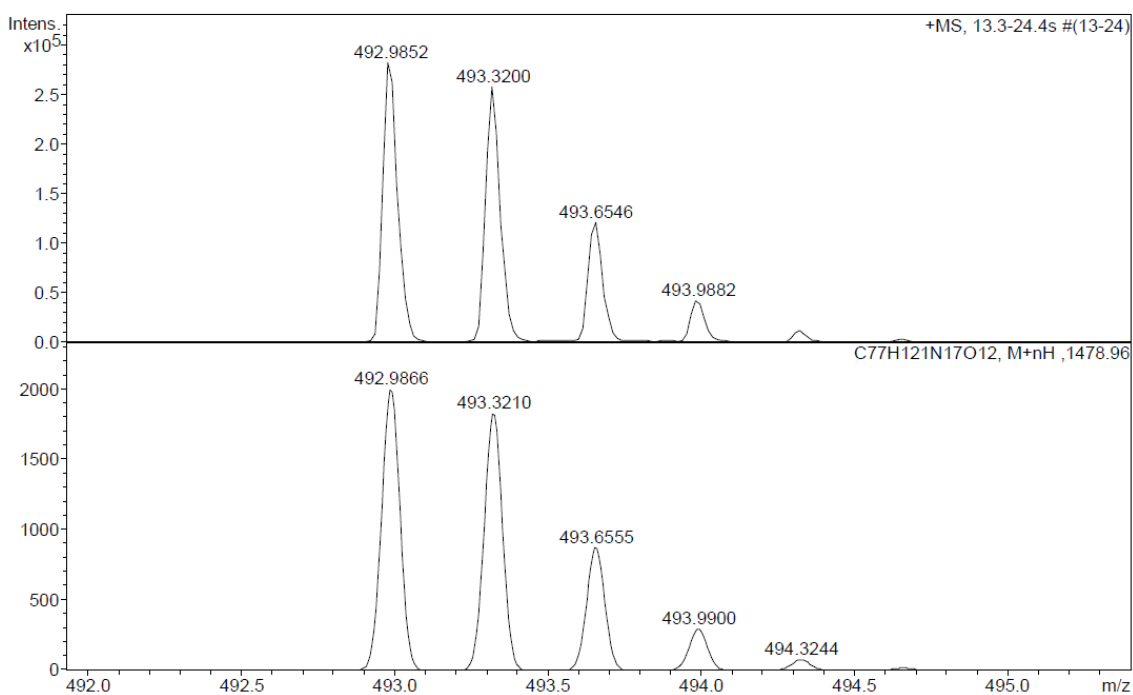
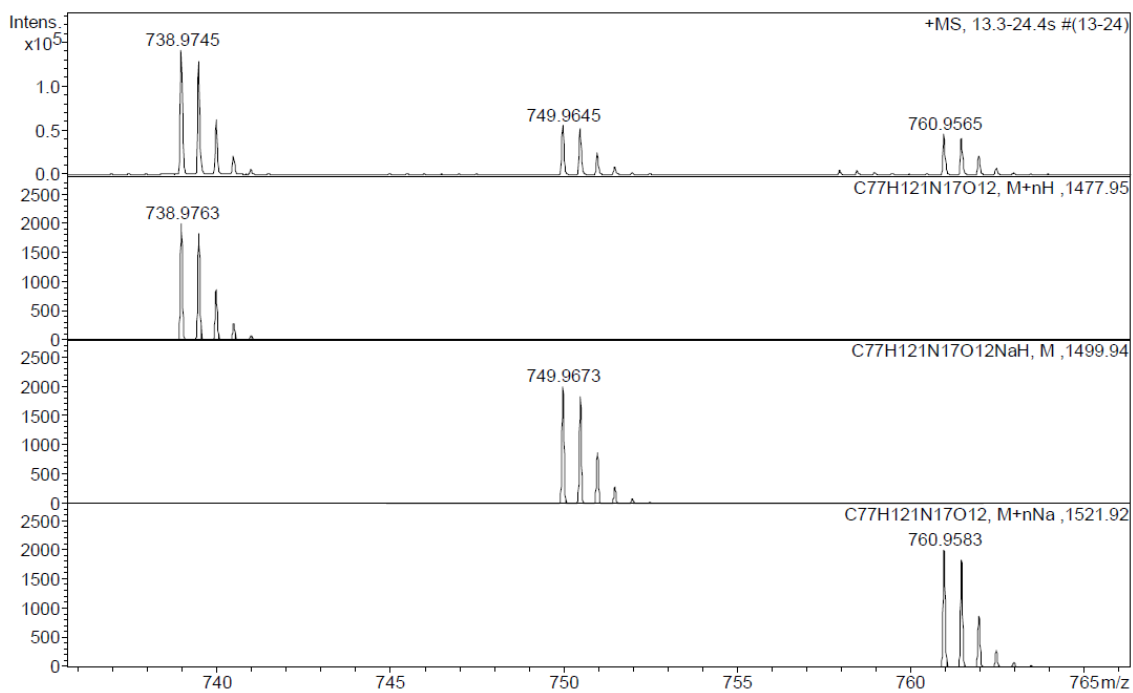
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,46 | 1501,685 | 123,932 | 100,00 |
| Total: | | 1501,685 | 123,932 | 100,00 |

ESI-MS (m/z) (CC-4-LysP7-hexanoic-683 tub 17)



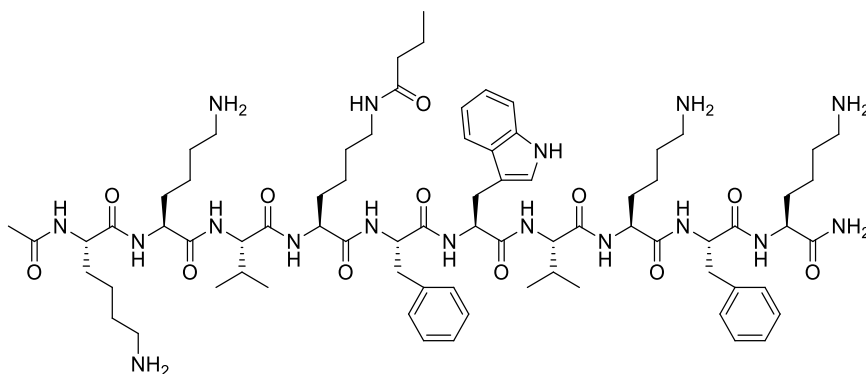
| |
|-------------------------|
| $[M+H]^+ = 1477.2$ |
| $[M+Na]^+ = 1499.2$ |
| $[M+2H]^{2+} = 739.1$ |
| $[M+H+Na]^{2+} = 750.5$ |

HRMS (m/z) (CC-4-LysP7-hexanoic-683 tubs 10-17)



| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₇ H ₁₂₂ N ₁₇ O ₁₂ | 1476.9453 | 1476.9429 |
| [M+2Na] ²⁺ | C ₇₇ H ₁₂₁ N ₁₇ O ₁₂ Na ₂ | 760.9583 | 760.9565 |
| [M+H+Na] ²⁺ | C ₇₇ H ₁₂₂ N ₁₇ O ₁₂ Na | 749.9673 | 749.9645 |
| [M+2H] ²⁺ | C ₇₇ H ₁₂₃ N ₁₇ O ₁₂ | 738.9763 | 738.9745 |
| [M+3H] ³⁺ | C ₇₇ H ₁₂₄ N ₁₇ O ₁₂ | 492.9866 | 492.9852 |

CH₃CO-Lys-Lys-Val-Lys(CO-C₃H₇)-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP431**)



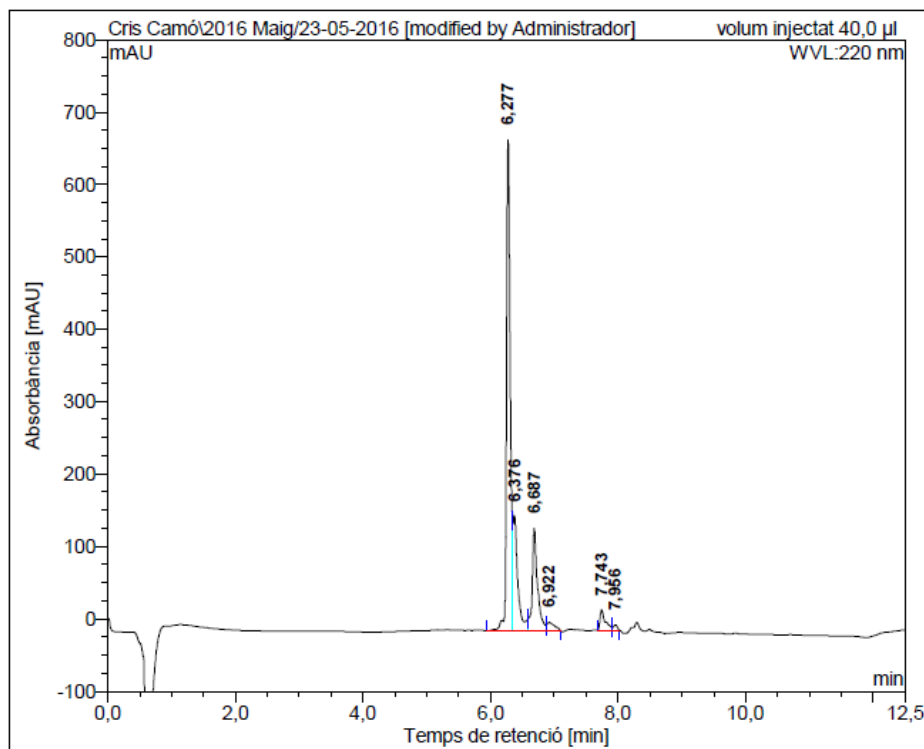
Chemical Formula: C₇₅H₁₁₇N₁₇O₁₂

Exact Mass: 1447,9068

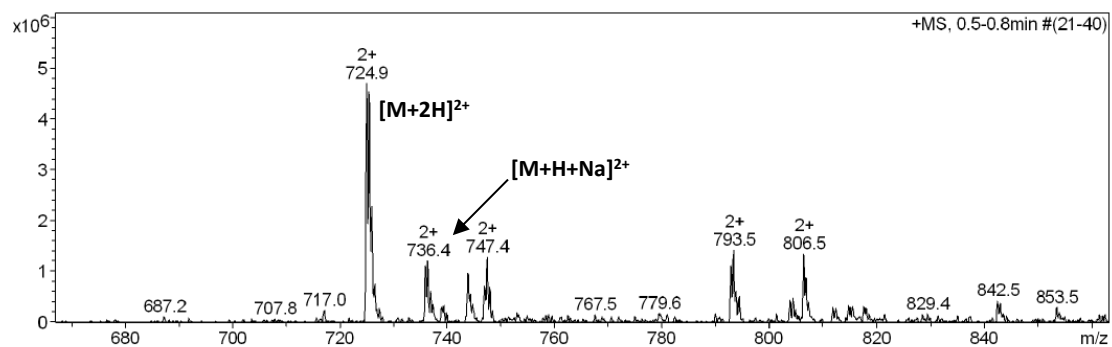
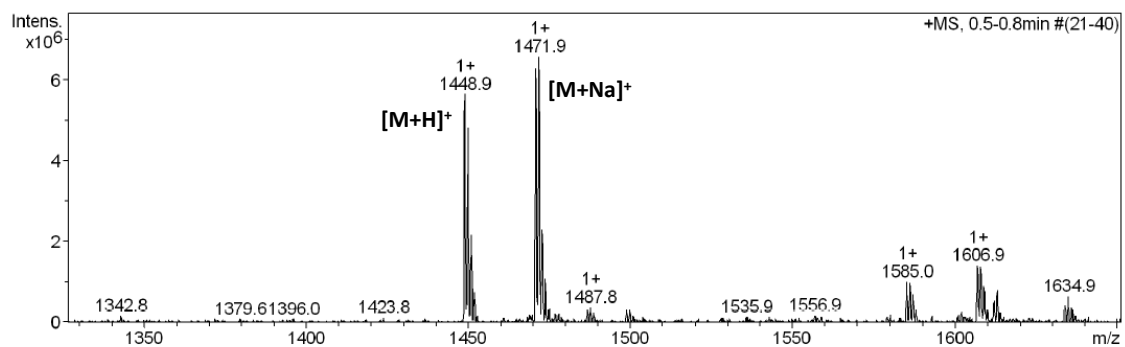
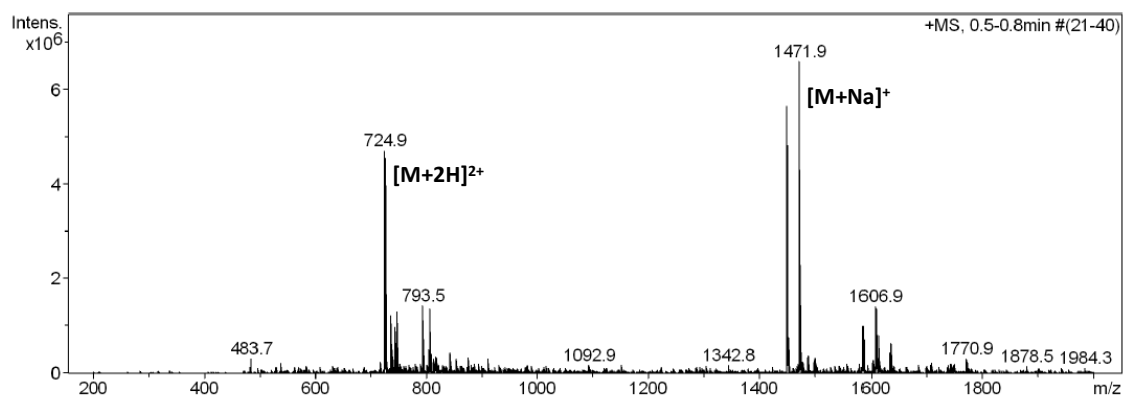
Molecular Weight: 1448,8382

IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-4-LysP7-butíric-685 impur)

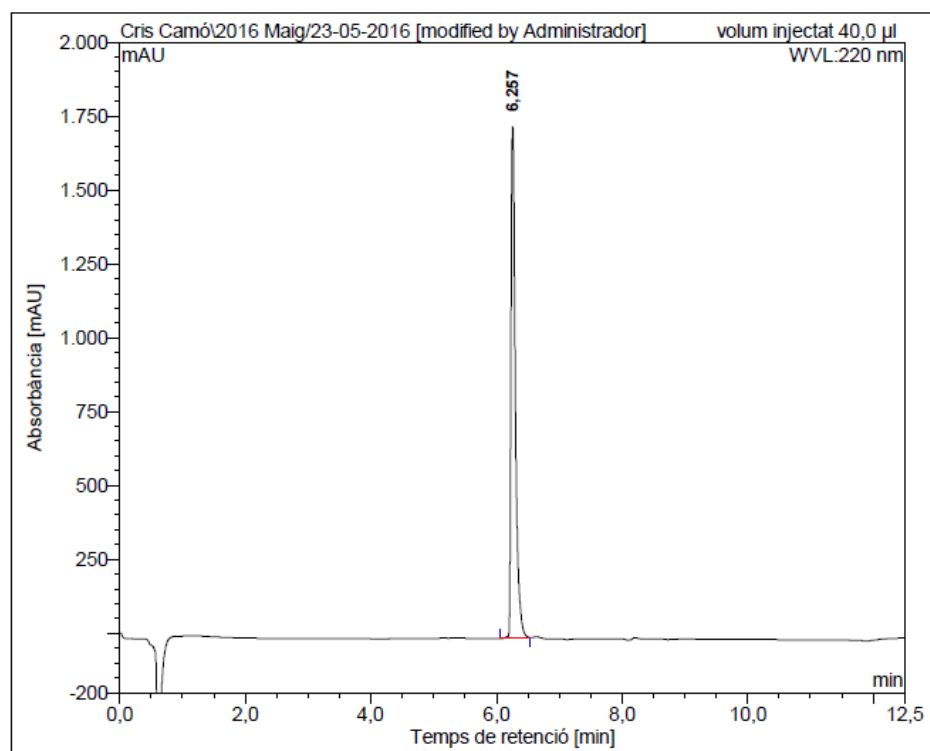


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,28 | 678,953 | 46,766 | 58,42 |
| 2 | 6,38 | 158,877 | 14,546 | 18,17 |
| 3 | 6,69 | 141,812 | 13,761 | 17,19 |
| 4 | 6,92 | 11,948 | 1,720 | 2,15 |
| 5 | 7,74 | 28,094 | 2,748 | 3,43 |
| 6 | 7,96 | 7,366 | 0,512 | 0,64 |
| Total: | | 1027,050 | 80,052 | 100,00 |

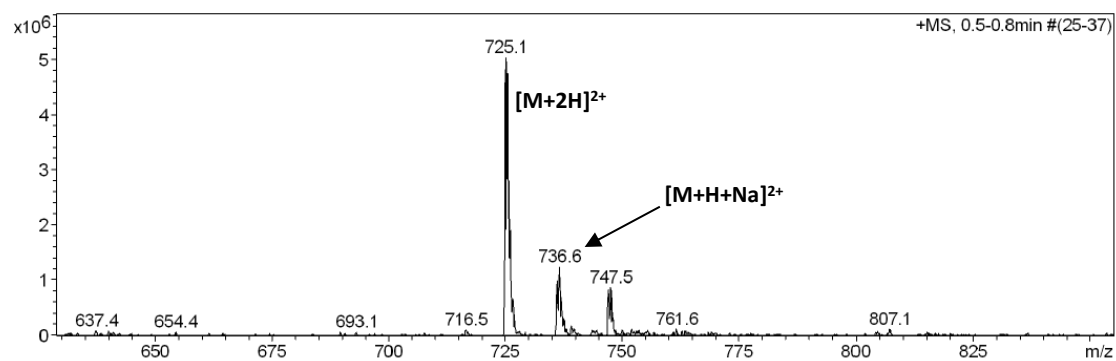
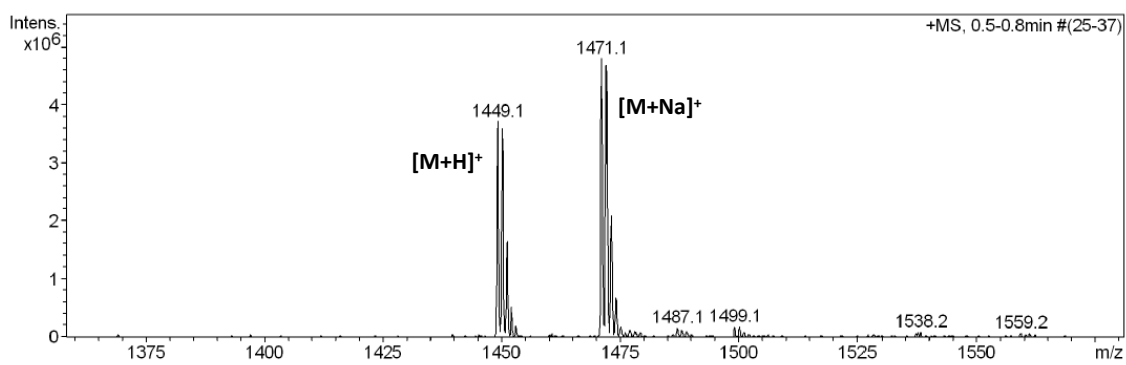
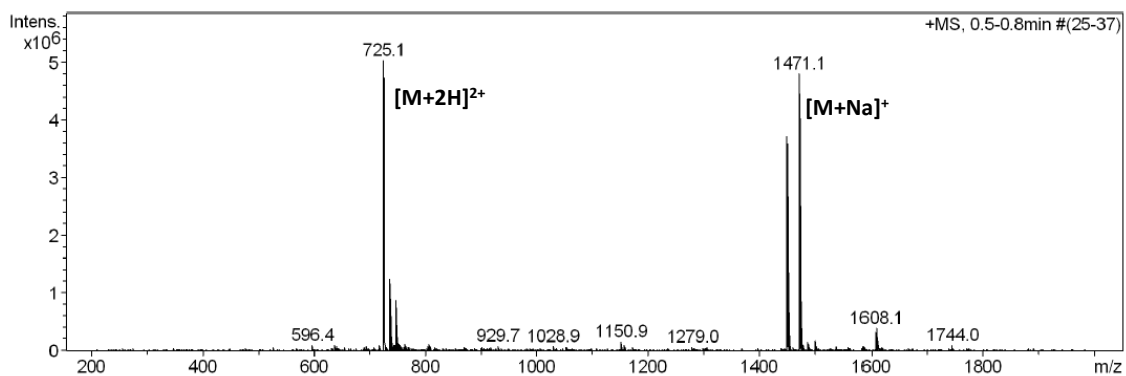
ESI-MS (m/z) (CC-4-LysP7-butíric-541)

| |
|-------------------------|
| $[M+H]^+ = 1448.9$ |
| $[M+Na]^+ = 1470.9$ |
| $[M+2H]^{2+} = 724.9$ |
| $[M+H+Na]^{2+} = 736.4$ |

PURE PRODUCT

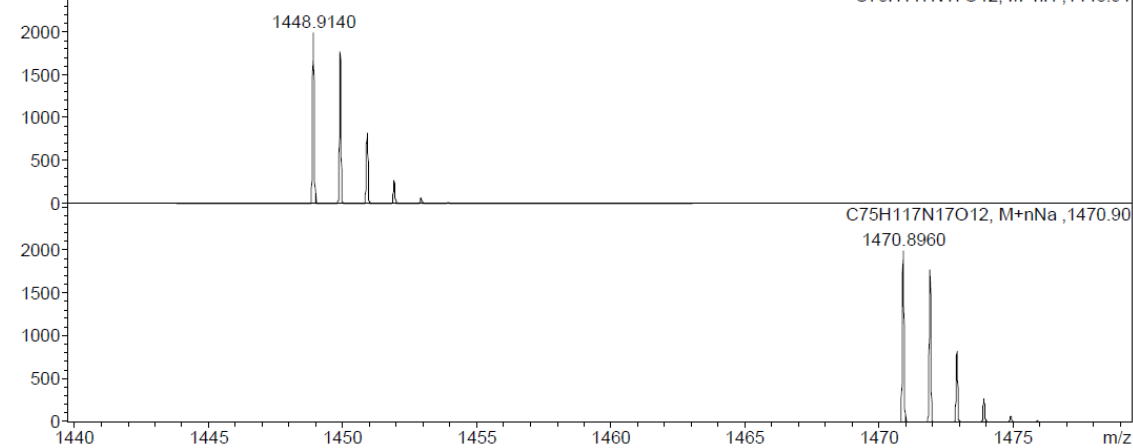
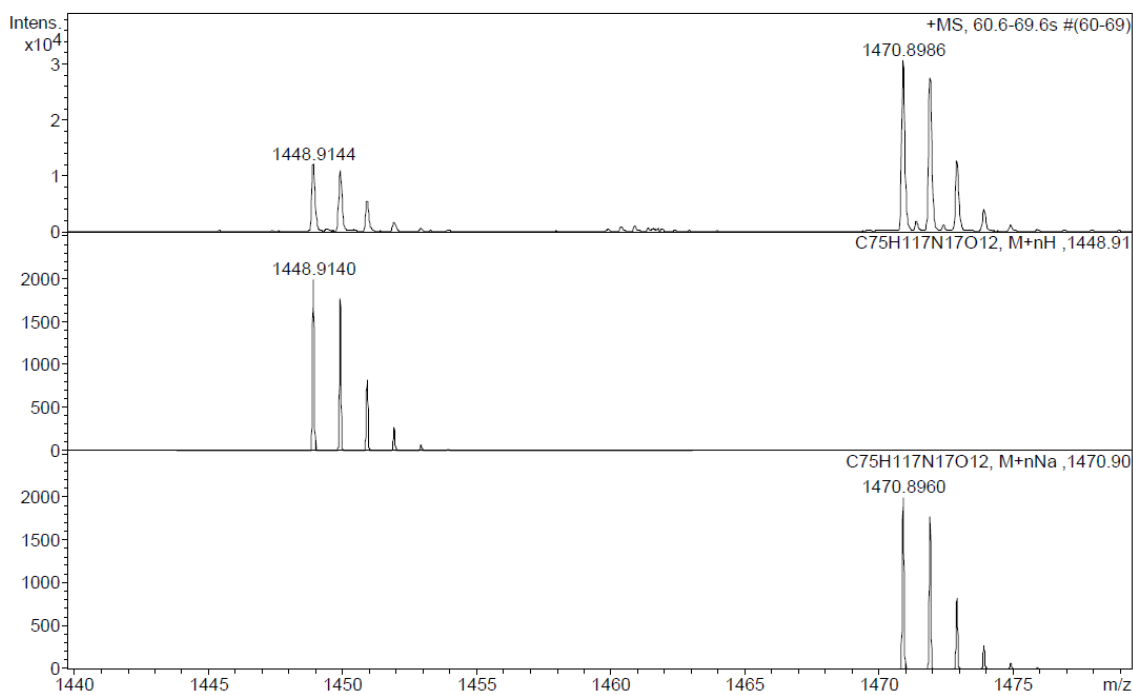
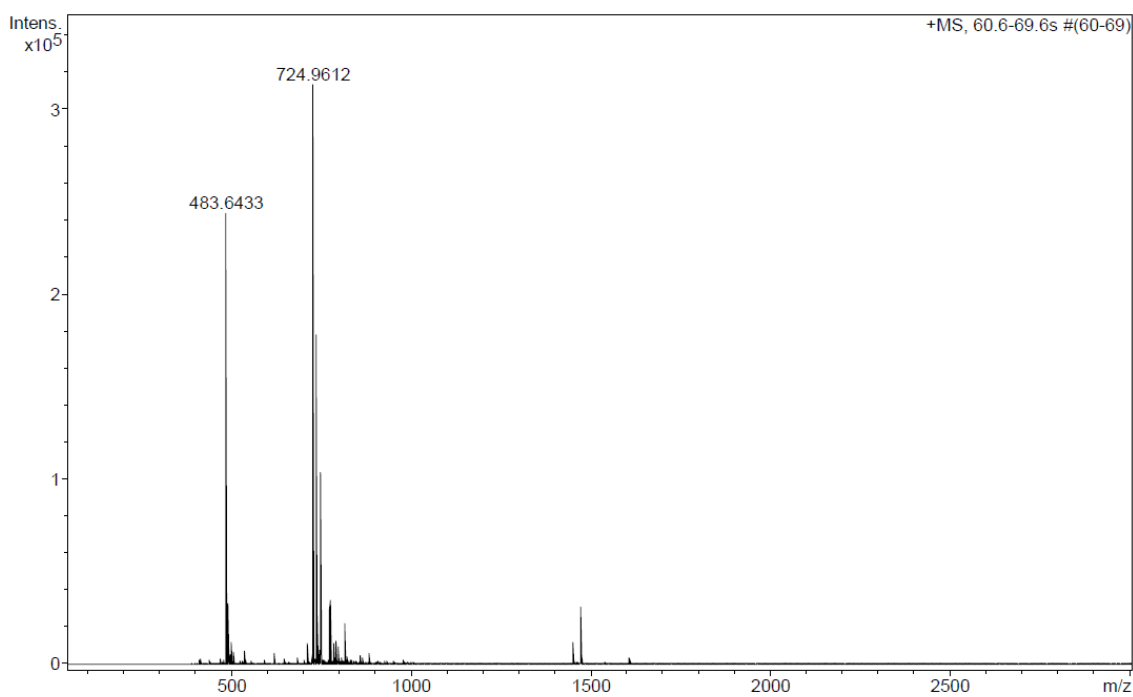
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP7-butíric-685 tub 16)

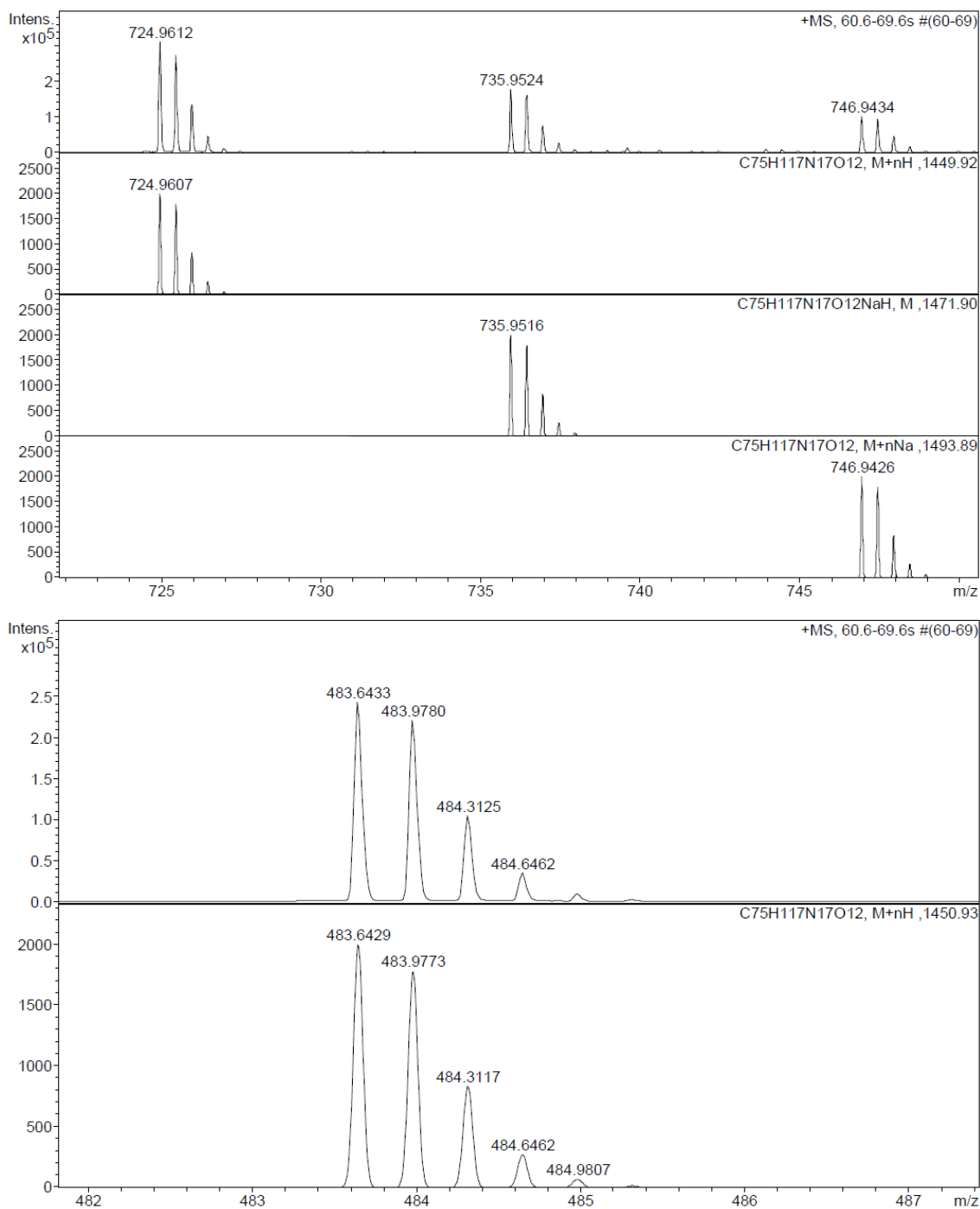
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1732,789 | 140,345 | 100,00 |
| Total: | | 1732,789 | 140,345 | 100,00 |

ESI-MS (m/z) (CC-4-LysP7-butiric-685 tub 16)

| |
|-------------------------|
| $[M+H]^+ = 1449.1$ |
| $[M+Na]^+ = 1471.1$ |
| $[M+2H]^{2+} = 725.1$ |
| $[M+H+Na]^{2+} = 736.6$ |

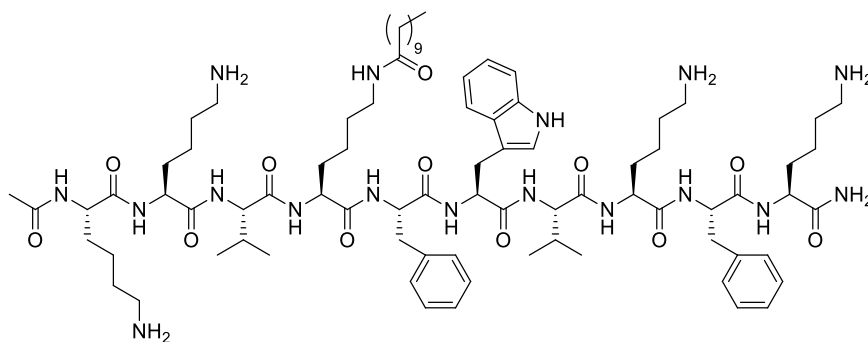
HRMS (m/z) (CC-4-LysP7-butiric-685 tubs 10-16)





| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₅ H ₁₁₇ N ₁₇ O ₁₂ Na | 1470.8960 | 1470.8986 |
| [M+H] ⁺ | C ₇₅ H ₁₁₈ N ₁₇ O ₁₂ | 1448.9140 | 1448.9144 |
| [M+2Na] ²⁺ | C ₇₅ H ₁₁₇ N ₁₇ O ₁₂ Na ₂ | 746.9426 | 746.9434 |
| [M+H+Na] ²⁺ | C ₇₅ H ₁₁₈ N ₁₇ O ₁₂ Na | 735.9516 | 735.9524 |
| [M+2H] ²⁺ | C ₇₅ H ₁₁₉ N ₁₇ O ₁₂ | 724.9607 | 724.9612 |
| [M+3H] ³⁺ | C ₇₅ H ₁₂₀ N ₁₇ O ₁₂ | 483.6429 | 483.6433 |

CH₃CO-Lys-Lys-Val-Lys(CO-C₁₁H₂₃)-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP432)



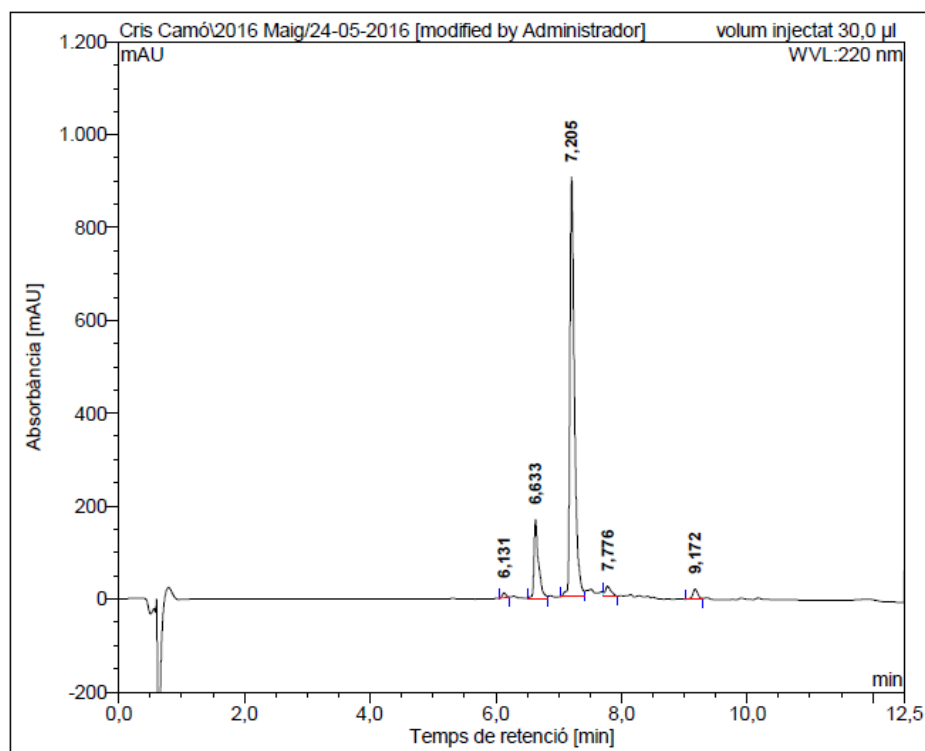
Chemical Formula: C₈₃H₁₃₃N₁₇O₁₂

Exact Mass: 1560,0320

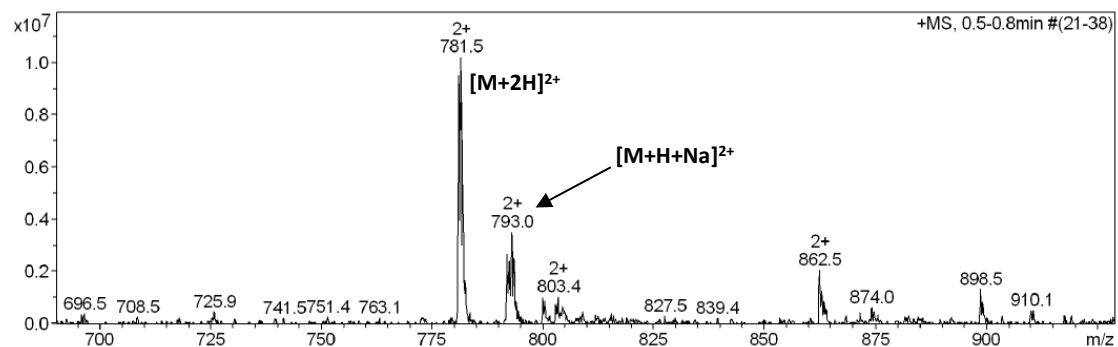
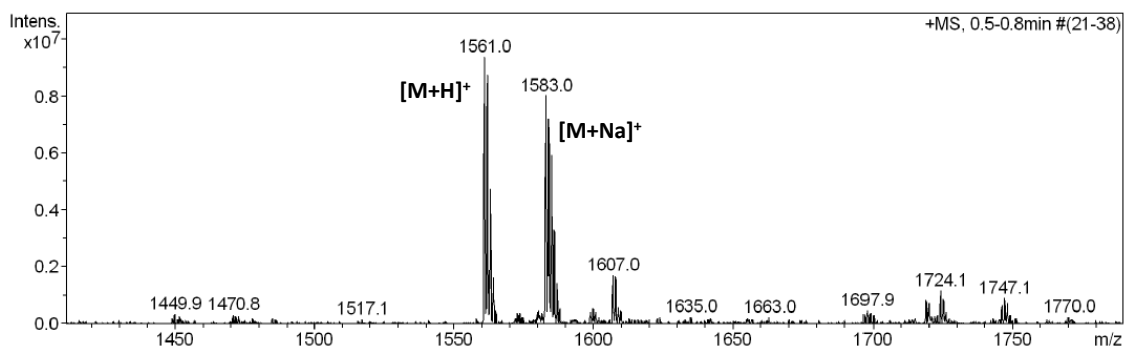
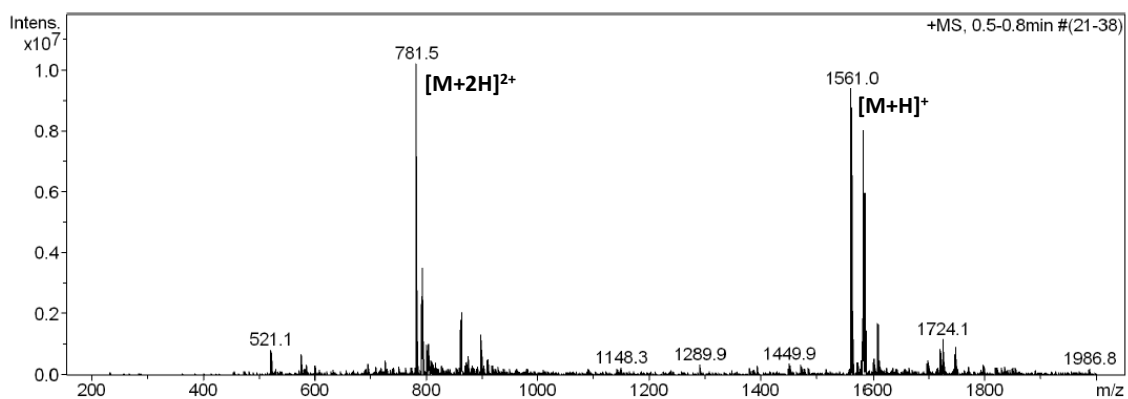
Molecular Weight: 1561,0508

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP7-làuric-687 impur)

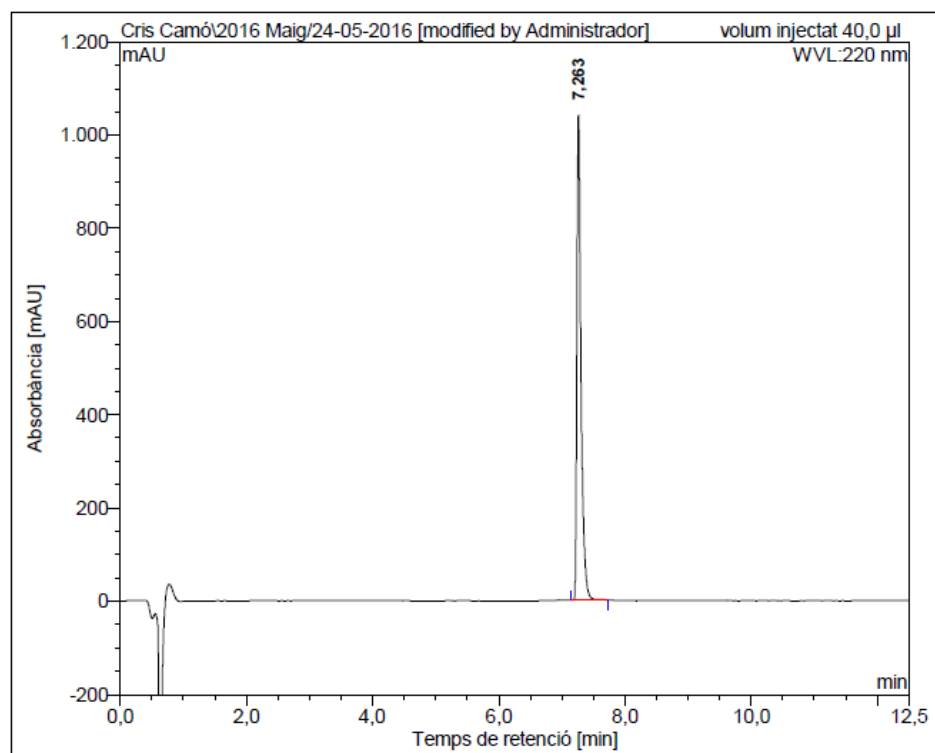


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,13 | 10,206 | 0,670 | 0,71 |
| 2 | 6,63 | 168,423 | 13,760 | 14,59 |
| 3 | 7,21 | 903,567 | 75,751 | 80,31 |
| 4 | 7,78 | 20,595 | 2,151 | 2,28 |
| 5 | 9,17 | 21,676 | 1,990 | 2,11 |
| Total: | | 1124,467 | 94,322 | 100,00 |

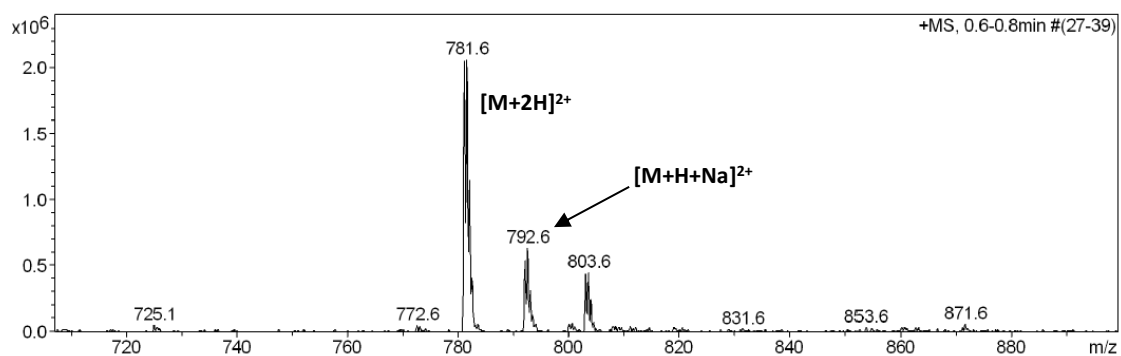
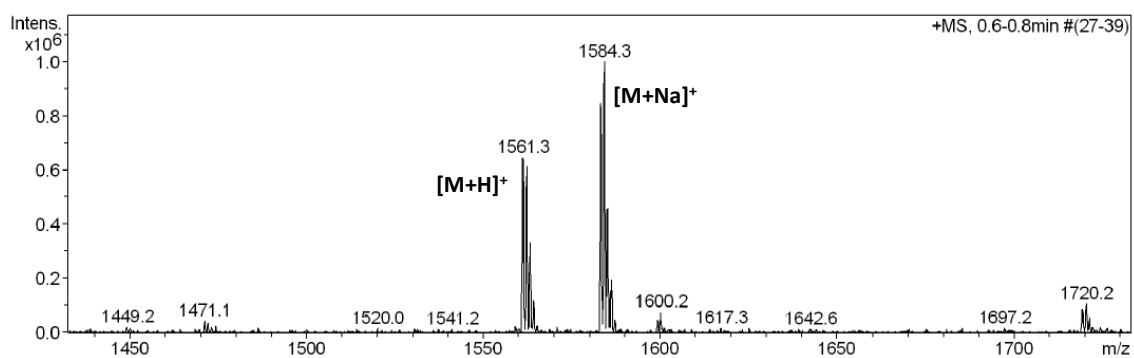
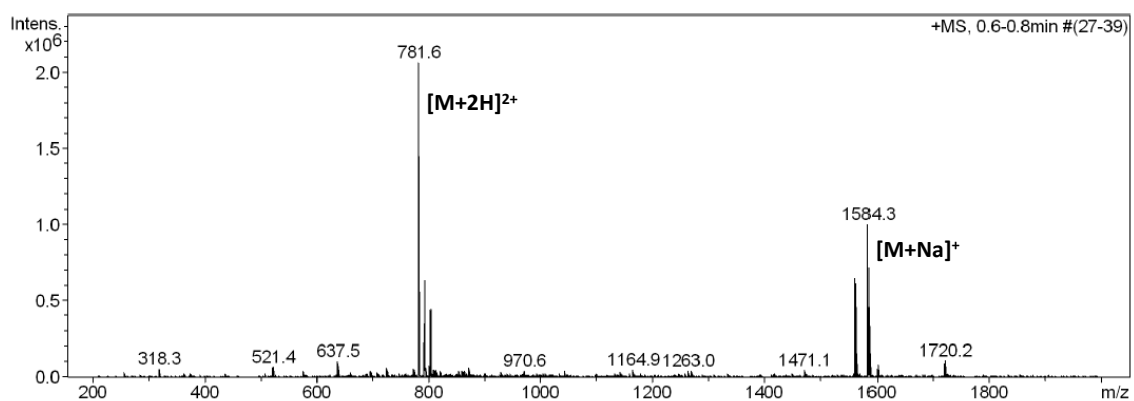
ESI-MS (m/z) (CC-4-LysP7-làuric-541)

| |
|-------------------------|
| $[M+H]^+ = 1561.0$ |
| $[M+Na]^+ = 1583.0$ |
| $[M+2H]^{2+} = 781.5$ |
| $[M+H+Na]^{2+} = 793.0$ |

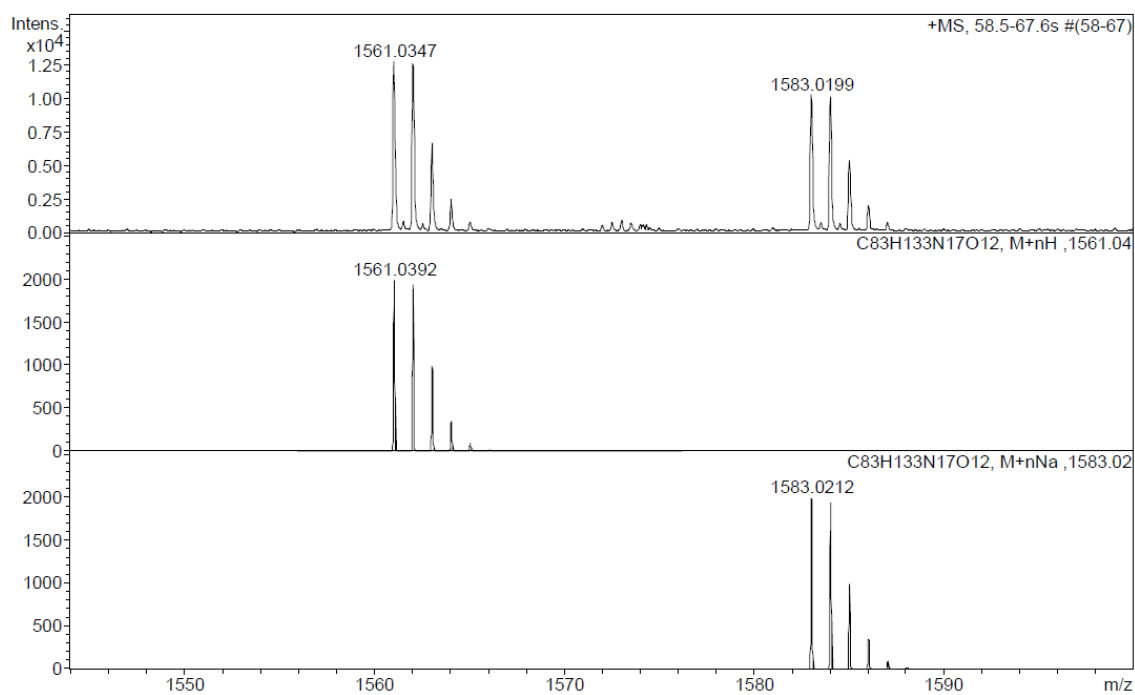
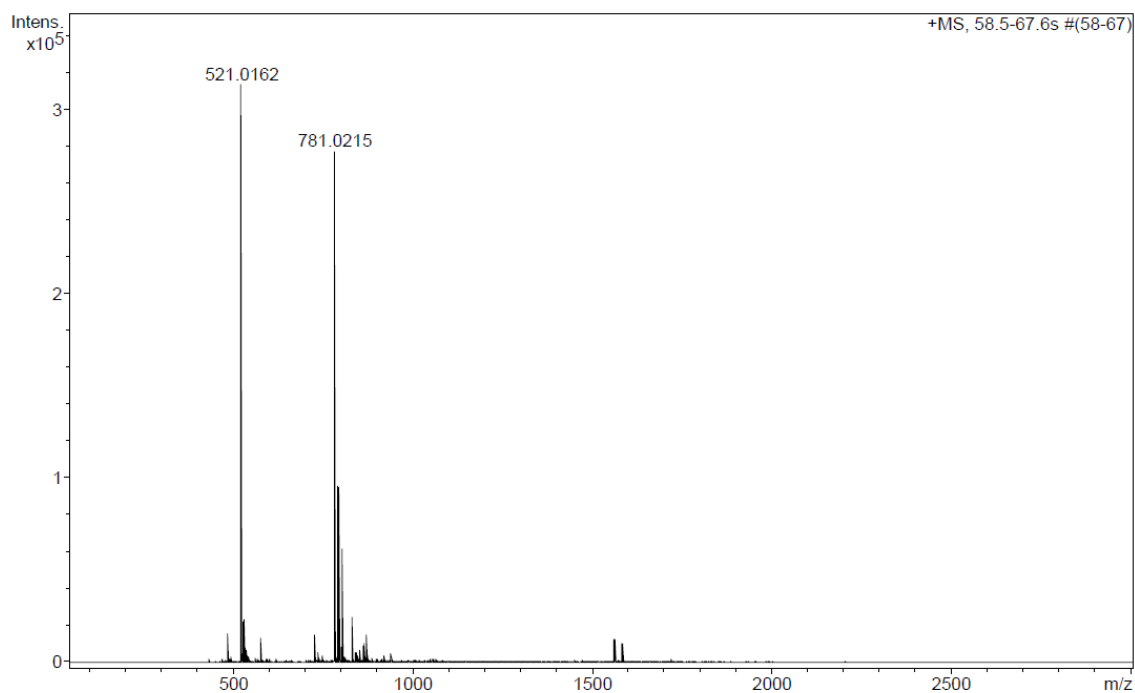
PURE PRODUCT

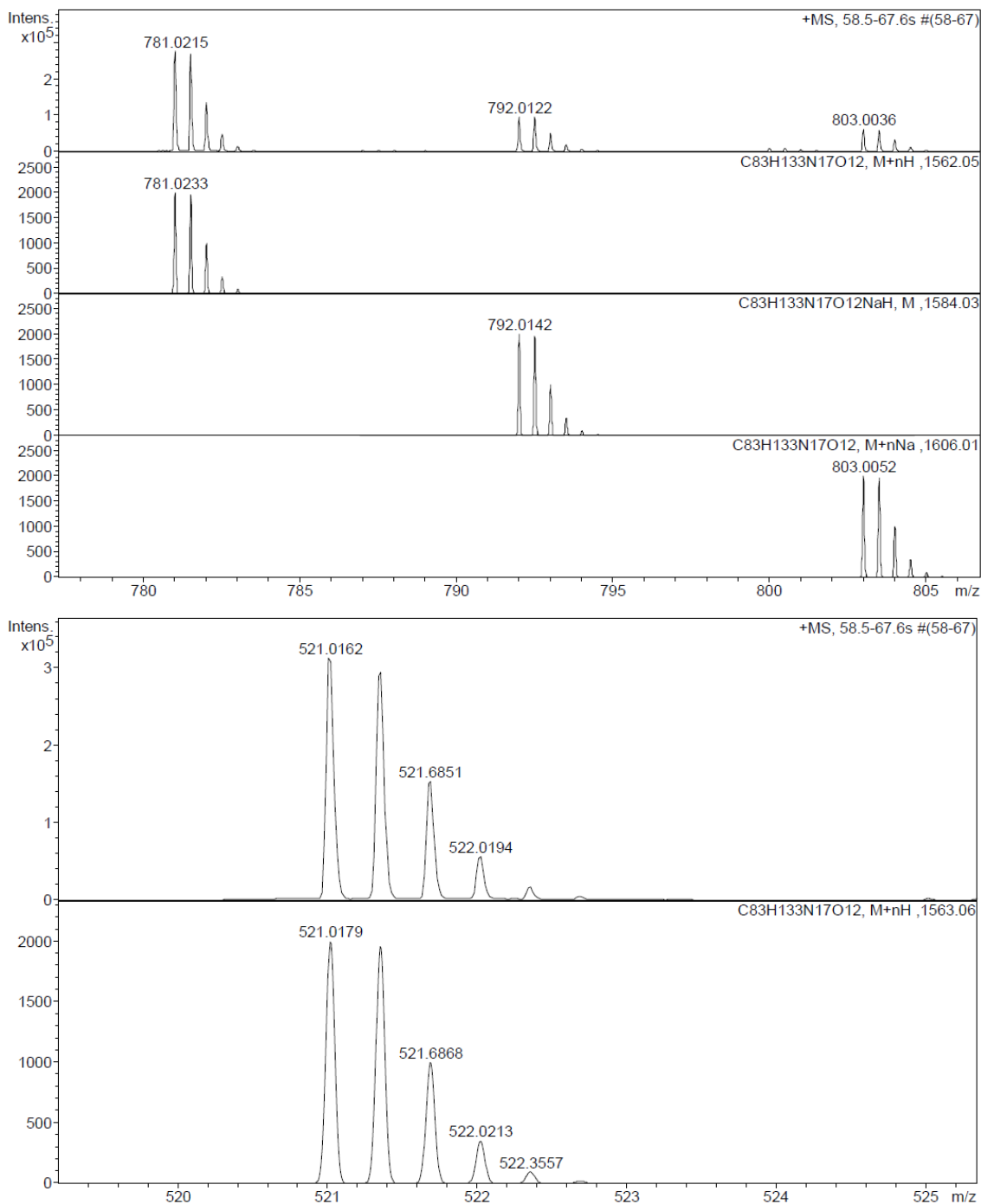
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP7-làuric-687 tub 26)

| No. | Temps retenció min | alçada mAU | Àrea mAU*min | Àrea relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,26 | 1040,863 | 80,230 | 100,00 |
| Total: | | 1040,863 | 80,230 | 100,00 |

ESI-MS (m/z) (CC-4-LysP7-làuric-687 tub 26)

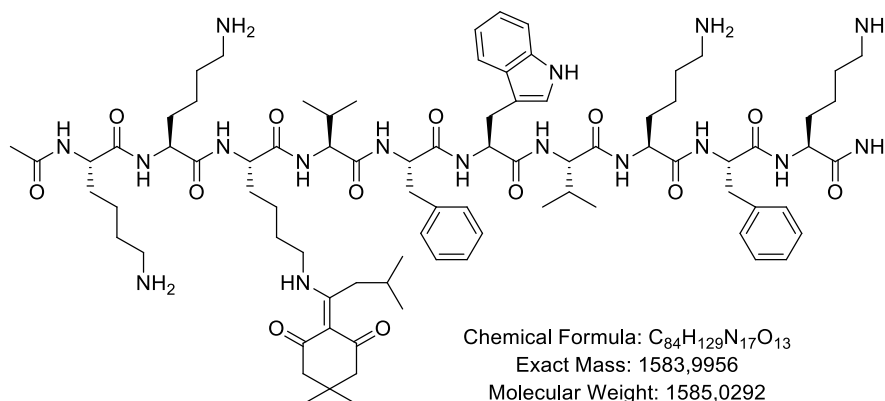
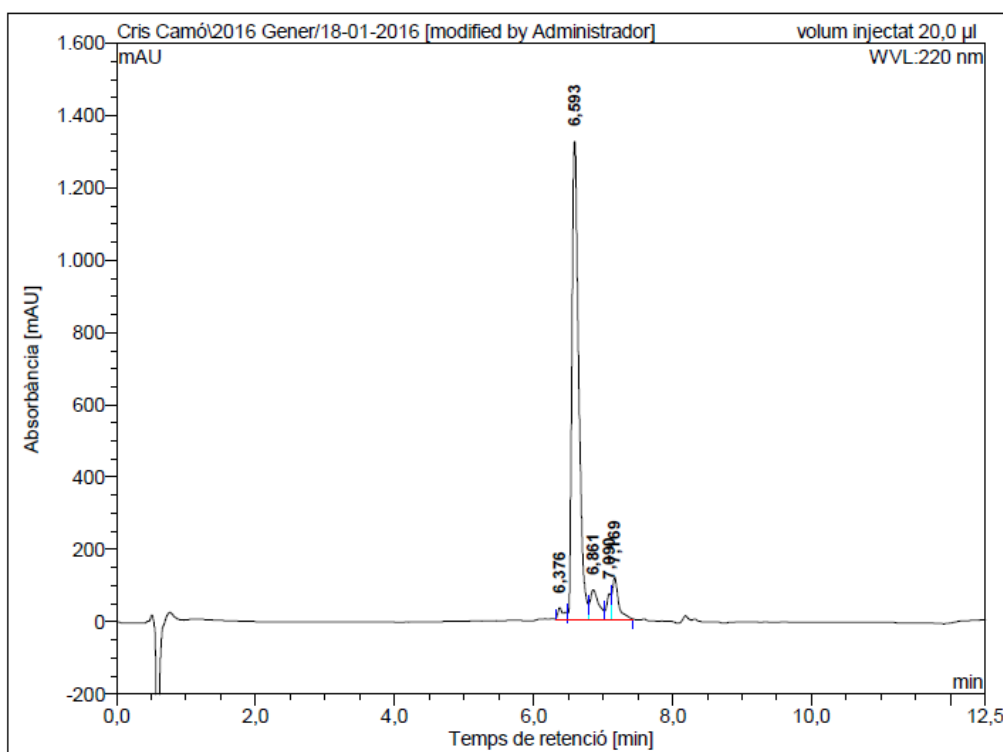
| |
|-------------------------|
| $[M+H]^+ = 1561.3$ |
| $[M+Na]^+ = 1583.3$ |
| $[M+2H]^{2+} = 781.6$ |
| $[M+H+Na]^{2+} = 792.6$ |

HRMS (m/z) (CC-4-LysP7-làuric-687 tubs 18-28)

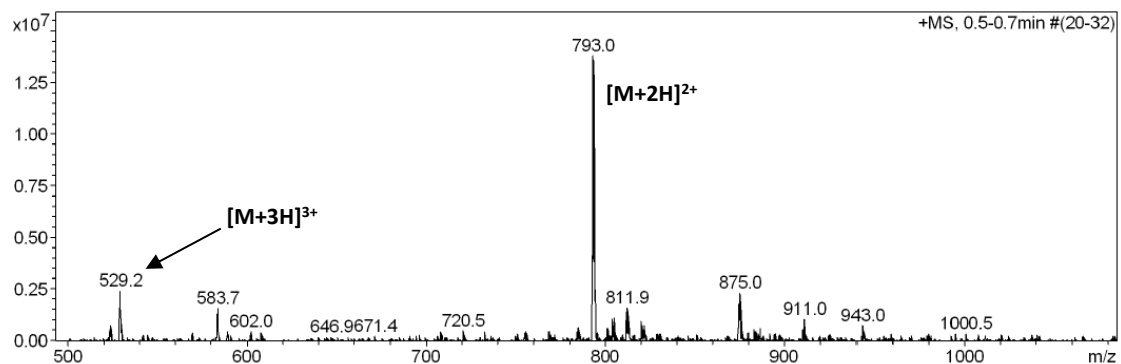
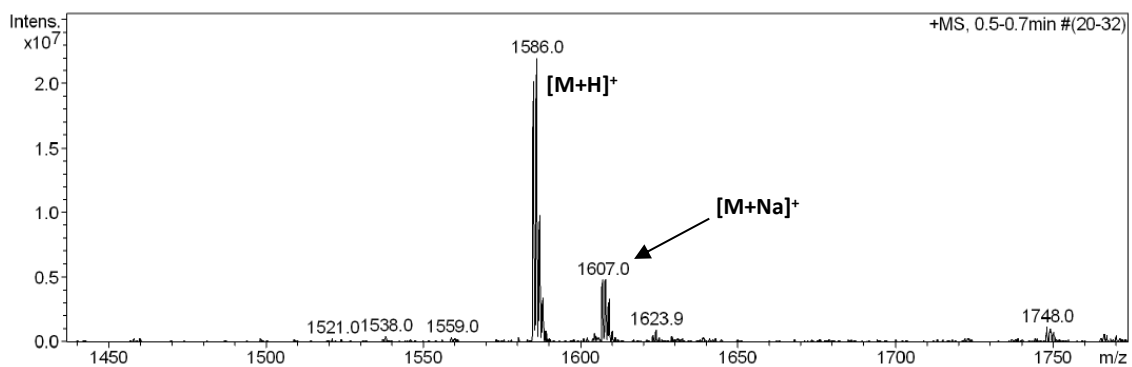
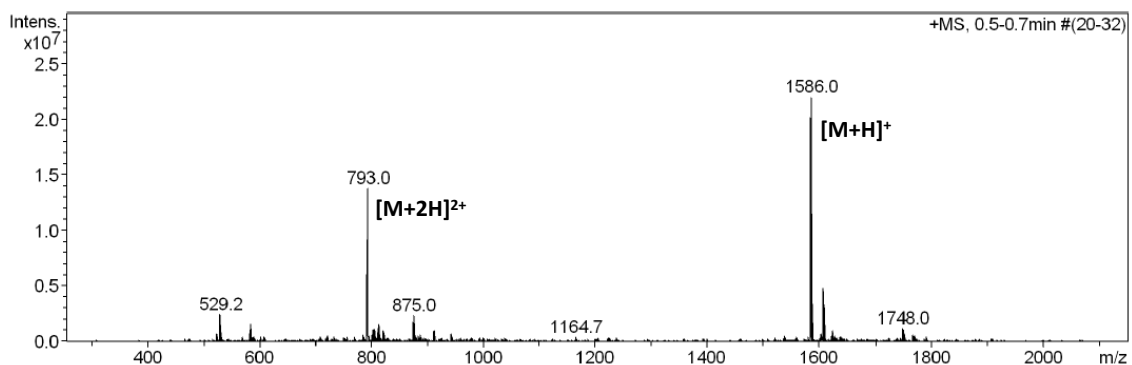


| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₈₃ H ₁₃₃ N ₁₇ O ₁₂ Na | 1583.0212 | 1583.0199 |
| [M+H] ⁺ | C ₈₃ H ₁₃₄ N ₁₇ O ₁₂ | 1561.0392 | 1561.0347 |
| [M+2Na] ²⁺ | C ₈₃ H ₁₃₃ N ₁₇ O ₁₂ Na ₂ | 803.0052 | 803.0036 |
| [M+H+Na] ²⁺ | C ₈₃ H ₁₃₄ N ₁₇ O ₁₂ Na | 792.0142 | 792.0122 |
| [M+2H] ²⁺ | C ₈₃ H ₁₃₅ N ₁₇ O ₁₂ | 781.0233 | 781.0215 |
| [M+3H] ³⁺ | C ₈₃ H ₁₃₆ N ₁₇ O ₁₂ | 521.0179 | 521.0162 |

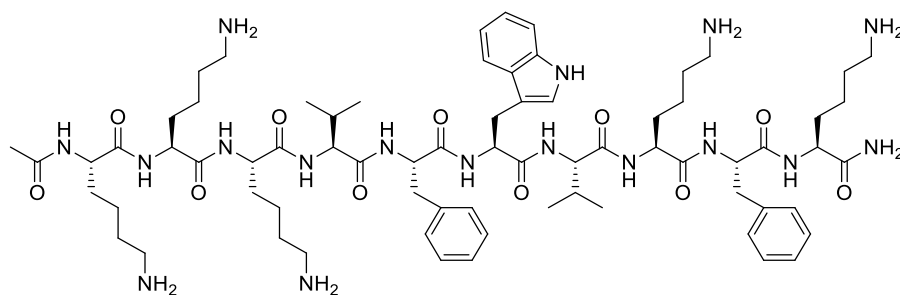
Lipopeptides derived from KSLW acylated at position 3

CH₃CO-Lys-Lys-Lys(ivDde)-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-LysP8-501)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,38 | 30,996 | 3,205 | 1,77 |
| 2 | 6,59 | 1321,815 | 149,427 | 82,55 |
| 3 | 6,86 | 80,173 | 11,547 | 6,38 |
| 4 | 7,09 | 70,036 | 4,865 | 2,69 |
| 5 | 7,17 | 114,682 | 11,970 | 6,61 |
| Total: | | 1617,702 | 181,015 | 100,00 |

ESI-MS (m/z) (CC-4-LysP8-501)

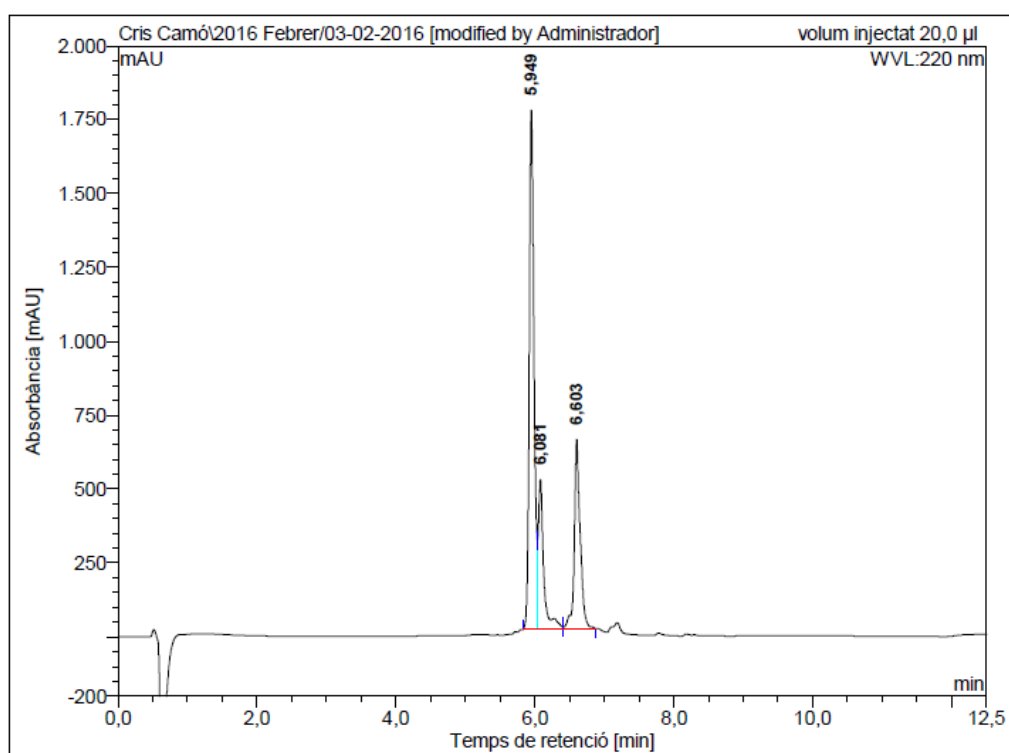
| |
|-----------------------|
| $[M+H]^+ = 1585.0$ |
| $[M+Na]^+ = 1607.0$ |
| $[M+K]^+ = 1623.9$ |
| $[M+2H]^{2+} = 793.0$ |
| $[M+3H]^{3+} = 529.2$ |

CH₃CO-Lys-Lys-Lys-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂Chemical Formula: C₇₁H₁₁₁N₁₇O₁₁

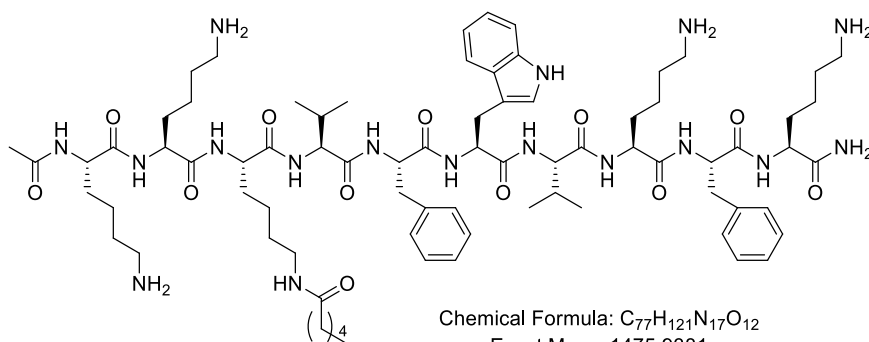
Exact Mass: 1377,8649

Molecular Weight: 1378,7483

HPLC (λ = 220 nm) (CC-4-LysP8-hexanoic-532)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,95 | 1758,501 | 141,062 | 55,94 |
| 2 | 6,08 | 508,656 | 46,467 | 18,43 |
| 3 | 6,60 | 643,579 | 64,641 | 25,63 |
| Total: | | 2910,737 | 252,170 | 100,00 |

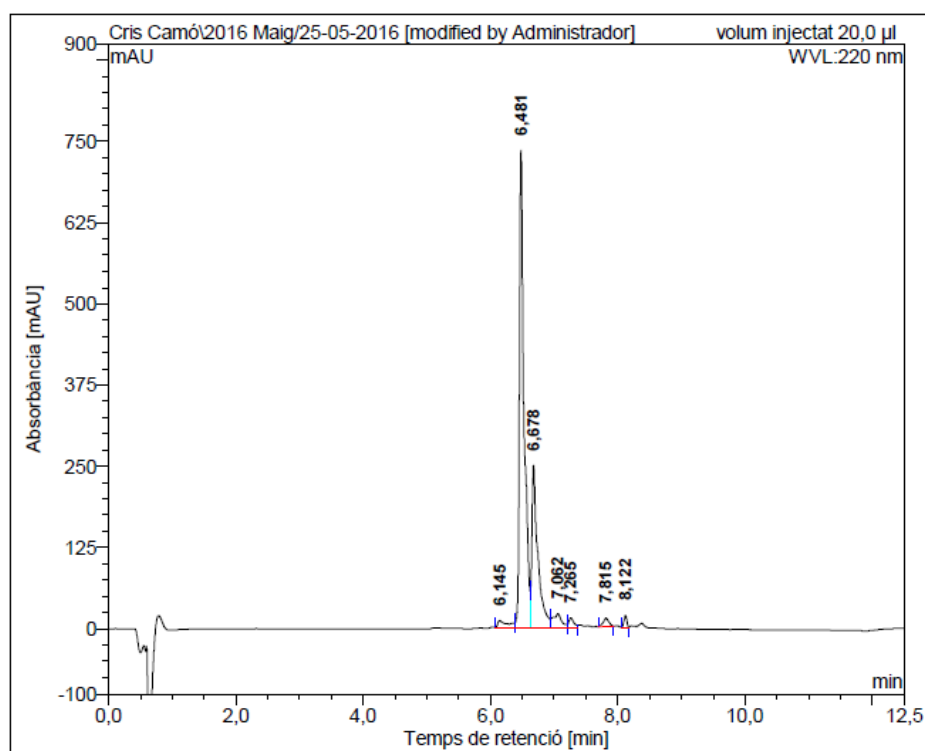
CH₃CO-Lys-Lys-Lys(CO-C₅H₁₁)-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP433)Chemical Formula: C₇₇H₁₂₁N₁₇O₁₂

Exact Mass: 1475,9381

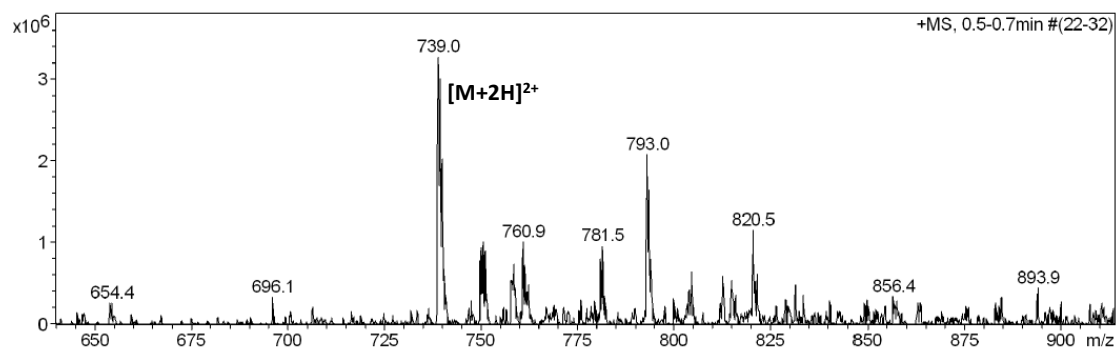
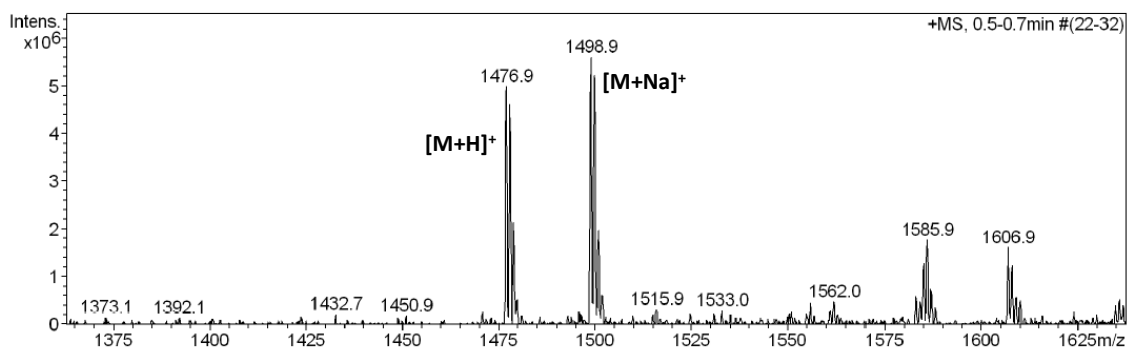
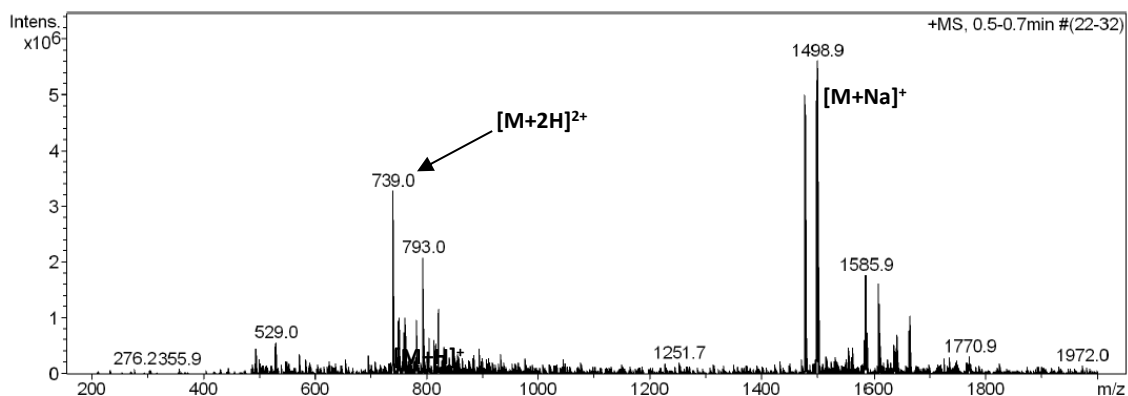
Molecular Weight: 1476,8913

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP8-hexanoic-689 impur)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,15 | 10,703 | 1,881 | 1,90 |
| 2 | 6,48 | 734,533 | 62,845 | 63,45 |
| 3 | 6,68 | 249,467 | 27,382 | 27,64 |
| 4 | 7,06 | 21,232 | 3,374 | 3,41 |
| 5 | 7,26 | 14,722 | 1,310 | 1,32 |
| 6 | 7,81 | 12,930 | 1,340 | 1,35 |
| 7 | 8,12 | 18,160 | 0,917 | 0,93 |
| Total: | | 1061,747 | 99,048 | 100,00 |

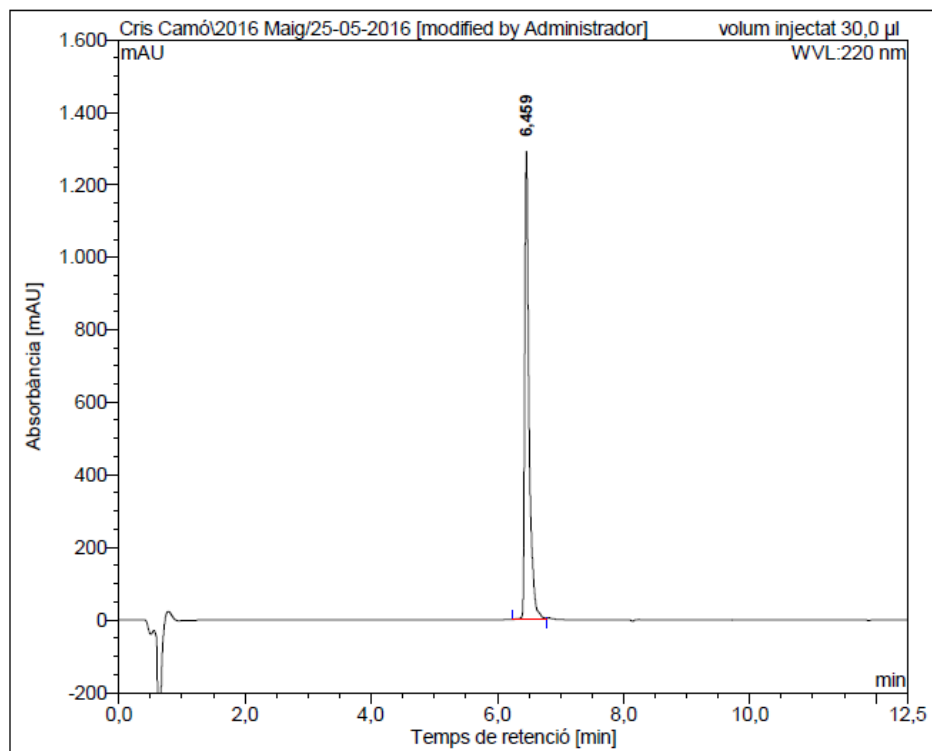
ESI-MS (m/z) (CC-4-LysP8-hexanoic-541)

| |
|--------------------|
| $[M+H]^+ = 1476.9$ |
|--------------------|

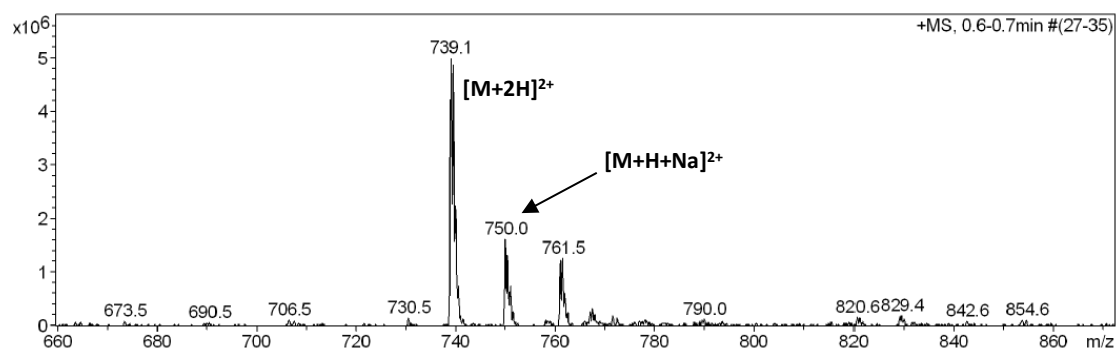
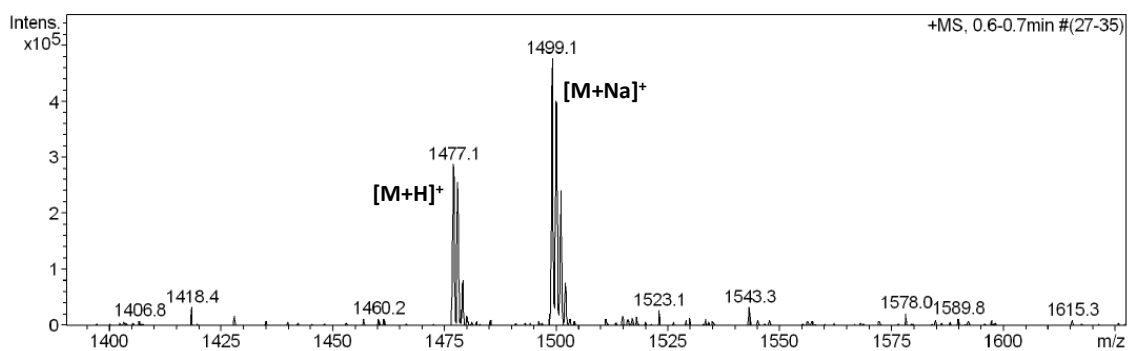
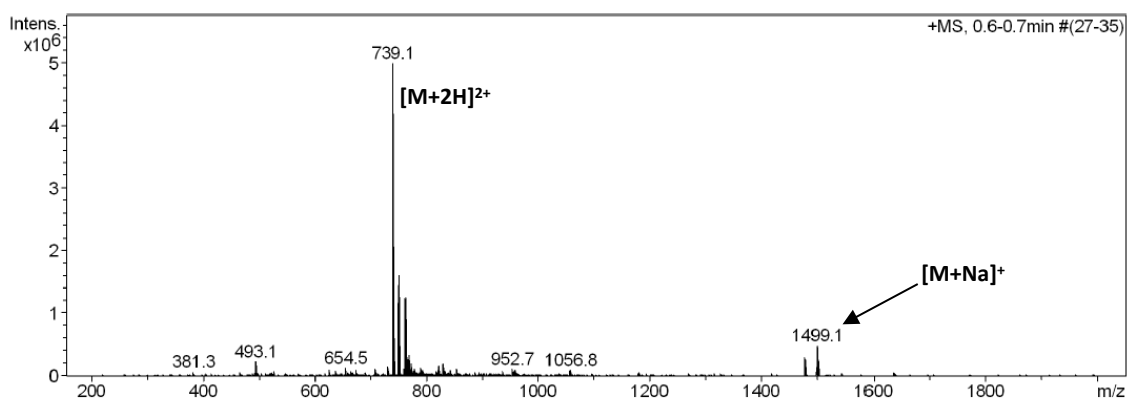
| |
|---------------------|
| $[M+Na]^+ = 1498.9$ |
|---------------------|

| |
|-----------------------|
| $[M+2H]^{2+} = 739.0$ |
|-----------------------|

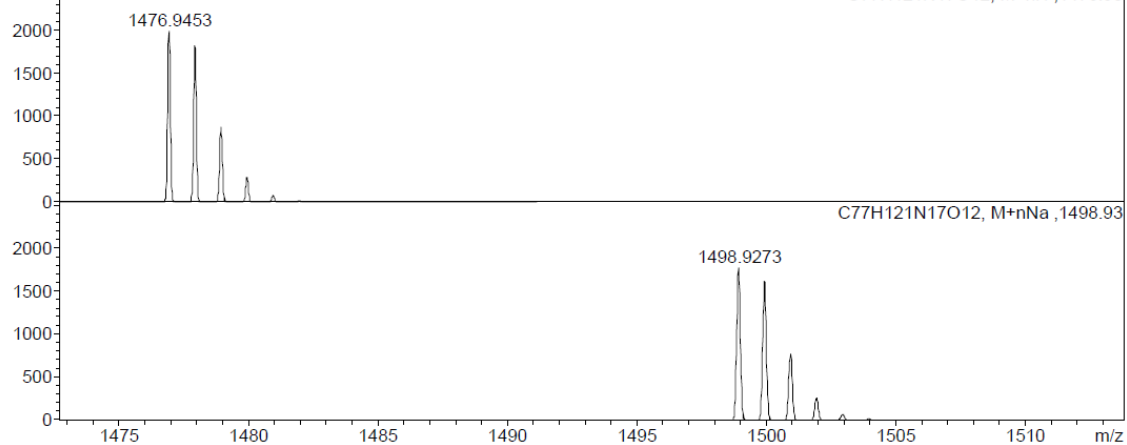
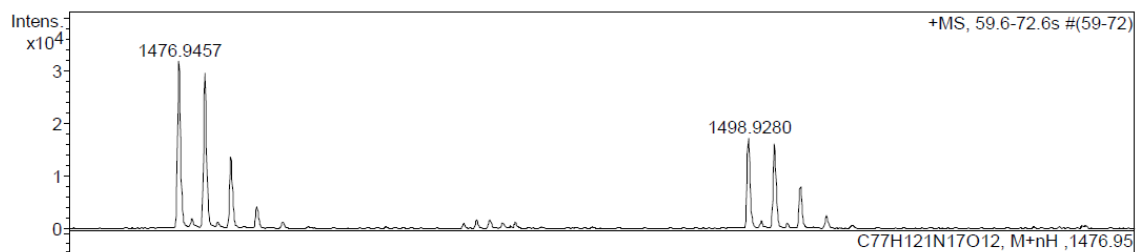
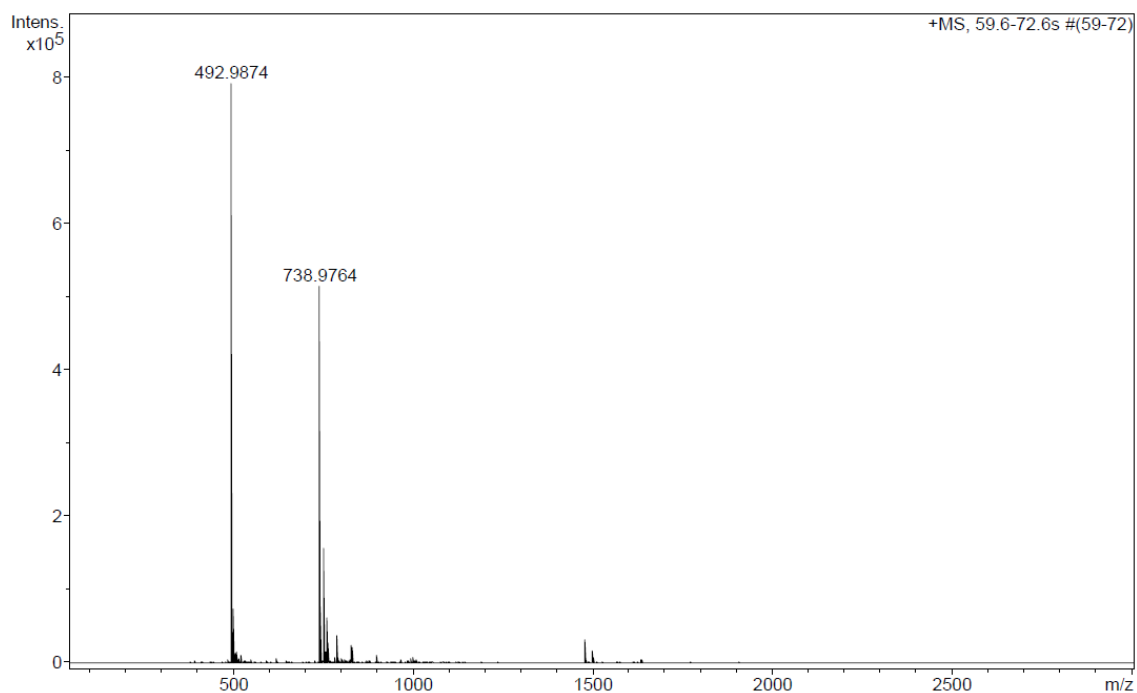
PURE PRODUCT

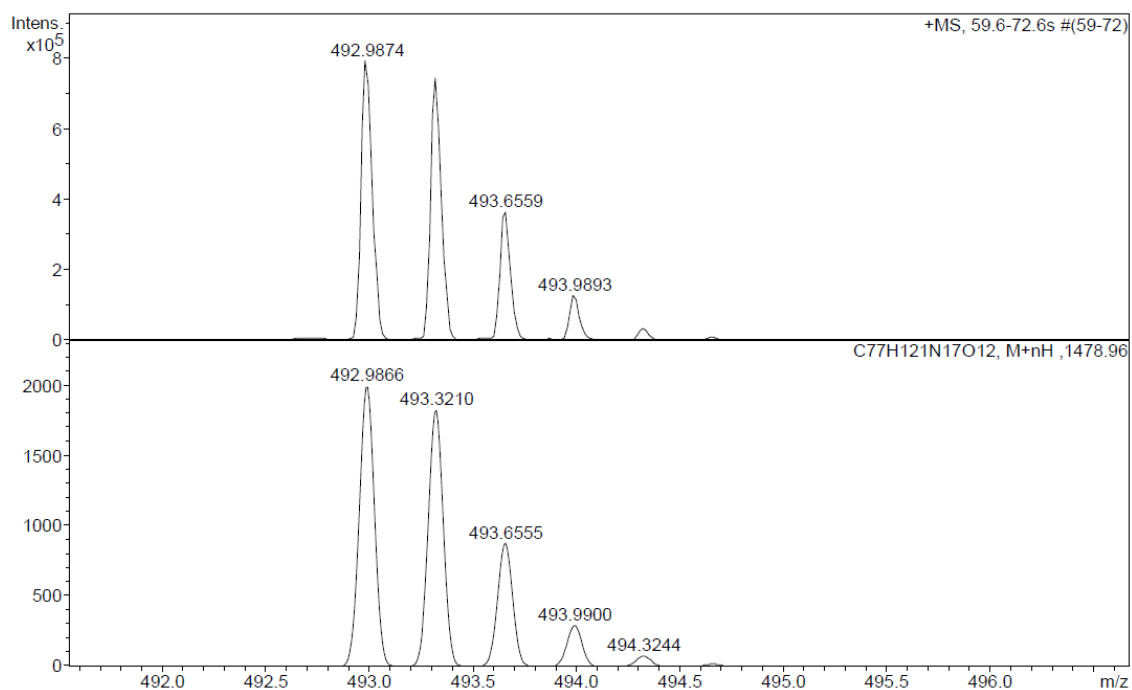
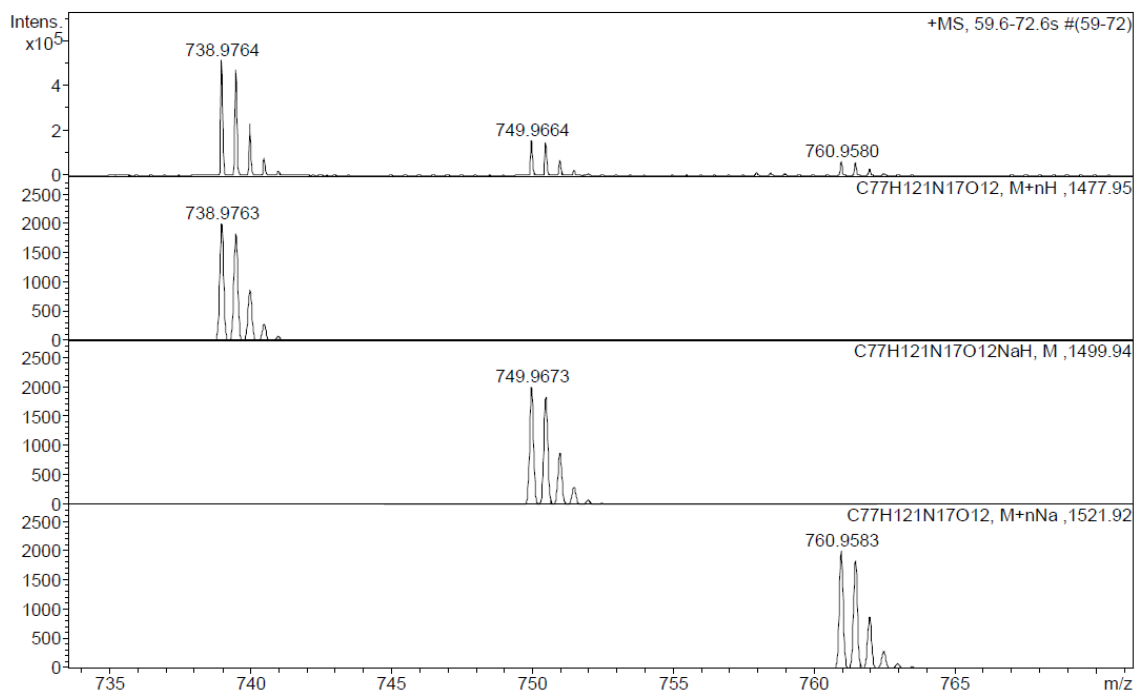
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP8-hexanoic-689 tub 19)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,46 | 1291,355 | 102,135 | 100,00 |
| Total: | | 1291,355 | 102,135 | 100,00 |

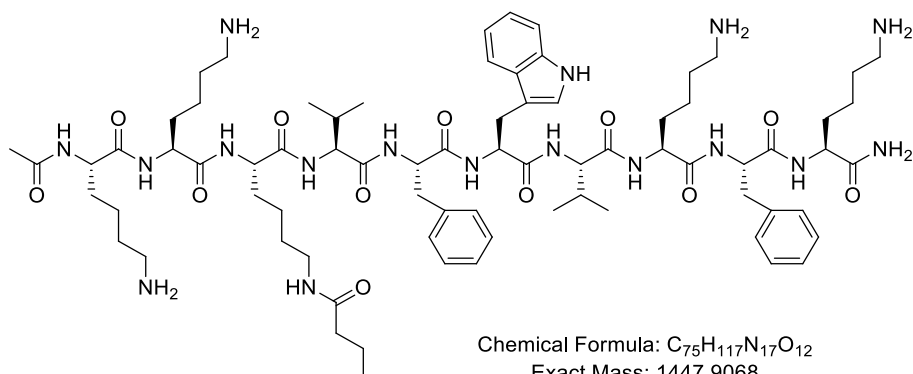
ESI-MS (m/z) (CC-4-LysP8-hexanoic-689 tub 19)

| |
|-------------------------|
| $[M+H]^+ = 1477.1$ |
| $[M+Na]^+ = 1499.1$ |
| $[M+2H]^{2+} = 739.1$ |
| $[M+H+Na]^{2+} = 750.0$ |

HRMS (m/z) (CC-4-LysP8-hexanoic-689 tubs 12-19)

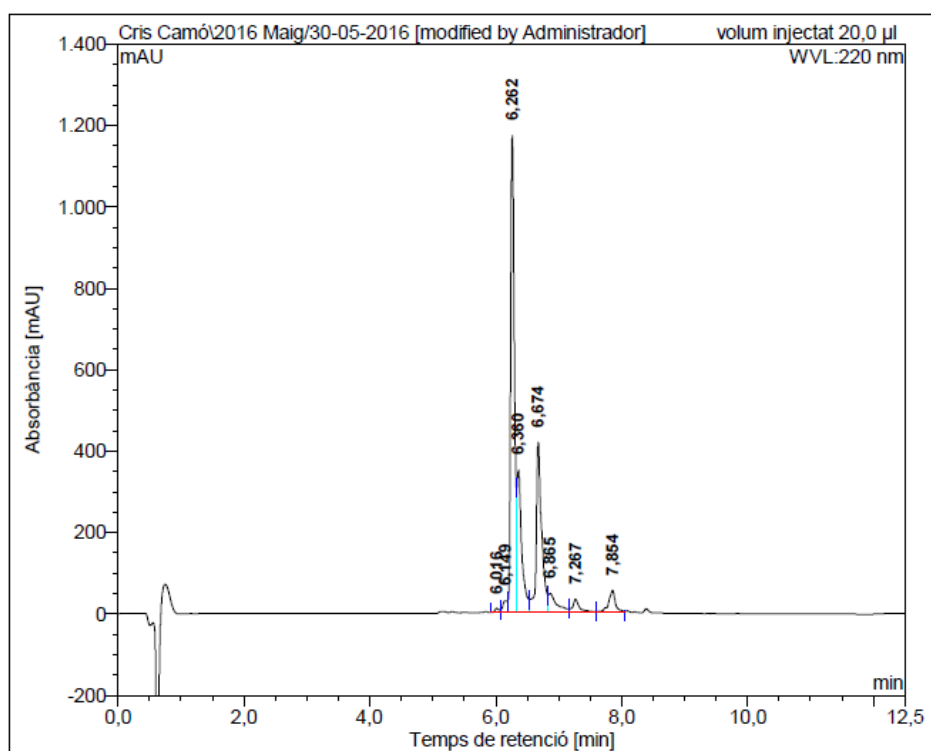


| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₇ H ₁₂₁ N ₁₇ O ₁₂ Na | 1498.9273 | 1498.9280 |
| [M+H] ⁺ | C ₇₇ H ₁₂₂ N ₁₇ O ₁₂ | 1476.9453 | 1476.9457 |
| [M+2Na] ²⁺ | C ₇₇ H ₁₂₁ N ₁₇ O ₁₂ Na ₂ | 760.9583 | 760.9580 |
| [M+H+Na] ²⁺ | C ₇₇ H ₁₂₂ N ₁₇ O ₁₂ Na | 749.9673 | 749.9664 |
| [M+2H] ²⁺ | C ₇₇ H ₁₂₃ N ₁₇ O ₁₂ | 738.9763 | 738.9764 |
| [M+3H] ³⁺ | C ₇₇ H ₁₂₄ N ₁₇ O ₁₂ | 492.9866 | 492.9874 |

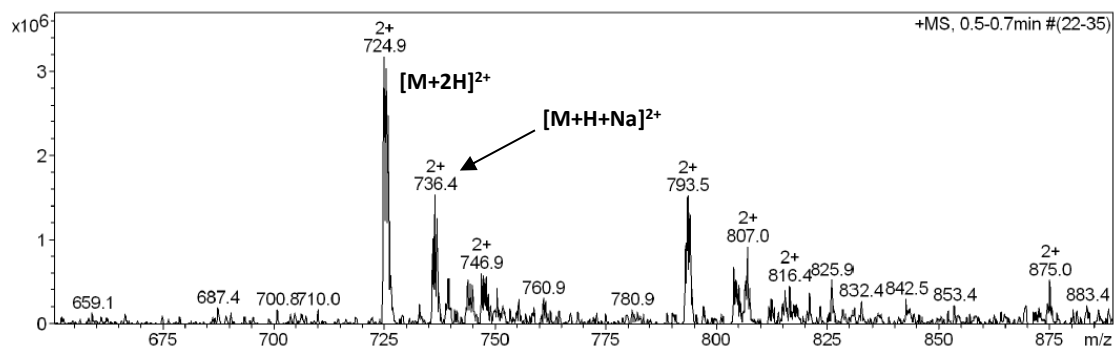
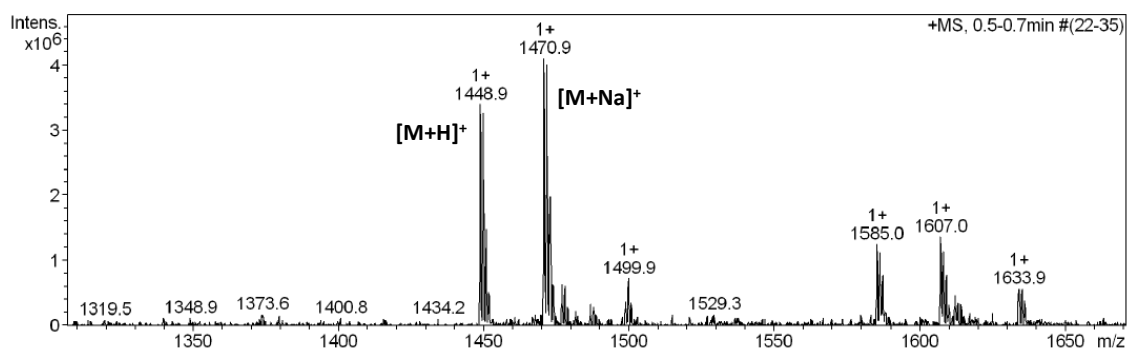
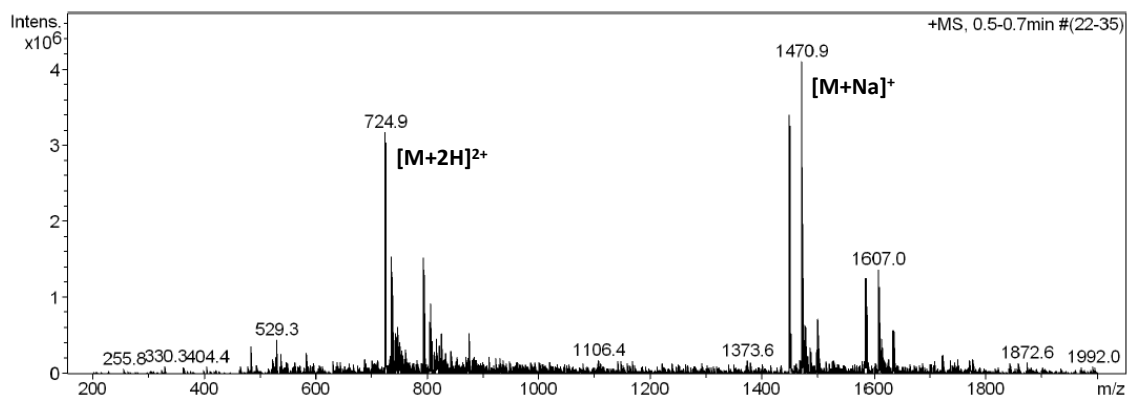
$\text{CH}_3\text{CO-Lys-Lys-Lys(CO-C}_3\text{H}_7\text{)-Val-Phe-Trp-Val-Lys-Phe-Lys-NH}_2$ (BP434)


Chemical Formula: $\text{C}_{75}\text{H}_{117}\text{N}_{17}\text{O}_{12}$
 Exact Mass: 1447,9068
 Molecular Weight: 1448,8382

IMPURE PRODUCT

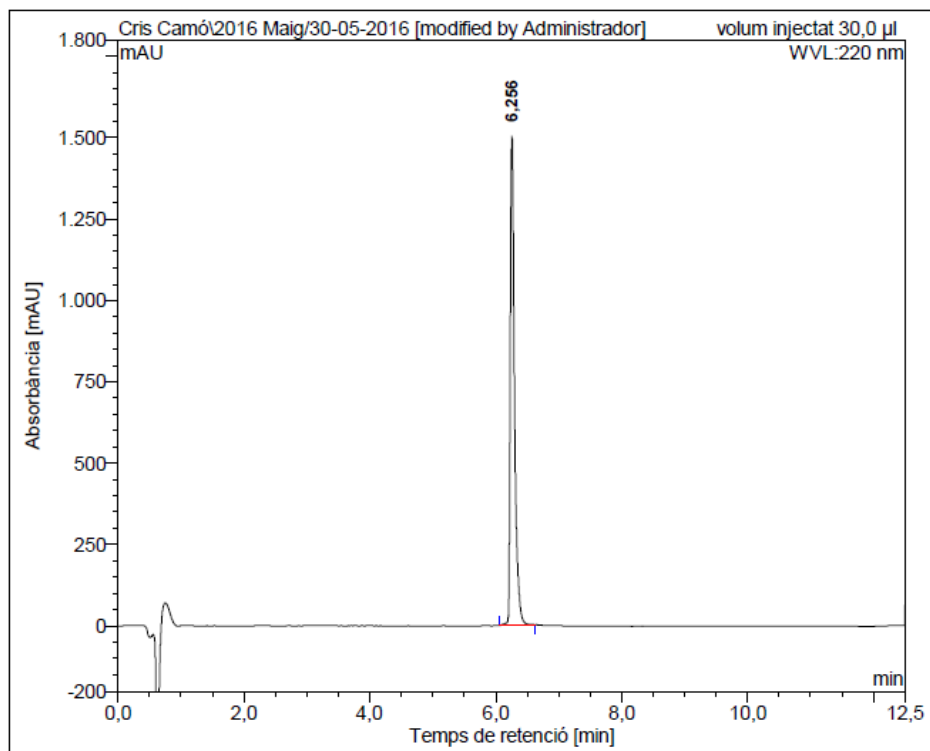
HPLC ($\lambda = 220$ nm) (CC-4-LysP8-butíric-691 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,02 | 9,654 | 0,742 | 0,42 |
| 2 | 6,15 | 28,600 | 2,274 | 1,30 |
| 3 | 6,26 | 1171,198 | 80,711 | 46,15 |
| 4 | 6,36 | 350,492 | 31,652 | 18,10 |
| 5 | 6,67 | 417,998 | 41,184 | 23,55 |
| 6 | 6,86 | 46,420 | 7,378 | 4,22 |
| 7 | 7,27 | 32,052 | 4,191 | 2,40 |
| 8 | 7,85 | 53,615 | 6,749 | 3,86 |
| Total: | | 2110,031 | 174,882 | 100,00 |

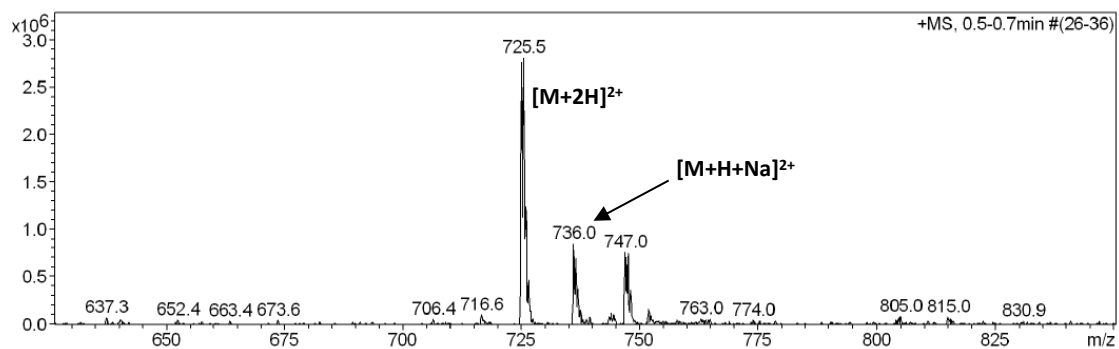
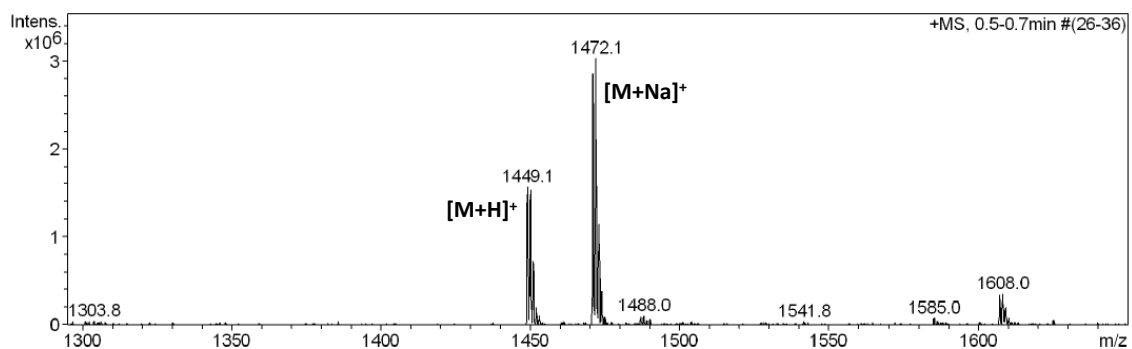
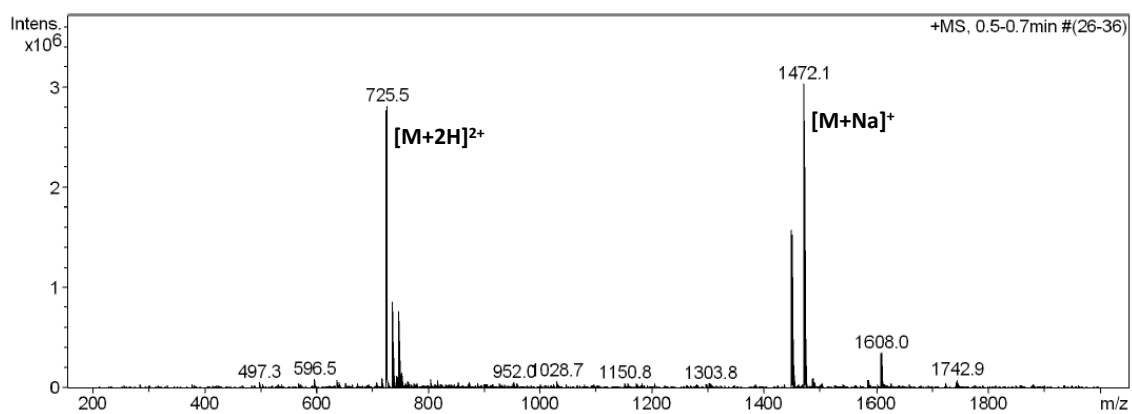
ESI-MS (m/z) (CC-4-LysP8-butíric-541)

| |
|-------------------------|
| $[M+H]^+ = 1448.9$ |
| $[M+Na]^+ = 1470.9$ |
| $[M+2H]^{2+} = 724.9$ |
| $[M+H+Na]^{2+} = 736.4$ |

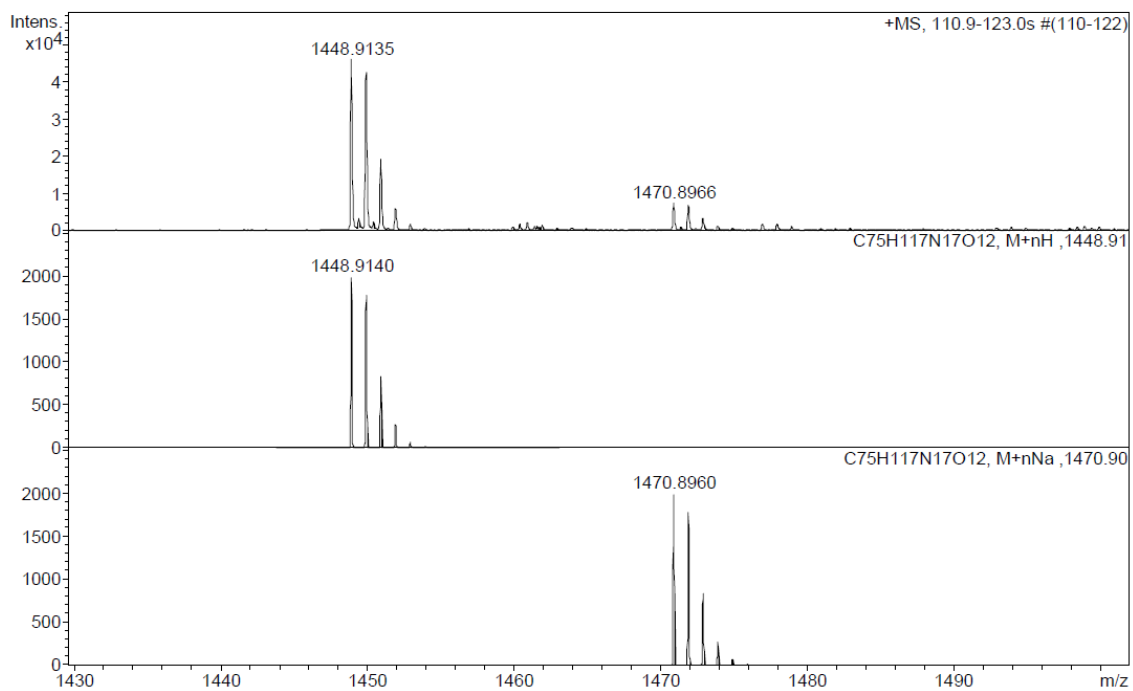
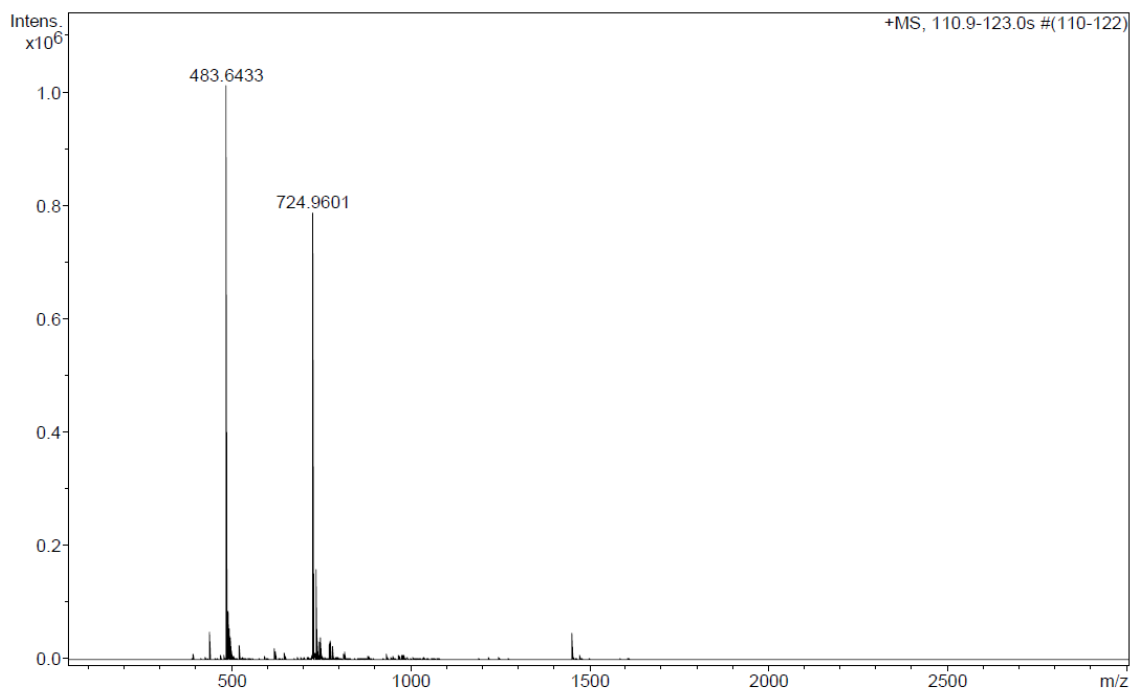
PURE PRODUCT

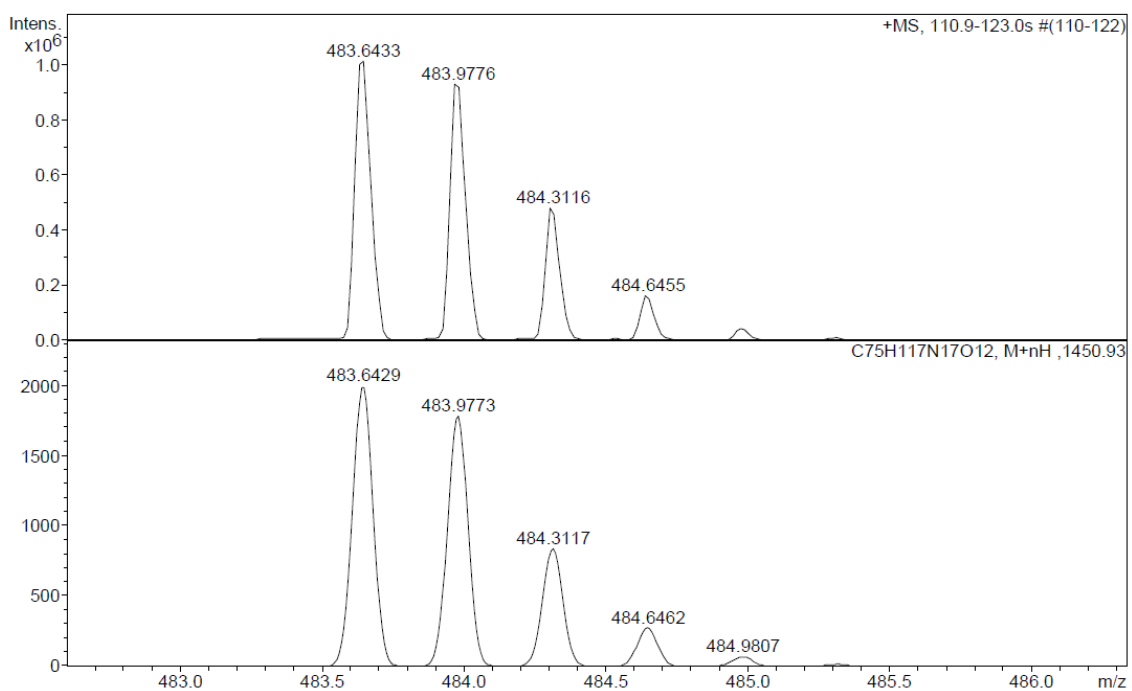
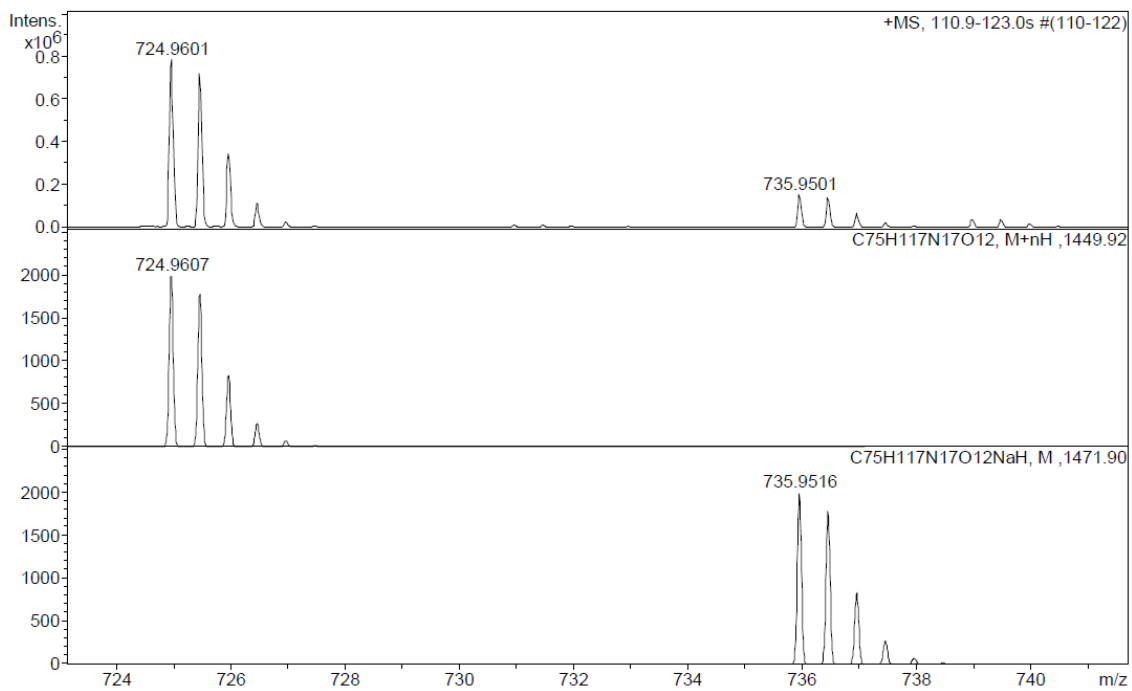
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP8-butíric-691 tub 15)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1502,738 | 117,700 | 100,00 |
| Total: | | 1502,738 | 117,700 | 100,00 |

ESI-MS (*m/z*) (CC-4-LysP8-butíric-691 tub 15)

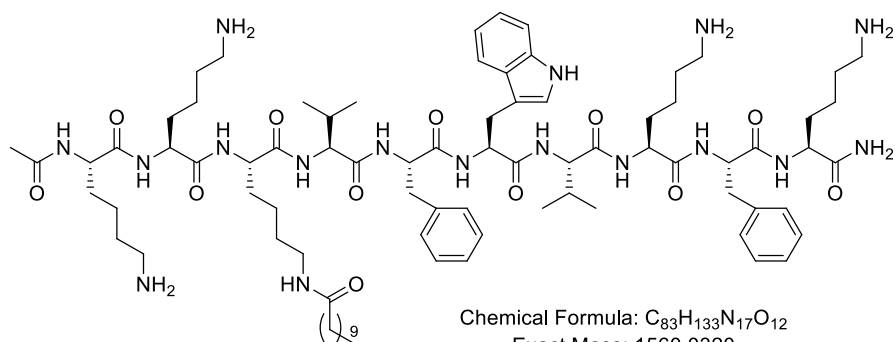
| |
|-------------------------|
| $[M+H]^+ = 1449.1$ |
| $[M+Na]^+ = 1471.1$ |
| $[M+2H]^{2+} = 725.5$ |
| $[M+H+Na]^{2+} = 736.0$ |

HRMS (m/z) (CC-4-LysP8-butíric-691 tubs 10-15)



| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+Na] ⁺ | C ₇₅ H ₁₁₇ N ₁₇ O ₁₂ Na | 1470.8960 | 1470.8966 |
| [M+H] ⁺ | C ₇₅ H ₁₁₈ N ₁₇ O ₁₂ | 1448.9140 | 1448.9135 |
| [M+H+Na] ²⁺ | C ₇₅ H ₁₁₈ N ₁₇ O ₁₂ Na | 735.9516 | 735.9501 |
| [M+2H] ²⁺ | C ₇₅ H ₁₁₉ N ₁₇ O ₁₂ | 724.9607 | 724.9601 |
| [M+3H] ³⁺ | C ₇₅ H ₁₂₀ N ₁₇ O ₁₂ | 483.6429 | 483.6433 |

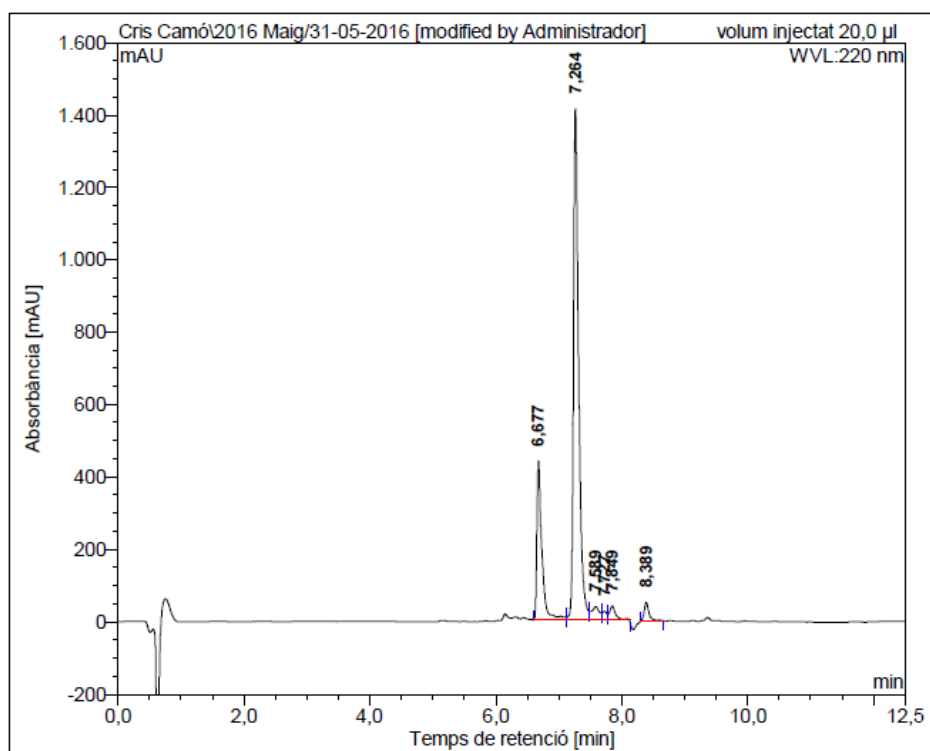
CH₃CO-Lys-Lys-Lys(CO-C₁₁H₂₃)-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP435)



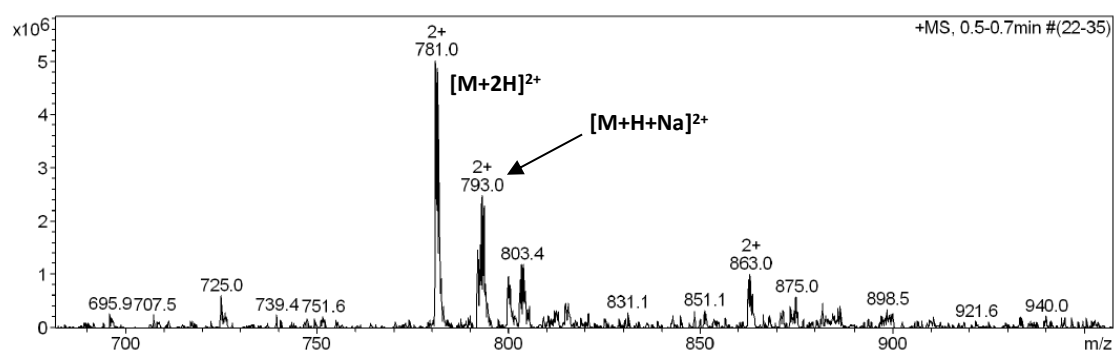
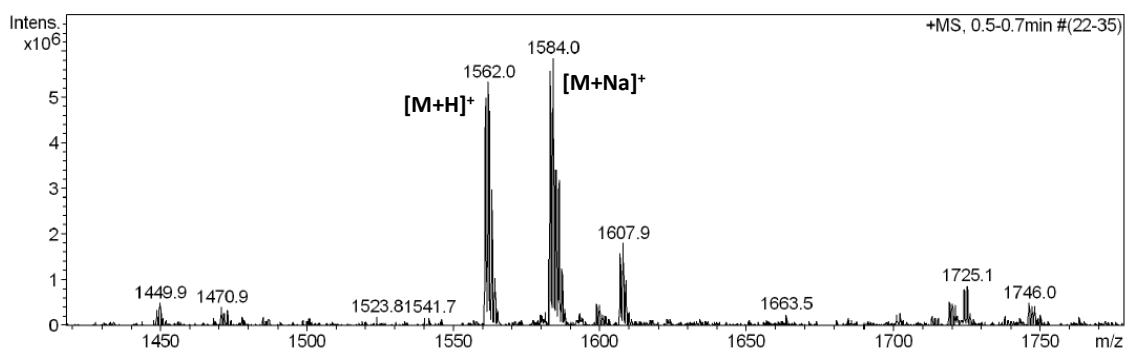
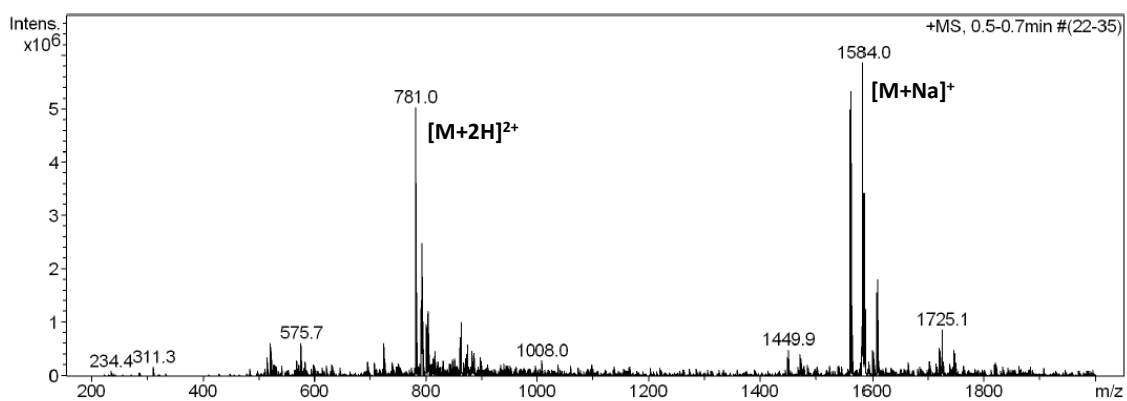
Chemical Formula: C₈₃H₁₃₃N₁₇O₁₂
 Exact Mass: 1560,0320
 Molecular Weight: 1561,0508

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP8-làuric-693 impur)

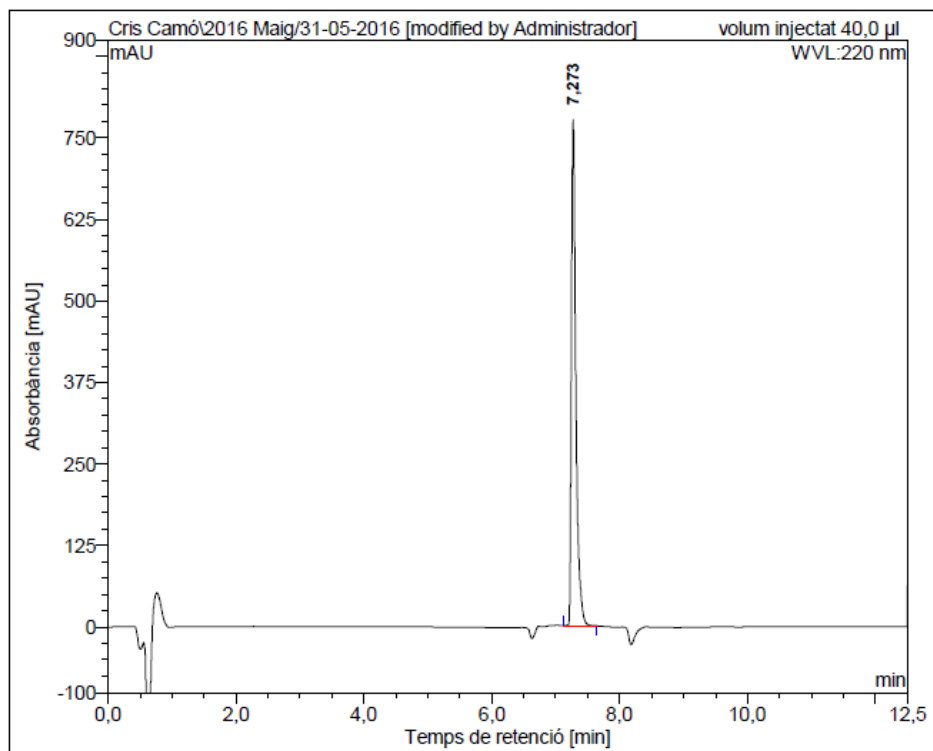


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,68 | 439,844 | 40,698 | 20,97 |
| 2 | 7,26 | 1414,712 | 136,502 | 70,35 |
| 3 | 7,59 | 38,235 | 5,411 | 2,79 |
| 4 | 7,73 | 25,238 | 2,288 | 1,18 |
| 5 | 7,85 | 39,625 | 4,588 | 2,36 |
| 6 | 8,39 | 50,899 | 4,558 | 2,35 |
| Total: | | 2008,554 | 194,044 | 100,00 |

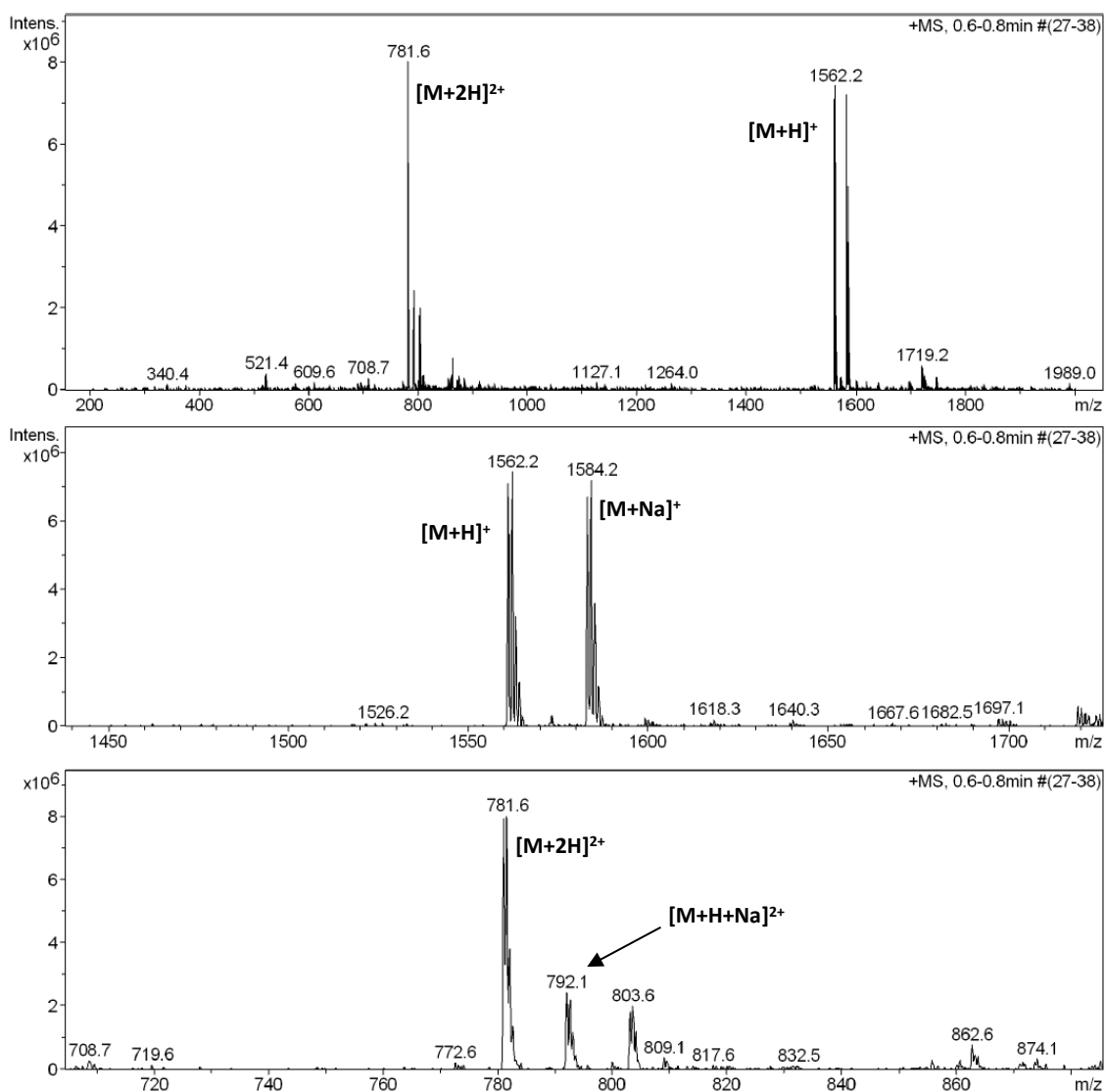
ESI-MS (m/z) (CC-4-LysP8-làuric-541)

| |
|-------------------------|
| $[M+H]^+ = 1561.0$ |
| $[M+Na]^+ = 1583.0$ |
| $[M+2H]^{2+} = 781.0$ |
| $[M+H+Na]^{2+} = 793.0$ |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-Lyps8-làuric-693 tub 28)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,27 | 775,621 | 62,175 | 100,00 |
| Total: | | 775,621 | 62,175 | 100,00 |

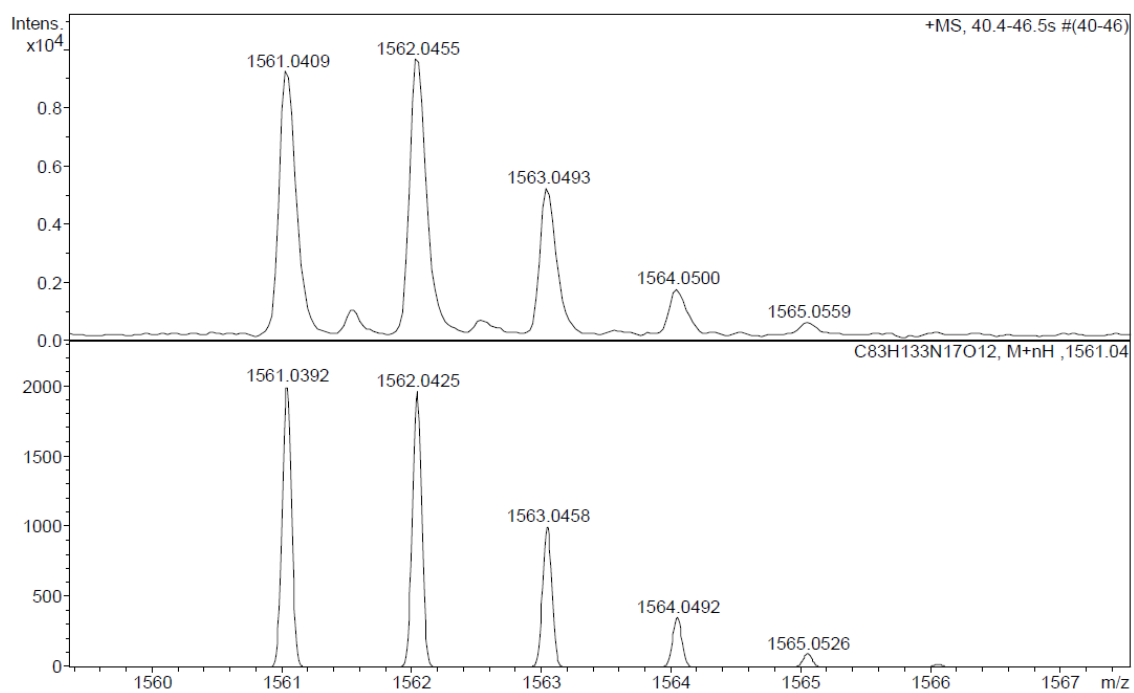
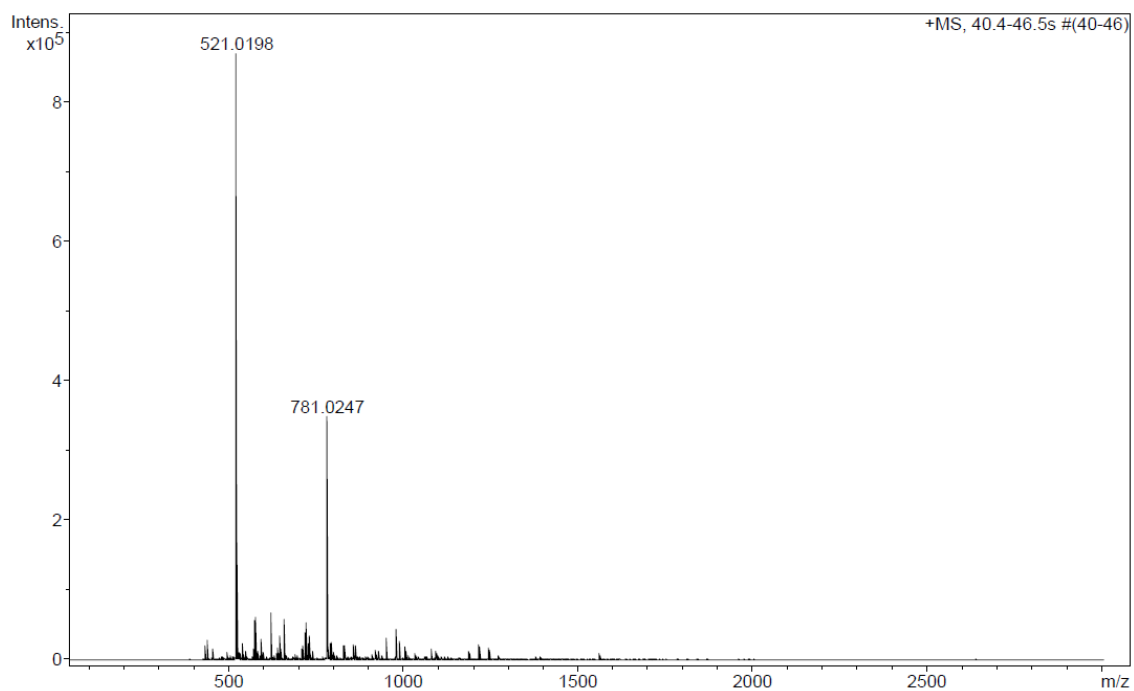
ESI-MS (m/z) (CC-4-Lyps8-làuric-693 tub 28)

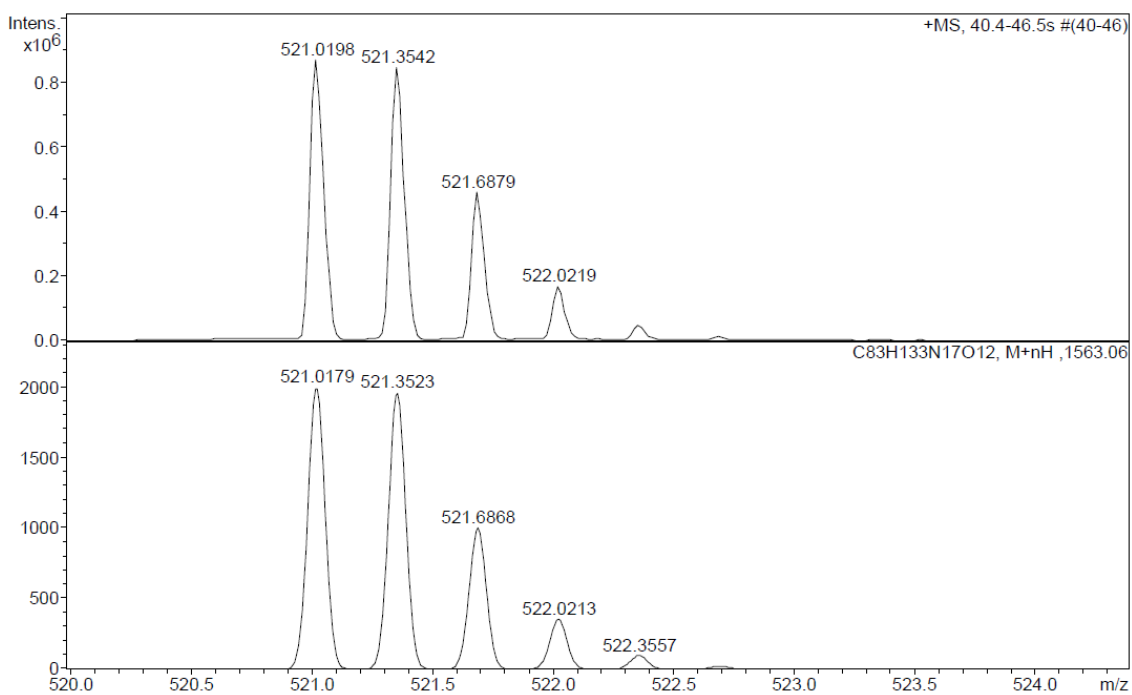
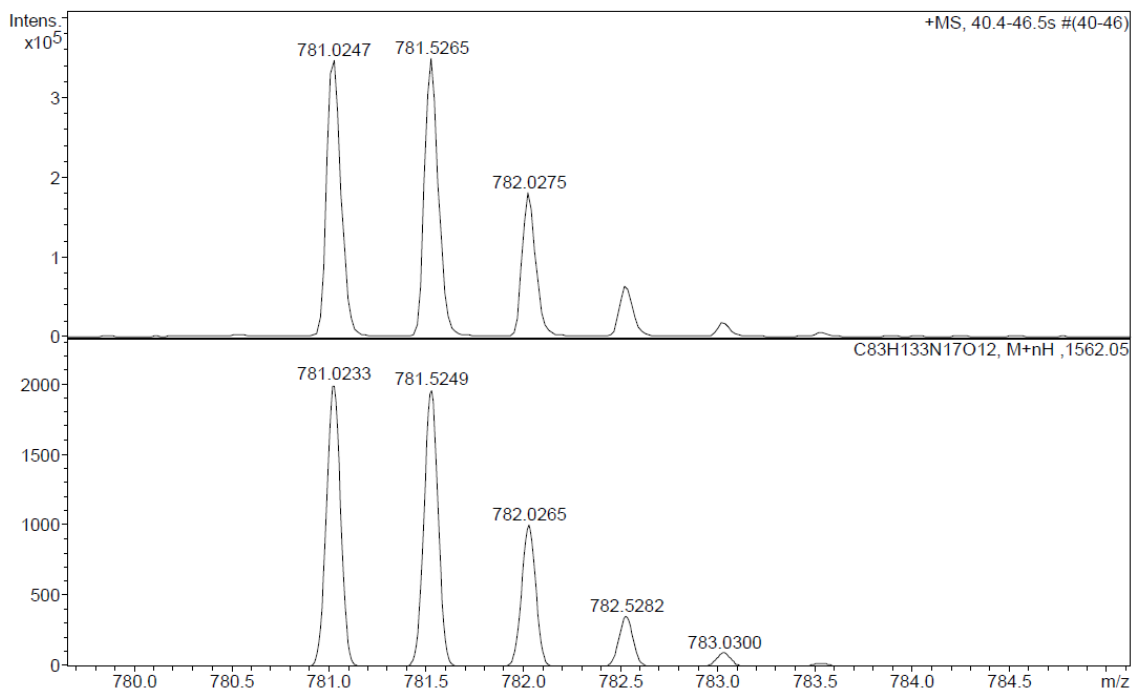
$$[M+H]^+ = 1561.2$$

$$[M+Na]^+ = 1583.2$$

$$[M+2H]^{2+} = 781.6$$

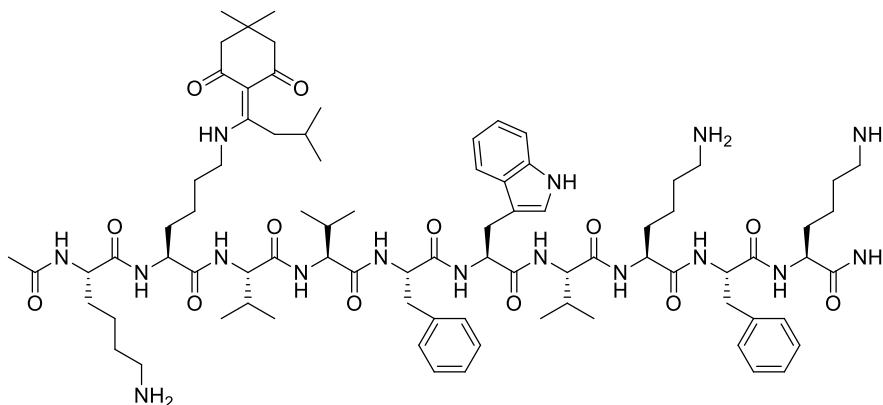
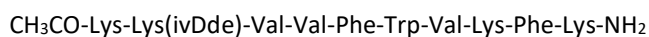
$$[M+H+Na]^{2+} = 792.1$$

HRMS (m/z) (CC-4-LysP8-làuric 693 tubs 18-32)

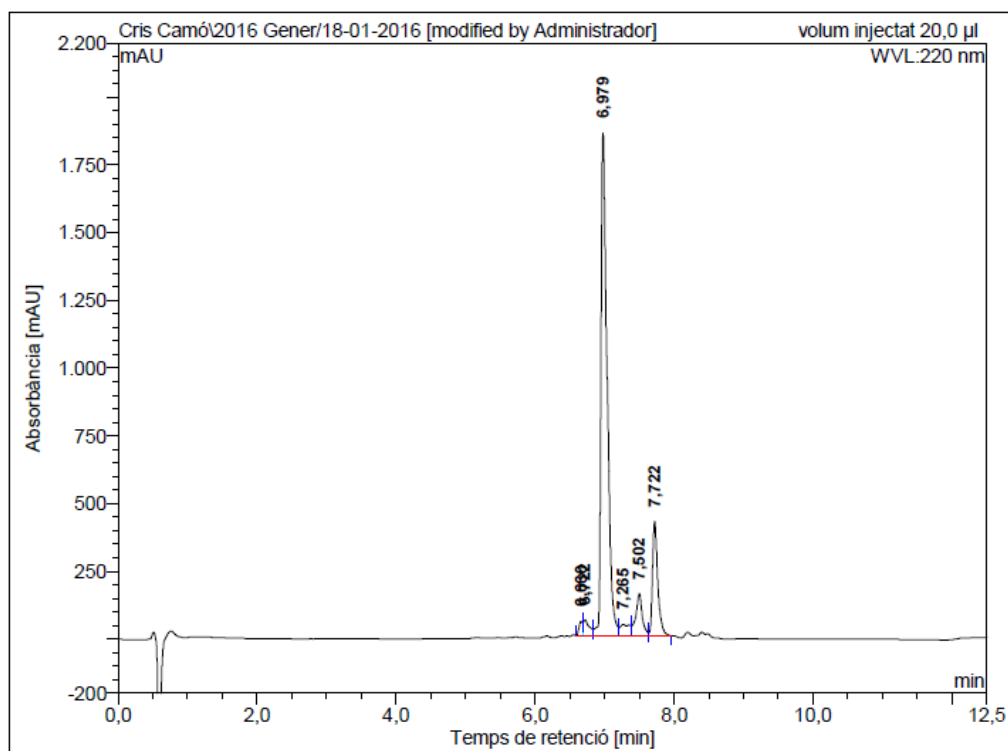


| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₈₃ H ₁₃₄ N ₁₇ O ₁₂ | 1561.0392 | 1561.0409 |
| [M+2H] ²⁺ | C ₈₃ H ₁₃₅ N ₁₇ O ₁₂ | 781.0233 | 781.0247 |
| [M+3H] ³⁺ | C ₈₃ H ₁₃₆ N ₁₇ O ₁₂ | 521.0179 | 521.0198 |

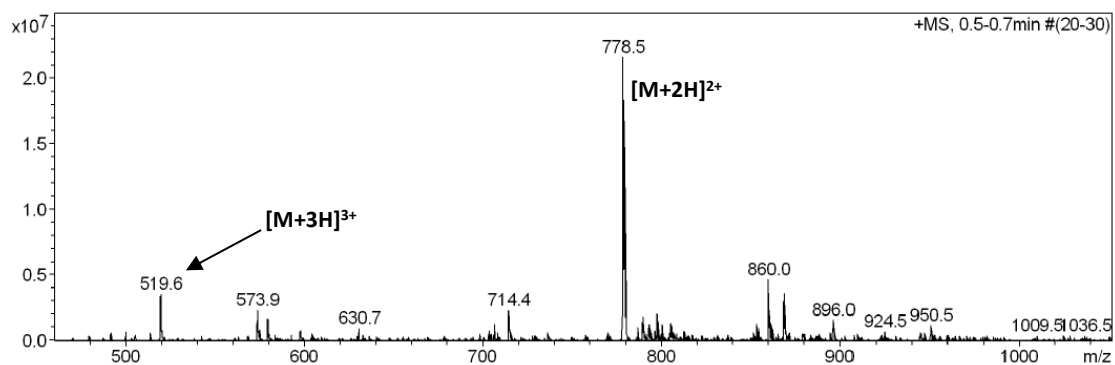
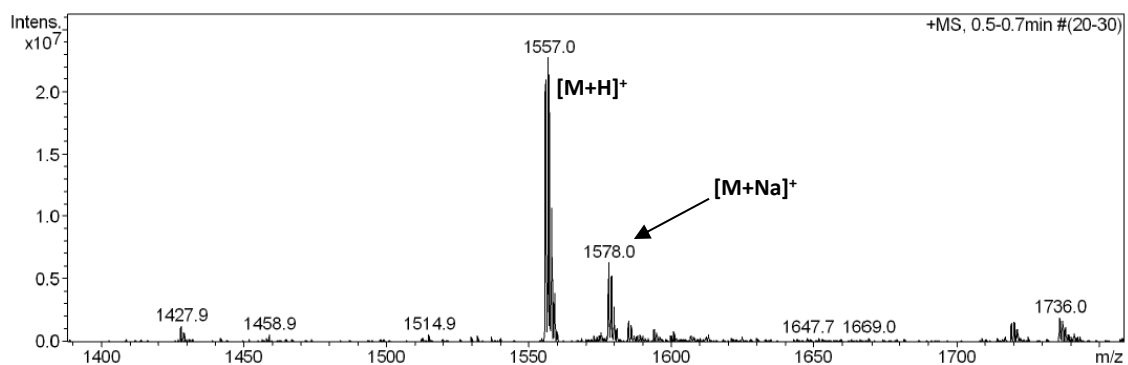
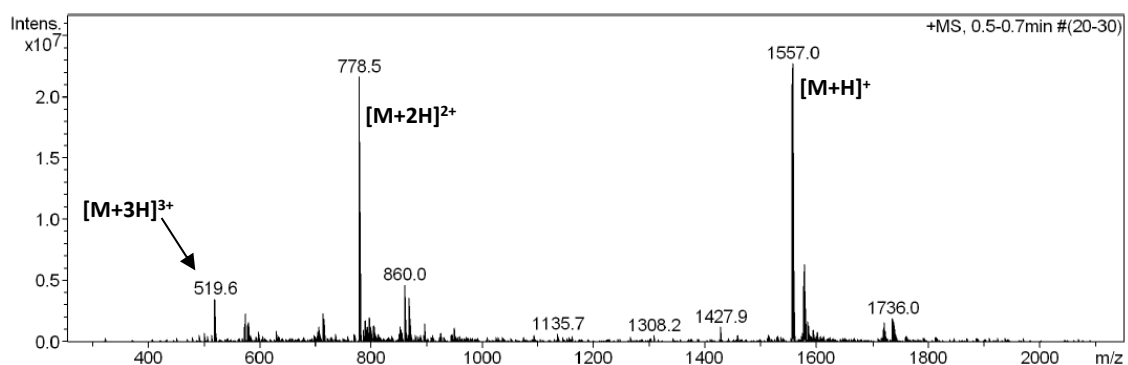
Lipopeptides derived from KSLW acylated at position 2



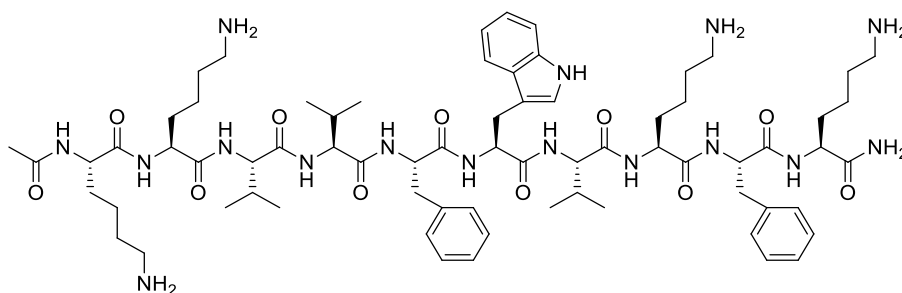
Chemical Formula: $\text{C}_{83}\text{H}_{126}\text{N}_{16}\text{O}_{13}$
 Exact Mass: 1554,9690
 Molecular Weight: 1555,9879

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP9-501)

| No. | Temps retenció min | alçada mAU | Area mAU ² min | Area relativa % |
|--------|-----------------------|---------------|------------------------------|--------------------|
| 1 | 6,66 | 52,904 | 2,861 | 1,11 |
| 2 | 6,72 | 57,584 | 6,082 | 2,35 |
| 3 | 6,98 | 1854,407 | 189,686 | 73,27 |
| 4 | 7,27 | 41,750 | 6,451 | 2,49 |
| 5 | 7,50 | 155,113 | 17,026 | 6,58 |
| 6 | 7,72 | 420,763 | 36,795 | 14,21 |
| Total: | | 2582,520 | 258,901 | 100,00 |

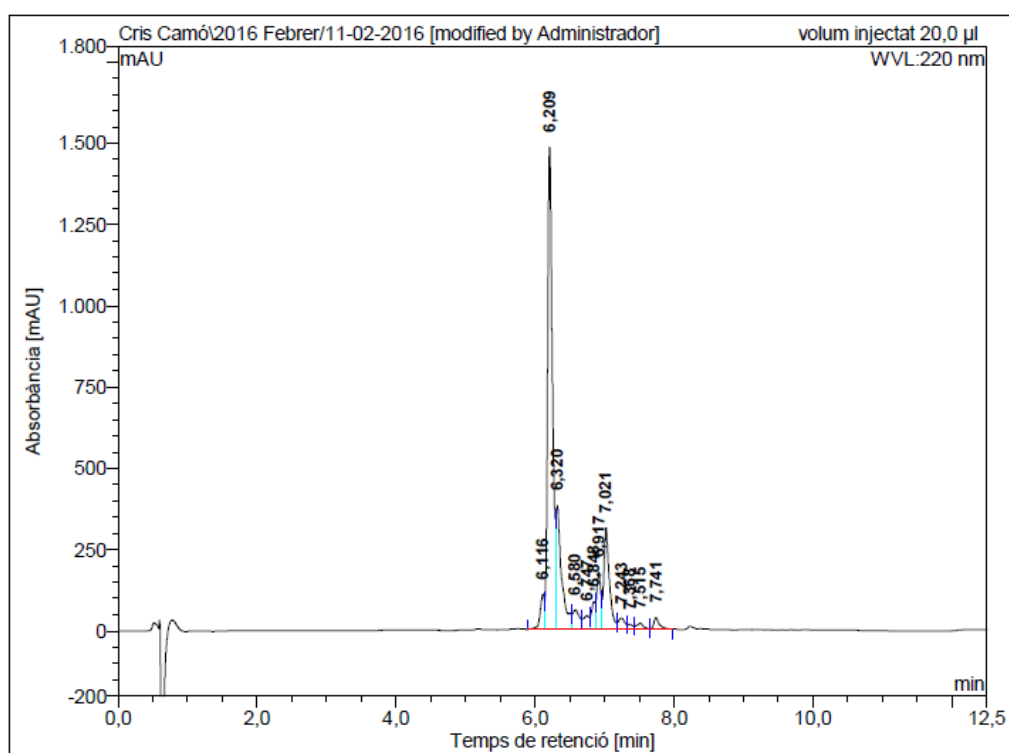
ESI-MS (m/z) (CC-4-LysP9-501)

| |
|-----------------------|
| $[M+H]^+ = 1556.0$ |
| $[M+Na]^+ = 1578.0$ |
| $[M+2H]^{2+} = 778.5$ |
| $[M+3H]^{3+} = 519.6$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂

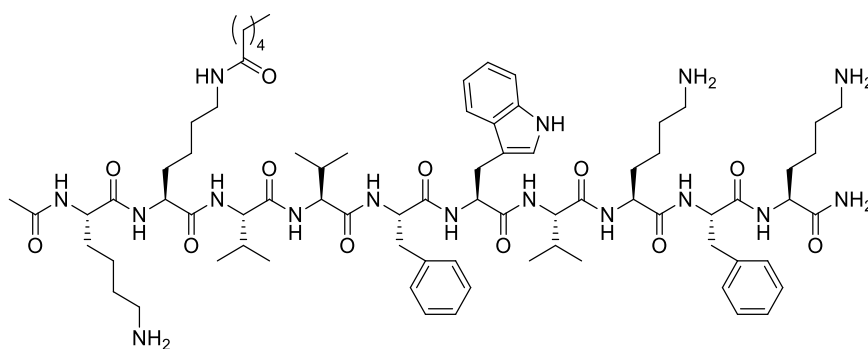
Chemical Formula: C₇₀H₁₀₈N₁₆O₁₁
 Exact Mass: 1348,8383
 Molecular Weight: 1349,7071

HPLC (λ = 220 nm) (CC-4-LysP9-hexanoic-553)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,12 | 109,231 | 7,857 | 3,37 |
| 2 | 6,21 | 1483,069 | 118,531 | 50,90 |
| 3 | 6,32 | 381,831 | 37,911 | 16,28 |
| 4 | 6,58 | 59,859 | 6,299 | 2,70 |
| 5 | 6,75 | 42,447 | 4,559 | 1,96 |
| 6 | 6,85 | 85,801 | 5,452 | 2,34 |
| 7 | 6,92 | 175,346 | 12,294 | 5,28 |
| 8 | 7,02 | 312,662 | 29,010 | 12,46 |
| 9 | 7,24 | 35,431 | 3,805 | 1,63 |
| 10 | 7,37 | 15,286 | 1,259 | 0,54 |
| 11 | 7,51 | 19,433 | 2,359 | 1,01 |
| 12 | 7,74 | 36,379 | 3,535 | 1,52 |
| Total: | | 2756,775 | 232,871 | 100,00 |

CH₃CO-Lys-Lys(CO-C₅H₁₁)-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP436)



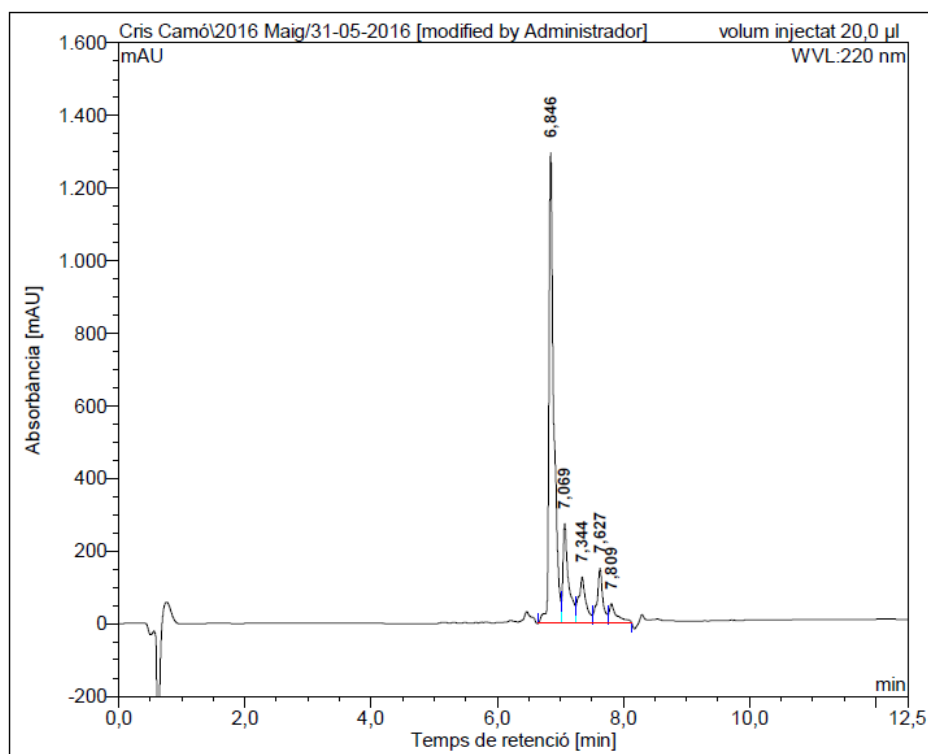
Chemical Formula: C₇₆H₁₁₈N₁₆O₁₂

Exact Mass: 1446,9115

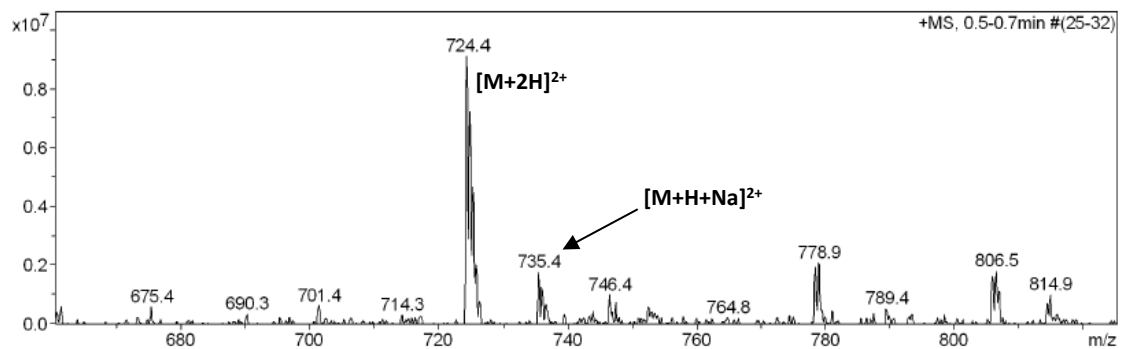
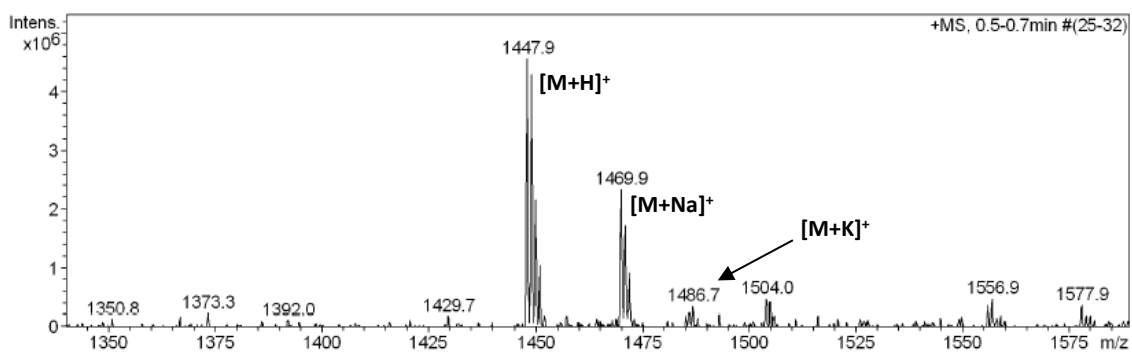
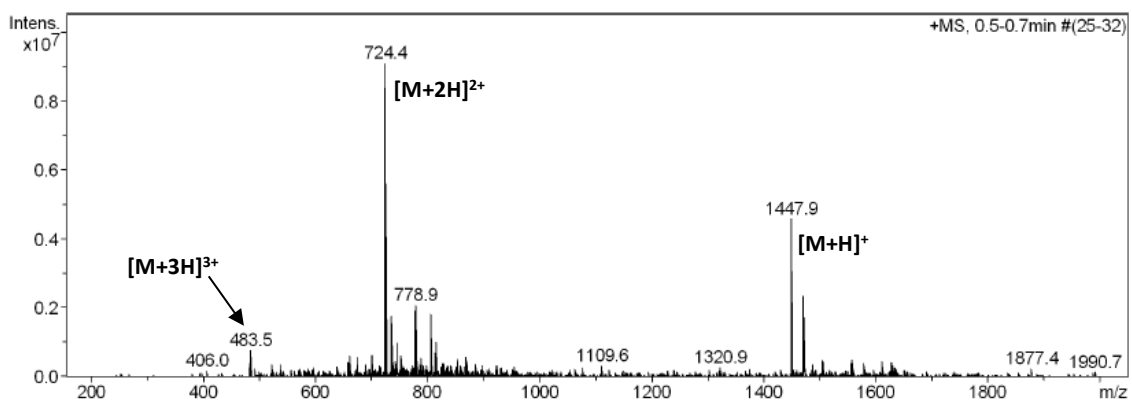
Molecular Weight: 1447,8501

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP9-hexanoic-695 impur)

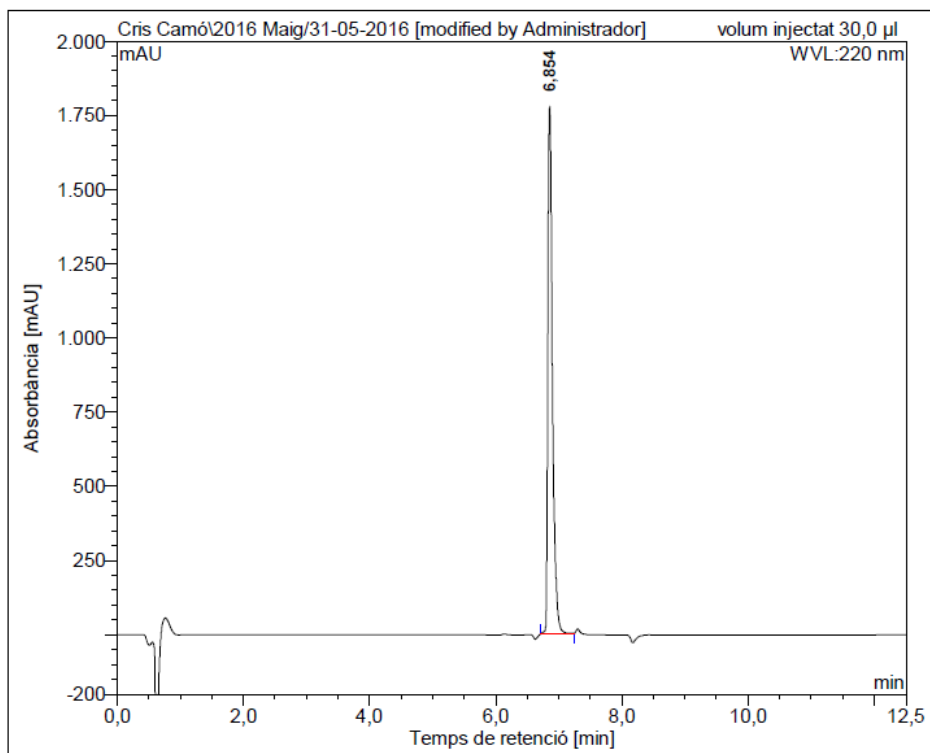


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,85 | 1295,998 | 115,548 | 62,94 |
| 2 | 7,07 | 273,096 | 27,742 | 15,11 |
| 3 | 7,34 | 125,911 | 17,184 | 9,36 |
| 4 | 7,63 | 149,847 | 15,644 | 8,52 |
| 5 | 7,81 | 52,325 | 7,476 | 4,07 |
| Total: | | 1897,176 | 183,594 | 100,00 |

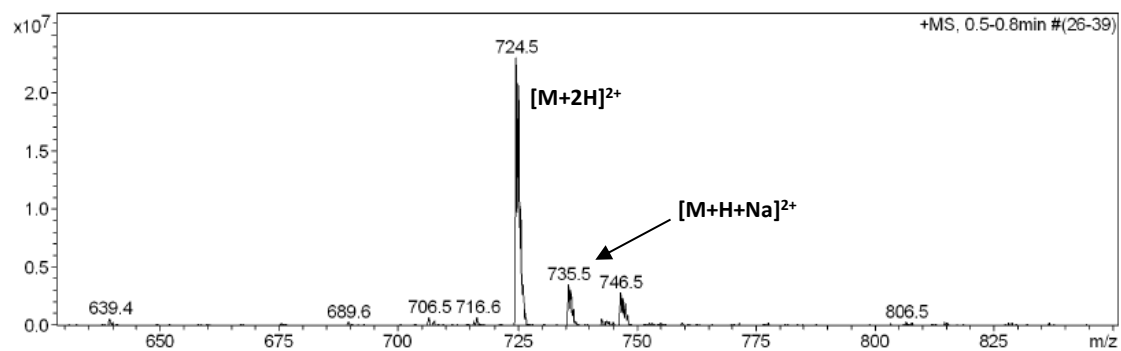
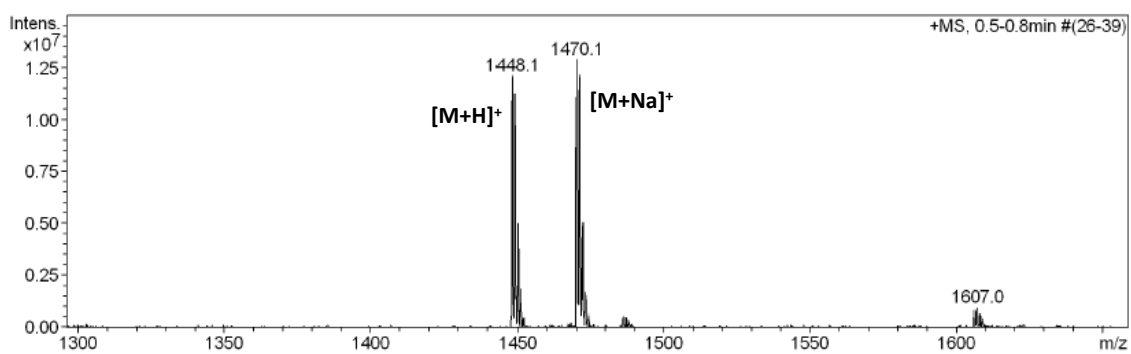
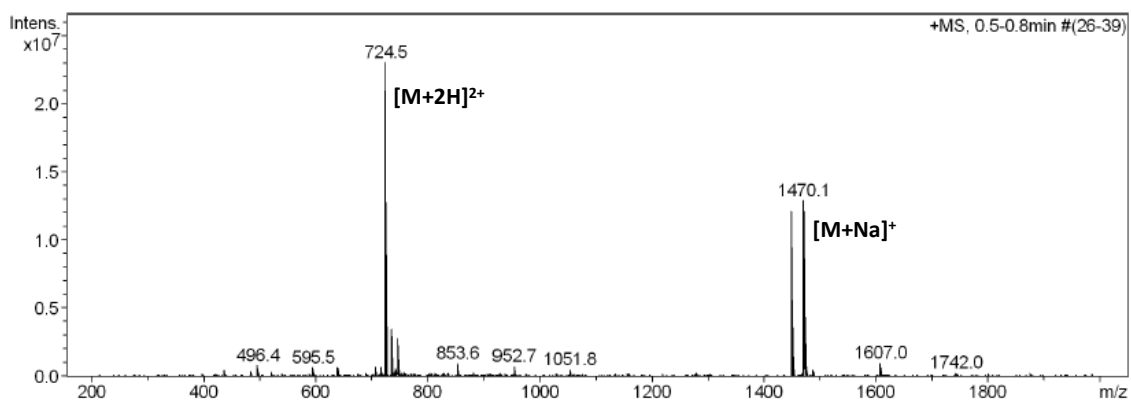
ESI-MS (m/z) (CC-4-LysP9-hexanoic-560)

| |
|-------------------------|
| $[M+H]^+ = 1447.9$ |
| $[M+Na]^+ = 1469.9$ |
| $[M+K]^+ = 1486.7$ |
| $[M+2H]^{2+} = 724.4$ |
| $[M+H+Na]^{2+} = 735.4$ |
| $[M+3H]^{3+} = 483.5$ |

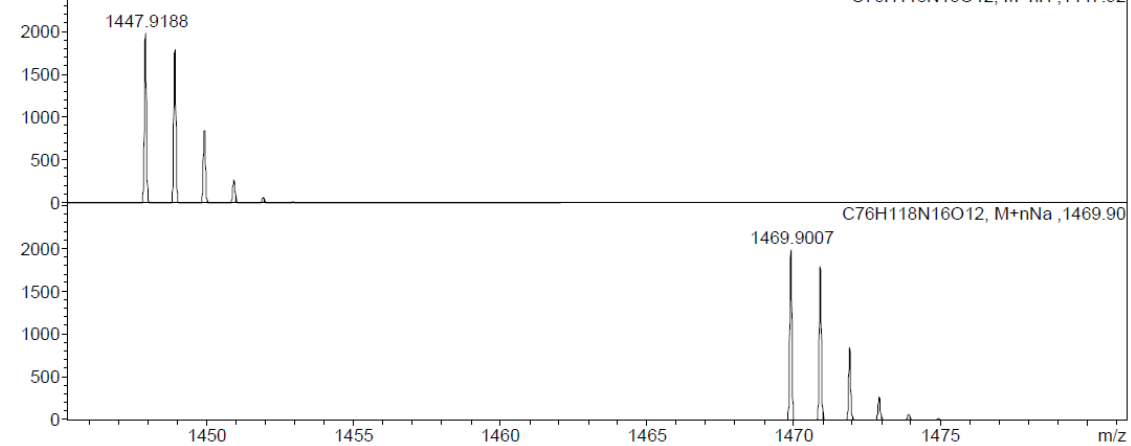
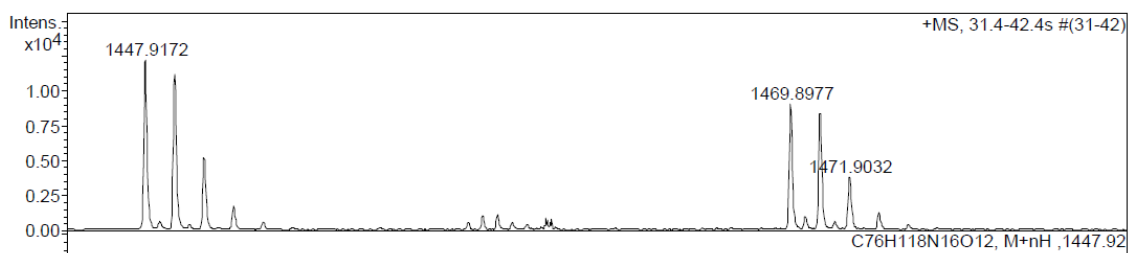
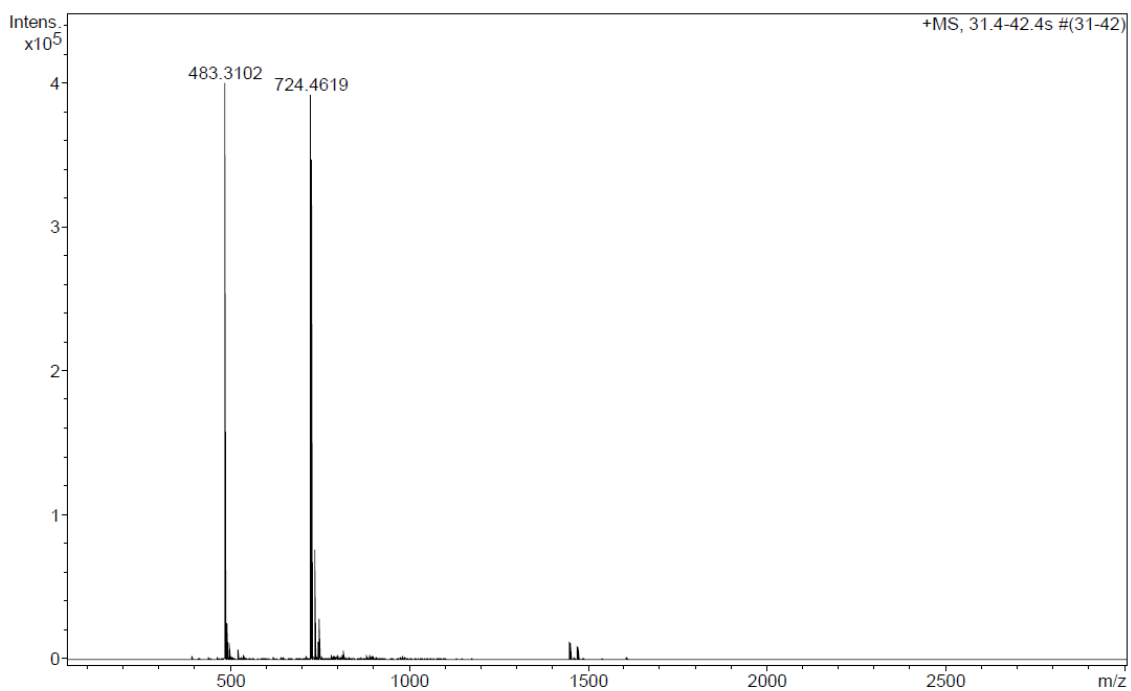
PURE PRODUCT

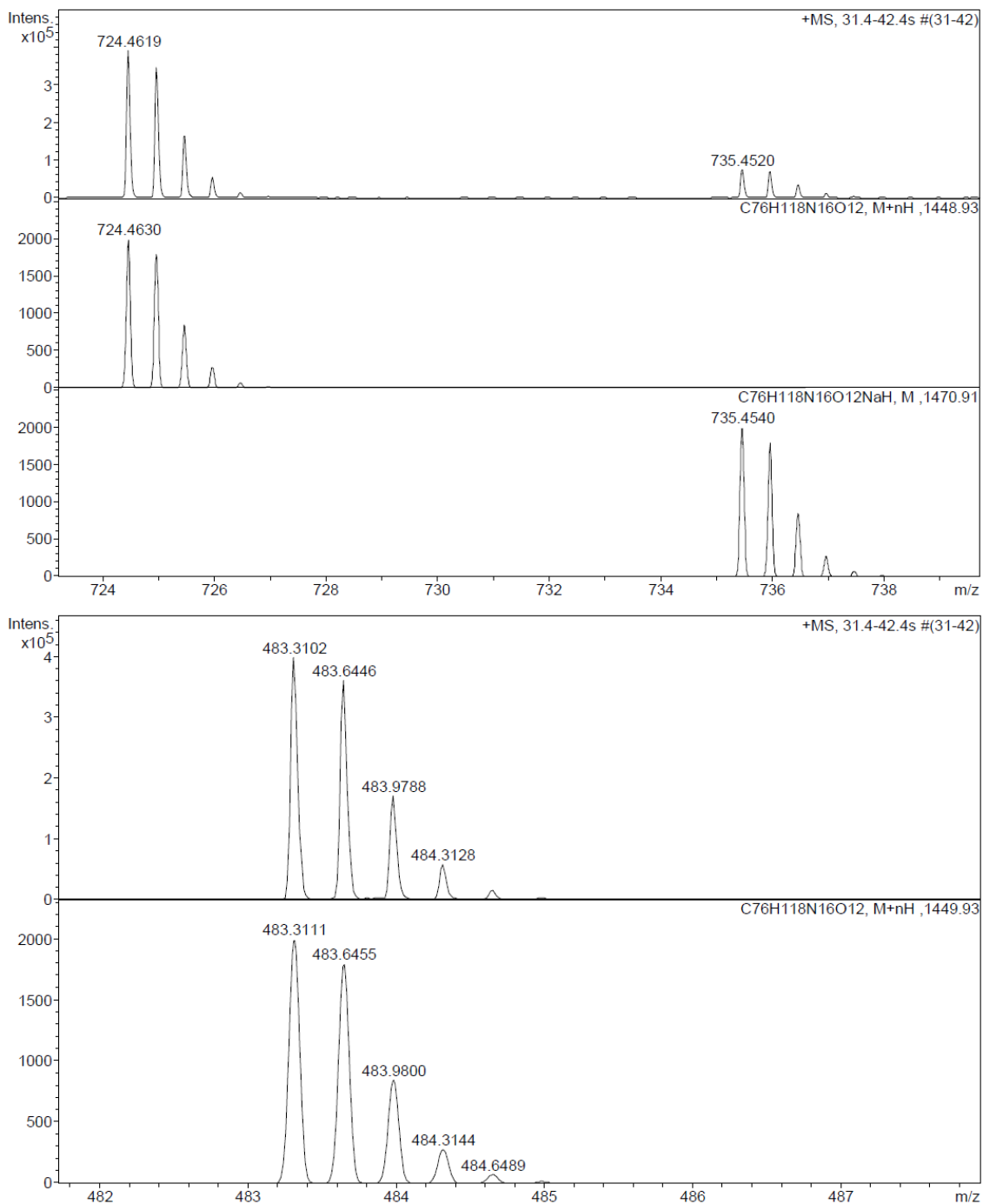
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP9-hexanoic-695 tub 15)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,85 | 1775,472 | 148,790 | 100,00 |
| Total: | | 1775,472 | 148,790 | 100,00 |

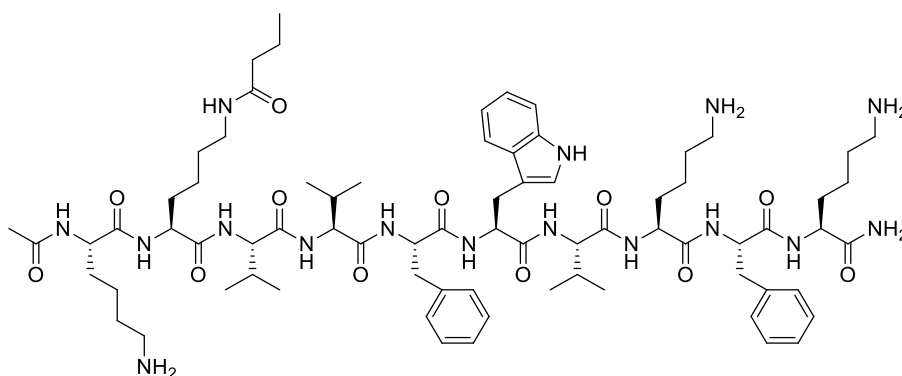
ESI-MS (m/z) (CC-4-LysP9-hexanoic-695 tub 15)

| |
|-------------------------|
| $[M+H]^+ = 1448.1$ |
| $[M+Na]^+ = 1470.1$ |
| $[M+2H]^{2+} = 724.5$ |
| $[M+H+Na]^{2+} = 735.5$ |

HRMS (m/z) (CC-4-LysP9-hexanoic-695 tubs 11-15)

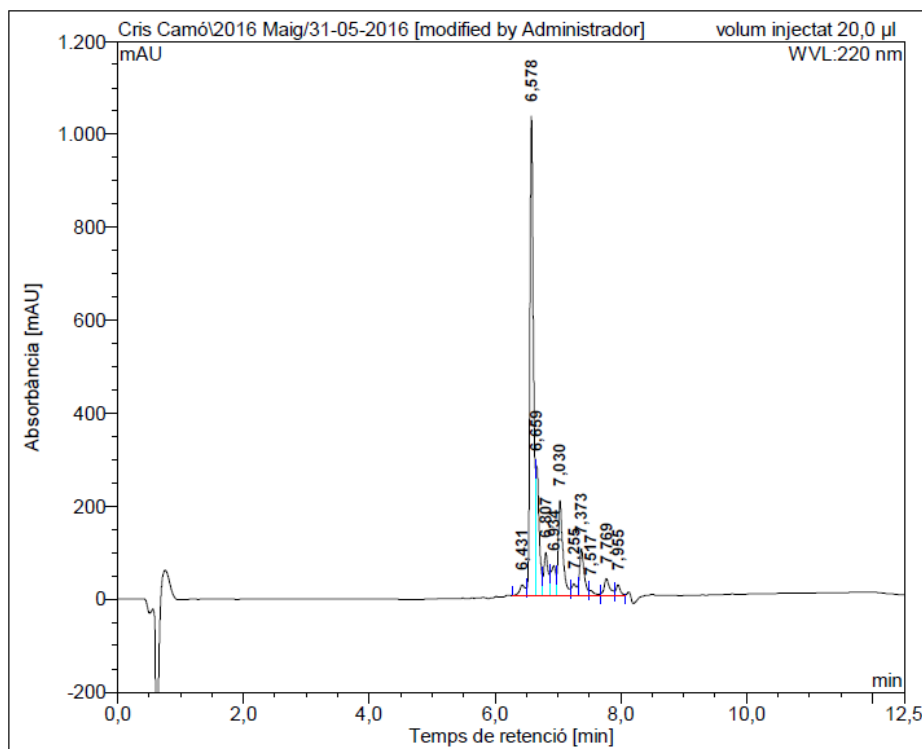


| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+Na] ⁺ | C ₇₆ H ₁₁₈ N ₁₆ O ₁₂ Na | 1469.9007 | 1469.8977 |
| [M+H] ⁺ | C ₇₆ H ₁₁₉ N ₁₆ O ₁₂ | 1447.9188 | 1447.9172 |
| [M+H+Na] ²⁺ | C ₇₆ H ₁₁₉ N ₁₆ O ₁₂ Na | 735.4540 | 735.4520 |
| [M+2H] ²⁺ | C ₇₆ H ₁₂₀ N ₁₆ O ₁₂ | 724.4630 | 724.4619 |
| [M+3H] ³⁺ | C ₇₆ H ₁₂₁ N ₁₆ O ₁₂ | 483.3111 | 483.3102 |

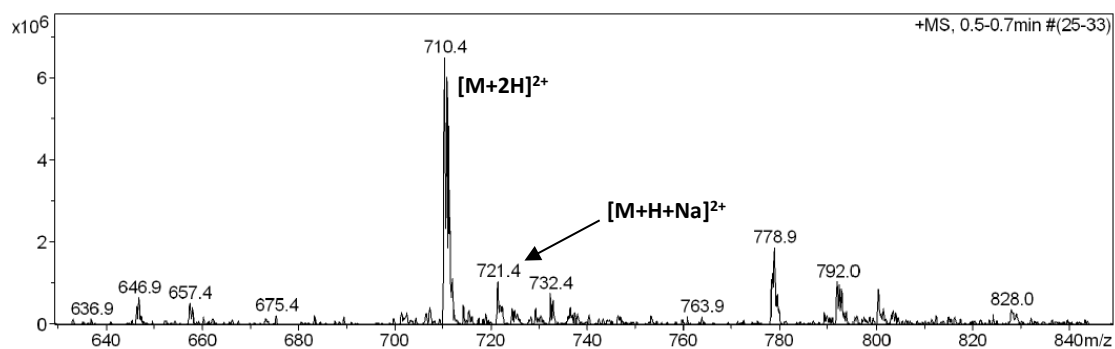
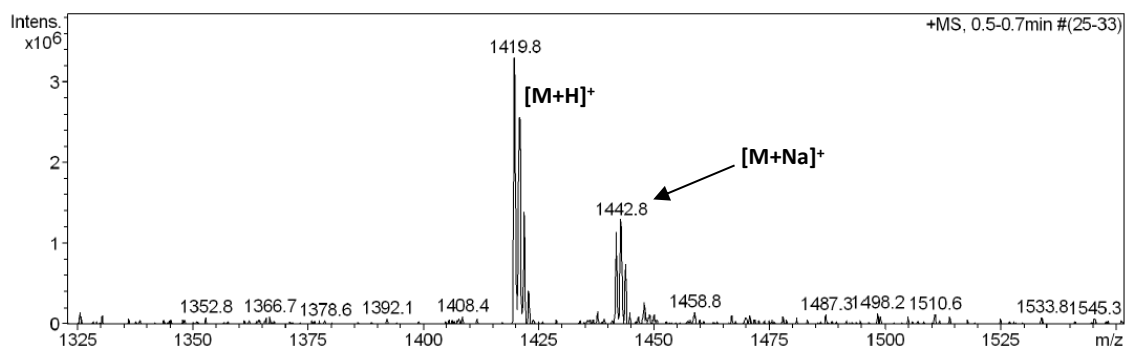
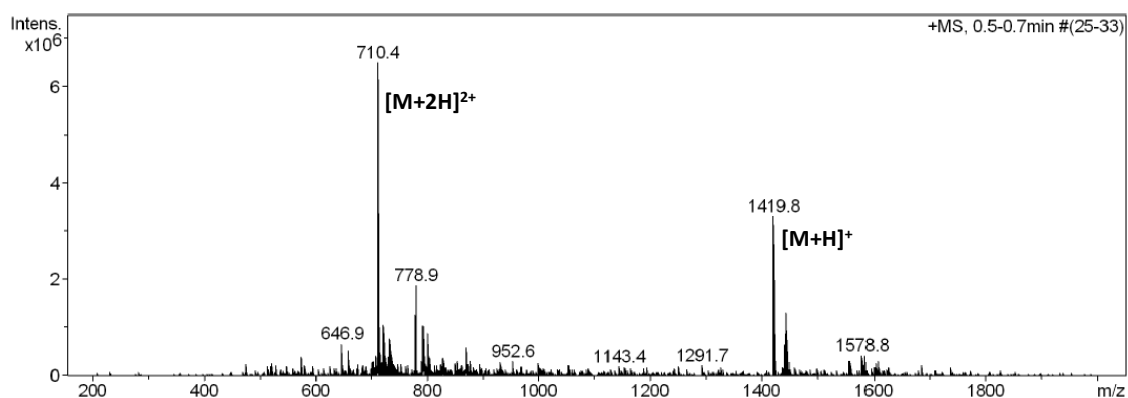
$\text{CH}_3\text{CO-Lys-Lys}(\text{CO-C}_3\text{H}_7)\text{-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH}_2$ (**BP437**)
Chemical Formula: $\text{C}_{74}\text{H}_{114}\text{N}_{16}\text{O}_{12}$

Exact Mass: 1418,8802

Molecular Weight: 1419,7970

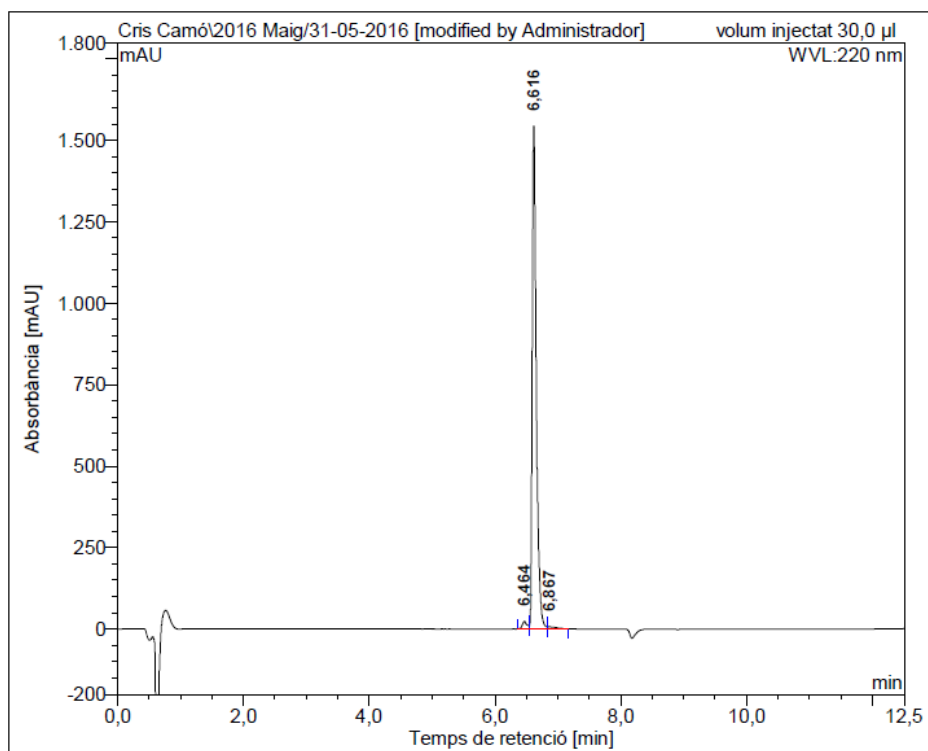
IMPURE PRODUCT**HPLC ($\lambda = 220$ nm) (CC-4-LysP9-butíric-697 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,43 | 23,597 | 2,548 | 1,83 |
| 2 | 6,58 | 1032,596 | 68,771 | 49,40 |
| 3 | 6,66 | 280,240 | 18,057 | 12,97 |
| 4 | 6,81 | 93,501 | 6,833 | 4,91 |
| 5 | 6,93 | 65,114 | 6,231 | 4,48 |
| 6 | 7,03 | 206,163 | 18,123 | 13,02 |
| 7 | 7,25 | 25,729 | 2,492 | 1,79 |
| 8 | 7,37 | 101,793 | 8,685 | 6,24 |
| 9 | 7,52 | 12,008 | 1,242 | 0,89 |
| 10 | 7,77 | 37,910 | 4,178 | 3,00 |
| 11 | 7,95 | 24,257 | 2,058 | 1,48 |
| Total: | | 1902,909 | 139,217 | 100,00 |

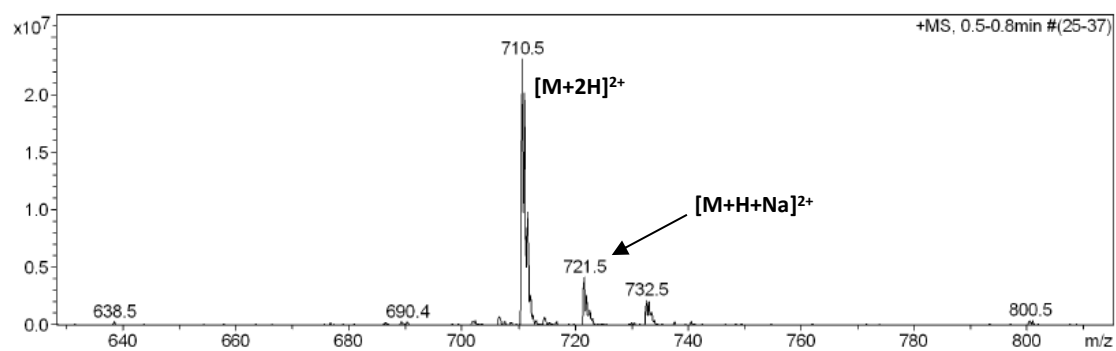
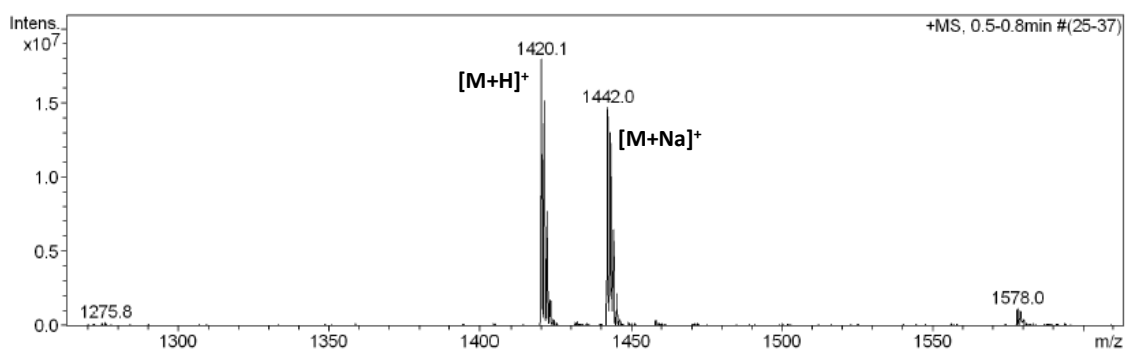
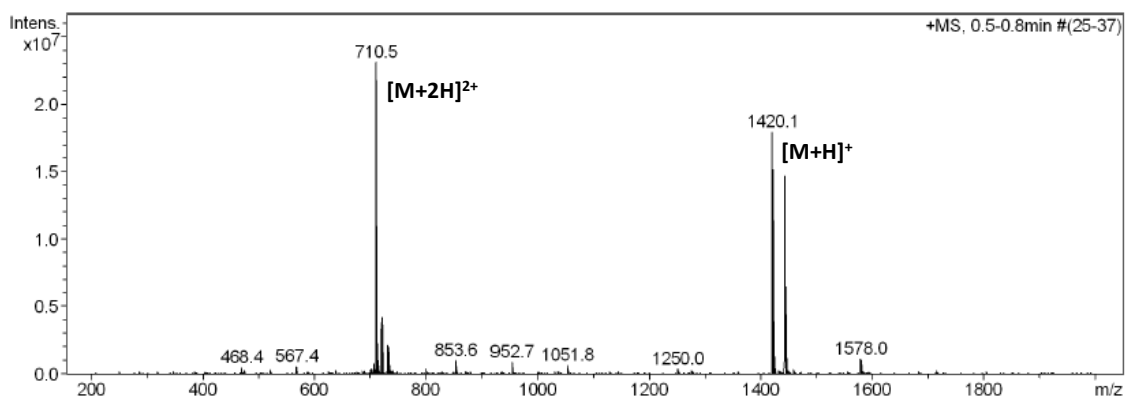
ESI-MS (m/z) (CC-4-LysP9-butíric-560)

| |
|-------------------------|
| $[M+H]^+ = 1419.8$ |
| $[M+Na]^+ = 1441.8$ |
| $[M+K]^+ = 1458.8$ |
| $[M+2H]^{2+} = 710.4$ |
| $[M+H+Na]^{2+} = 721.4$ |

PURE PRODUCT

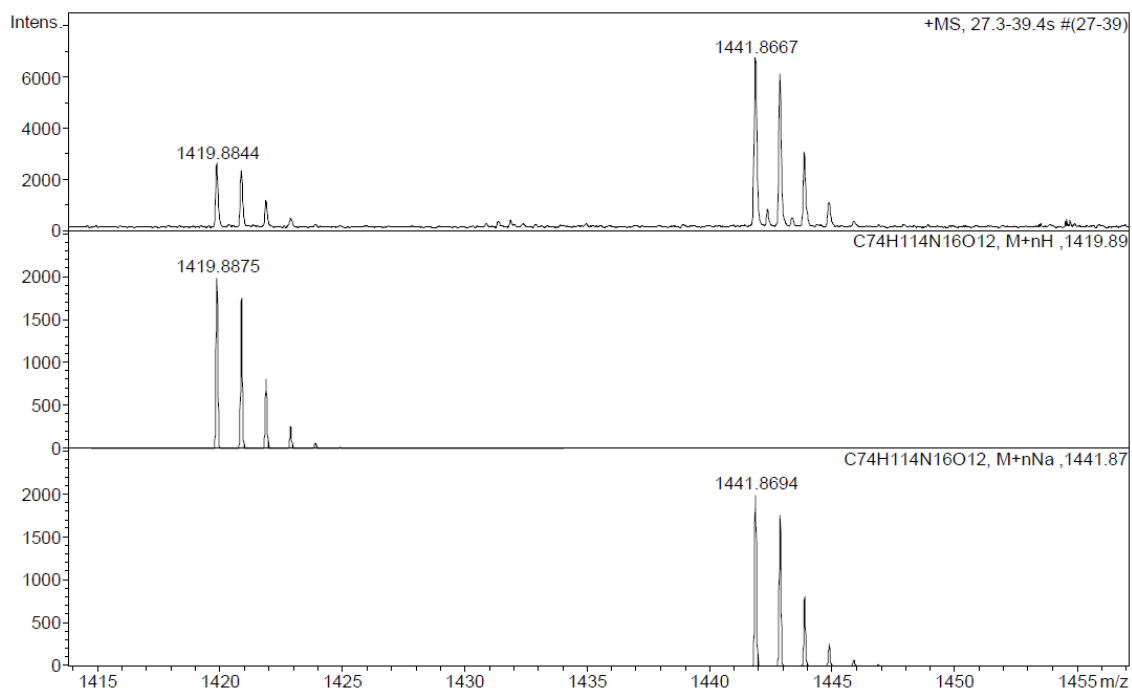
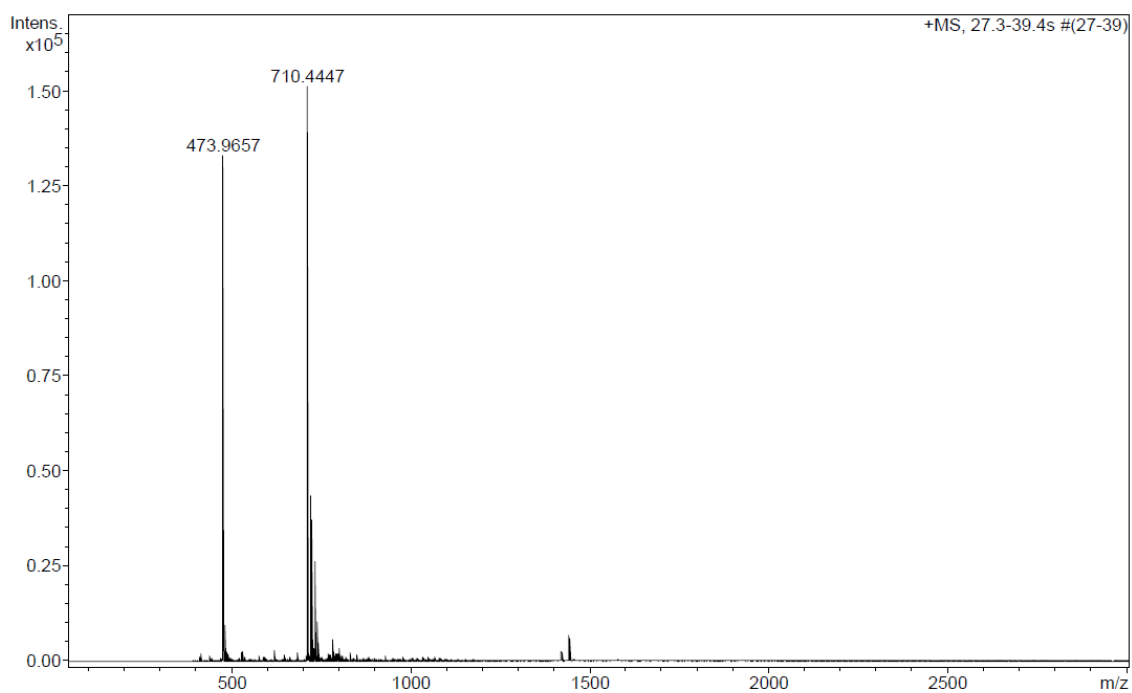
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP9-butíric-697 tub 15)

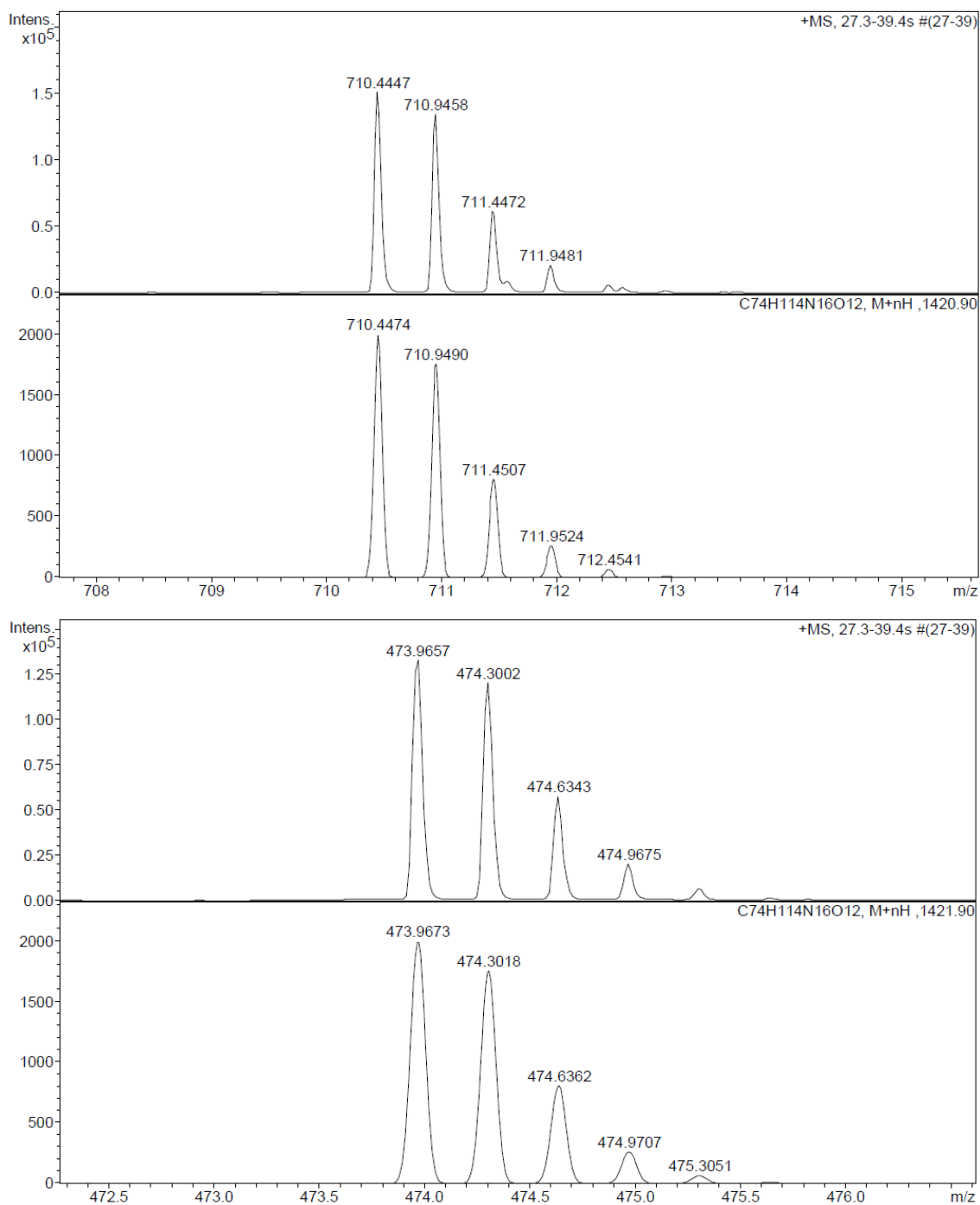
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,46 | 22,609 | 1,944 | 1,63 |
| 2 | 6,62 | 1542,309 | 116,431 | 97,44 |
| 3 | 6,87 | 6,675 | 1,109 | 0,93 |
| Total: | | 1571,593 | 119,484 | 100,00 |

ESI-MS (m/z) (CC-4-LysP9-butíric-697 tub 15)

| |
|-------------------------|
| $[M+H]^+ = 1420.1$ |
| $[M+Na]^+ = 1442.0$ |
| $[M+2H]^{2+} = 710.5$ |
| $[M+H+Na]^{2+} = 721.5$ |

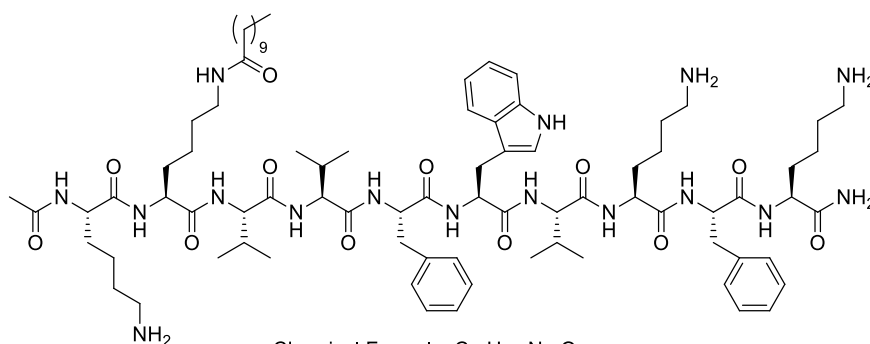
HRMS (m/z) (CC-4-LysP9-butíric-697 tubs 11-17)





| | Molecular formula | Calculated | Found |
|---------------|-------------------------------|------------|-----------|
| $[M+Na]^+$ | $C_{74}H_{114}N_{16}O_{12}Na$ | 1441.8694 | 1441.8667 |
| $[M+H]^+$ | $C_{74}H_{115}N_{16}O_{12}$ | 1419.8875 | 1419.8844 |
| $[M+2H]^{2+}$ | $C_{74}H_{116}N_{16}O_{12}$ | 710.4474 | 710.4447 |
| $[M+3H]^{3+}$ | $C_{74}H_{117}N_{16}O_{12}$ | 473.9673 | 473.9657 |

CH₃CO-Lys-Lys(CO-C₁₁H₂₃)-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP438)



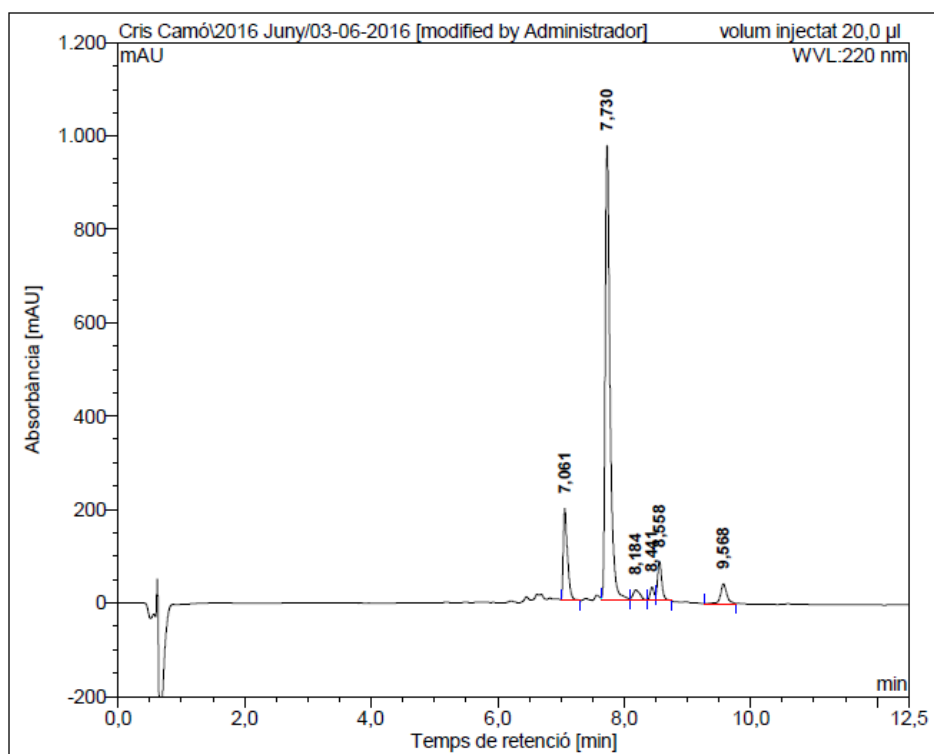
Chemical Formula: C₈₂H₁₃₀N₁₆O₁₂

Exact Mass: 1531,0054

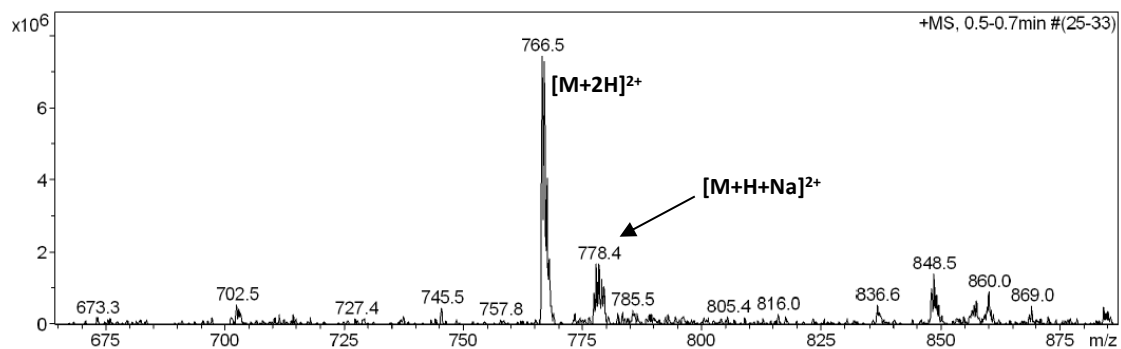
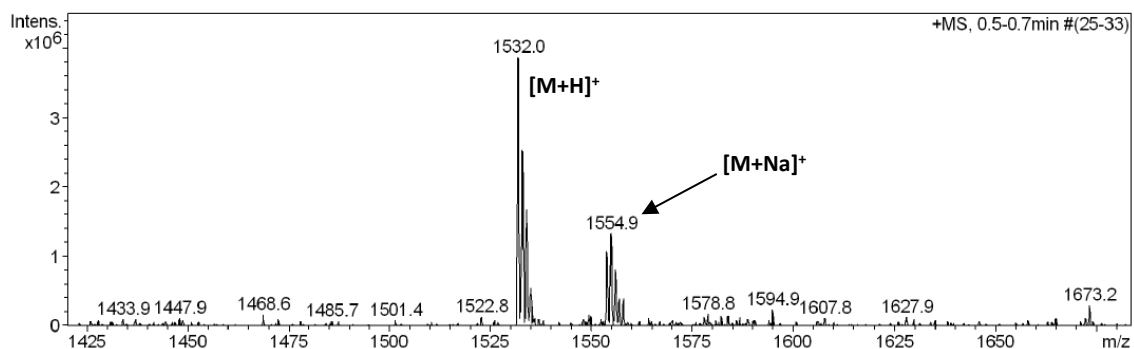
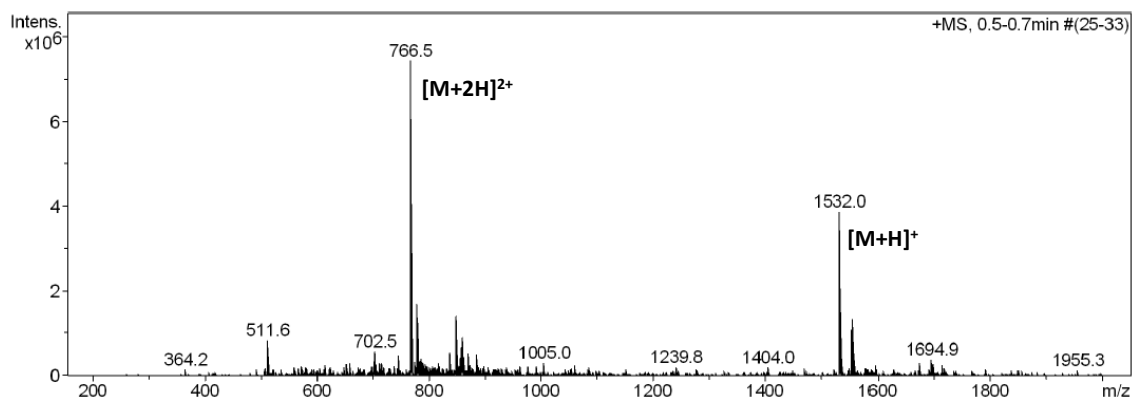
Molecular Weight: 1532,0096

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP9-làuric-699 impur)

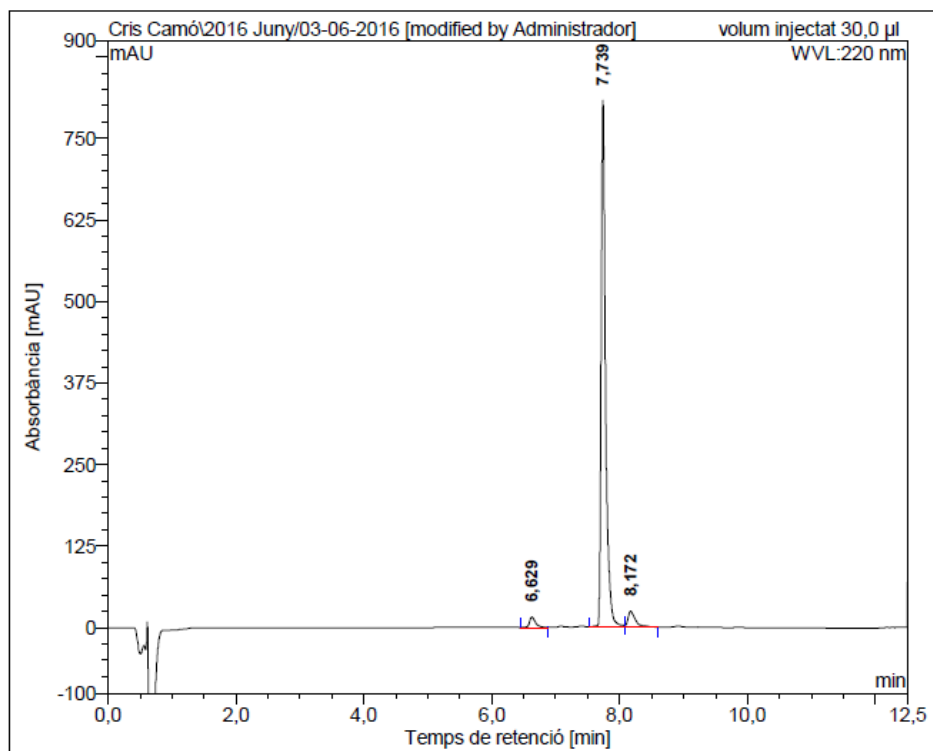


| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 7,06 | 197,118 | 15,331 | 12,97 |
| 2 | 7,73 | 974,135 | 86,332 | 73,04 |
| 3 | 8,18 | 22,433 | 3,002 | 2,54 |
| 4 | 8,44 | 28,686 | 2,064 | 1,75 |
| 5 | 8,56 | 82,658 | 6,563 | 5,55 |
| 6 | 9,57 | 42,604 | 4,901 | 4,15 |
| Total: | | 1347,633 | 118,192 | 100,00 |

ESI-MS (m/z) (CC-4-LysP9-làuric-560)

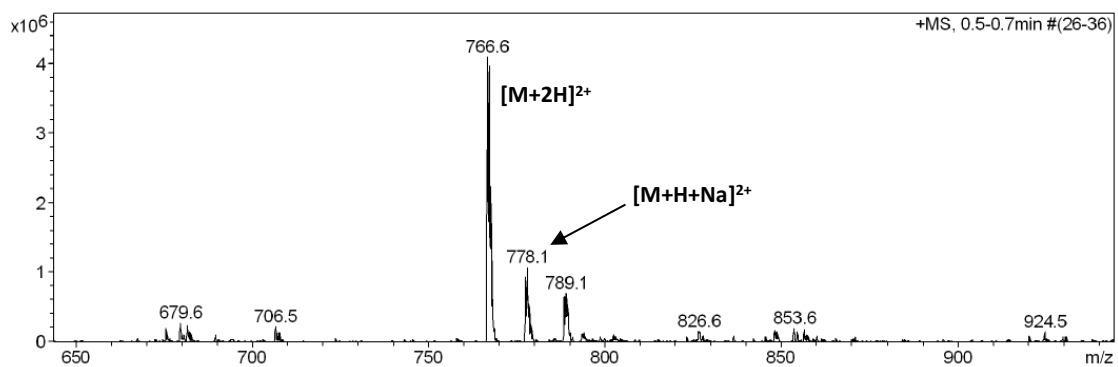
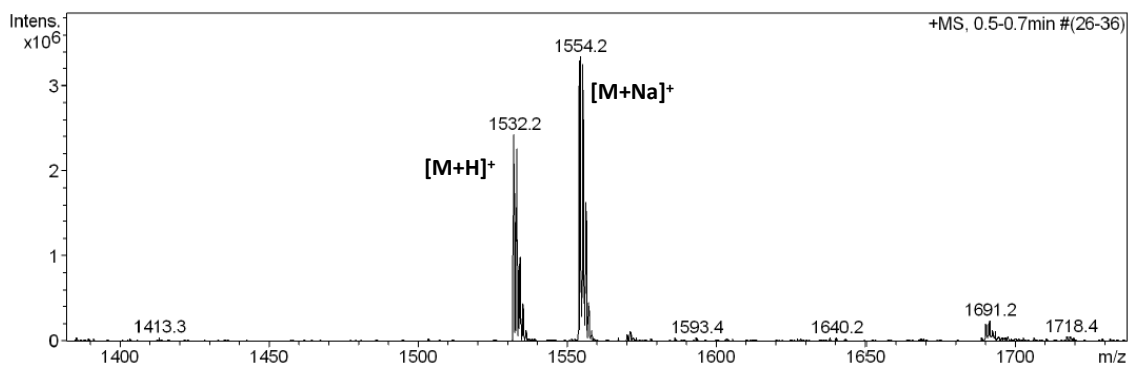
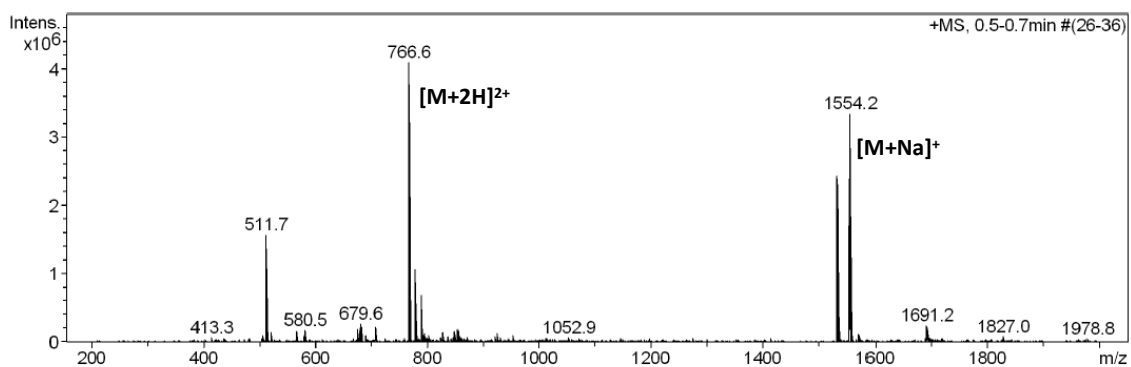
| |
|-------------------------|
| $[M+H]^+ = 1532.0$ |
| $[M+Na]^+ = 1553.9$ |
| $[M+2H]^{2+} = 766.5$ |
| $[M+H+Na]^{2+} = 778.4$ |

PURE PRODUCT

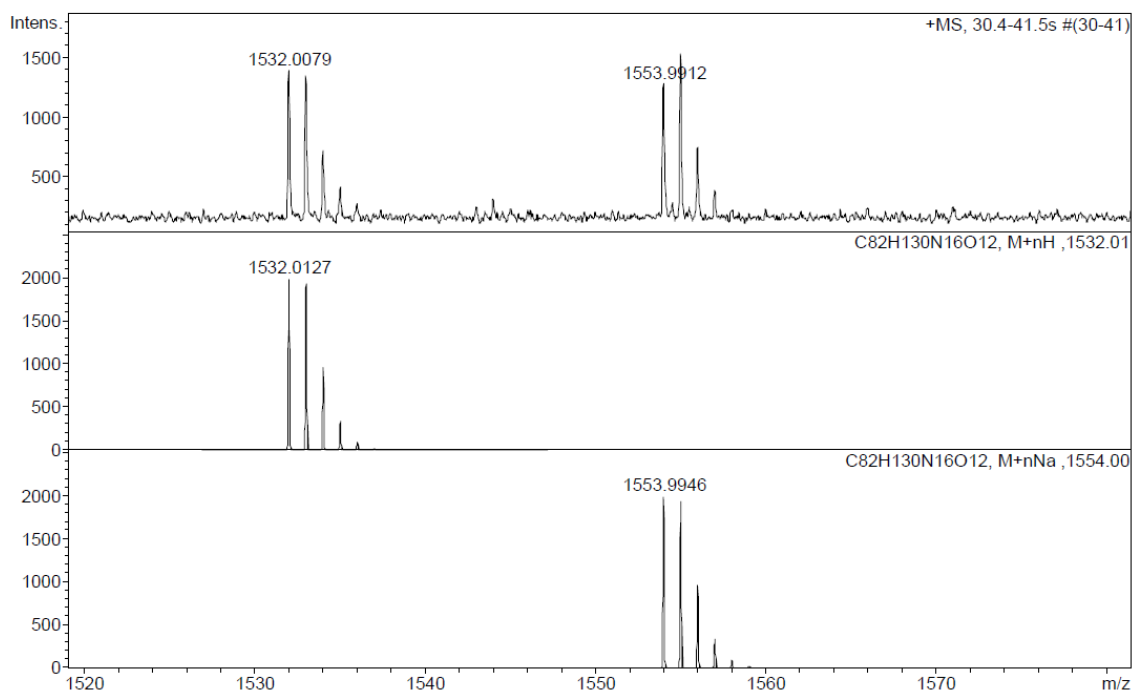
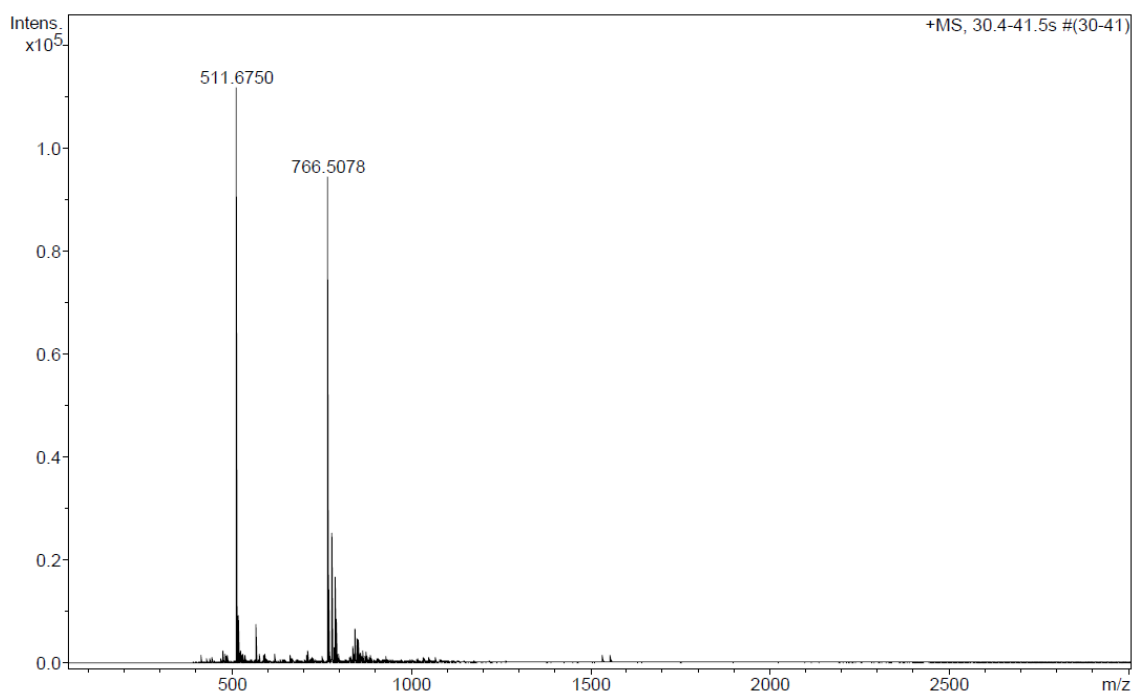
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP9-làuric-699 tub 25)

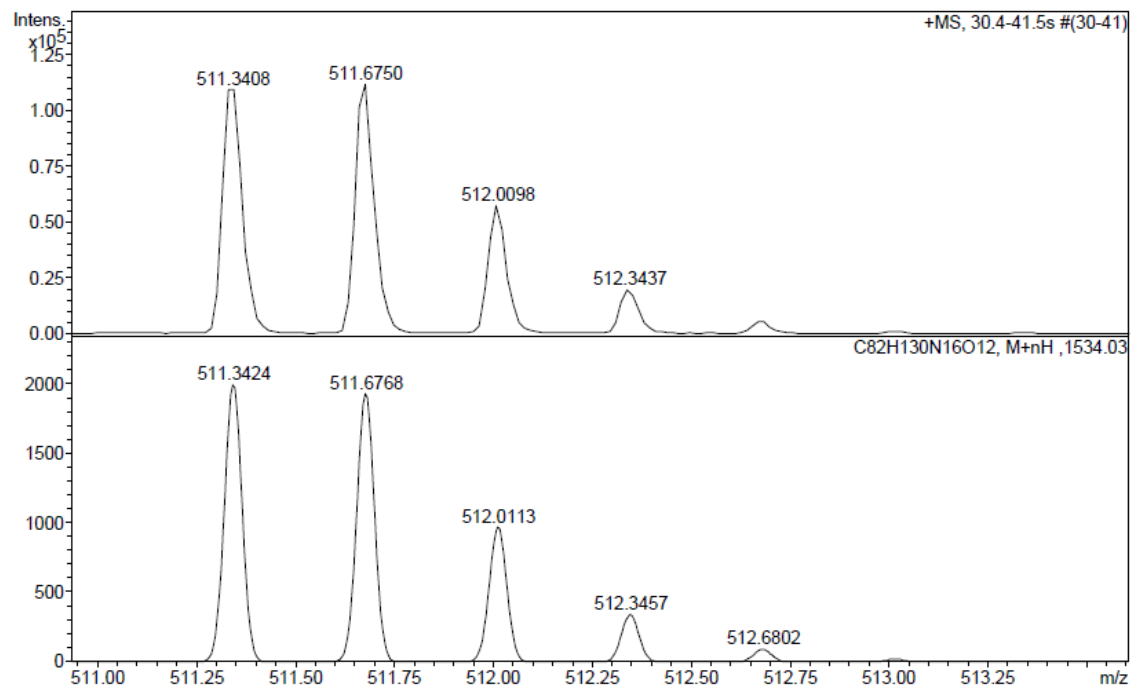
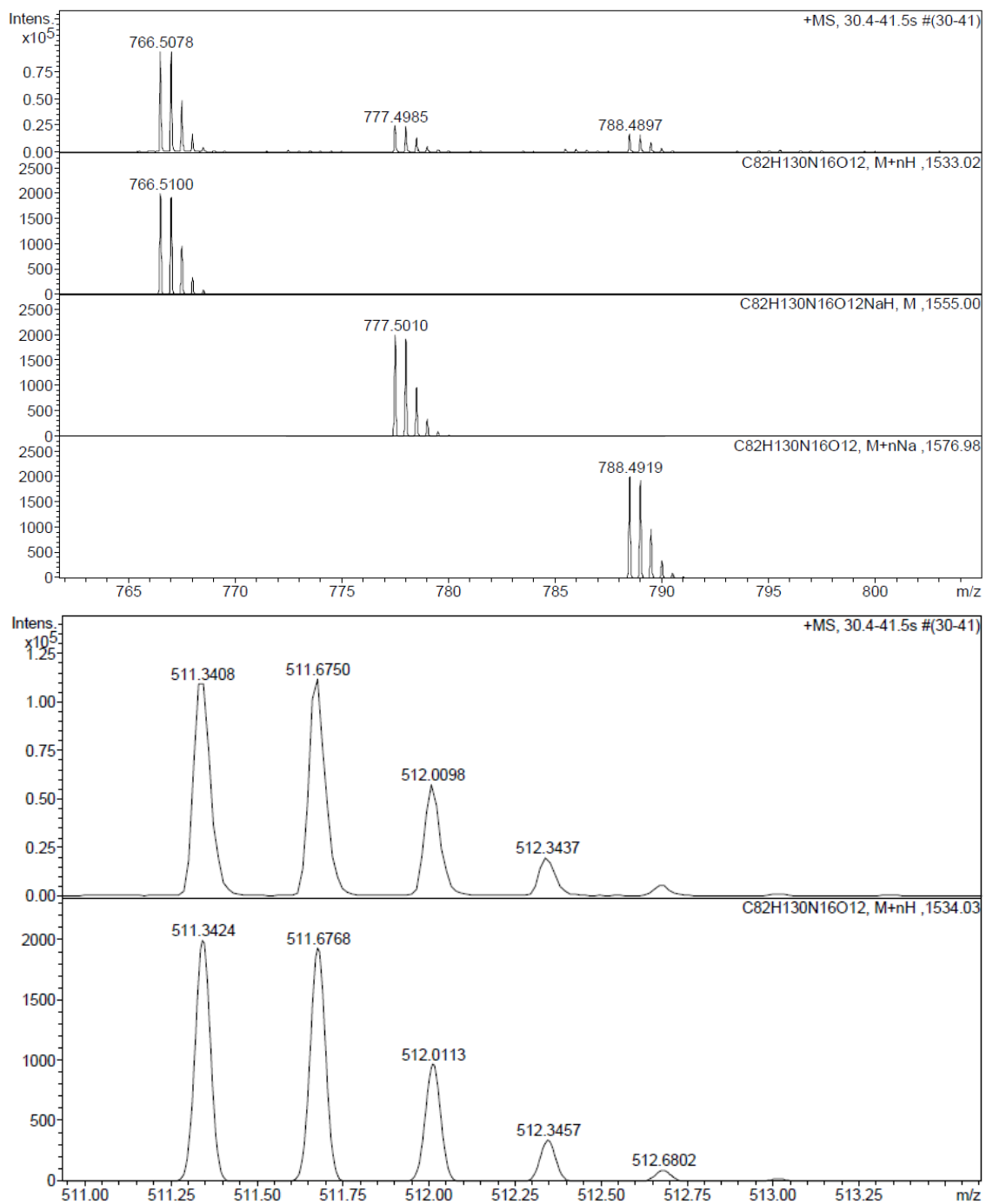
| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,63 | 16,082 | 1,774 | 2,51 |
| 2 | 7,74 | 807,637 | 65,402 | 92,63 |
| 3 | 8,17 | 24,403 | 3,431 | 4,86 |
| Total: | | 848,121 | 70,607 | 100,00 |

ESI-MS (m/z) (CC-4-LysP9-lauric-699 tub 25)



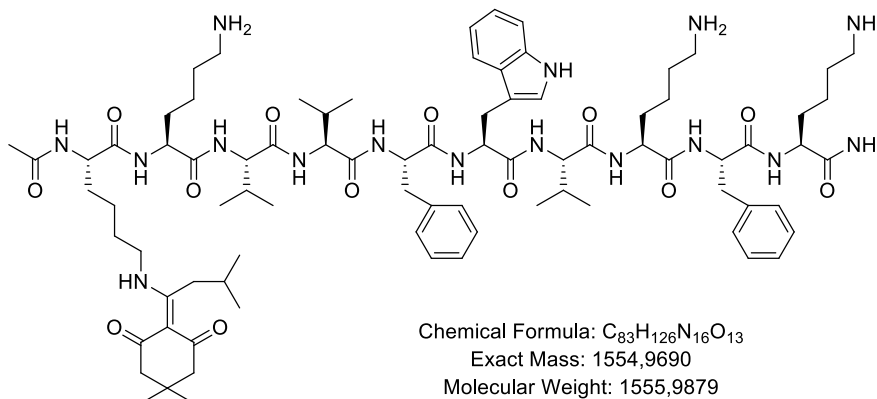
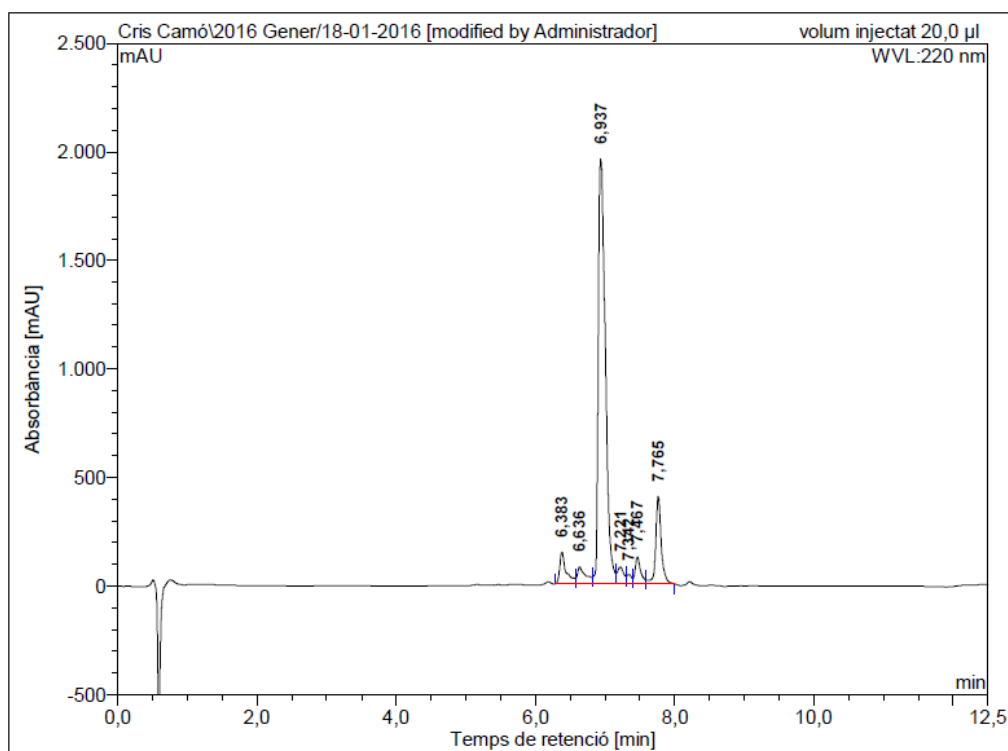
| |
|-------------------------|
| $[M+H]^+ = 1532.2$ |
| $[M+Na]^+ = 1554.2$ |
| $[M+2H]^{2+} = 766.6$ |
| $[M+H+Na]^{2+} = 778.1$ |

HRMS (m/z) (CC-4-LysP9-lauric-699 tubs 19-27)

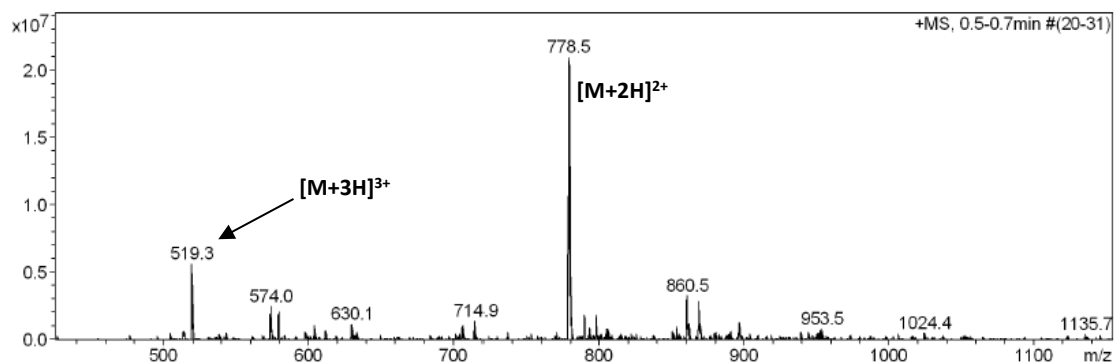
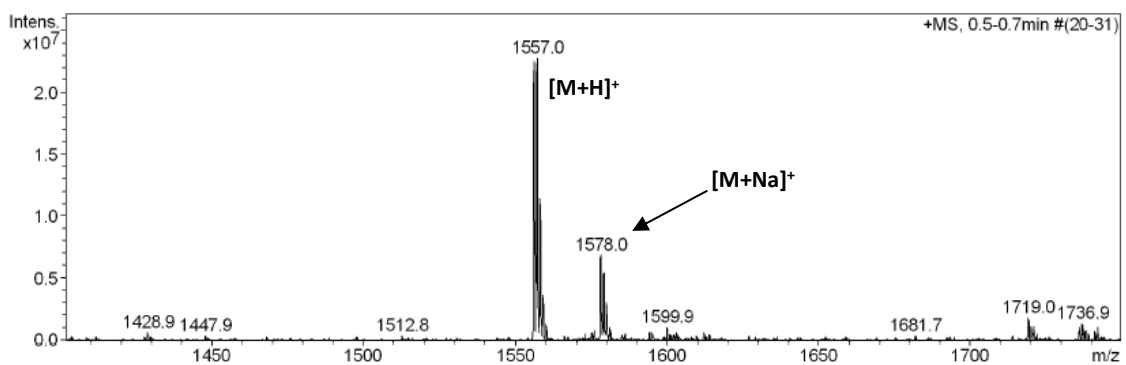
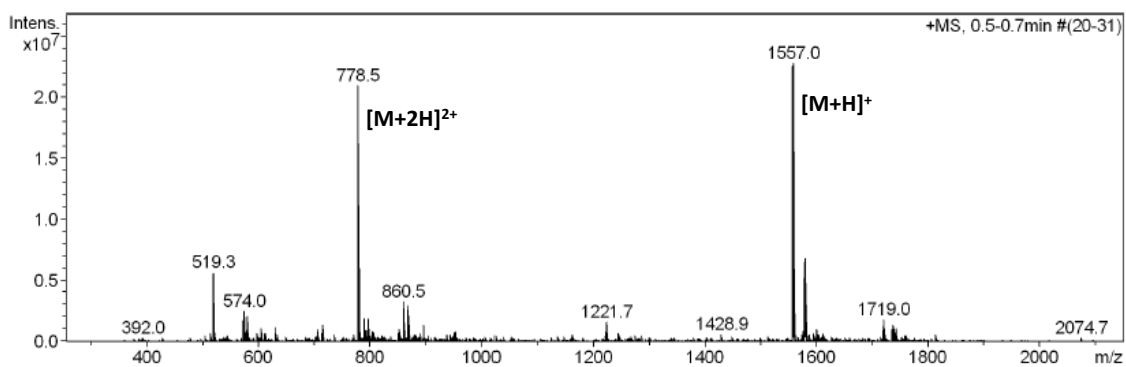


| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₈₂ H ₁₃₀ N ₁₆ O ₁₂ Na | 1553.9946 | 1553.9912 |
| [M+H] ⁺ | C ₈₂ H ₁₃₁ N ₁₆ O ₁₂ | 1532.0127 | 1532.0079 |
| [M+2Na] ²⁺ | C ₈₂ H ₁₃₀ N ₁₆ O ₁₂ Na ₂ | 788.4919 | 788.4897 |
| [M+H+Na] ²⁺ | C ₈₂ H ₁₃₁ N ₁₆ O ₁₂ Na | 777.5010 | 777.4985 |
| [M+2H] ²⁺ | C ₈₂ H ₁₃₂ N ₁₆ O ₁₂ | 766.5100 | 766.5078 |
| [M+3H] ³⁺ | C ₈₂ H ₁₃₃ N ₁₆ O ₁₂ | 511.3424 | 511.3408 |

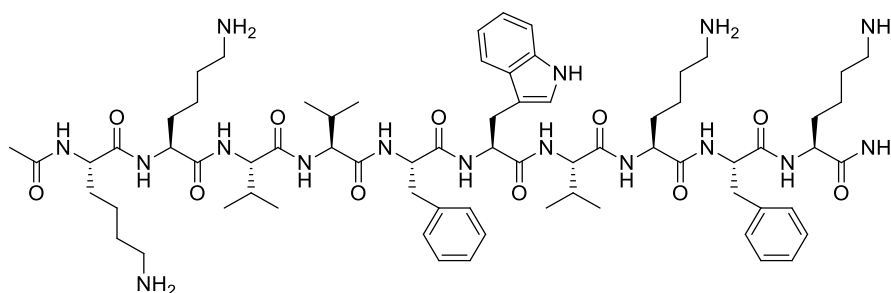
Lipopeptides derived from KSLW acylated at position 1

 $\text{CH}_3\text{CO-Lys(ivDde)-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH}_2$
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP10-501)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,38 | 145,994 | 15,715 | 4,93 |
| 2 | 6,64 | 78,828 | 10,932 | 3,43 |
| 3 | 6,94 | 1957,488 | 231,302 | 72,51 |
| 4 | 7,22 | 78,262 | 8,499 | 2,66 |
| 5 | 7,34 | 43,166 | 3,731 | 1,17 |
| 6 | 7,47 | 123,753 | 11,375 | 3,57 |
| 7 | 7,77 | 403,855 | 37,428 | 11,73 |
| Total: | | 2831,347 | 318,982 | 100,00 |

ESI-MS (m/z) (CC-4-LysP10-501)

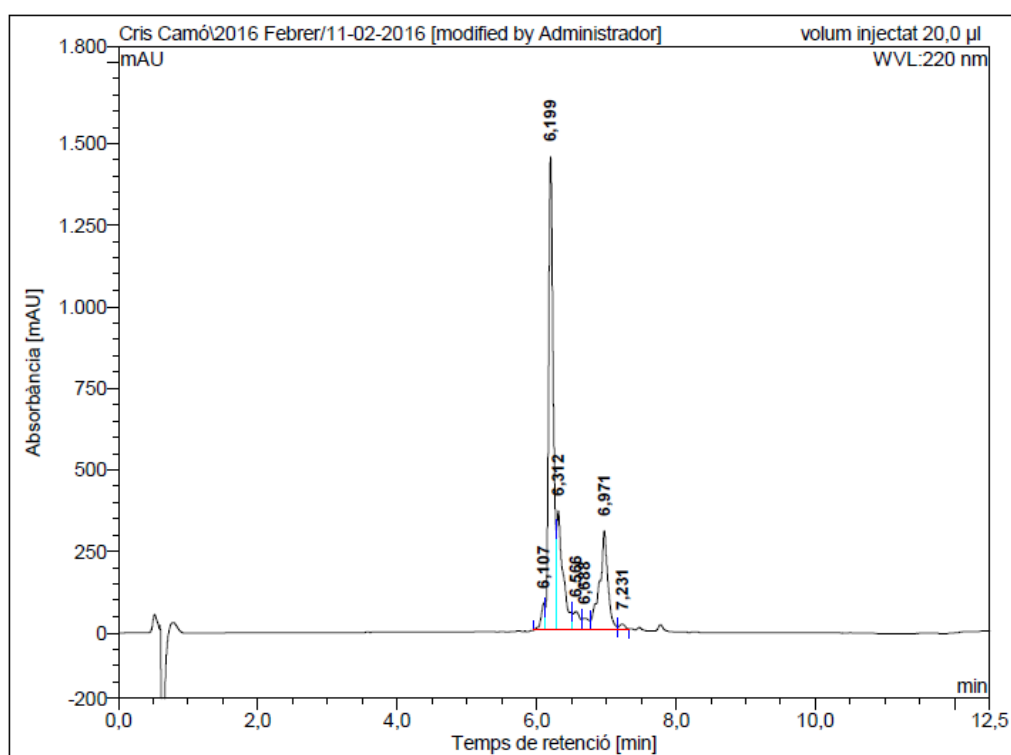
| |
|-----------------------|
| $[M+H]^+ = 1556.0$ |
| $[M+Na]^+ = 1578.0$ |
| $[M+2H]^{2+} = 778.5$ |
| $[M+3H]^{3+} = 519.3$ |

CH₃CO-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂Chemical Formula: C₇₀H₁₀₈N₁₆O₁₁

Exact Mass: 1348,8383

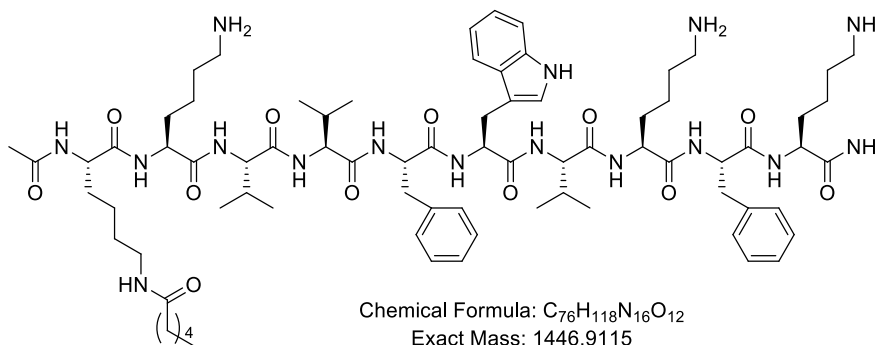
Molecular Weight: 1349,7071

HPLC (λ = 220 nm) (CC-4-LysP10-hexanoic-553)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 82,661 | 5,870 | 2,76 |
| 2 | 6,20 | 1449,685 | 112,308 | 52,89 |
| 3 | 6,31 | 364,277 | 38,635 | 18,19 |
| 4 | 6,57 | 56,479 | 7,155 | 3,37 |
| 5 | 6,69 | 35,092 | 4,367 | 2,06 |
| 6 | 6,97 | 303,781 | 42,338 | 19,94 |
| 7 | 7,23 | 17,561 | 1,690 | 0,80 |
| Total: | | 2309,536 | 212,362 | 100,00 |

CH₃CO-Lys(CO-C₅H₁₁)-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP439)



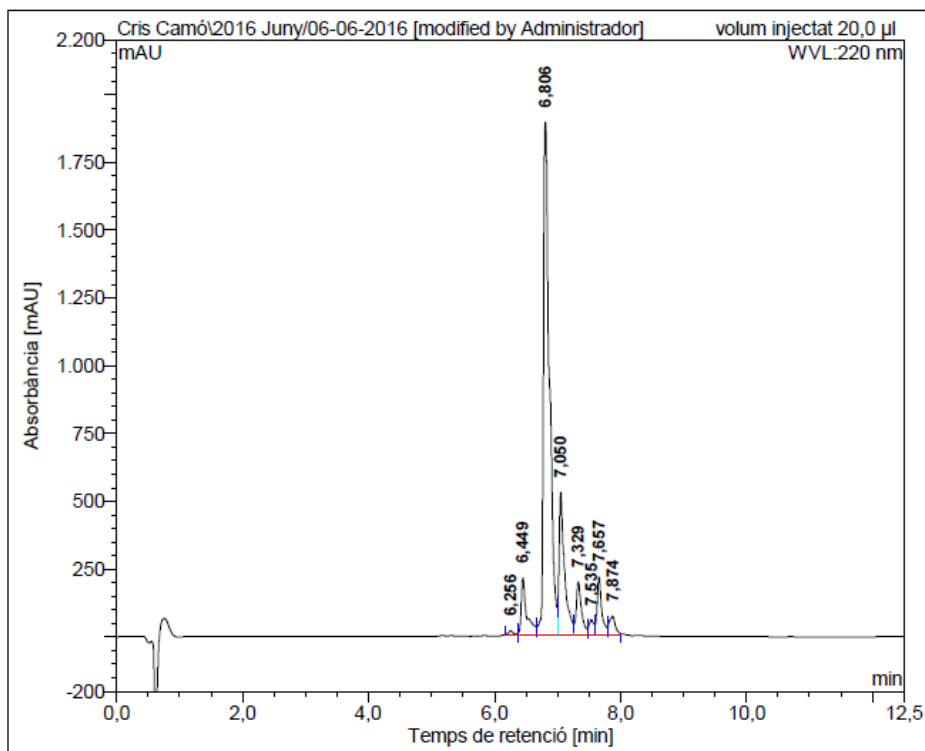
Chemical Formula: C₇₆H₁₁₈N₁₆O₁₂

Exact Mass: 1446,9115

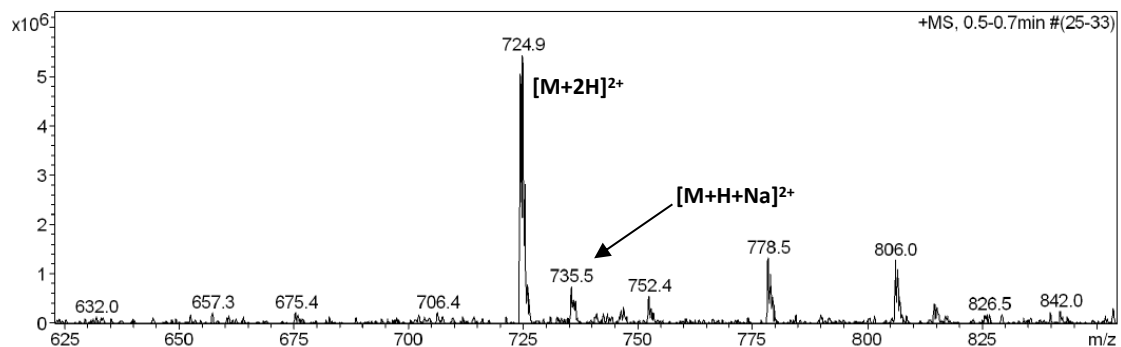
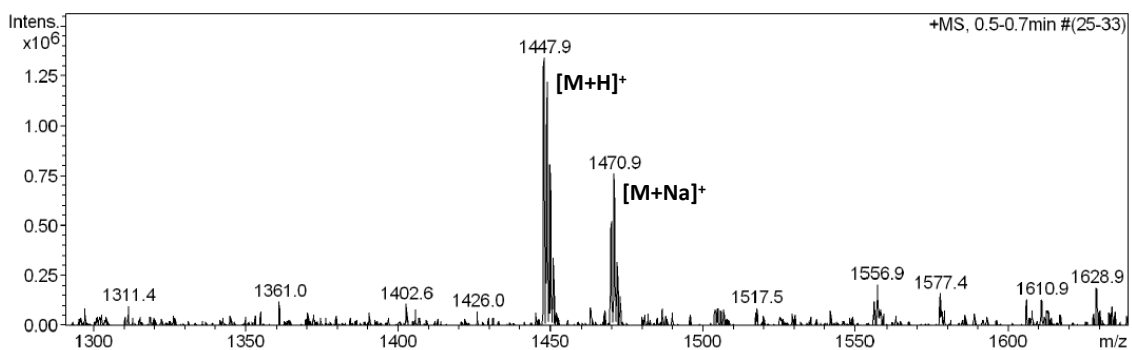
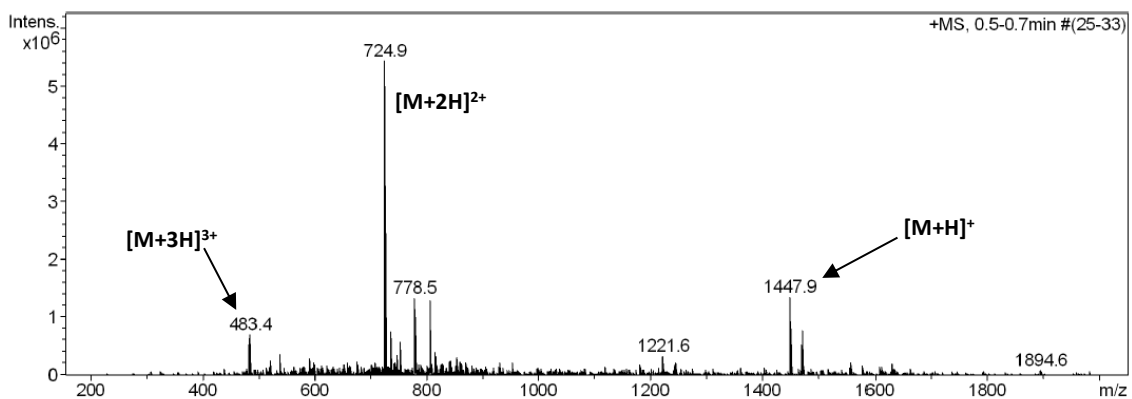
Molecular Weight: 1447,8501

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP10-hexanoic-701 impur)

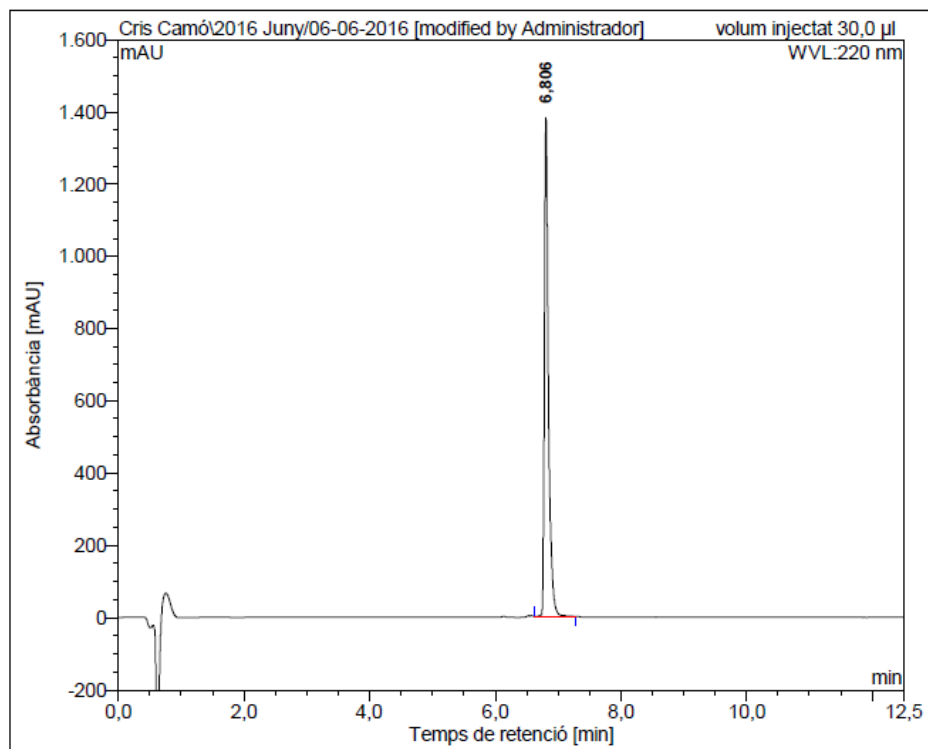


| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 15,298 | 1,462 | 0,43 |
| 2 | 6,45 | 209,527 | 21,877 | 6,43 |
| 3 | 6,81 | 1891,344 | 211,178 | 62,09 |
| 4 | 7,05 | 526,303 | 54,734 | 16,09 |
| 5 | 7,33 | 197,128 | 19,069 | 5,61 |
| 6 | 7,54 | 55,904 | 5,263 | 1,55 |
| 7 | 7,66 | 213,925 | 18,697 | 5,50 |
| 8 | 7,87 | 68,969 | 7,860 | 2,31 |
| Total: | | 3178,399 | 340,141 | 100,00 |

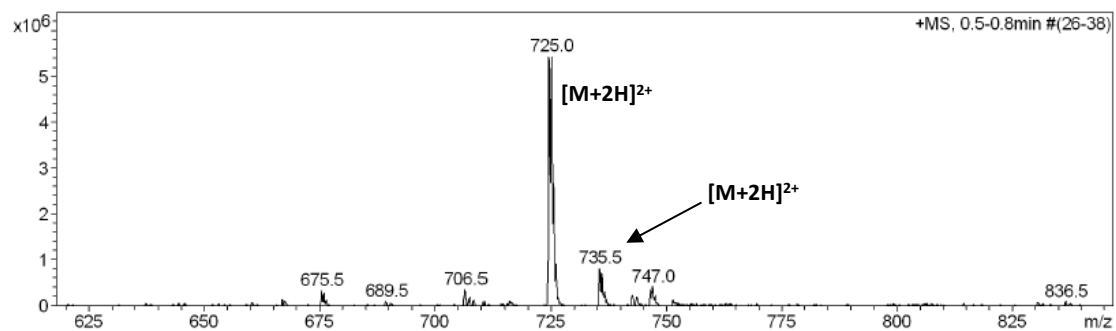
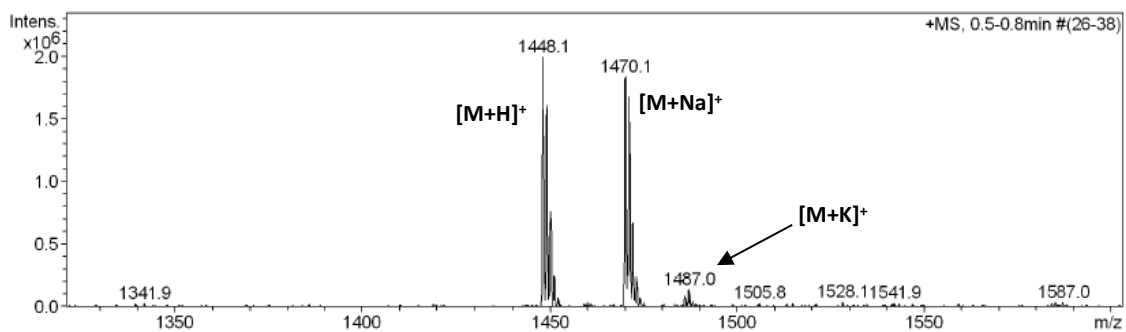
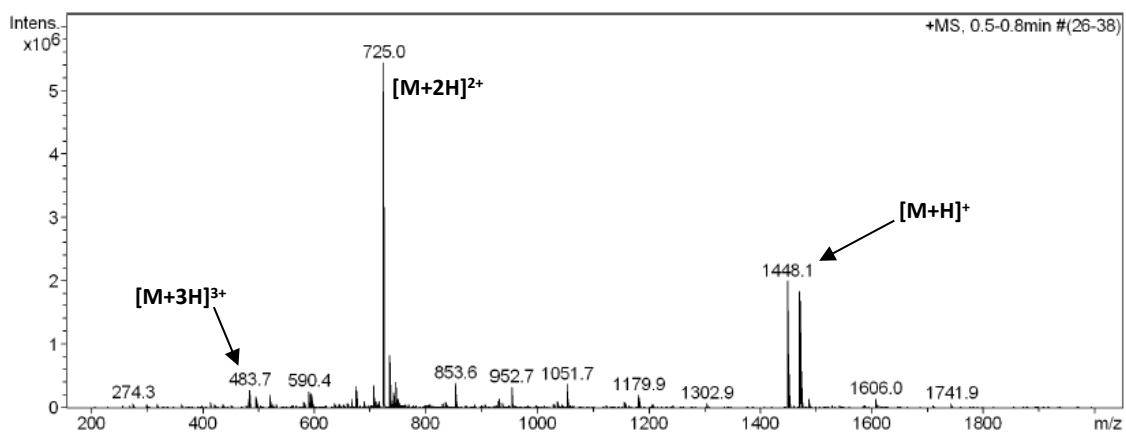
ESI-MS (m/z) (CC-4-LysP10-hexanoic-560)

| |
|-------------------------|
| $[M+H]^+ = 1447.9$ |
| $[M+Na]^+ = 1469.9$ |
| $[M+2H]^{2+} = 724.9$ |
| $[M+H+Na]^{2+} = 735.5$ |
| $[M+3H]^{3+} = 483.4$ |

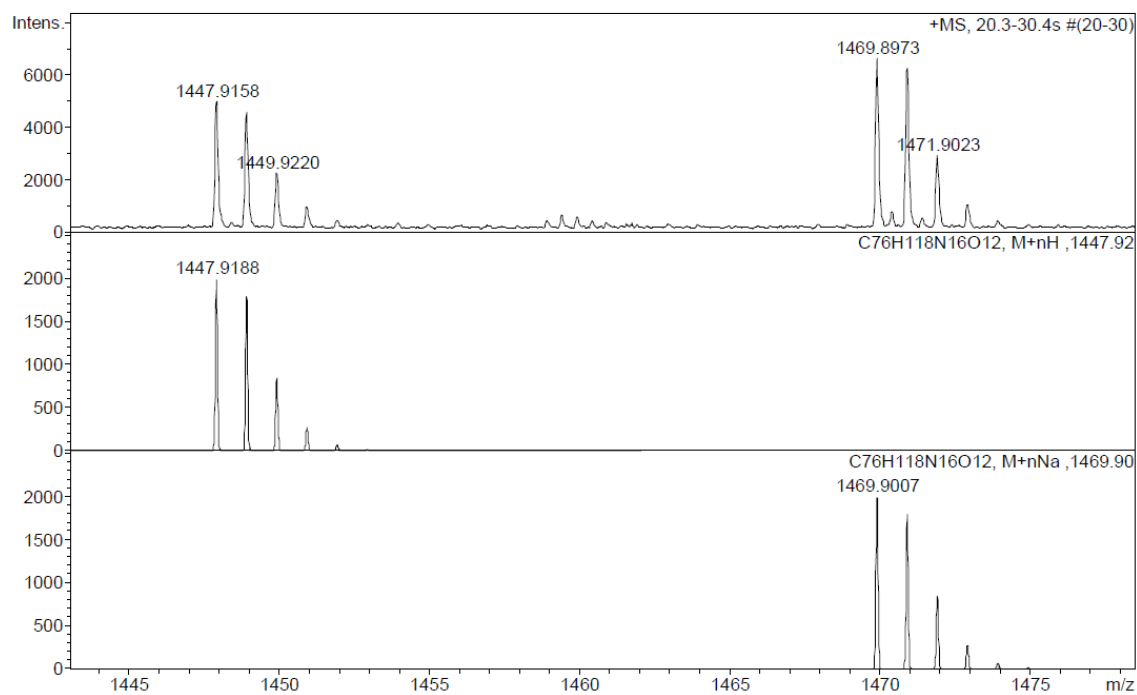
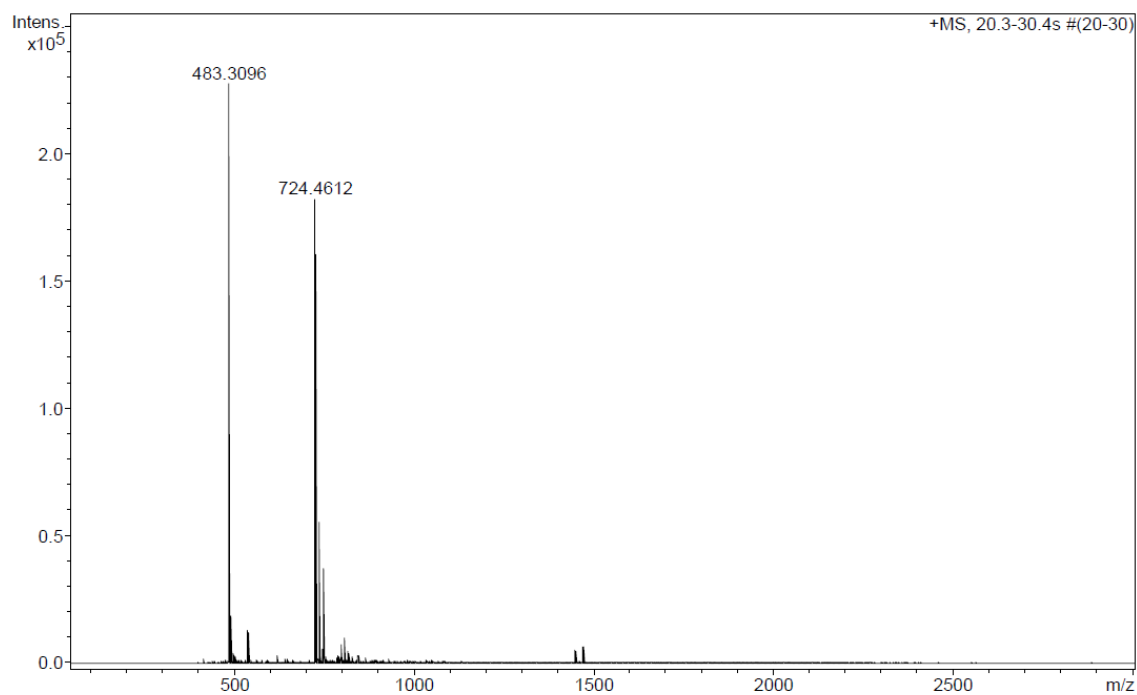
PURE PRODUCT

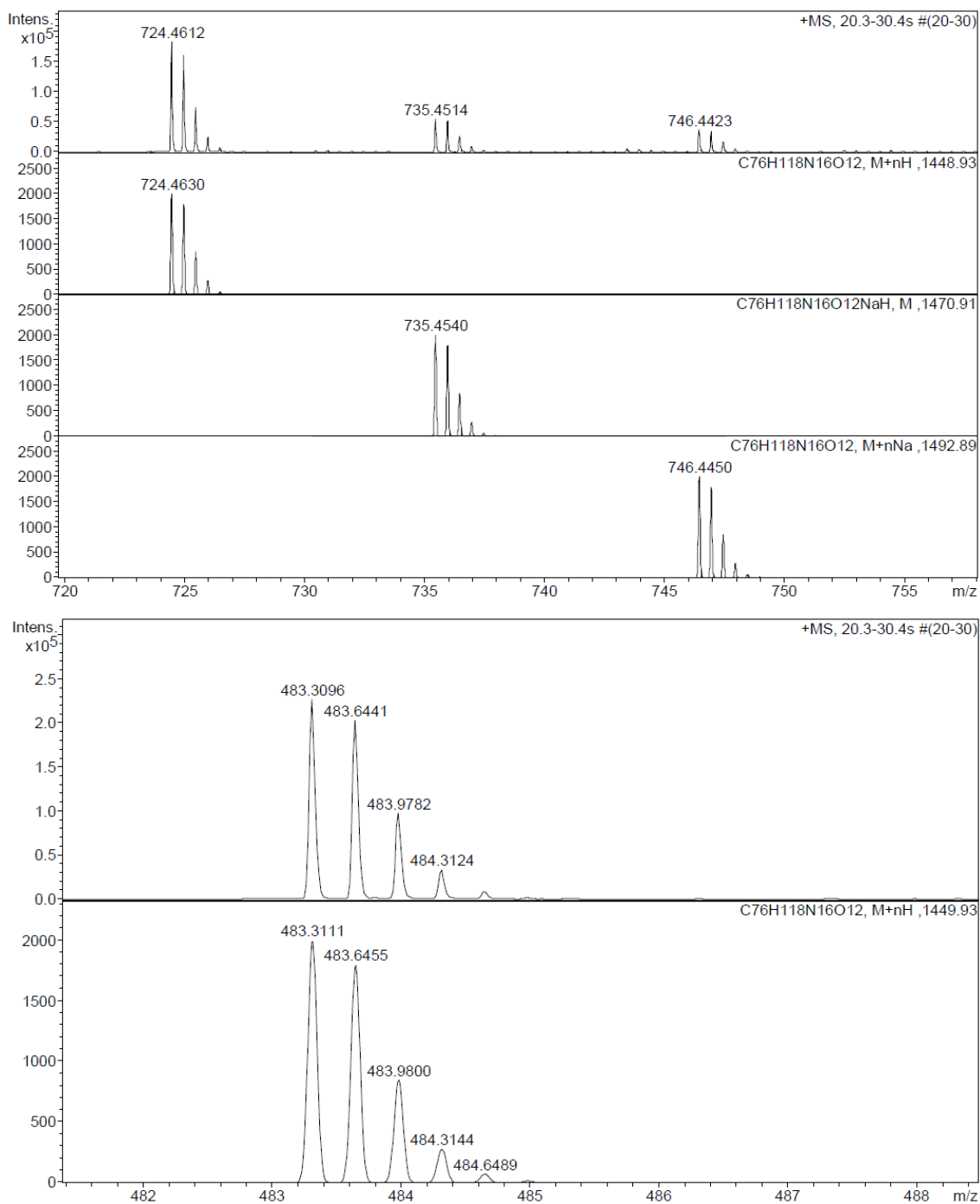
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP10-hexanoic-701 tub 24)

| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,81 | 1381,770 | 104,319 | 100,00 |
| Total: | | 1381,770 | 104,319 | 100,00 |

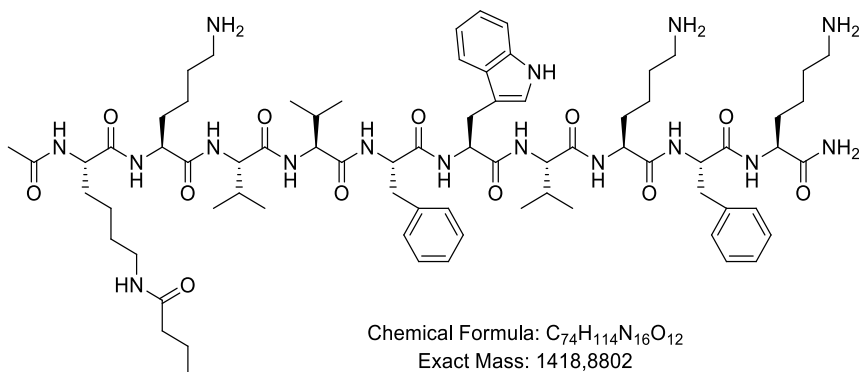
ESI-MS (m/z) (CC-4-LysP10-hexanoic-701 tub 24)

| |
|-------------------------|
| $[M+H]^+ = 1448.1$ |
| $[M+Na]^+ = 1470.1$ |
| $[M+K]^+ = 1487.0$ |
| $[M+2H]^{2+} = 725.0$ |
| $[M+H+Na]^{2+} = 735.5$ |
| $[M+3H]^{3+} = 483.7$ |

HRMS (m/z) (CC-4-LysP10-hexanoic-701 tubs 17-26)

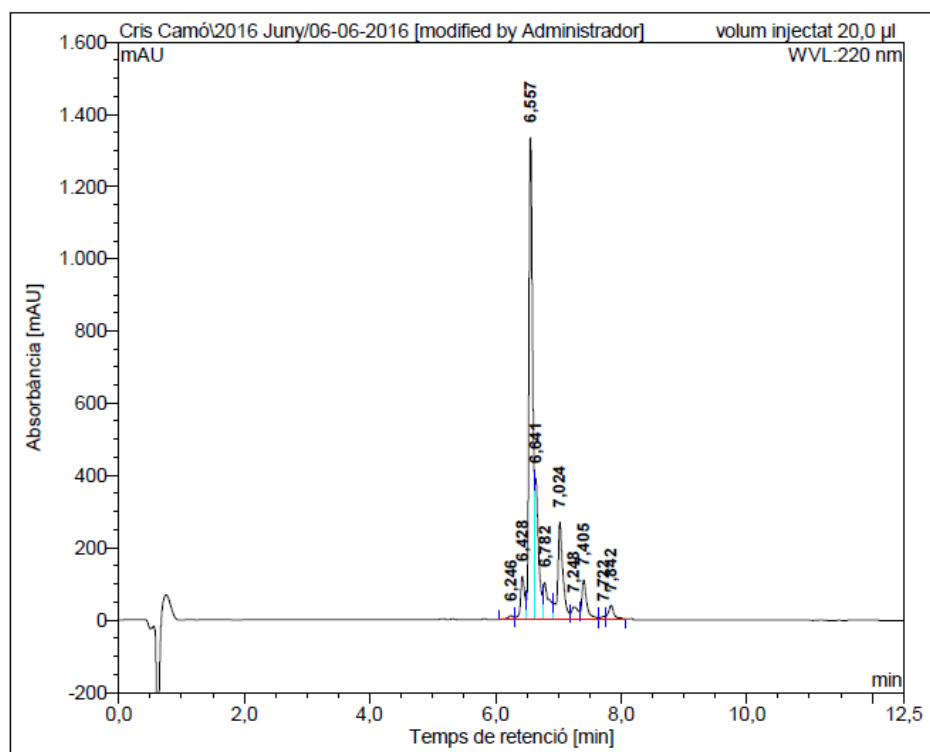


| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₆ H ₁₁₈ N ₁₆ O ₁₂ Na | 1469.9007 | 1469.8973 |
| [M+H] ⁺ | C ₇₆ H ₁₁₉ N ₁₆ O ₁₂ | 1447.9188 | 1447.9158 |
| [M+2Na] ²⁺ | C ₇₆ H ₁₁₈ N ₁₆ O ₁₂ Na ₂ | 746.4450 | 746.4423 |
| [M+H+Na] ²⁺ | C ₇₆ H ₁₁₉ N ₁₆ O ₁₂ Na | 735.4540 | 735.4514 |
| [M+2H] ²⁺ | C ₇₆ H ₁₂₀ N ₁₆ O ₁₂ | 724.4630 | 724.4612 |
| [M+3H] ³⁺ | C ₇₆ H ₁₂₁ N ₁₆ O ₁₂ | 483.3111 | 483.3096 |

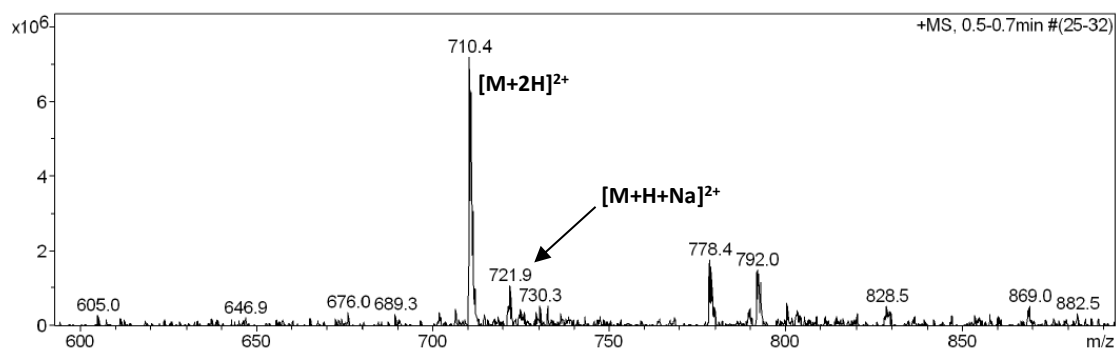
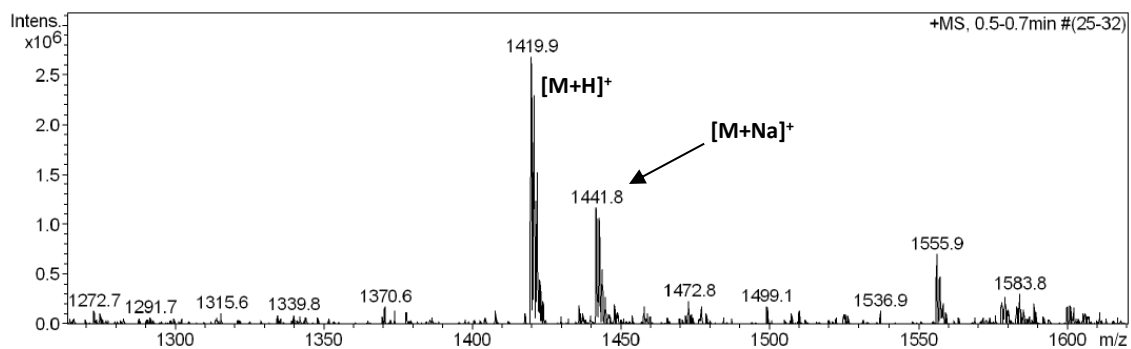
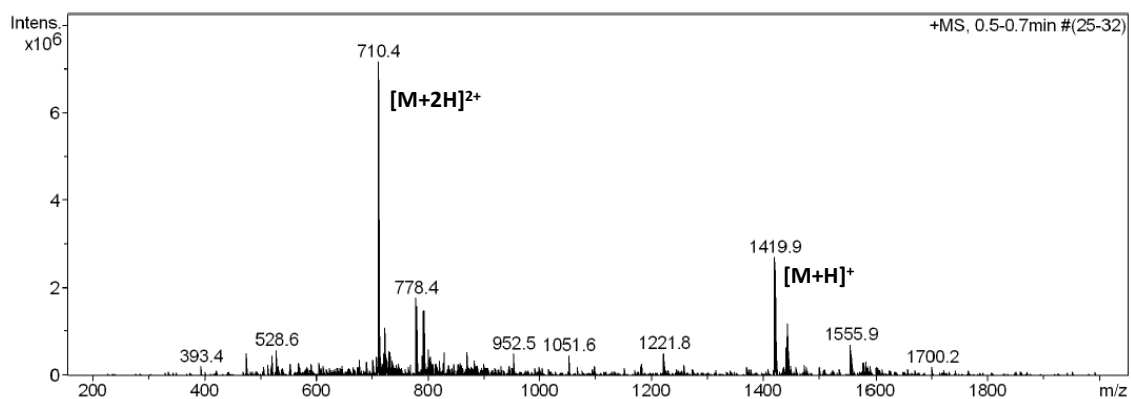
CH₃CO-Lys(CO-C₃H₇)-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP440)

IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-4-LysP10-butíric-703 impur)

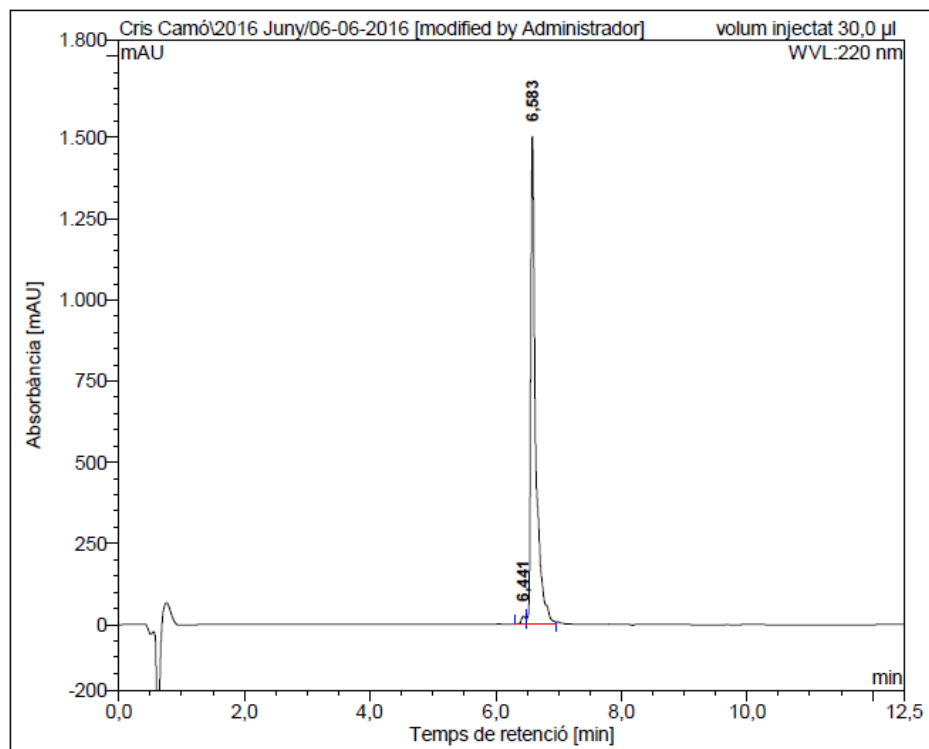


| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,25 | 10,226 | 1,039 | 0,56 |
| 2 | 6,43 | 119,173 | 9,161 | 4,95 |
| 3 | 6,56 | 1336,023 | 92,937 | 50,23 |
| 4 | 6,64 | 390,066 | 25,464 | 13,76 |
| 5 | 6,78 | 102,489 | 10,866 | 5,87 |
| 6 | 7,02 | 268,910 | 26,527 | 14,34 |
| 7 | 7,25 | 34,404 | 4,256 | 2,30 |
| 8 | 7,40 | 109,867 | 9,955 | 5,38 |
| 9 | 7,72 | 8,290 | 0,693 | 0,37 |
| 10 | 7,84 | 39,191 | 4,109 | 2,22 |
| Total: | | 2418,640 | 185,007 | 100,00 |

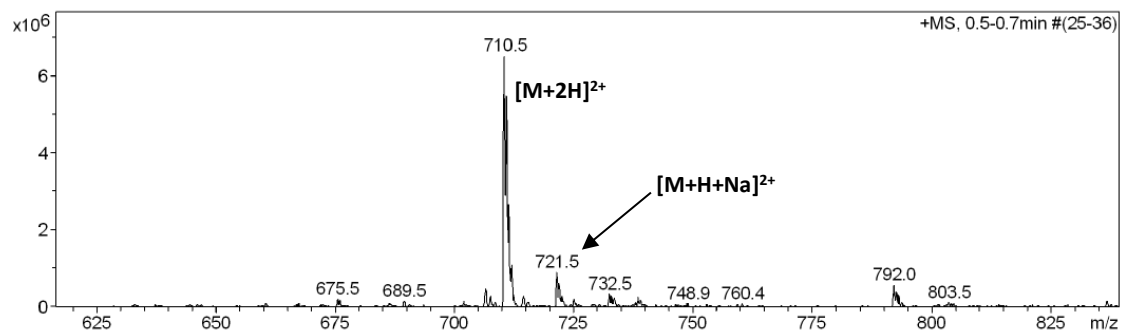
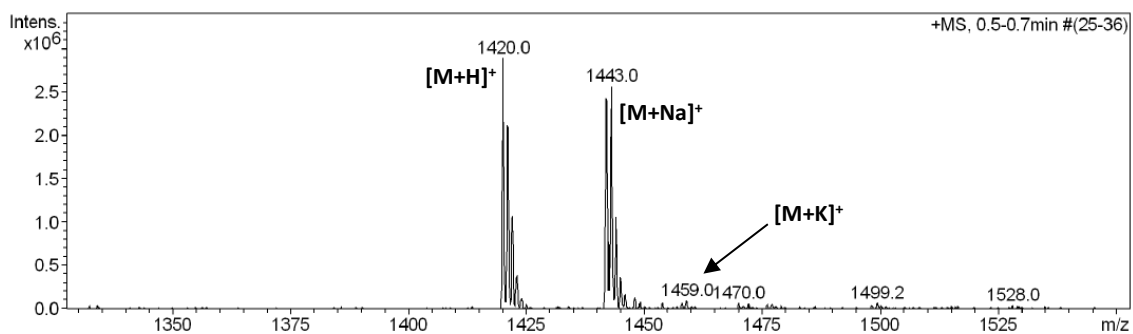
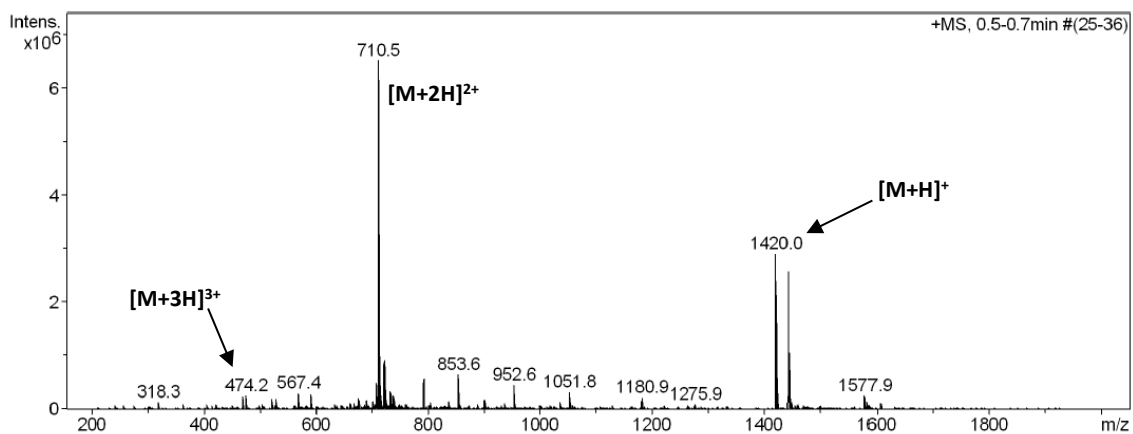
ESI-MS (m/z) (CC-4-LysP10-butiric-560)

| |
|-------------------------|
| $[M+H]^+ = 1419.9$ |
| $[M+Na]^+ = 1441.8$ |
| $[M+2H]^{2+} = 710.4$ |
| $[M+H+Na]^{2+} = 721.9$ |

PURE PRODUCT

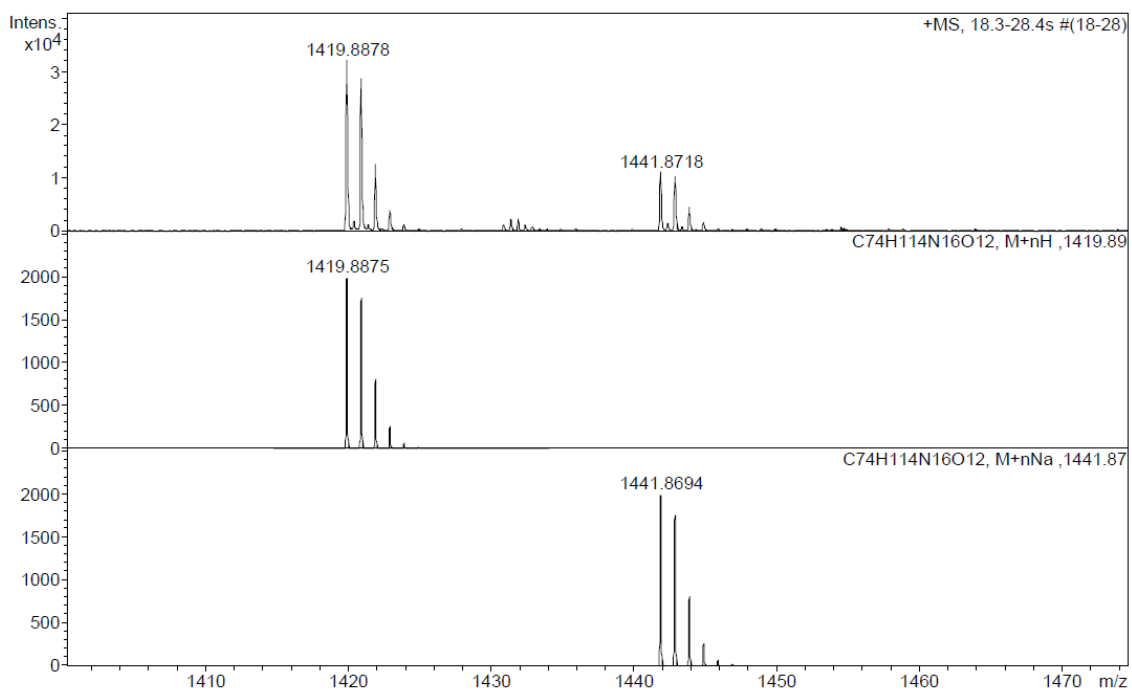
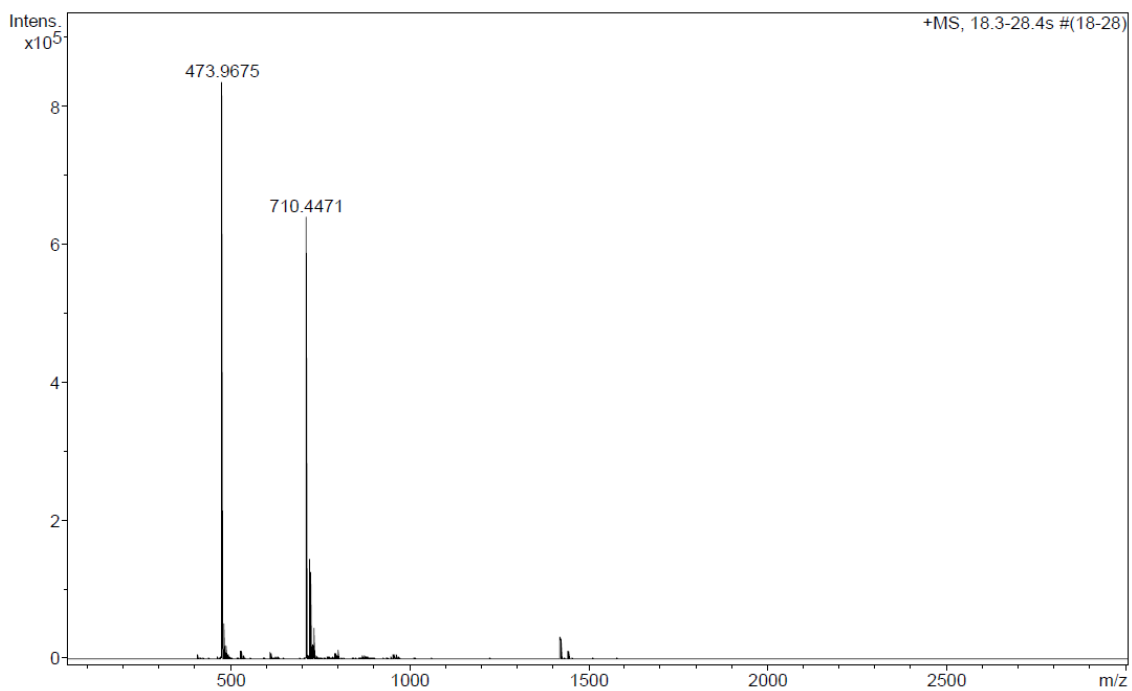
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP10-butíric-703 tub 18)

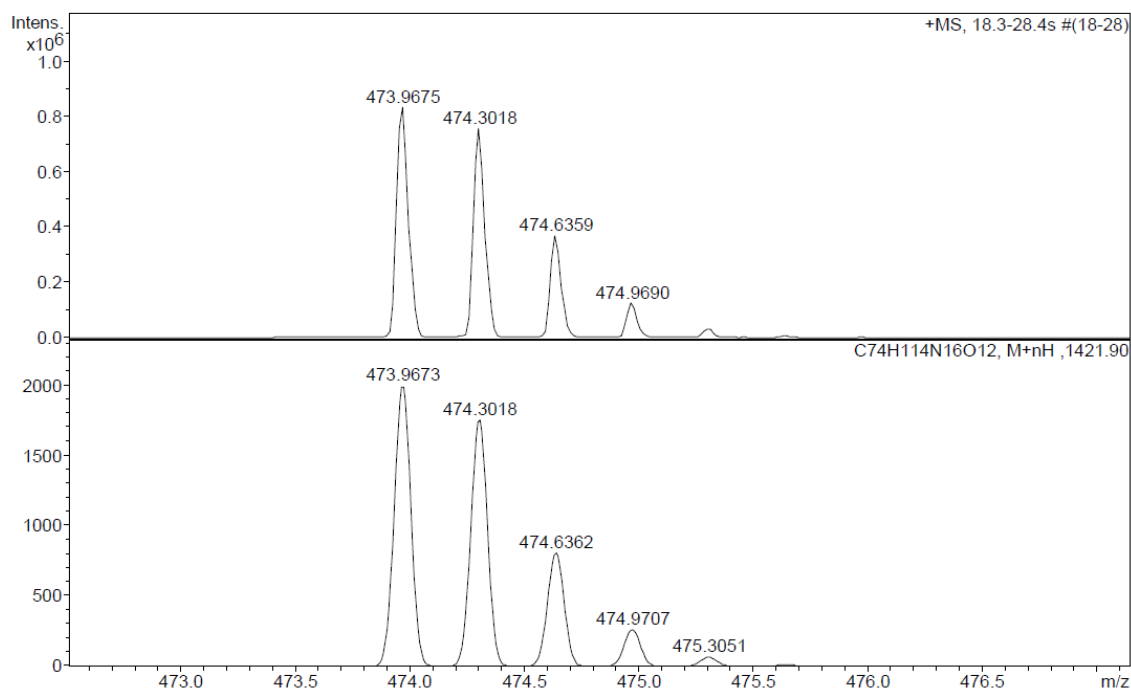
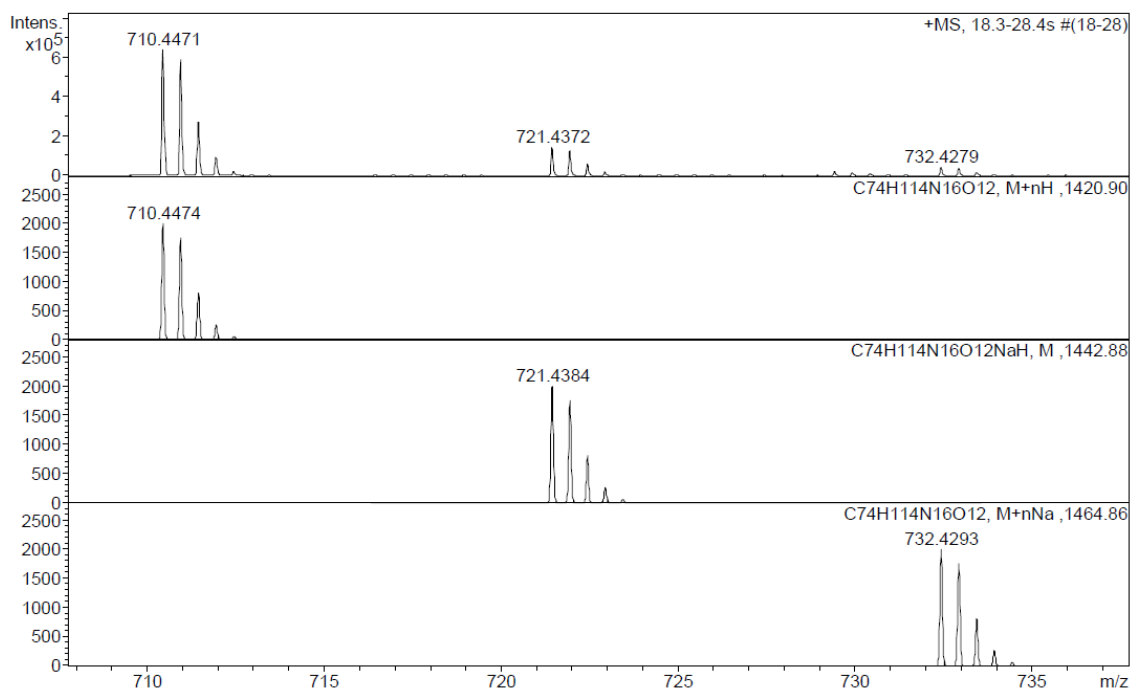
| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,44 | 25,188 | 1,981 | 1,42 |
| 2 | 6,58 | 1501,315 | 137,881 | 98,58 |
| Total: | | 1526,503 | 139,862 | 100,00 |

ESI-MS (m/z) (CC-4-LysP10-butíric-703 tub 18)

| |
|-------------------------|
| $[M+H]^+ = 1420.0$ |
| $[M+Na]^+ = 1442.0$ |
| $[M+K]^+ = 1459.0$ |
| $[M+2H]^{2+} = 710.5$ |
| $[M+H+Na]^{2+} = 721.5$ |
| $[M+3H]^{3+} = 474.2$ |

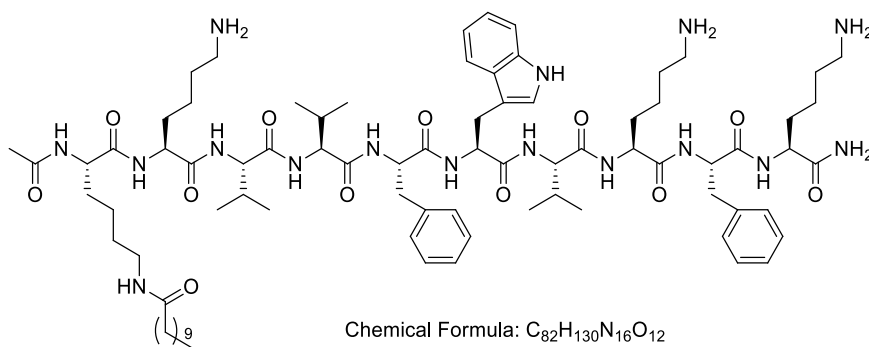
HRMS (m/z) (CC-4-LysP10-butiric-703 tubs 12-18)





| | Molecular formula | Calculated | Found |
|------------------------|--|------------|-----------|
| [M+Na] ⁺ | C ₇₄ H ₁₁₄ N ₁₆ O ₁₂ Na | 1441.8694 | 1441.8718 |
| [M+H] ⁺ | C ₇₄ H ₁₁₅ N ₁₆ O ₁₂ | 1419.8875 | 1419.8878 |
| [M+2Na] ²⁺ | C ₇₄ H ₁₁₄ N ₁₆ O ₁₂ Na ₂ | 732.4293 | 732.4279 |
| [M+H+Na] ²⁺ | C ₇₄ H ₁₁₅ N ₁₆ O ₁₂ Na | 721.4384 | 721.4372 |
| [M+2H] ²⁺ | C ₇₄ H ₁₁₆ N ₁₆ O ₁₂ | 710.4474 | 710.4471 |
| [M+3H] ³⁺ | C ₇₄ H ₁₁₇ N ₁₆ O ₁₂ | 473.9673 | 473.9675 |

CH₃CO-Lys(CO-C₁₁H₂₃)-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP441**)



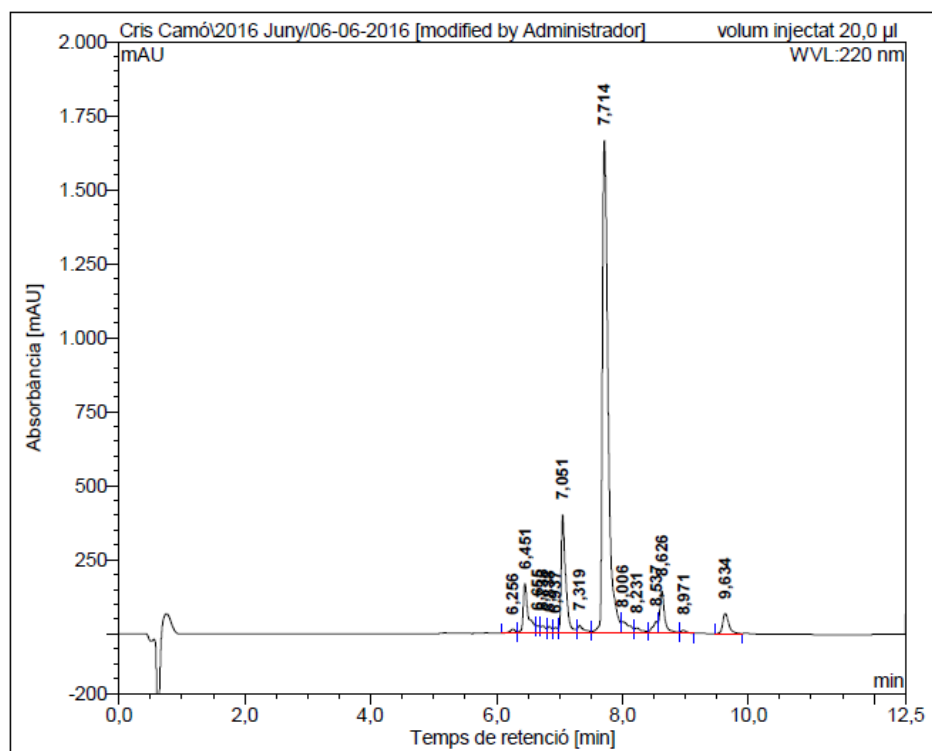
Chemical Formula: C₈₂H₁₃₀N₁₆O₁₂

Exact Mass: 1531,0054

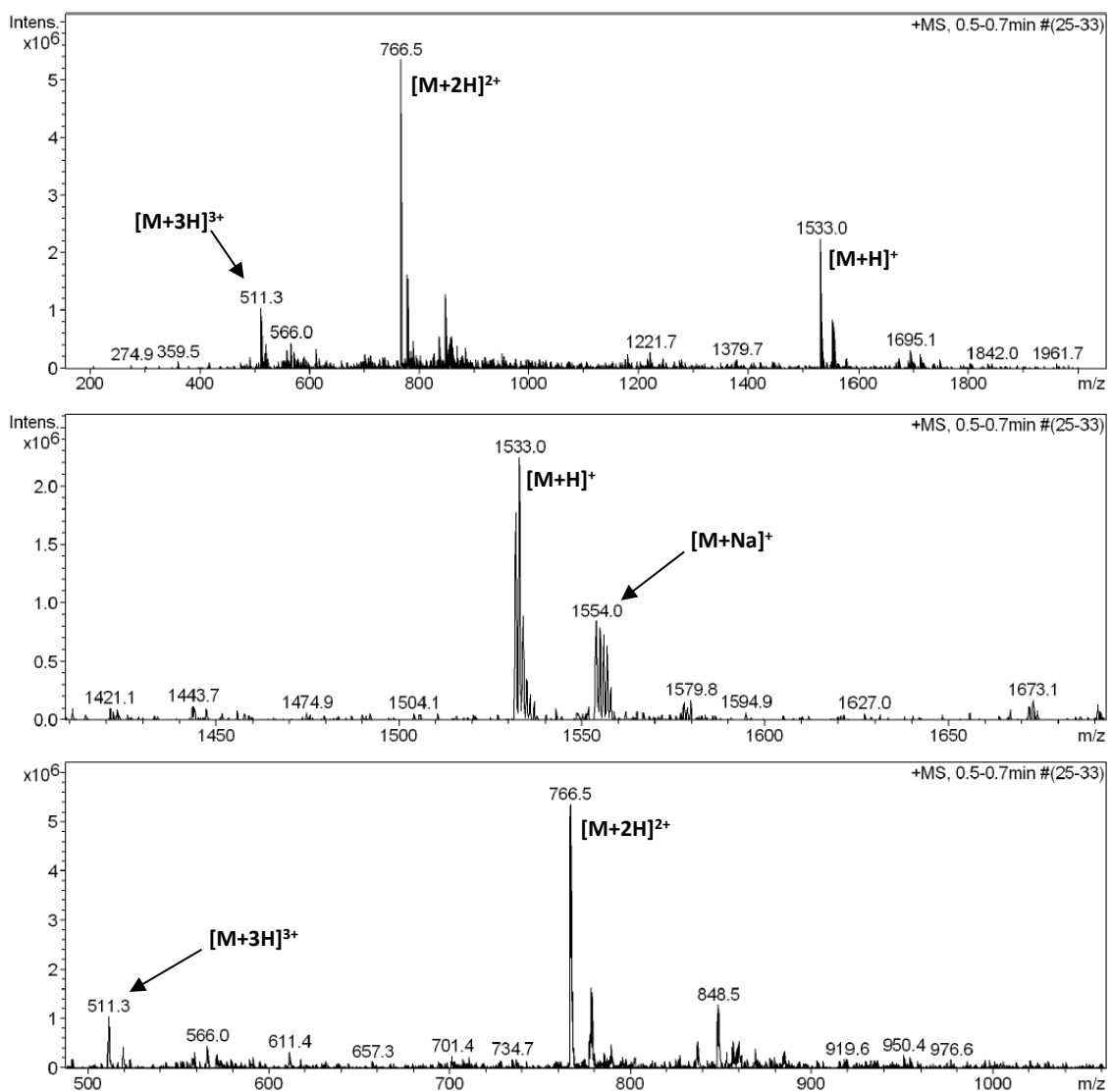
Molecular Weight: 1532,0096

IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-4-LysP10-làuric-705 impur)

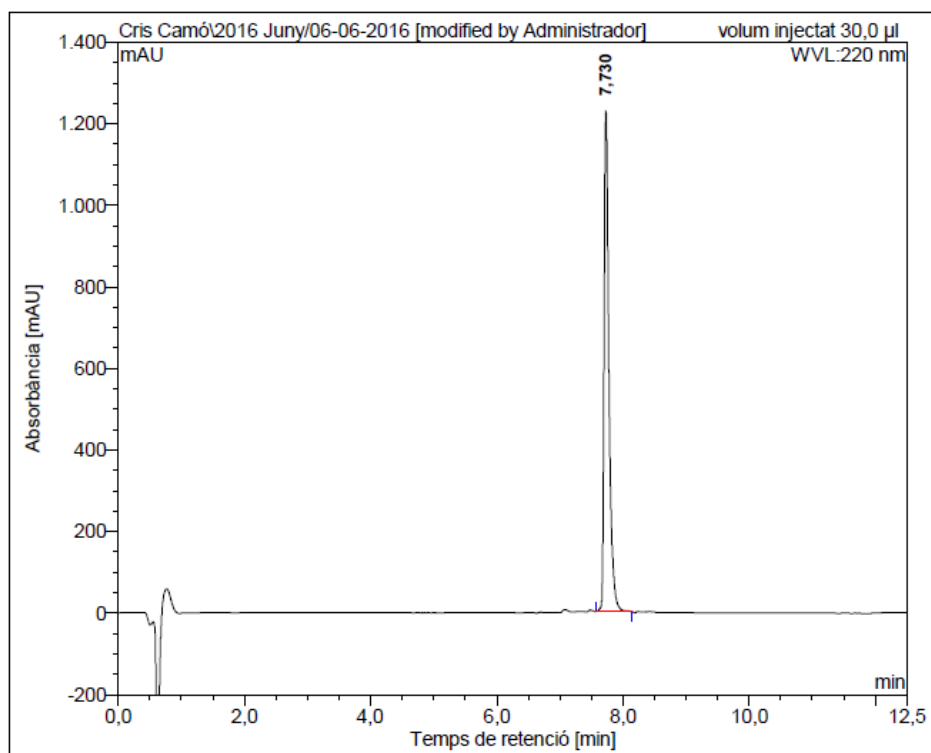


| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 14,286 | 1,449 | 0,53 |
| 2 | 6,45 | 167,378 | 16,139 | 5,89 |
| 3 | 6,66 | 25,827 | 1,537 | 0,56 |
| 4 | 6,74 | 25,580 | 2,259 | 0,83 |
| 5 | 6,84 | 23,816 | 1,881 | 0,69 |
| 6 | 6,94 | 19,382 | 1,645 | 0,60 |
| 7 | 7,05 | 399,464 | 33,892 | 12,38 |
| 8 | 7,32 | 25,920 | 3,403 | 1,24 |
| 9 | 7,71 | 1663,944 | 177,236 | 64,72 |
| 10 | 8,01 | 38,788 | 6,105 | 2,23 |
| 11 | 8,23 | 18,489 | 2,591 | 0,95 |
| 12 | 8,54 | 40,098 | 3,649 | 1,33 |
| 13 | 8,63 | 142,697 | 13,239 | 4,83 |
| 14 | 8,97 | 10,434 | 1,042 | 0,38 |
| 15 | 9,63 | 69,278 | 7,770 | 2,84 |
| Total: | | 2685,383 | 273,837 | 100,00 |

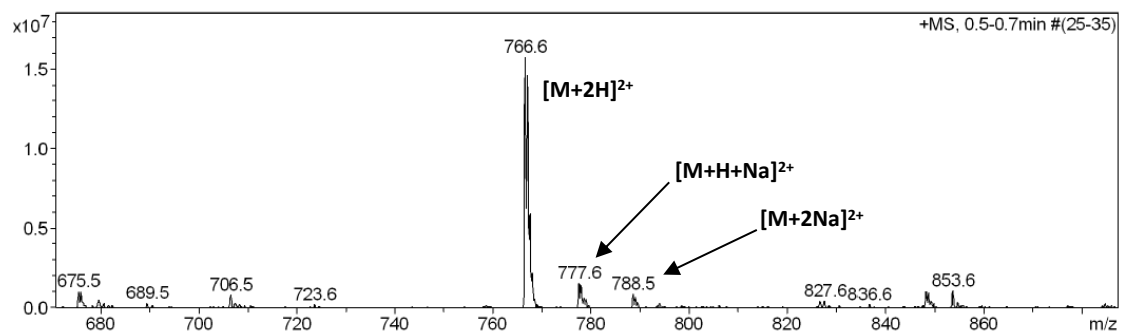
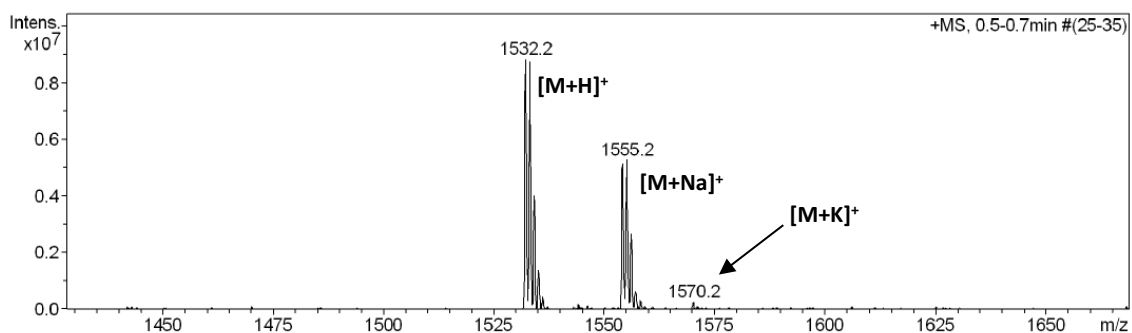
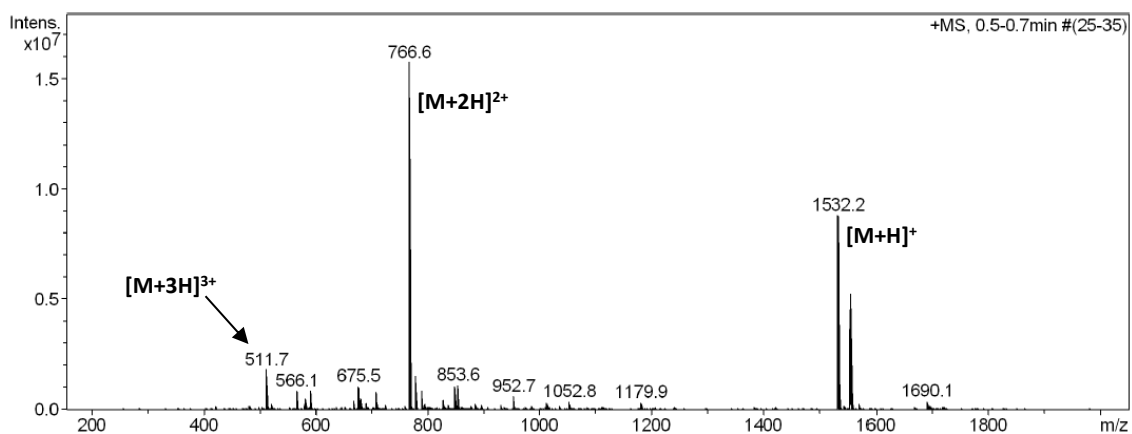
ESI-MS (m/z) (CC-4-LysP10-làuric-560)

| |
|-----------------------|
| $[M+H]^+ = 1532.0$ |
| $[M+Na]^+ = 1554.0$ |
| $[M+2H]^{2+} = 766.5$ |
| $[M+3H]^{3+} = 511.3$ |

PURE PRODUCT

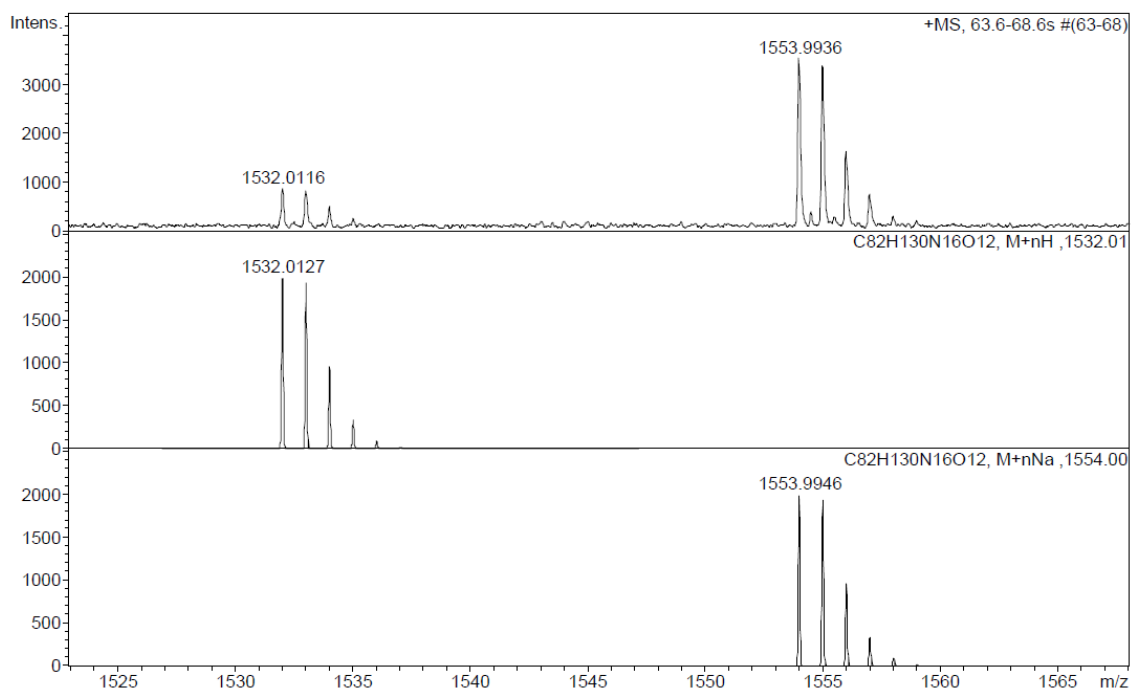
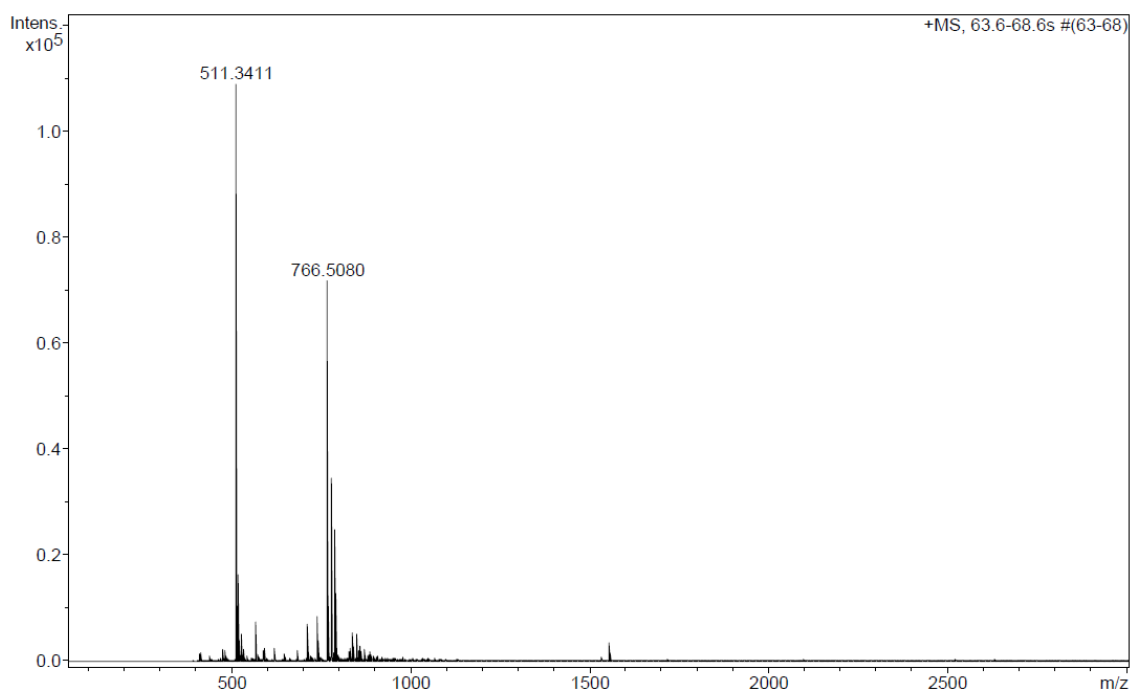
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-LysP10-lauric-705 tub 29)

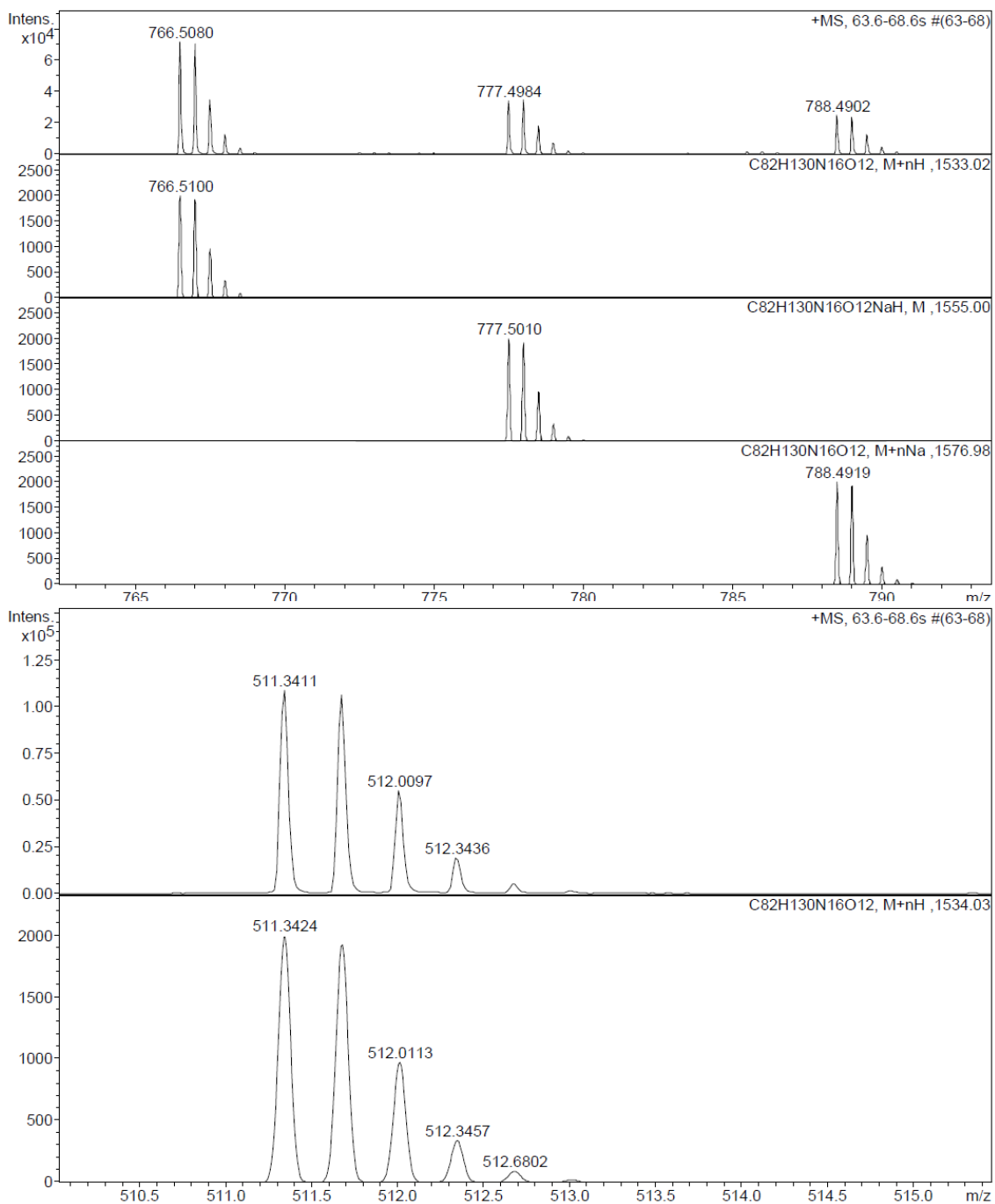
| No. | mps retenc min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-------------------|---------------|-----------------|--------------------|
| 1 | 7,73 | 1227,904 | 108,415 | 100,00 |
| Total: | | 1227,904 | 108,415 | 100,00 |

ESI-MS (m/z) (CC-4-LysP10-lauric-705 tub 29)

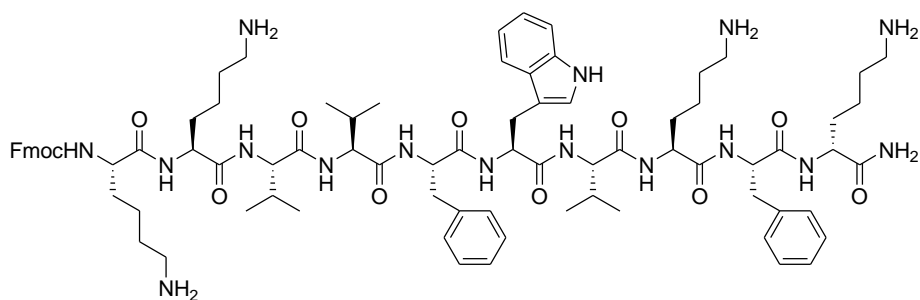
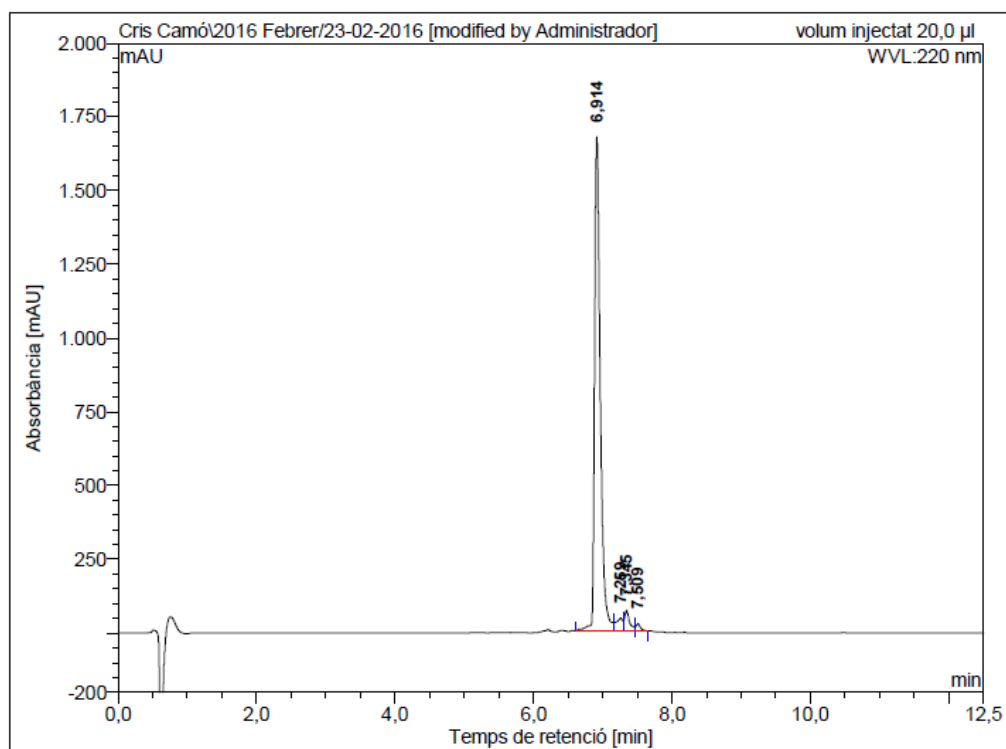
| |
|-------------------------|
| $[M+H]^+ = 1532.2$ |
| $[M+Na]^+ = 1554.2$ |
| $[M+K]^+ = 1570.2$ |
| $[M+2H]^{2+} = 766.6$ |
| $[M+H+Na]^{2+} = 777.6$ |
| $[M+2Na]^{2+} = 788.5$ |
| $[M+3H]^{3+} = 511.7$ |

HRMS (m/z) (CC-4-LysP10-lauric-705 tubs 23-31)

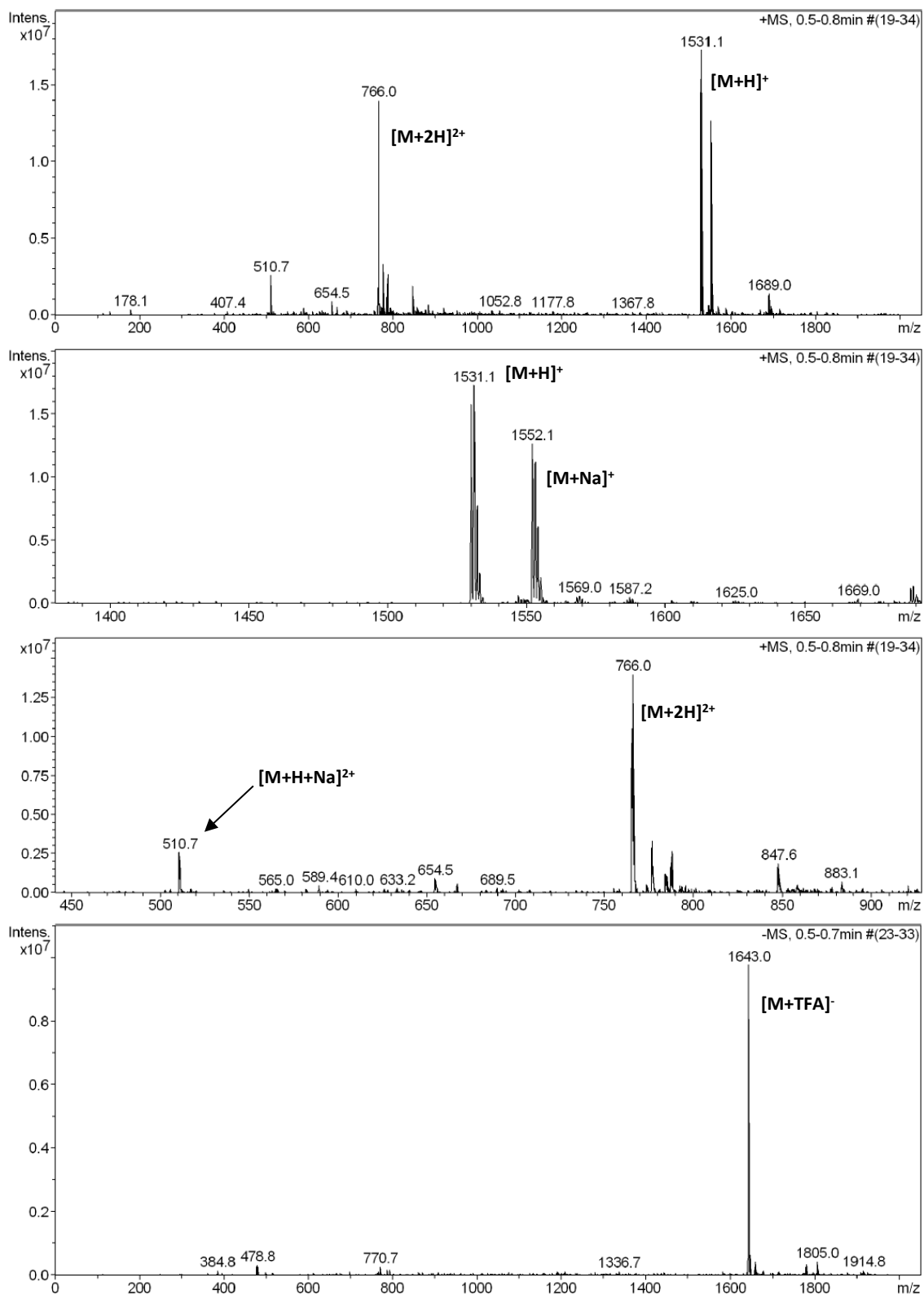


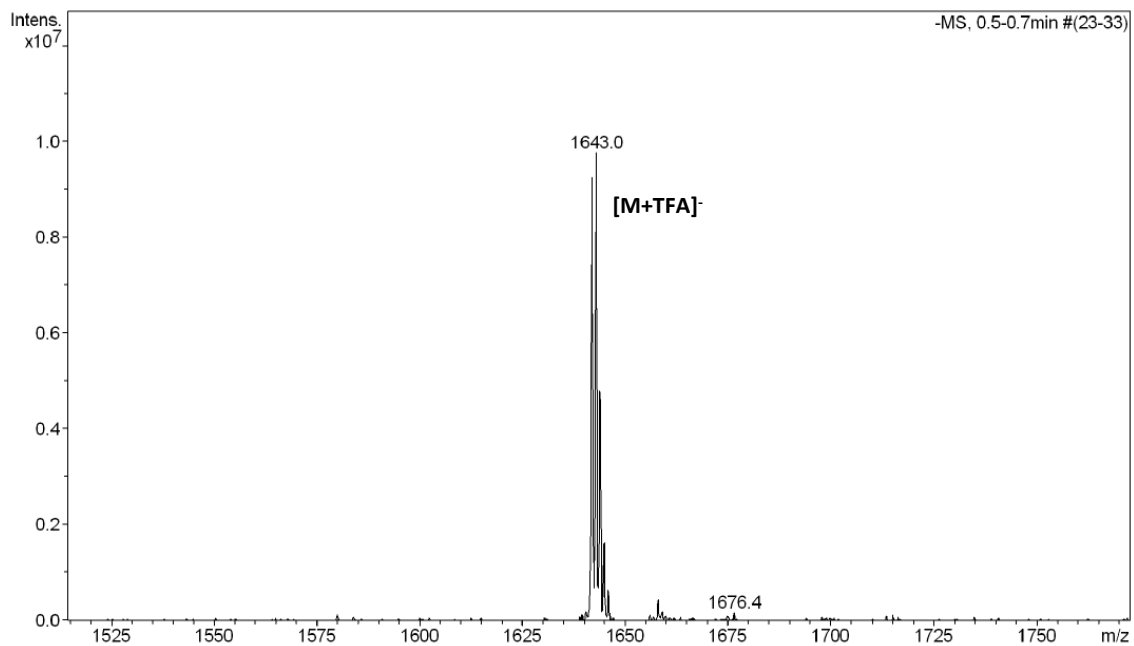


| | Molecular formula | Calculated | Found |
|-----------------|---------------------------------|------------|-----------|
| $[M+Na]^+$ | $C_{82}H_{130}N_{16}O_{12}Na$ | 1553.9946 | 1553.9936 |
| $[M+H]^+$ | $C_{82}H_{131}N_{16}O_{12}$ | 1532.0127 | 1532.0116 |
| $[M+2Na]^{2+}$ | $C_{82}H_{130}N_{16}O_{12}Na_2$ | 788.4919 | 788.4902 |
| $[M+H+Na]^{2+}$ | $C_{82}H_{131}N_{16}O_{12}Na$ | 777.5010 | 777.4984 |
| $[M+2H]^{2+}$ | $C_{82}H_{132}N_{16}O_{12}$ | 766.5100 | 766.5080 |
| $[M+3H]^{3+}$ | $C_{82}H_{133}N_{16}O_{12}$ | 511.3424 | 511.3411 |

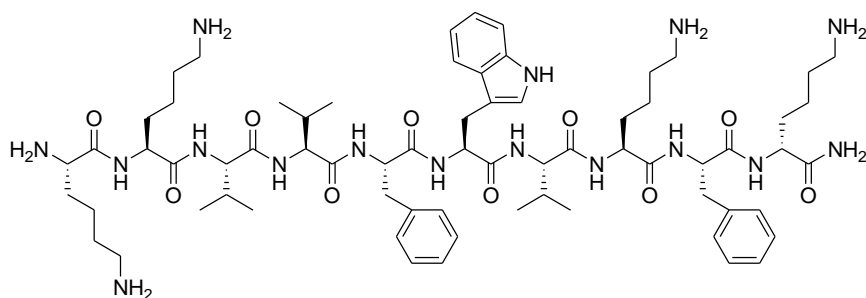
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-D-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d1-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,91 | 1674,122 | 161,275 | 92,75 |
| 2 | 7,26 | 44,068 | 4,635 | 2,67 |
| 3 | 7,34 | 70,065 | 6,066 | 3,49 |
| 4 | 7,51 | 23,929 | 1,907 | 1,10 |
| Total: | | 1812,184 | 173,883 | 100,00 |

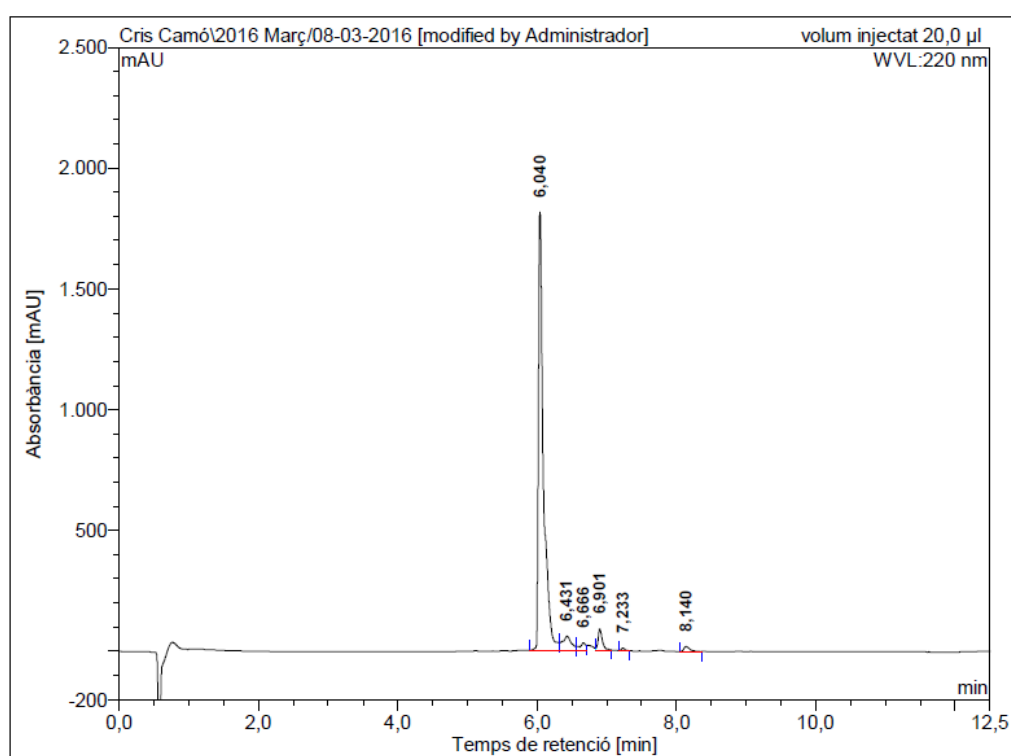
ESI-MS (*m/z*) (CC-4-d1-582)



| |
|-------------------------------|
| [M+H] ⁺ = 1530.1 |
| [M+Na] ⁺ = 1552.1 |
| [M+2H] ²⁺ = 765.5 |
| [M+3H] ³⁺ = 510.8 |
| [M+TFA] ⁻ = 1642.0 |

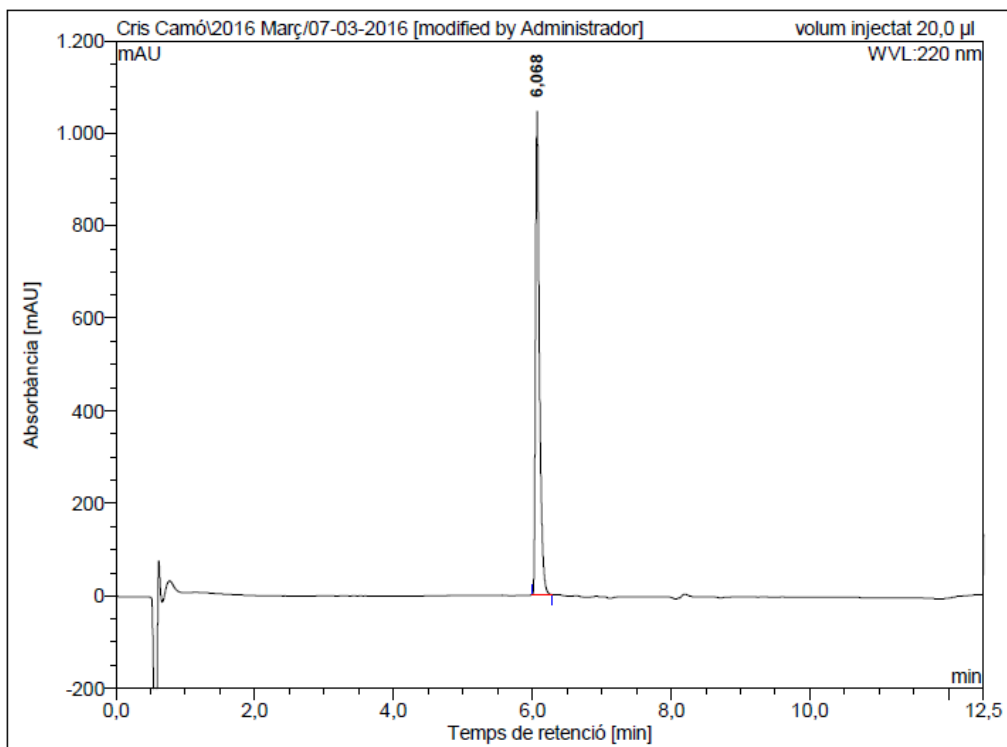
Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-D-Lys-NH₂ (**BP442**) (CC-4-d1)

IMPURE PRODUCT

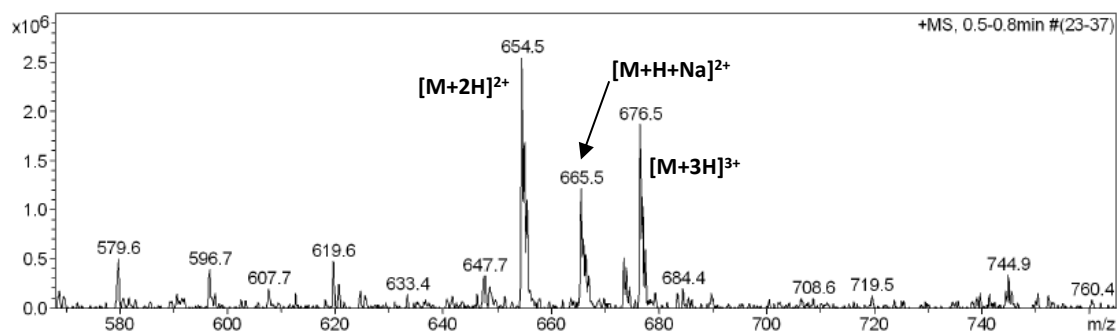
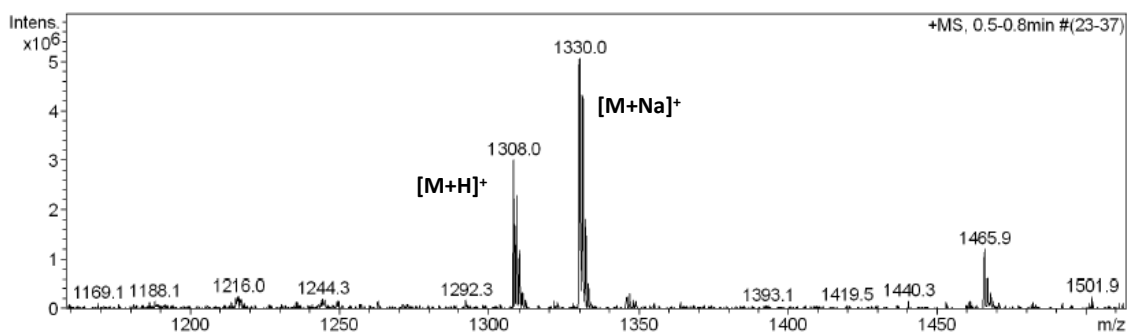
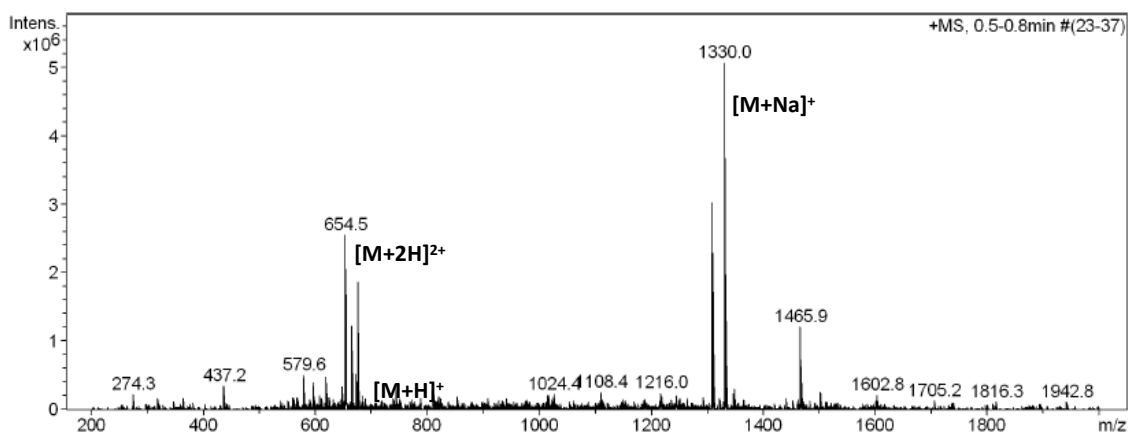
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d1-597 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,04 | 1813,760 | 152,706 | 88,18 |
| 2 | 6,43 | 58,291 | 8,872 | 5,12 |
| 3 | 6,67 | 31,214 | 2,990 | 1,73 |
| 4 | 6,90 | 86,807 | 6,001 | 3,46 |
| 5 | 7,23 | 9,912 | 0,551 | 0,32 |
| 6 | 8,14 | 20,556 | 2,064 | 1,19 |
| Total: | | 2020,540 | 173,184 | 100,00 |

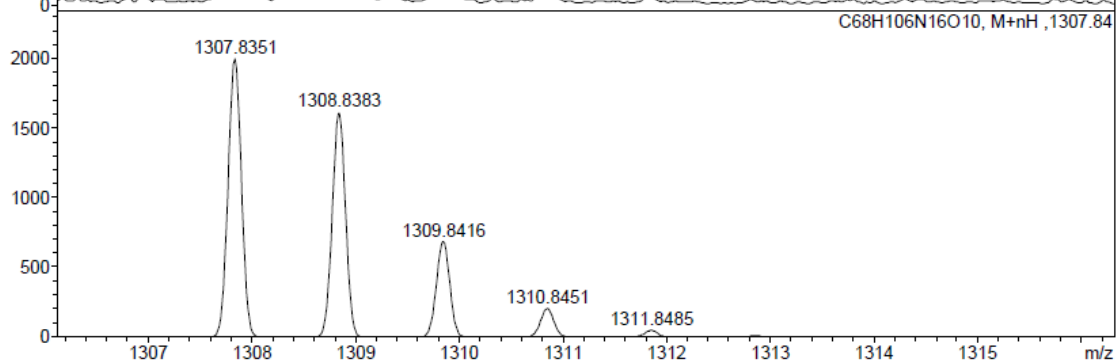
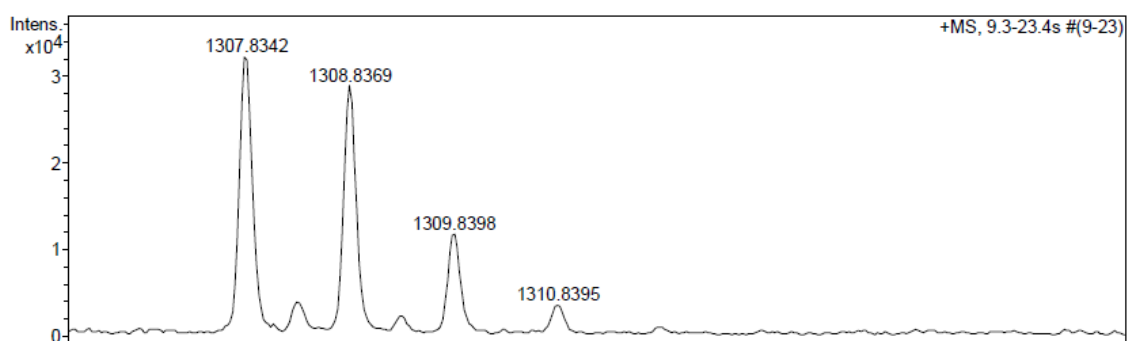
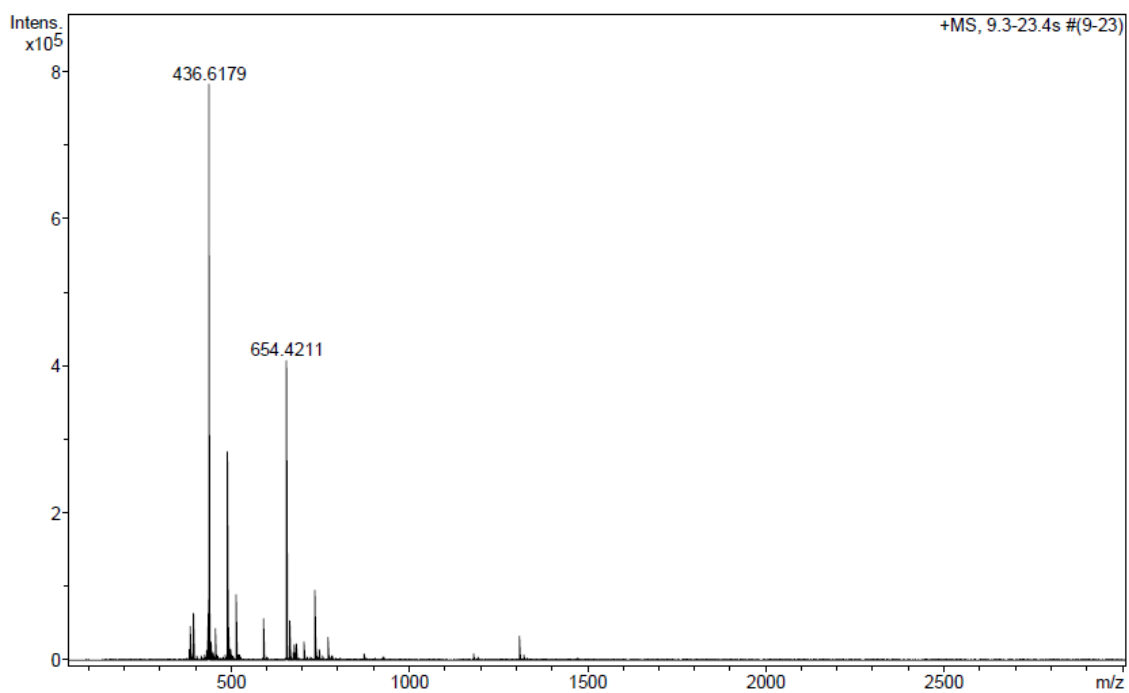
PURE PRODUCT

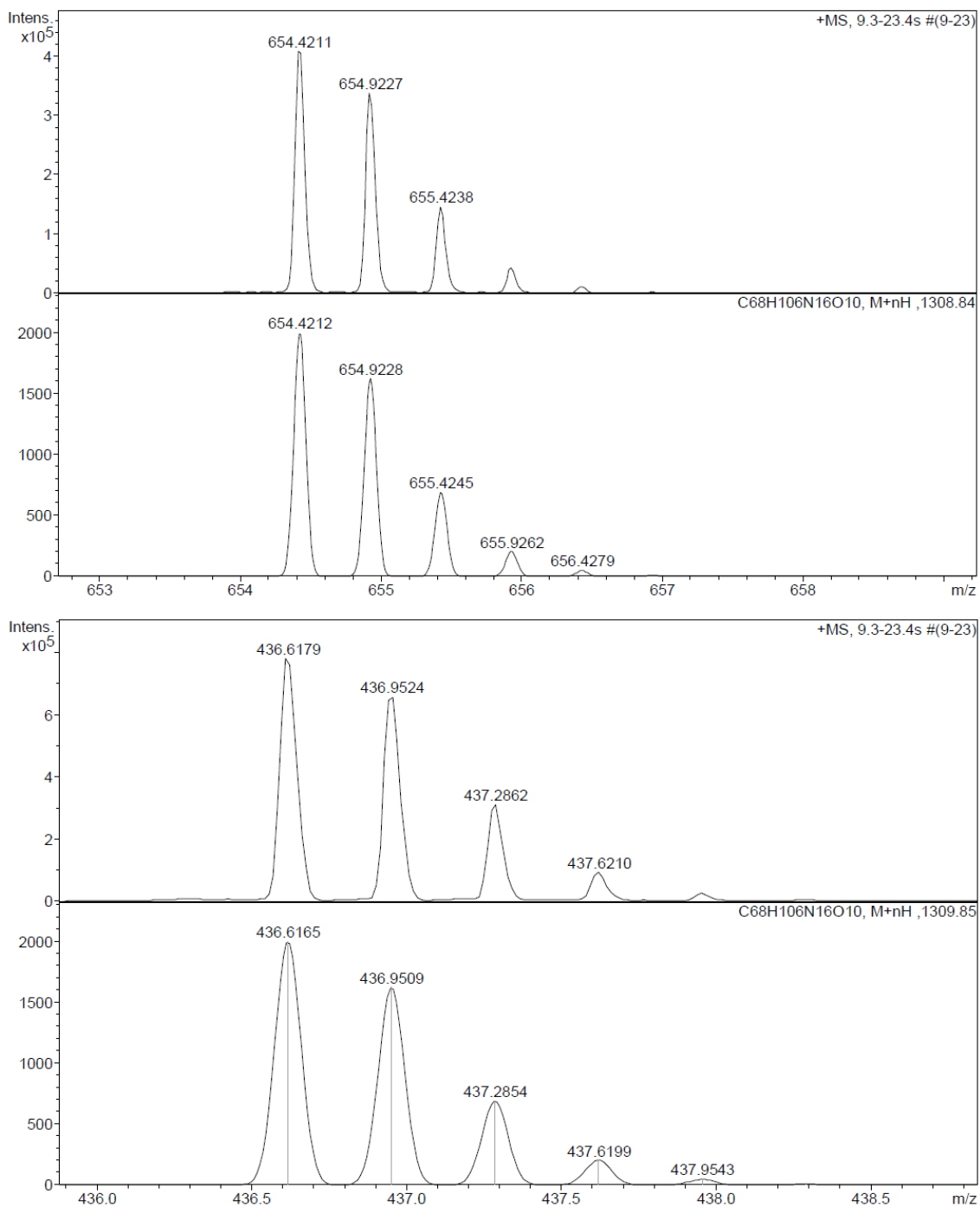
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d1-597 tub 15)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,07 | 1044,711 | 67,738 | 100,00 |
| Total: | | 1044,711 | 67,738 | 100,00 |

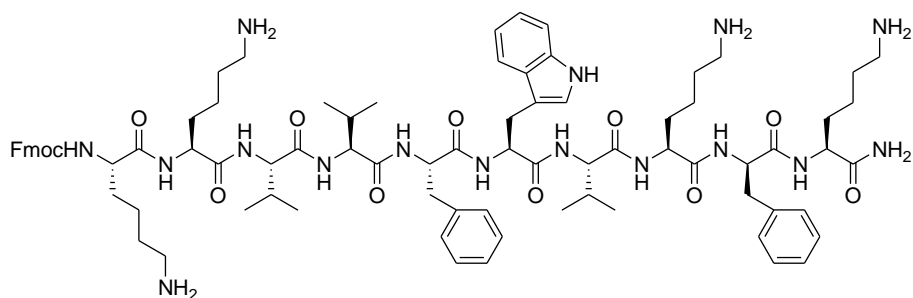
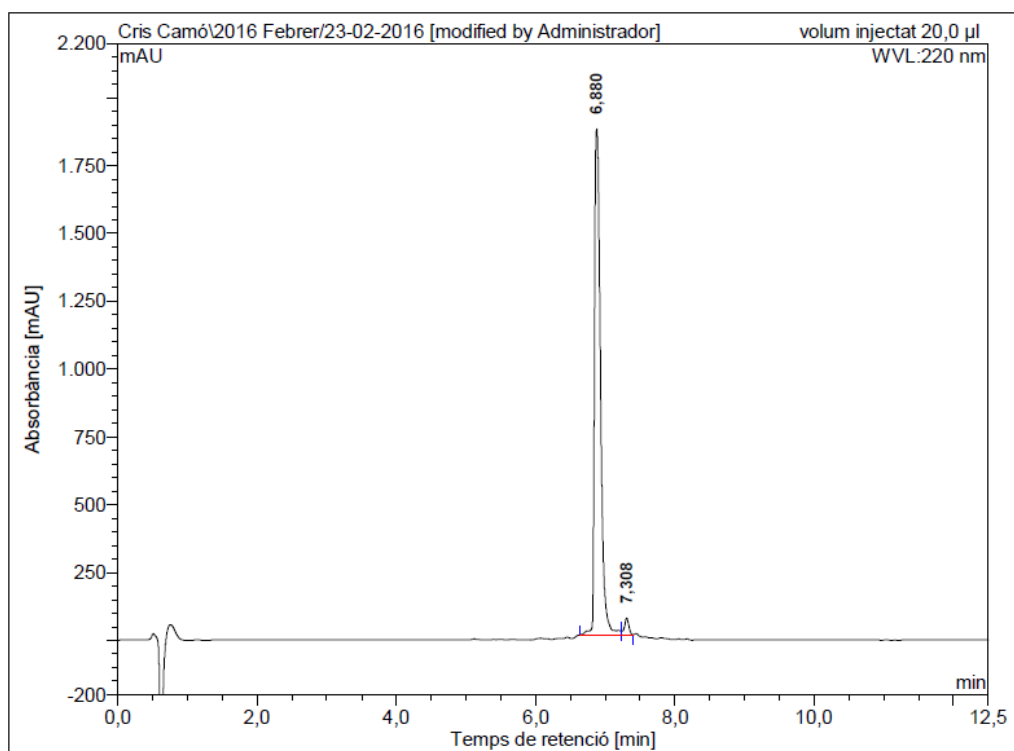
ESI-MS (m/z) (CC-4-d1-597 tub 15)

| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+H+Na]^{2+} = 665.5$ |
| $[M+3H]^{3+} = 437.2$ |

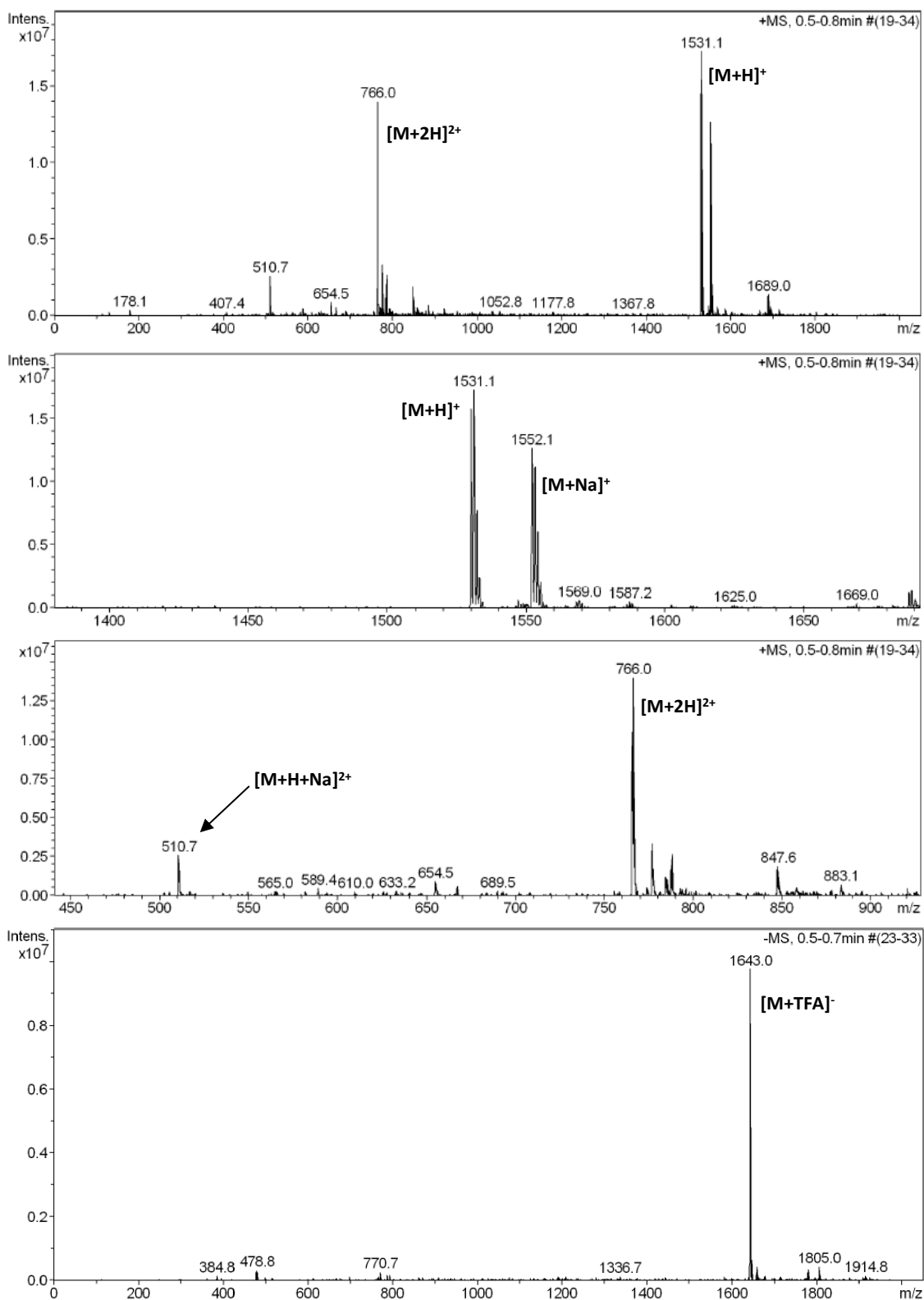
HRMS (ESI) (m/z) (CC-4-d1-597 tubs 13-19)

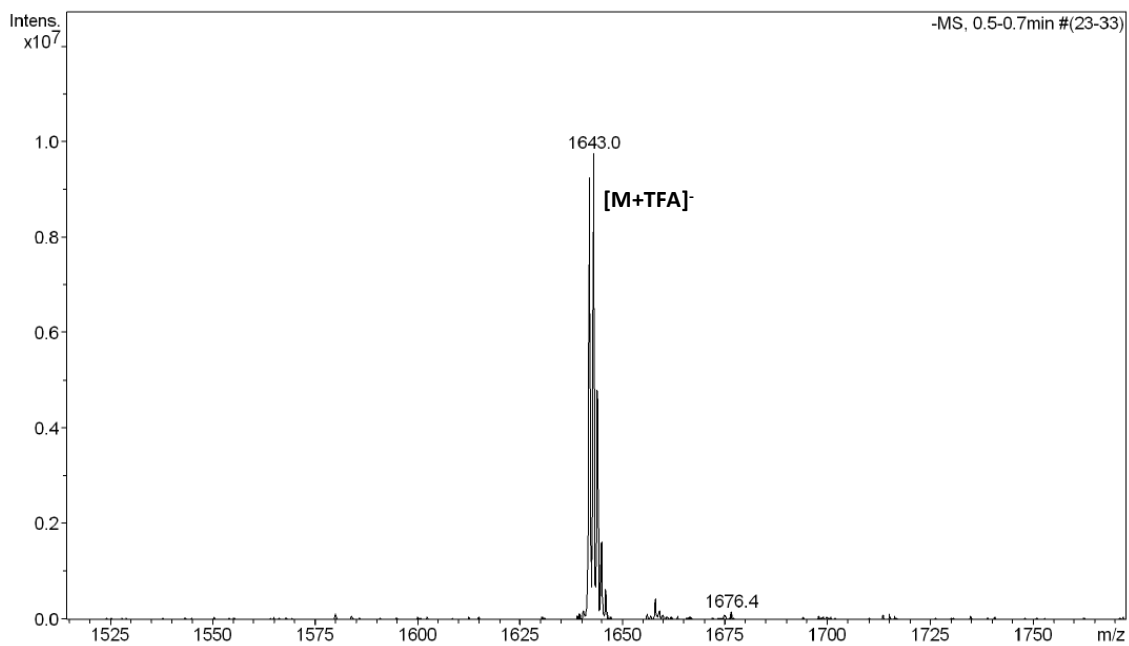


| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{68}H_{107}N_{16}O_{10}$ | 1307.8351 | 1307.8342 |
| $[M+2H]^{2+}$ | $C_{68}H_{108}N_{16}O_{10}$ | 654.4212 | 654.4211 |
| $[M+3H]^{3+}$ | $C_{68}H_{109}N_{16}O_{10}$ | 436.6165 | 436.6179 |

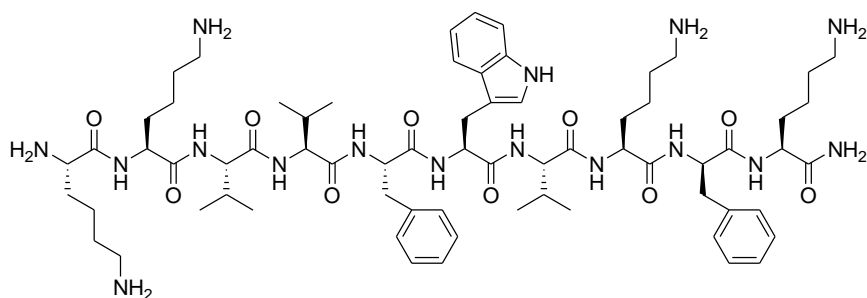
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-D-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d2-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,88 | 1864,150 | 185,621 | 97,69 |
| 2 | 7,31 | 61,520 | 4,399 | 2,31 |
| Total: | | 1925,670 | 190,019 | 100,00 |

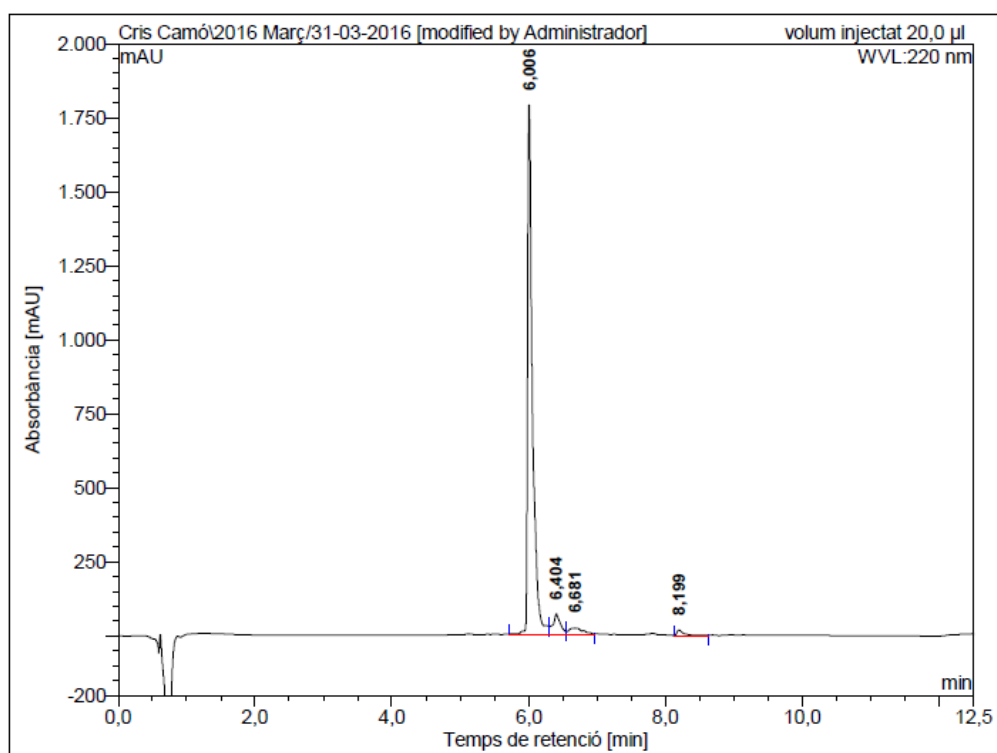
ESI-MS (m/z) (CC-4-d2-582)



| |
|-----------------------|
| $[M+H]^+ = 1531.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+2H]^{2+} = 766.0$ |
| $[M+3H]^{3+} = 510.7$ |
| $[M+TFA]^- = 1642.0$ |

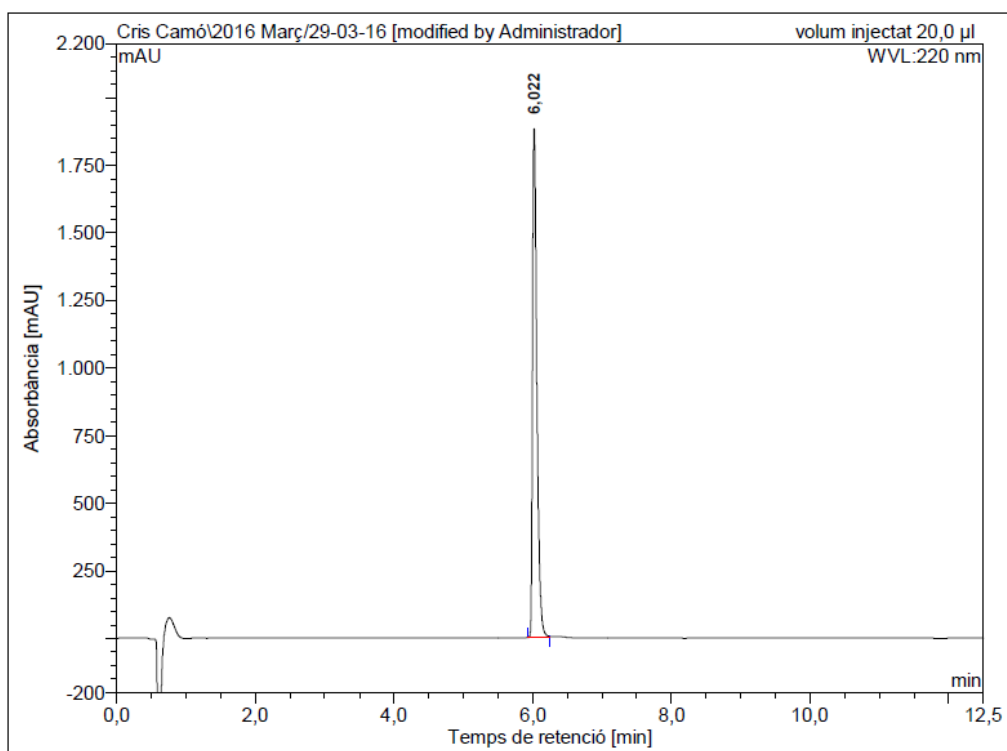
Lys-Lys-Val-Val-Phe-Trp-Val-Lys-D-Phe-Lys-NH₂ (**BP443**) (CC-4-d2)

IMPURE PRODUCT

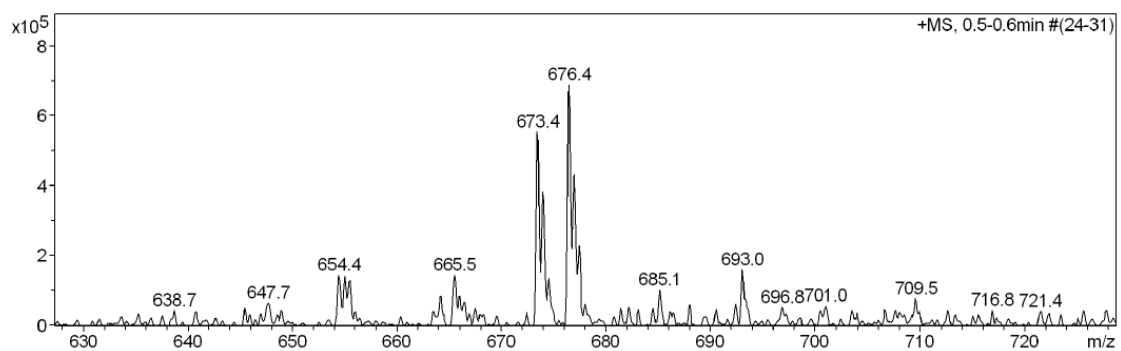
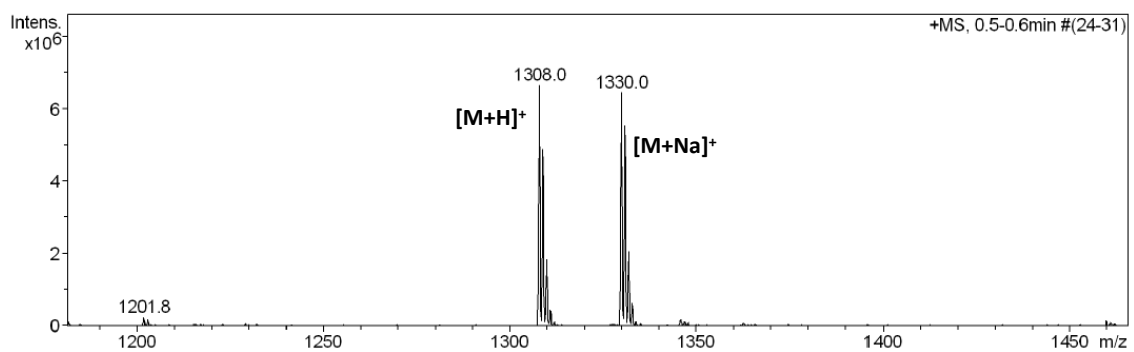
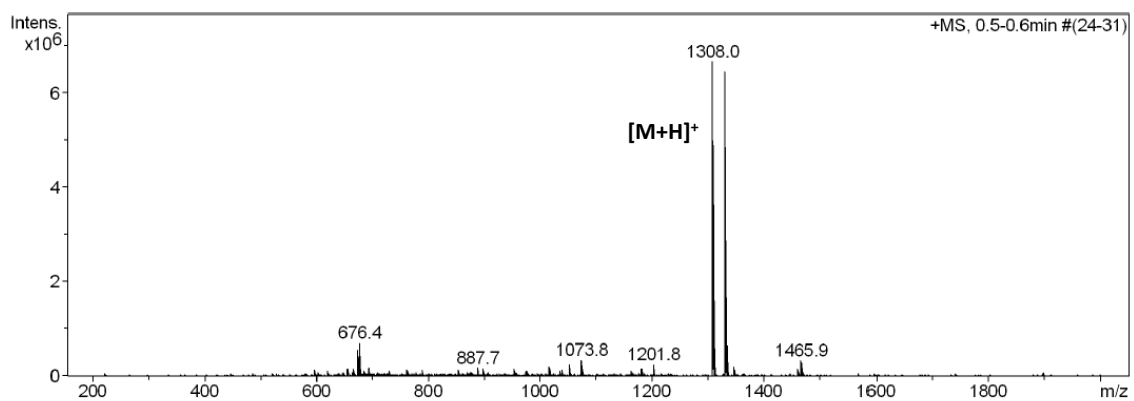
HPLC ($\lambda = 220$ nm)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,01 | 1787,319 | 148,612 | 90,14 |
| 2 | 6,40 | 68,413 | 8,712 | 5,28 |
| 3 | 6,68 | 20,429 | 4,980 | 3,02 |
| 4 | 8,20 | 19,012 | 2,563 | 1,55 |
| Total: | | 1895,173 | 164,867 | 100,00 |

PURE PRODUCT

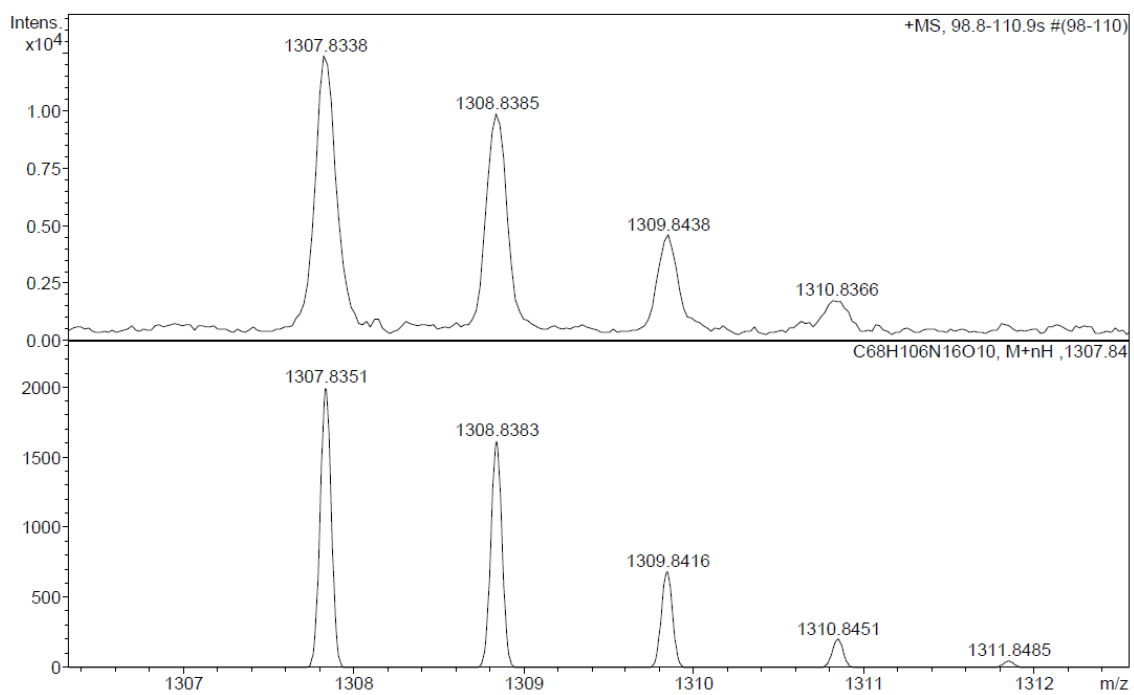
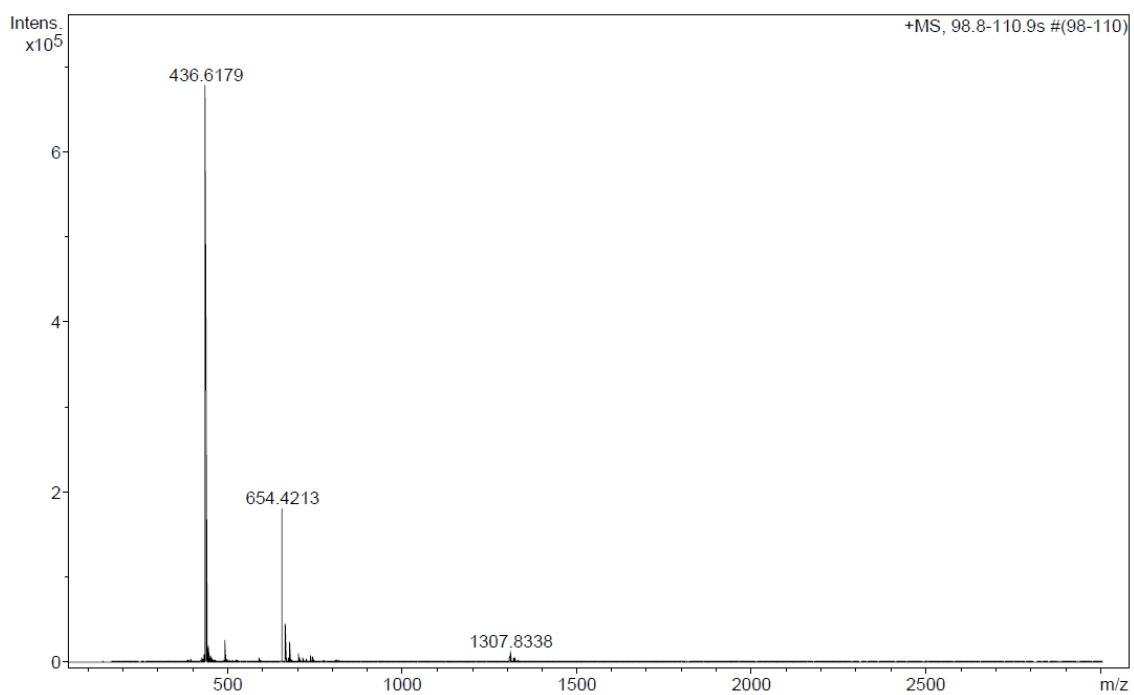
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d2-611 tub 15)

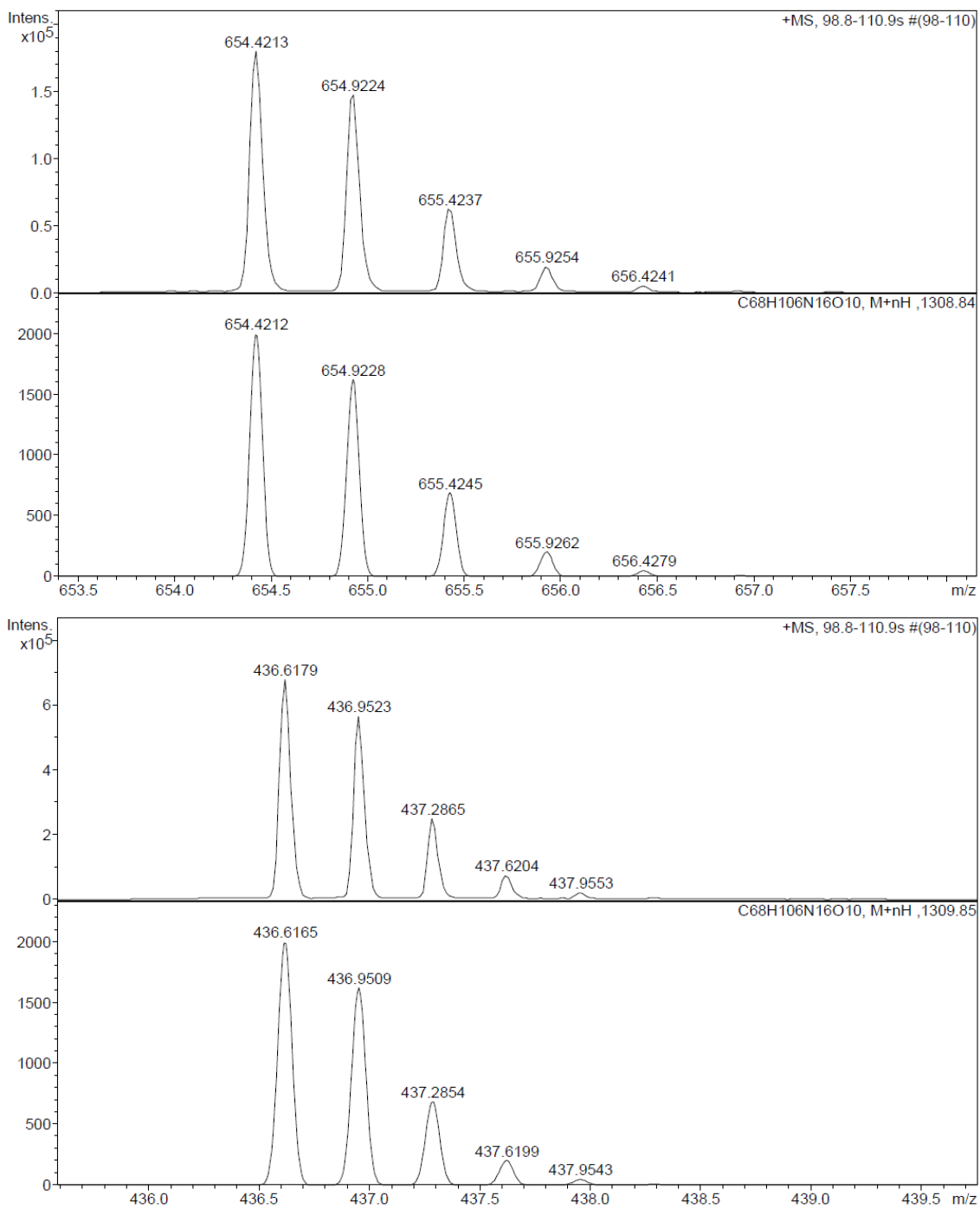
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,02 | 1881,343 | 135,964 | 100,00 |
| Total: | | 1881,343 | 135,964 | 100,00 |

ESI-MS (m/z) (CC-4-d2-611 tub 15)

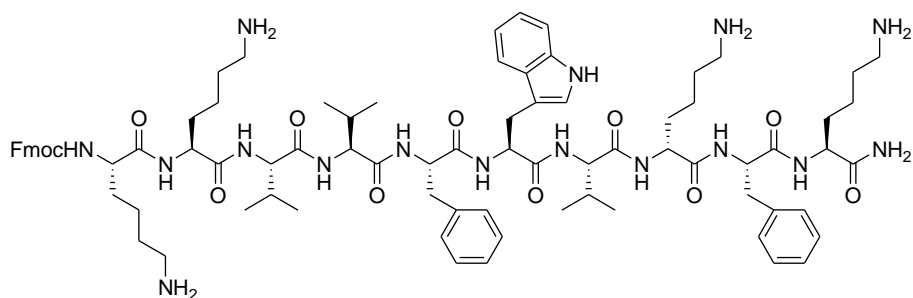
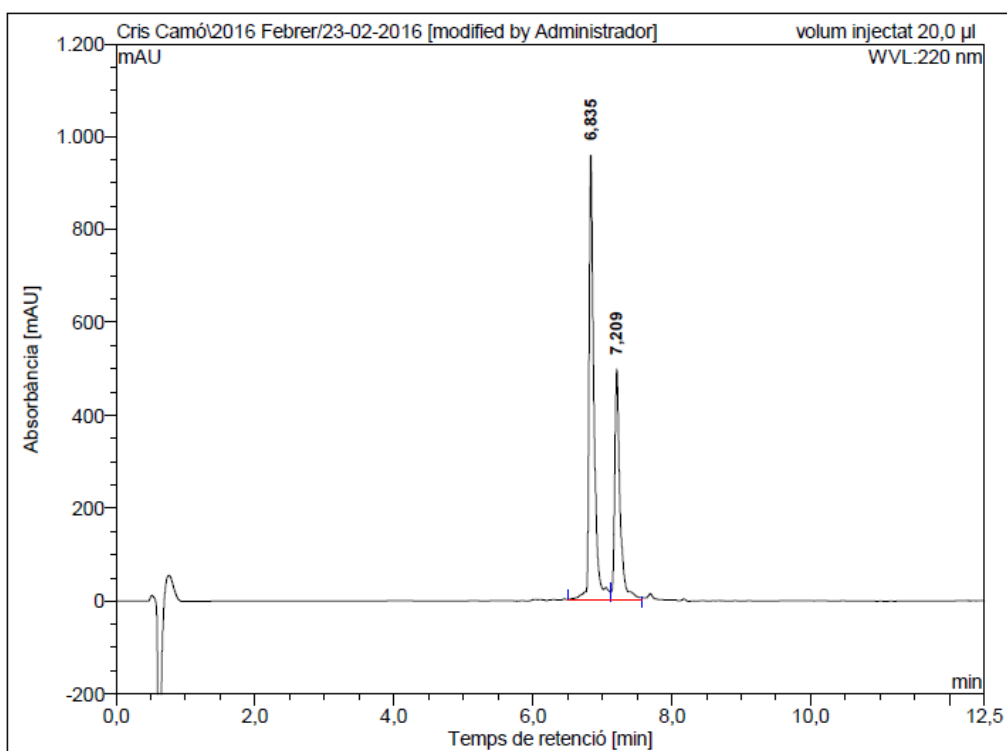
| |
|-----------------------------|
| [M+H] ⁺ = 1308.0 |
|-----------------------------|

| |
|------------------------------|
| [M+Na] ⁺ = 1330.0 |
|------------------------------|

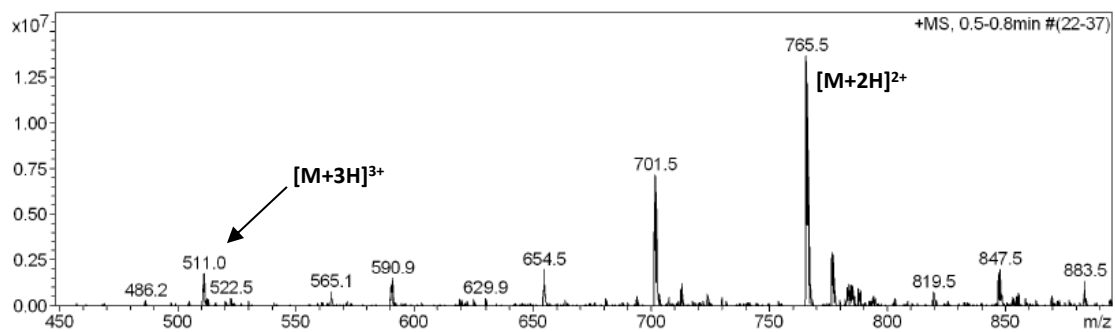
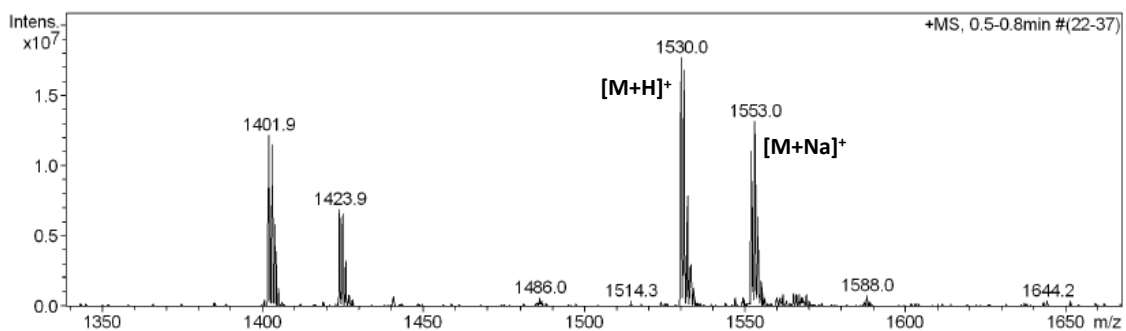
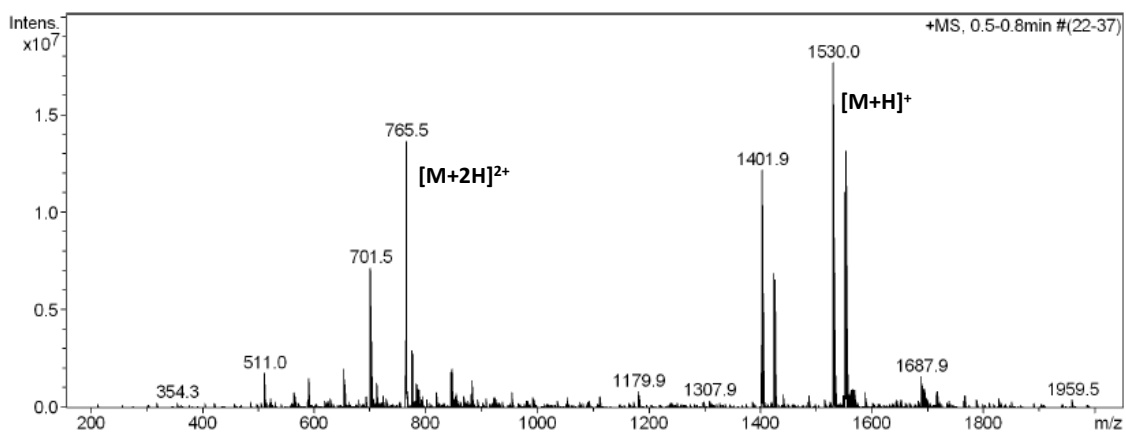
HRMS (m/z) (CC-d4-d2-611 tubs 8-16)



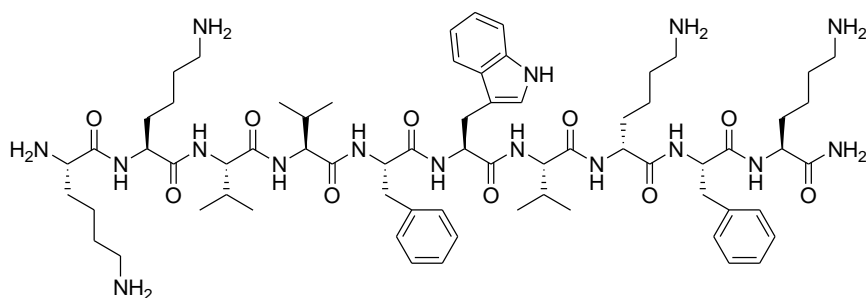
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{68}H_{107}N_{16}O_{10}$ | 1307.8351 | 1307.8338 |
| $[M+2H]^{2+}$ | $C_{68}H_{108}N_{16}O_{10}$ | 654.4212 | 654.4213 |
| $[M+3H]^{3+}$ | $C_{68}H_{109}N_{16}O_{10}$ | 436.6165 | 436.6179 |

Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-D-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d3-582)

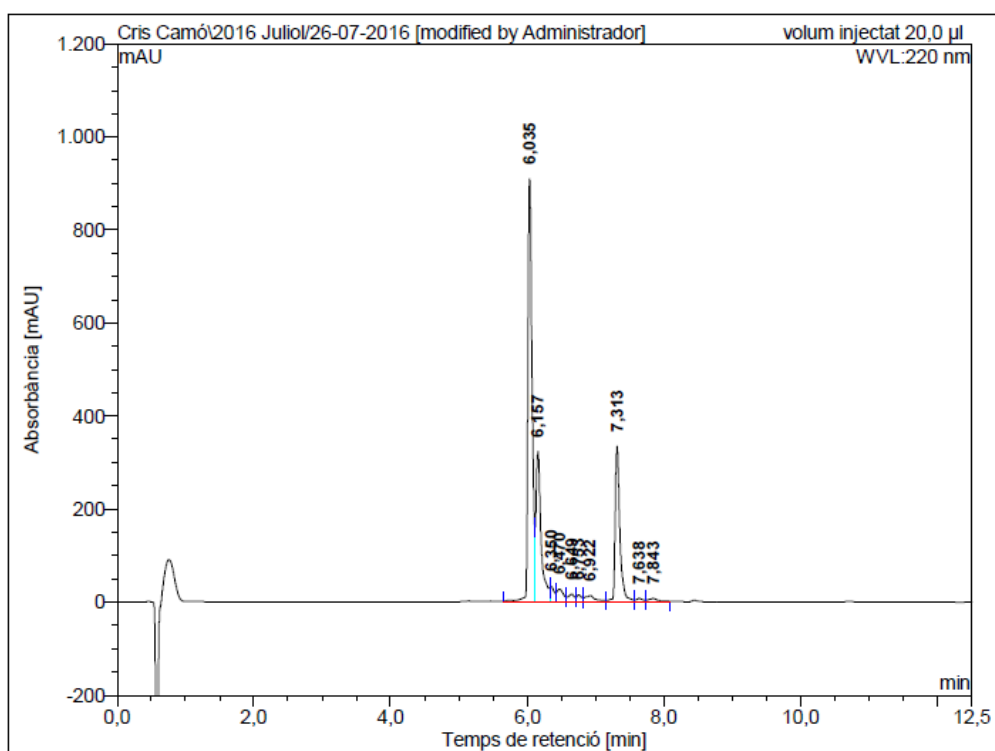
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,83 | 956,509 | 78,084 | 64,19 |
| 2 | 7,21 | 495,997 | 43,559 | 35,81 |
| Total: | | 1452,506 | 121,643 | 100,00 |

ESI-MS (*m/z*) (CC-4-d3-582)

| |
|-----------------------|
| $[M+H]^+ = 1530.0$ |
| $[M+Na]^+ = 1552.0$ |
| $[M+2H]^{2+} = 765.5$ |
| $[M+3H]^{3+} = 511.0$ |

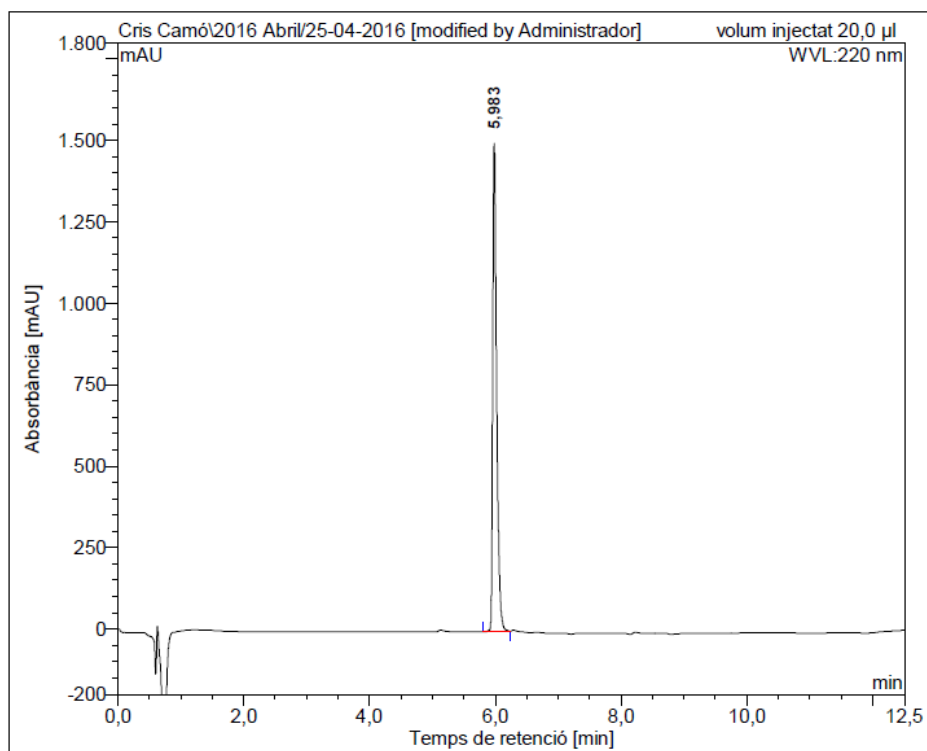
Lys-Lys-Val-Val-Phe-Trp-Val-D-Lys-Phe-Lys-NH₂ (**BP444**) (CC-4-d3)

IMPURE PRODUCT

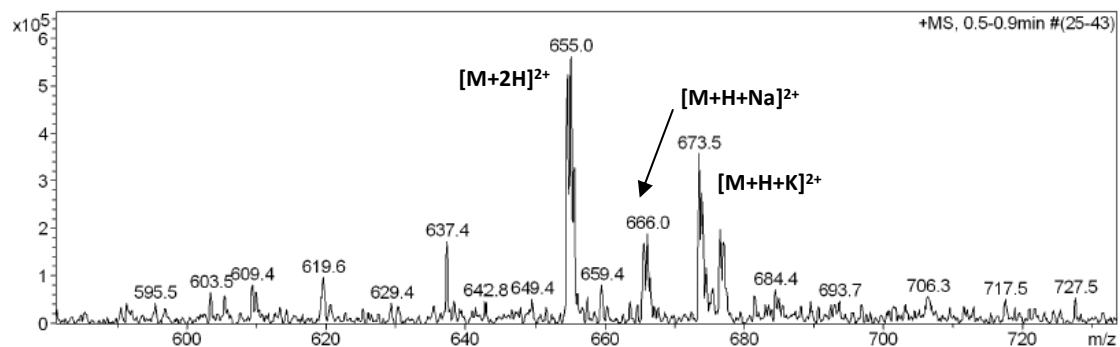
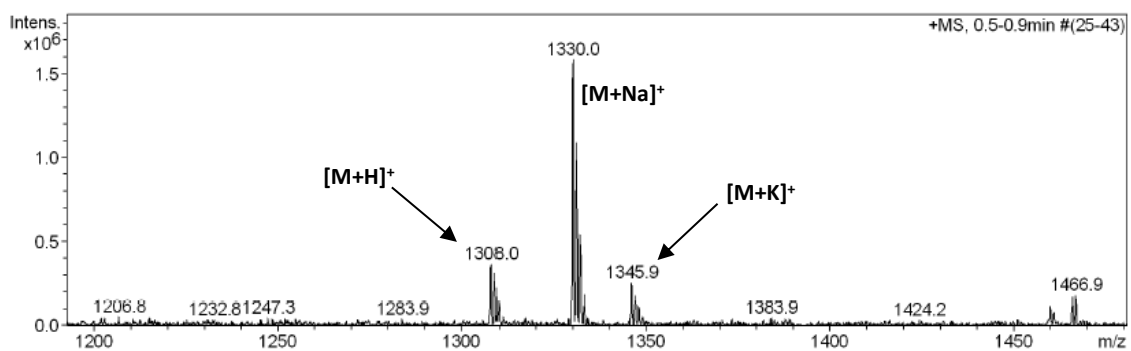
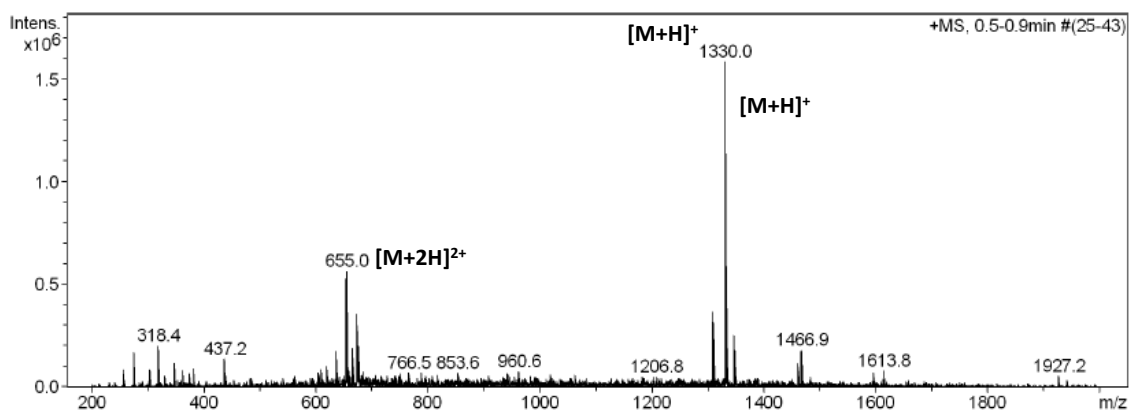
HPLC ($\lambda = 220$ nm) (CC-4-d3-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,04 | 908,402 | 64,052 | 49,31 |
| 2 | 6,16 | 321,831 | 27,829 | 21,43 |
| 3 | 6,35 | 31,563 | 2,296 | 1,77 |
| 4 | 6,47 | 26,179 | 2,956 | 2,28 |
| 5 | 6,65 | 15,299 | 1,592 | 1,23 |
| 6 | 6,75 | 13,825 | 1,102 | 0,85 |
| 7 | 6,92 | 12,582 | 2,150 | 1,66 |
| 8 | 7,31 | 332,778 | 26,338 | 20,28 |
| 9 | 7,64 | 6,342 | 0,679 | 0,52 |
| 10 | 7,84 | 6,083 | 0,895 | 0,69 |
| Total: | | 1674,883 | 129,890 | 100,00 |

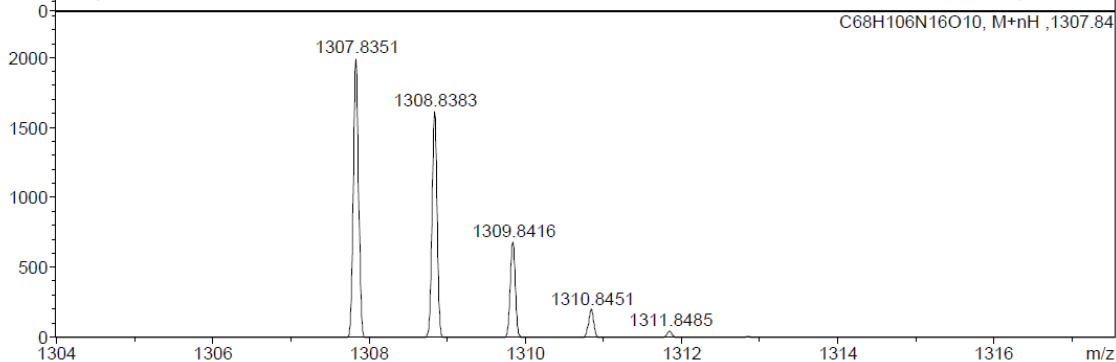
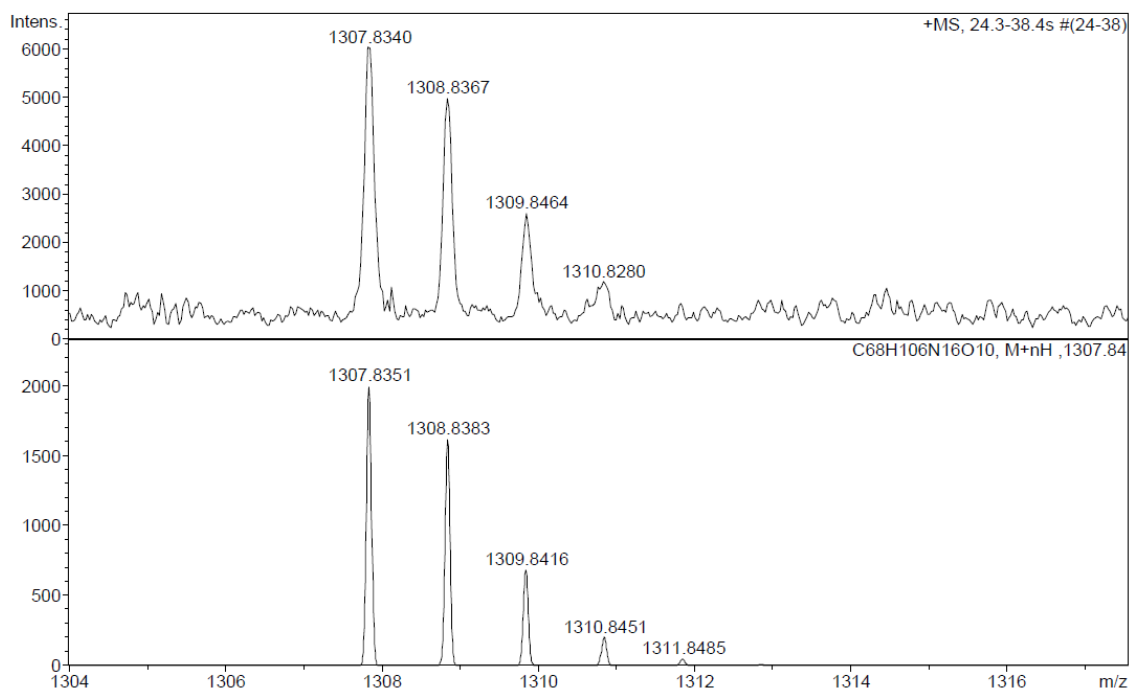
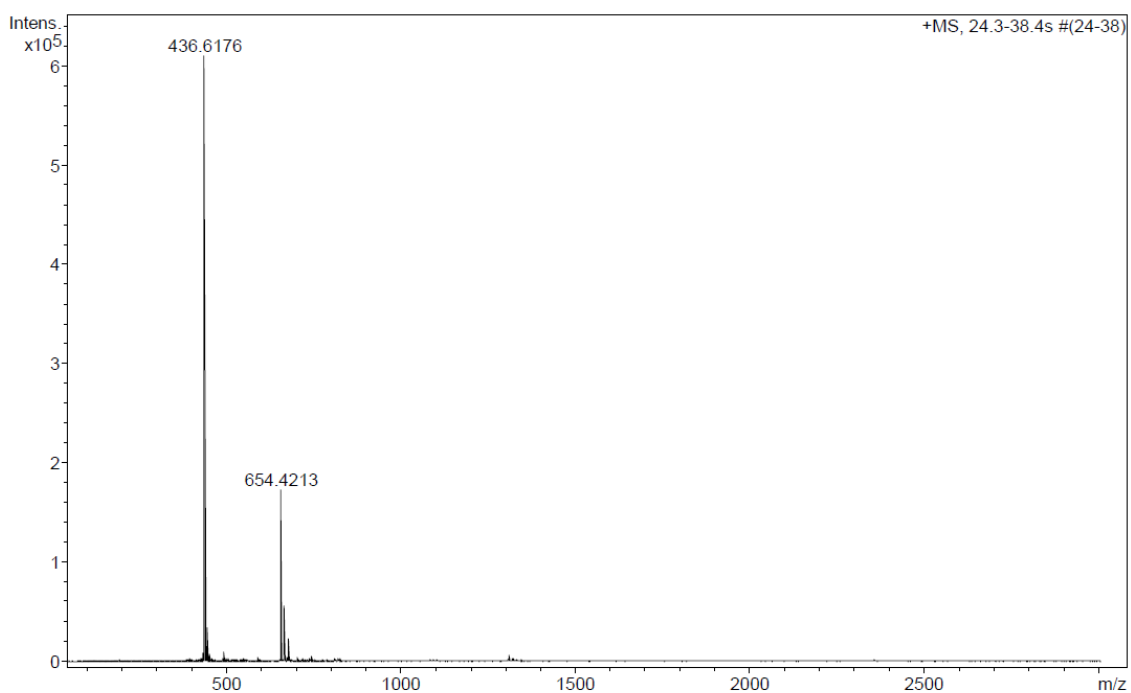
PURE PRODUCT

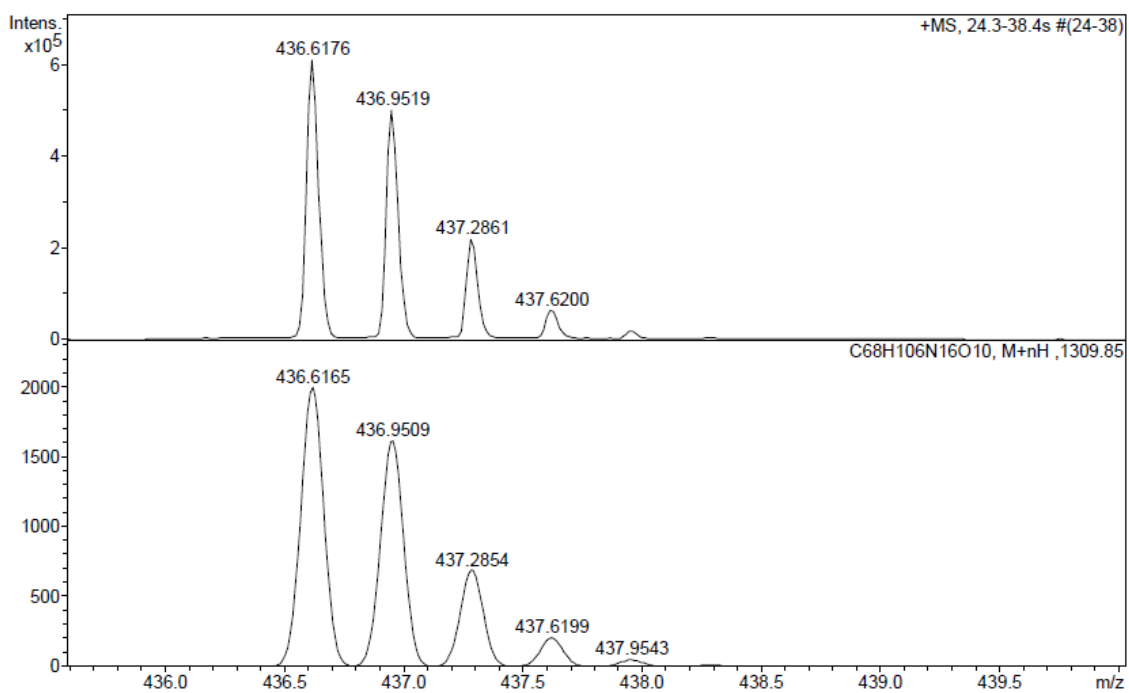
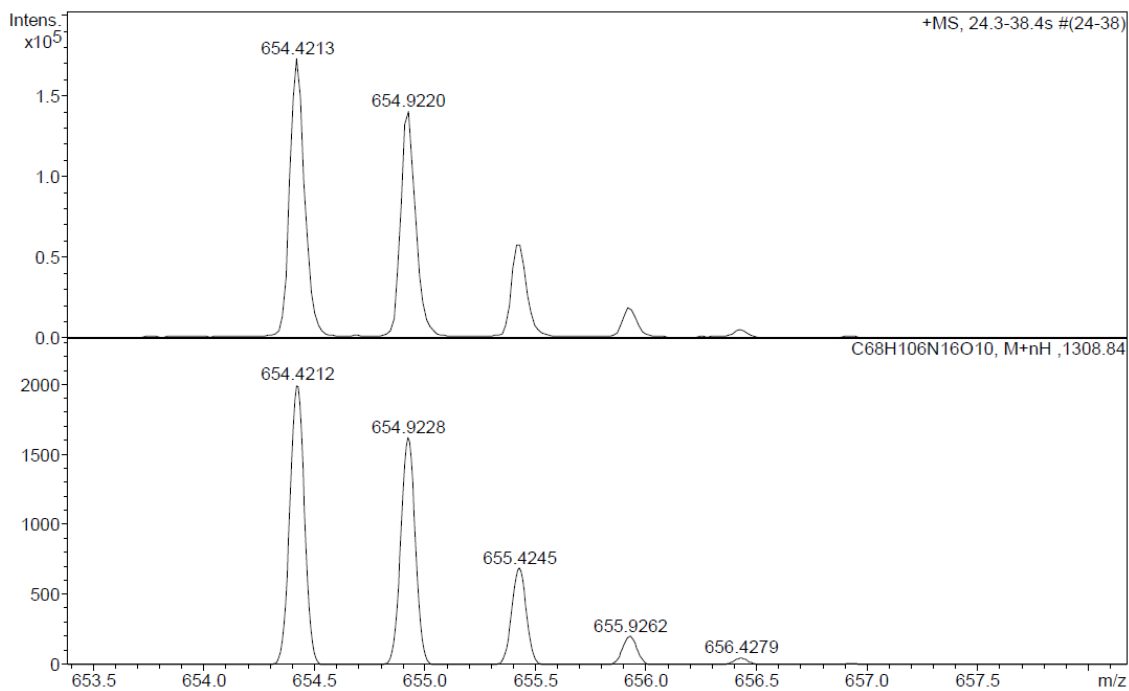
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d3-643 tub 12)

| No. | Temps retenció min | alçada mAU | Àrea mAU*min | Àrea relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,98 | 1498,956 | 109,164 | 100,00 |
| Total: | | 1498,956 | 109,164 | 100,00 |

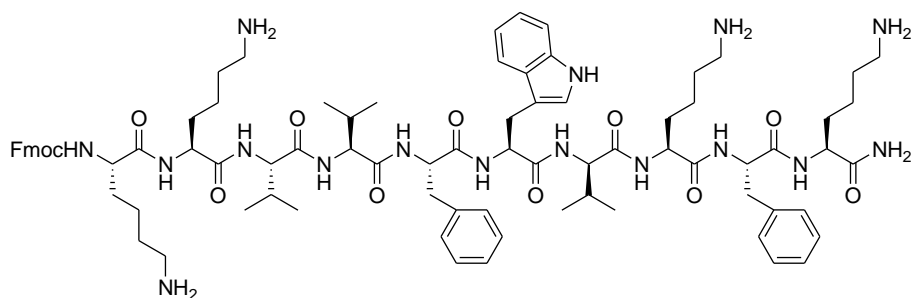
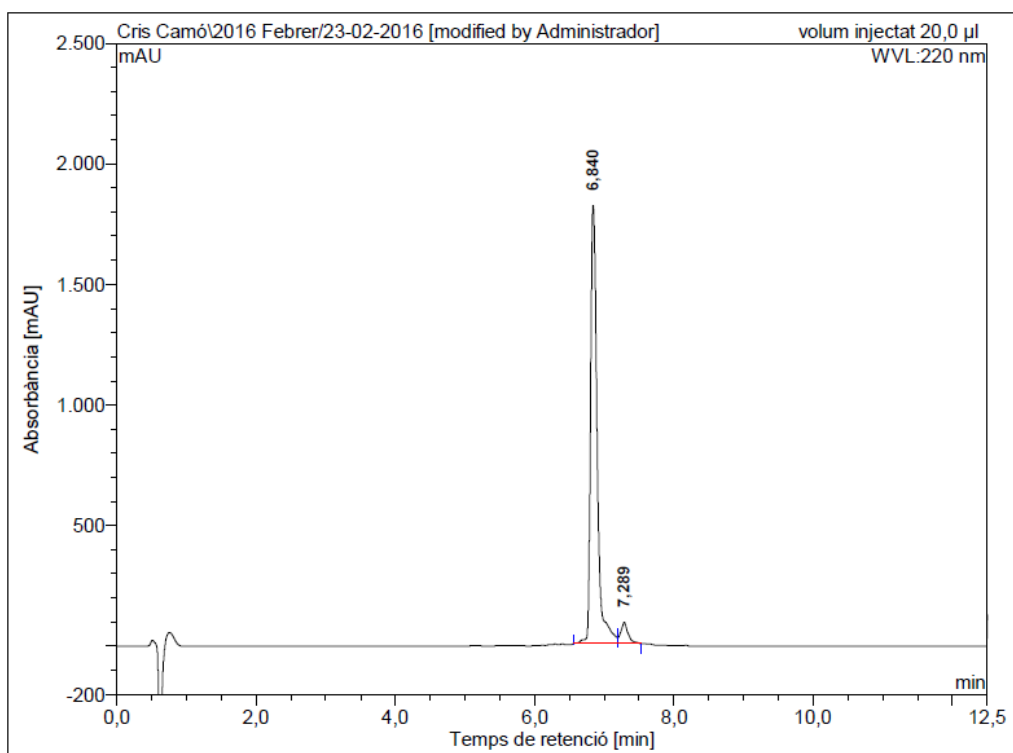
ESI-MS (m/z) (CC-4-d3-643 tub 12)

| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+K]^+ = 1345.9$ |
| $[M+2H]^{2+} = 655.0$ |
| $[M+H+Na]^{2+} = 666.0$ |
| $[M+H+K]^{2+} = 673.5$ |

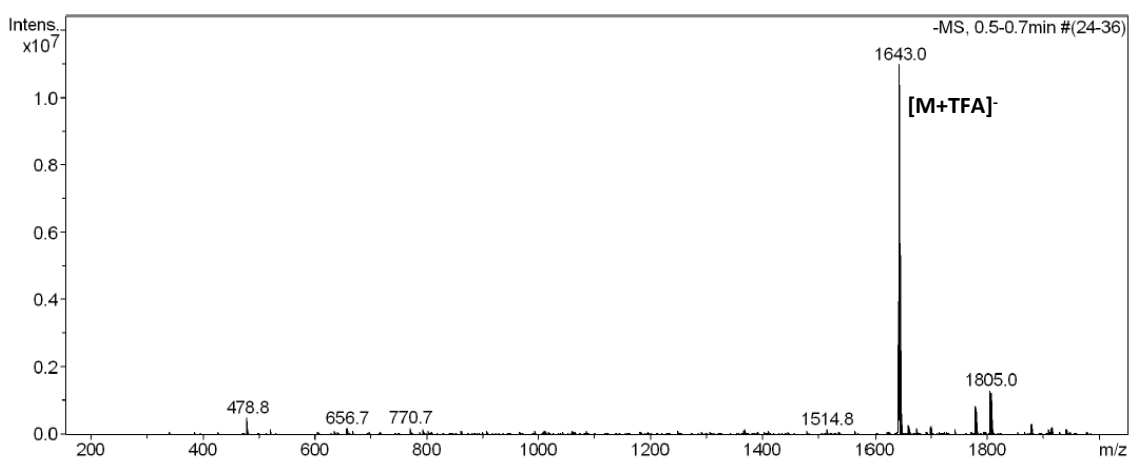
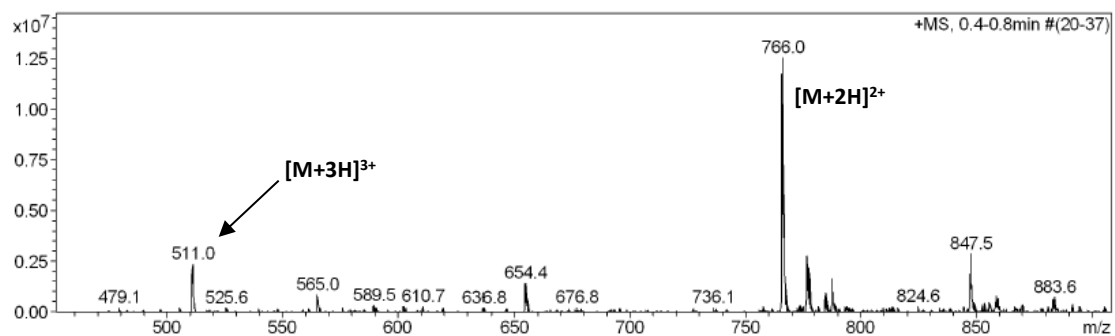
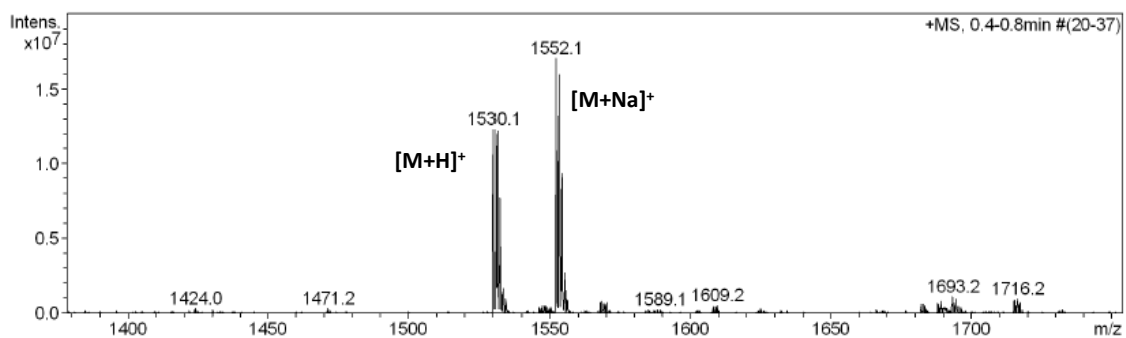
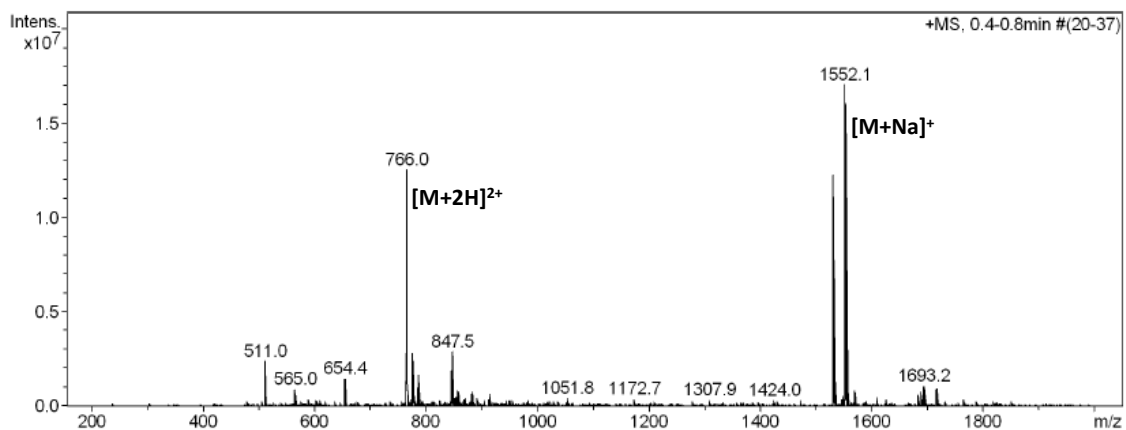
HRMS (m/z) (CC-4-d3-643 tubs 9-13)

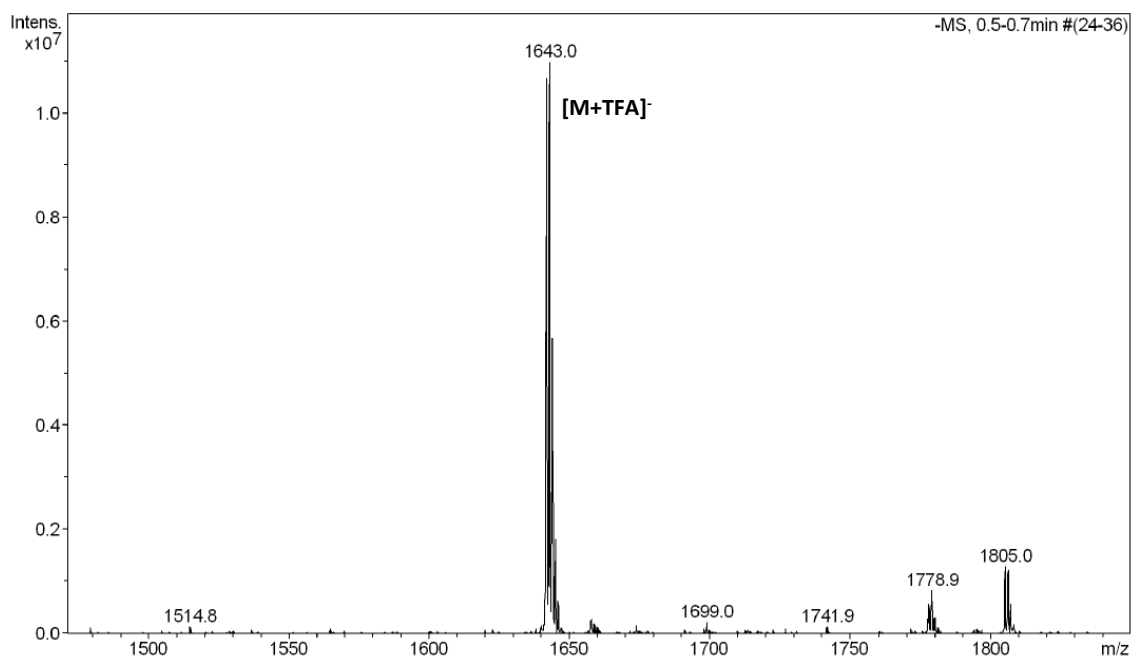


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8340 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4213 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6176 |

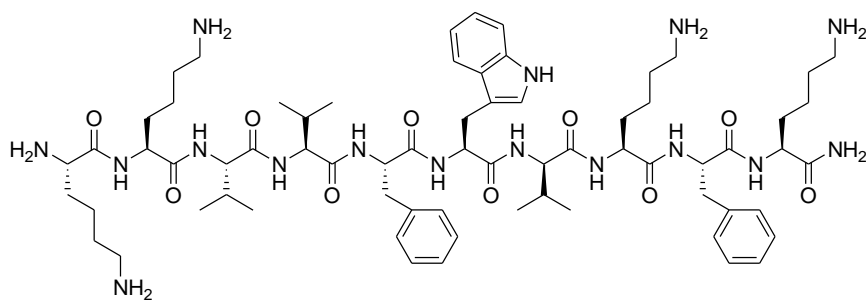
Fmoc-Lys-Lys-Val-Val-Phe-Trp-D-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d4-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,84 | 1814,788 | 199,632 | 94,89 |
| 2 | 7,29 | 89,544 | 10,756 | 5,11 |
| Total: | | 1904,332 | 210,388 | 100,00 |

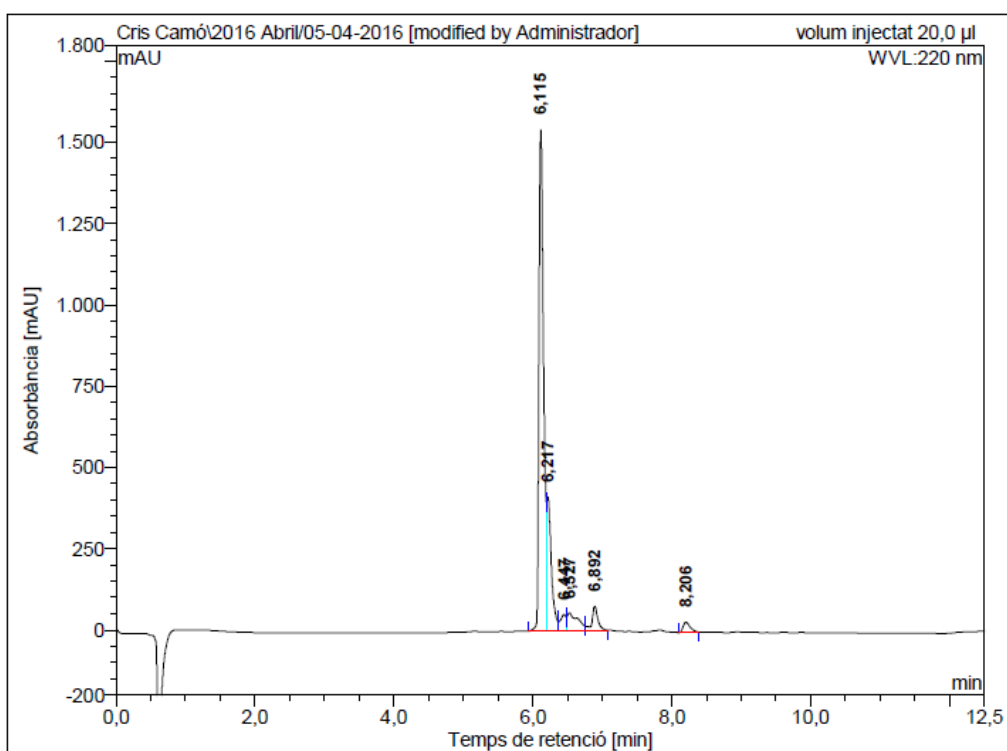
ESI-MS (*m/z*) (CC-4-d4-582)



| |
|-------------------------------|
| [M+H] ⁺ = 1530.1 |
| [M+Na] ⁺ = 1552.1 |
| [M+2H] ²⁺ = 766.0 |
| [M+3H] ³⁺ = 511.0 |
| [M+TFA] ⁻ = 1642.0 |

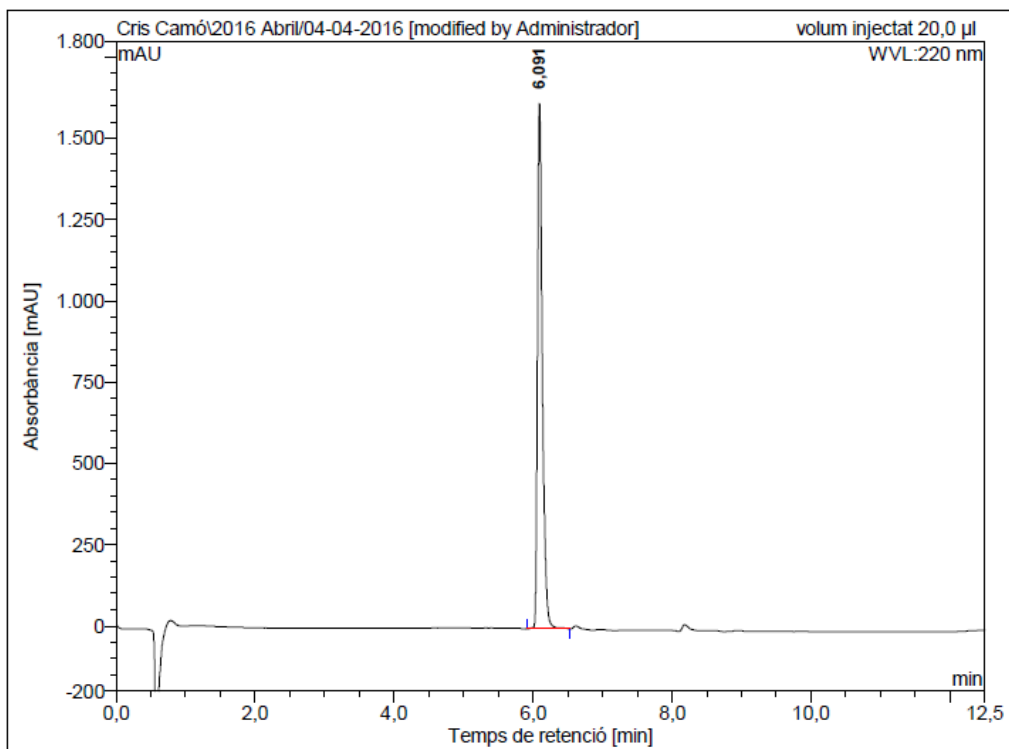
Lys-Lys-Val-Val-Phe-Trp-D-Val-Lys-Phe-Lys-NH₂ (**BP445**) (CC-4-d4)

IMPURE PRODUCT

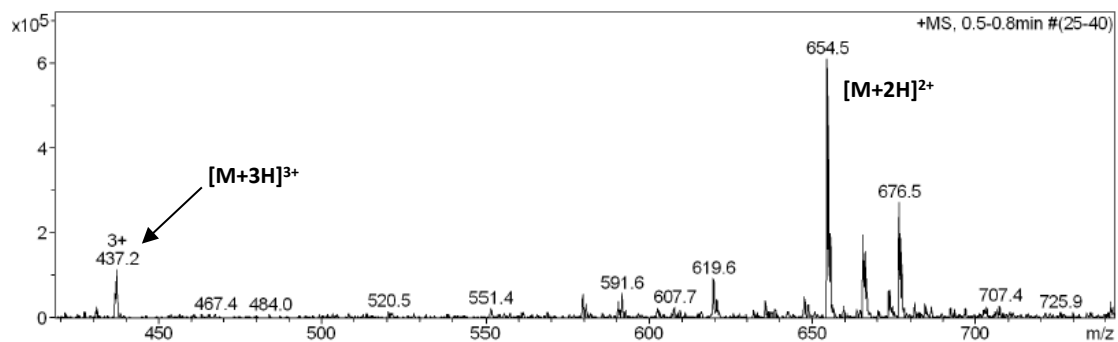
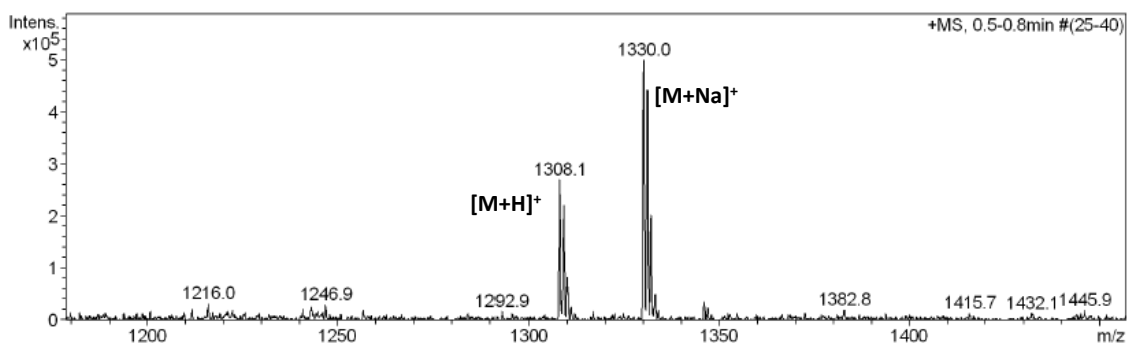
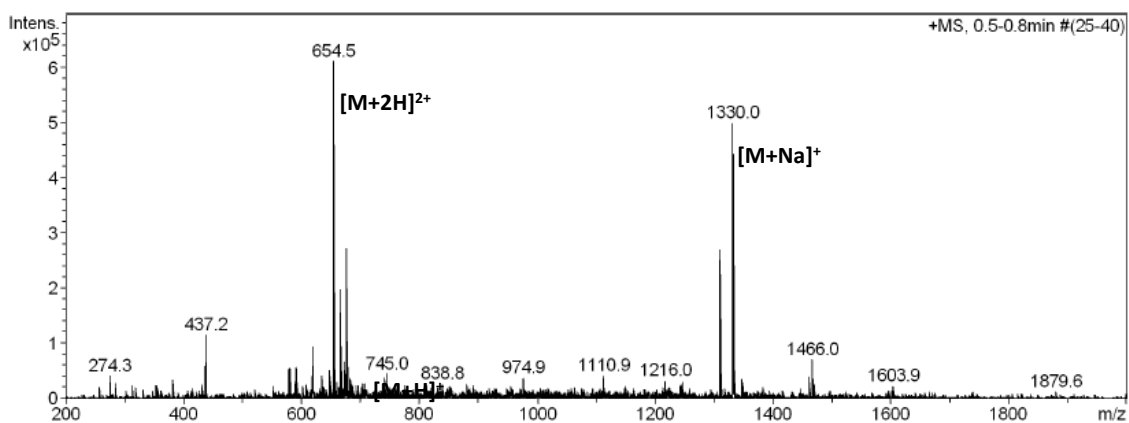
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d4-616 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 1540,944 | 120,347 | 66,65 |
| 2 | 6,22 | 412,360 | 32,651 | 18,08 |
| 3 | 6,45 | 51,256 | 5,251 | 2,91 |
| 4 | 6,53 | 56,902 | 10,286 | 5,70 |
| 5 | 6,89 | 76,773 | 8,097 | 4,48 |
| 6 | 8,21 | 31,690 | 3,924 | 2,17 |
| Total: | | 2169,924 | 180,557 | 100,00 |

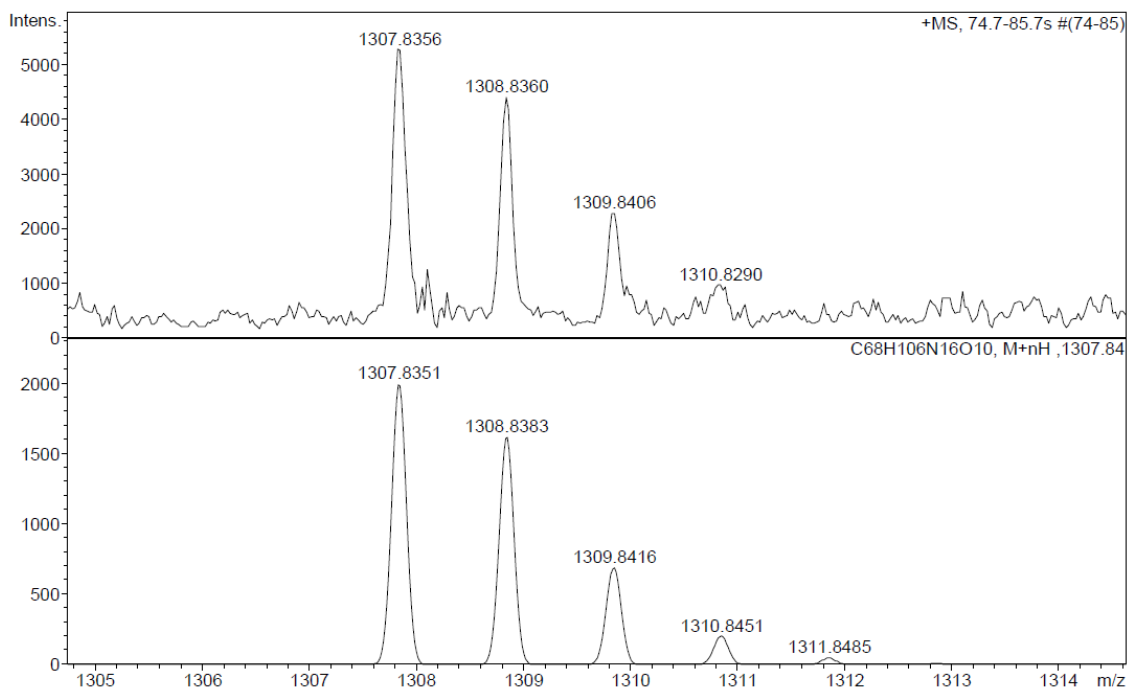
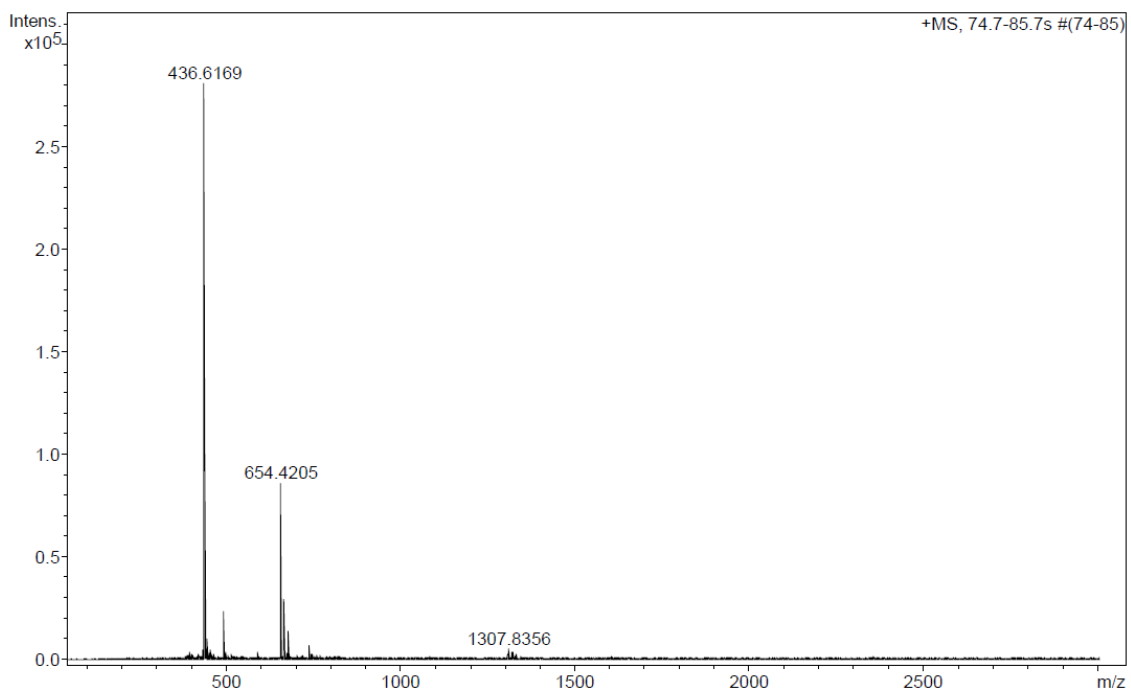
PURE PRODUCT

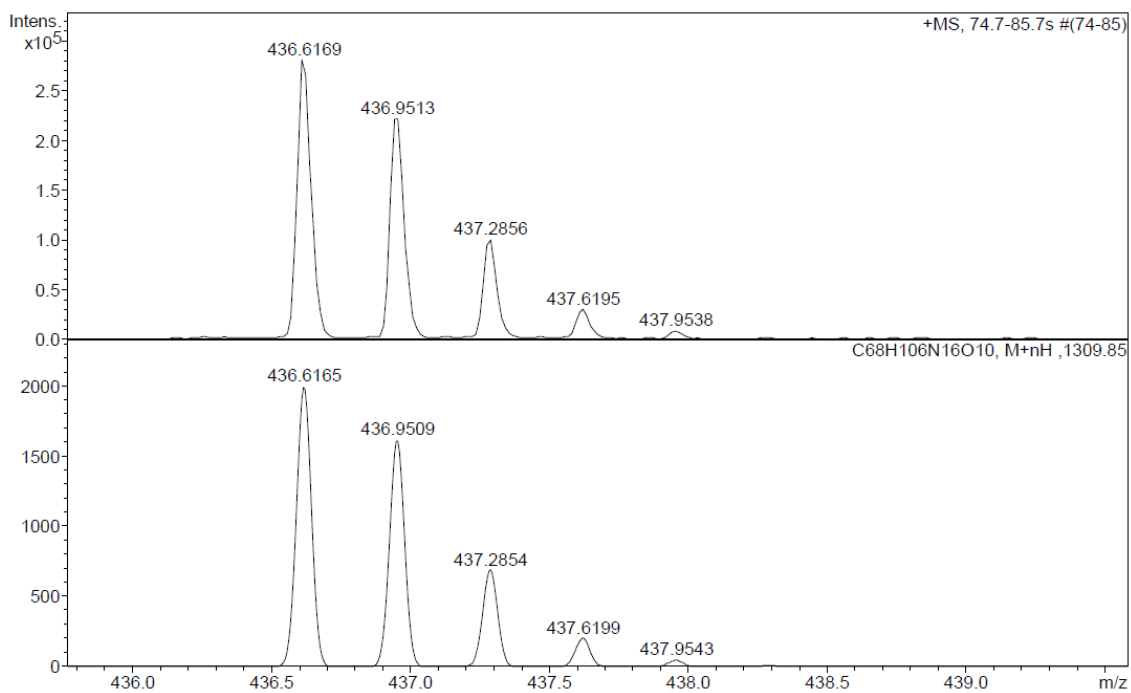
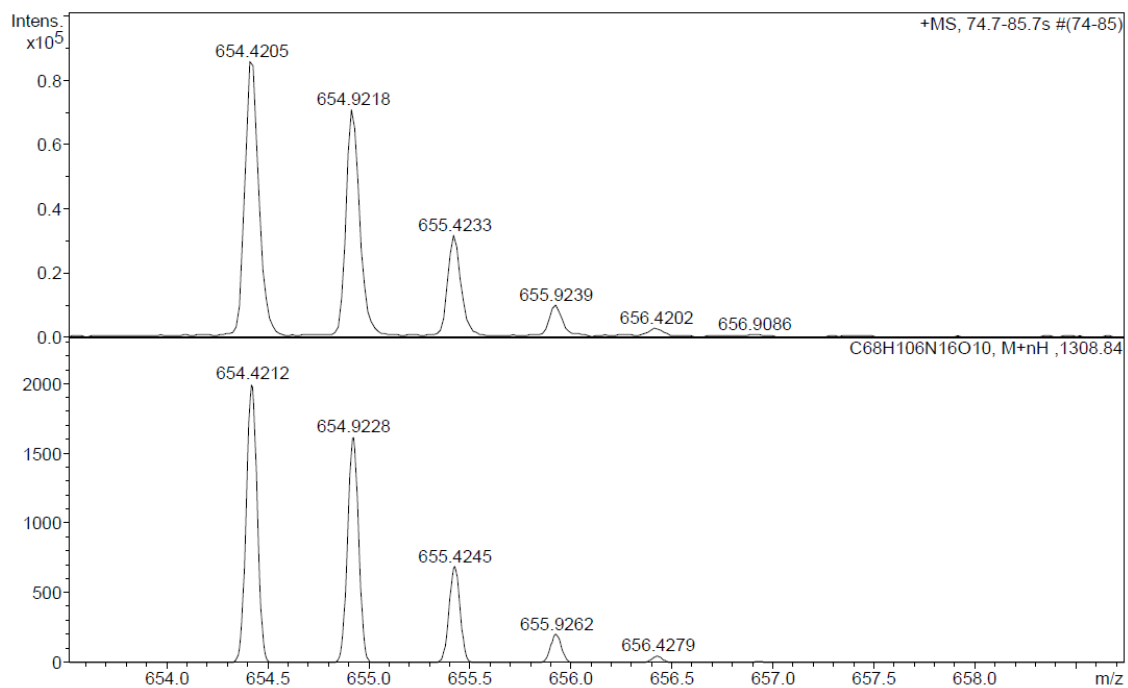
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d4-616 tub 10)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,09 | 1614,518 | 132,471 | 100,00 |
| Total: | | 1614,518 | 132,471 | 100,00 |

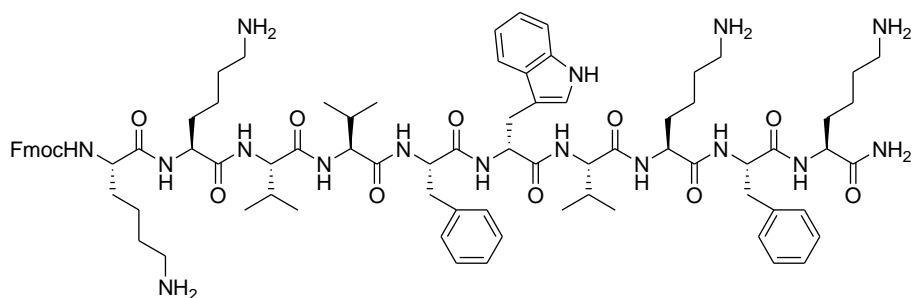
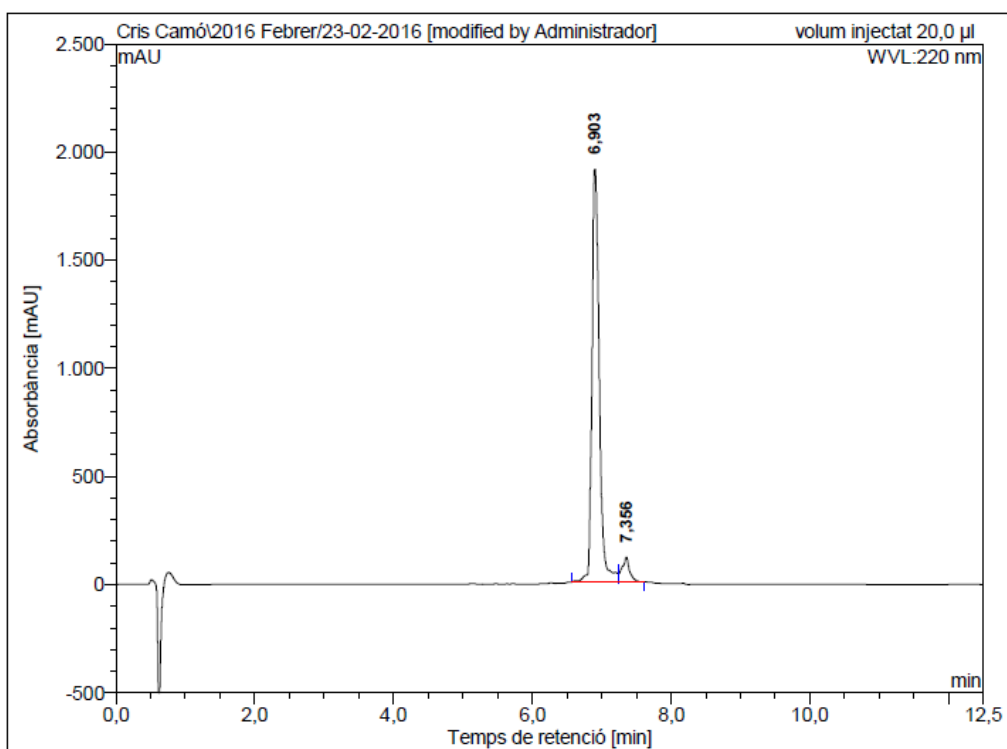
ESI-MS (m/z) (CC-4-d4-616 tub 10)

| |
|-----------------------|
| $[M+H]^+ = 1308.1$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+3H]^{3+} = 437.2$ |

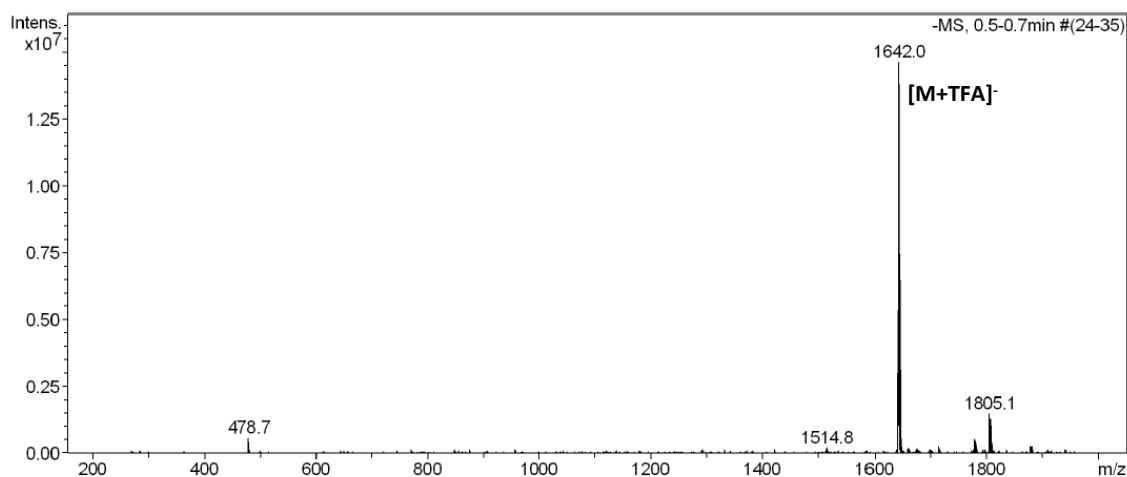
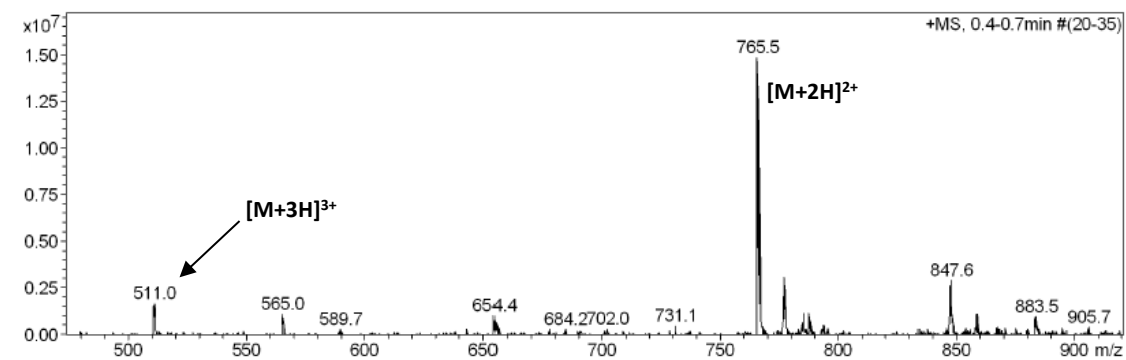
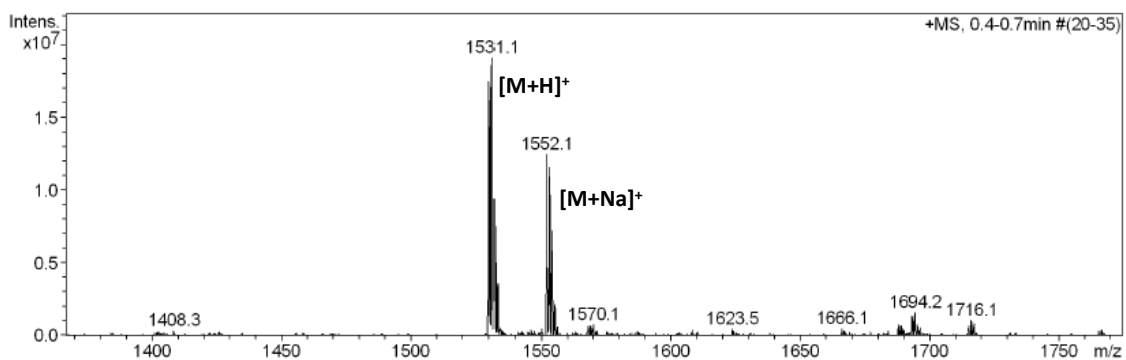
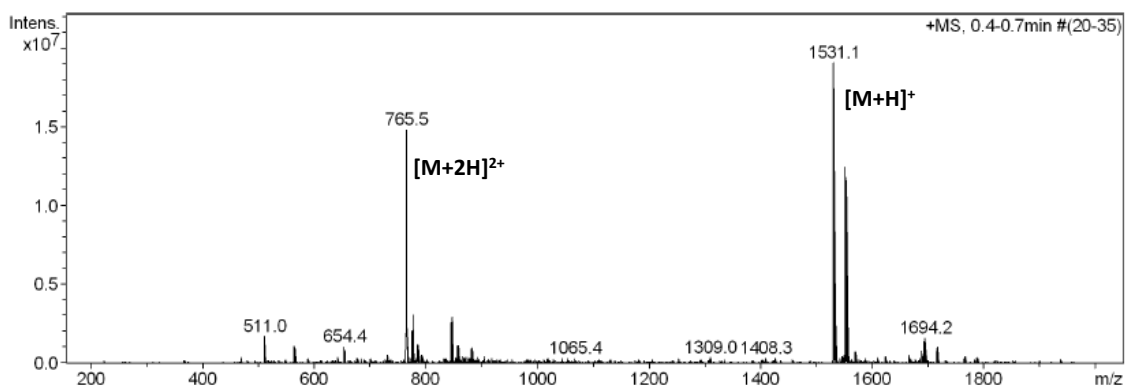
HRMS (m/z) (CC-4-d4-616 tubs 8-15)

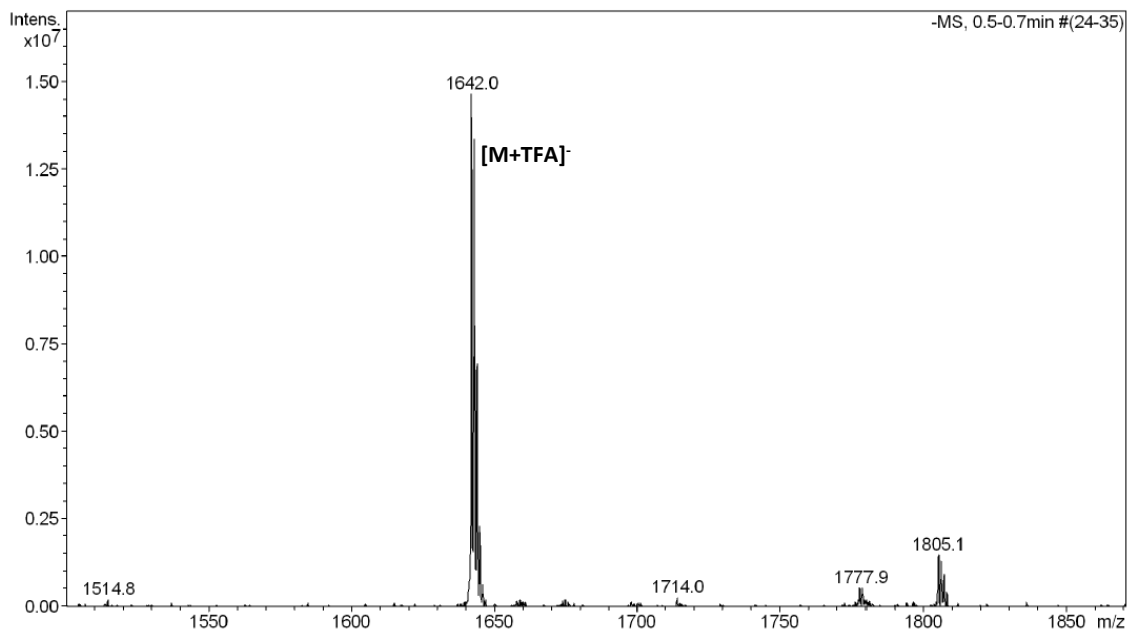


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8356 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4205 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6169 |

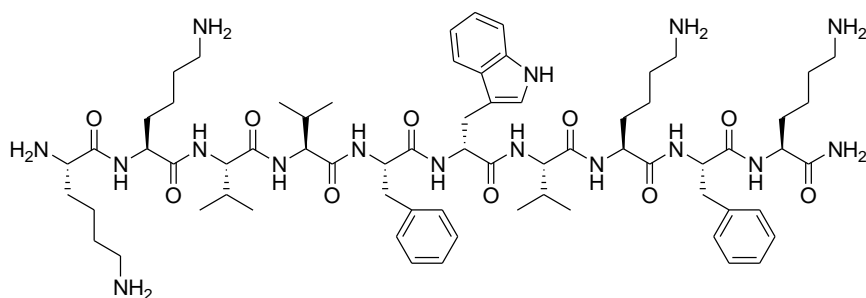
Fmoc-Lys-Lys-Val-Val-Phe-D-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d5-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,90 | 1906,352 | 234,060 | 94,24 |
| 2 | 7,36 | 114,552 | 14,294 | 5,76 |
| Total: | | 2020,904 | 248,354 | 100,00 |

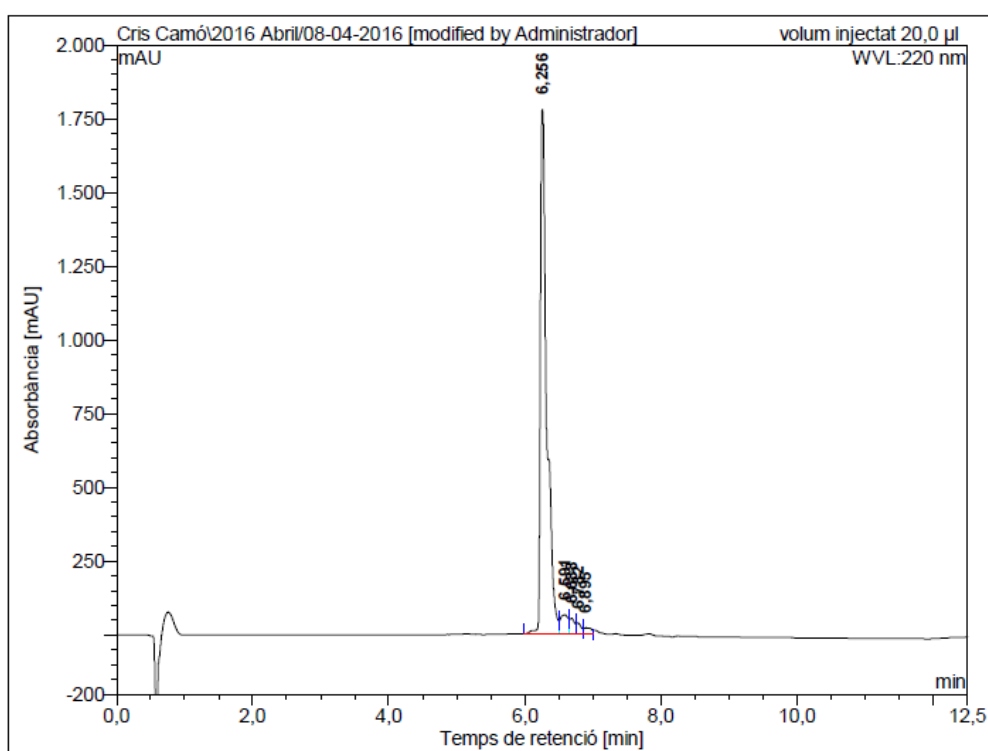
ESI-MS (m/z) (CC-4-d5-582)



| |
|-----------------------|
| $[M+H]^+ = 1530.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+2H]^{2+} = 765.5$ |
| $[M+3H]^{3+} = 511.0$ |
| $[M+TFA]^- = 1642.0$ |

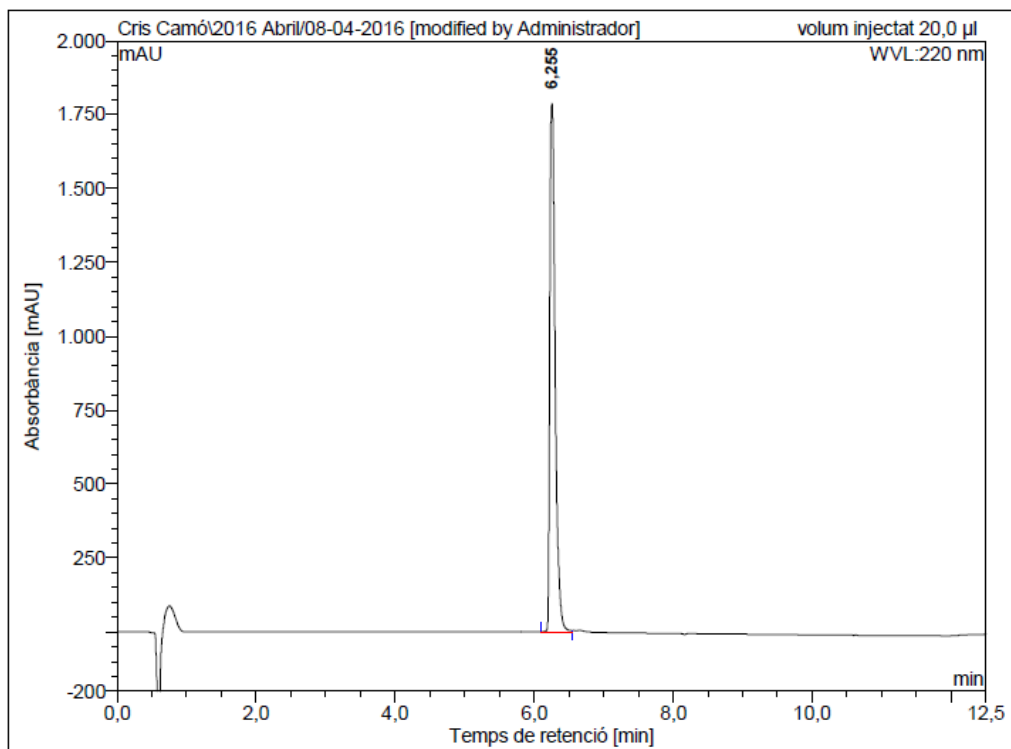
Lys-Lys-Val-Val-Phe-D-Trp-Val-Lys-Phe-Lys-NH₂ (**BP446**) (CC-4-d5)

IMPURE PRODUCT

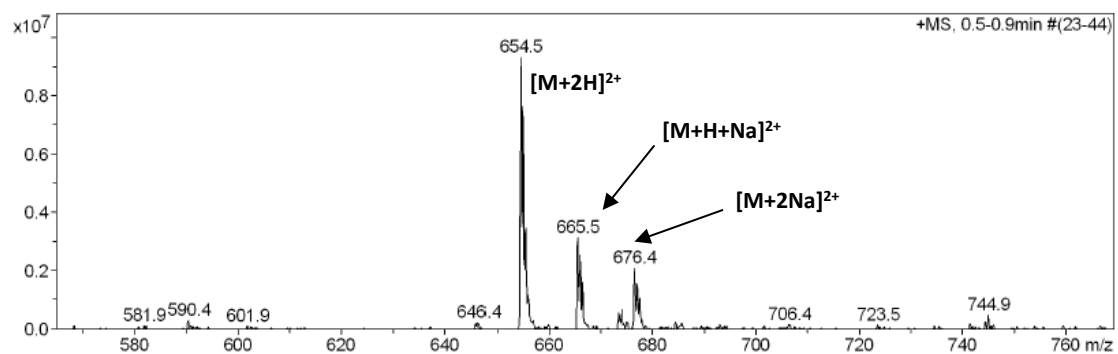
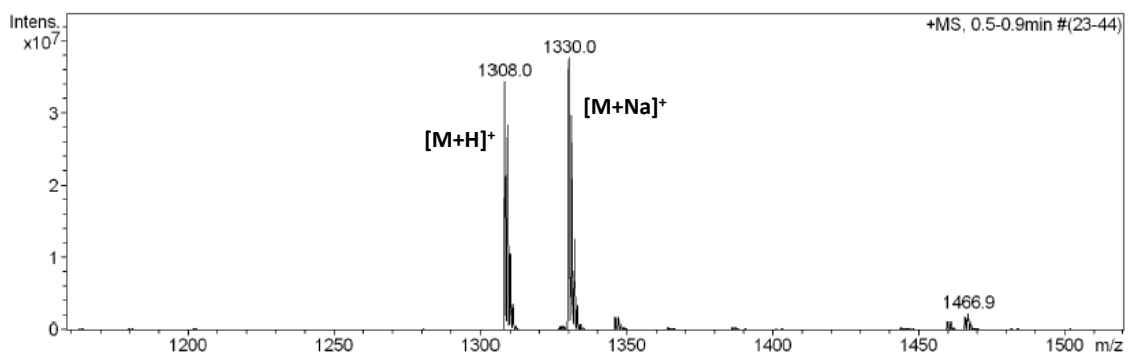
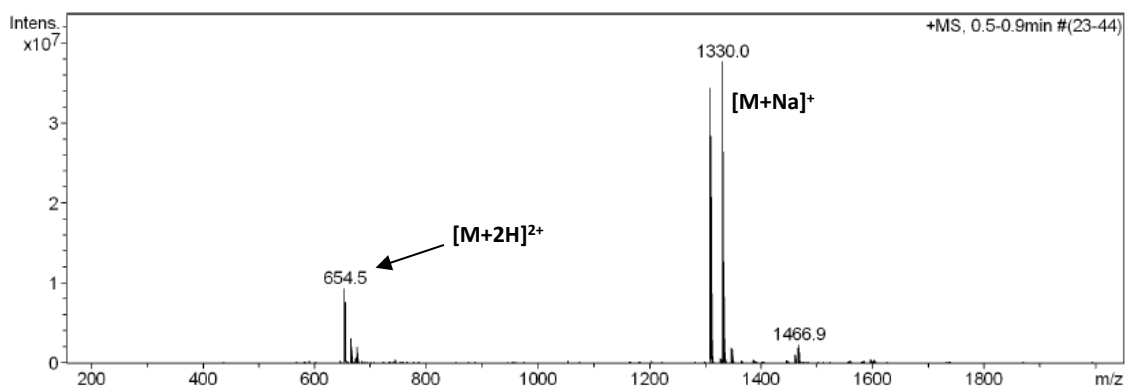
HPLC ($\lambda = 220$ nm) (CC-4-d5)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1778,042 | 193,566 | 91,06 |
| 2 | 6,59 | 64,458 | 8,895 | 4,18 |
| 3 | 6,69 | 52,569 | 4,391 | 2,07 |
| 4 | 6,78 | 36,553 | 3,067 | 1,44 |
| 5 | 6,90 | 20,404 | 2,647 | 1,25 |
| Total: | | 1952,027 | 212,566 | 100,00 |

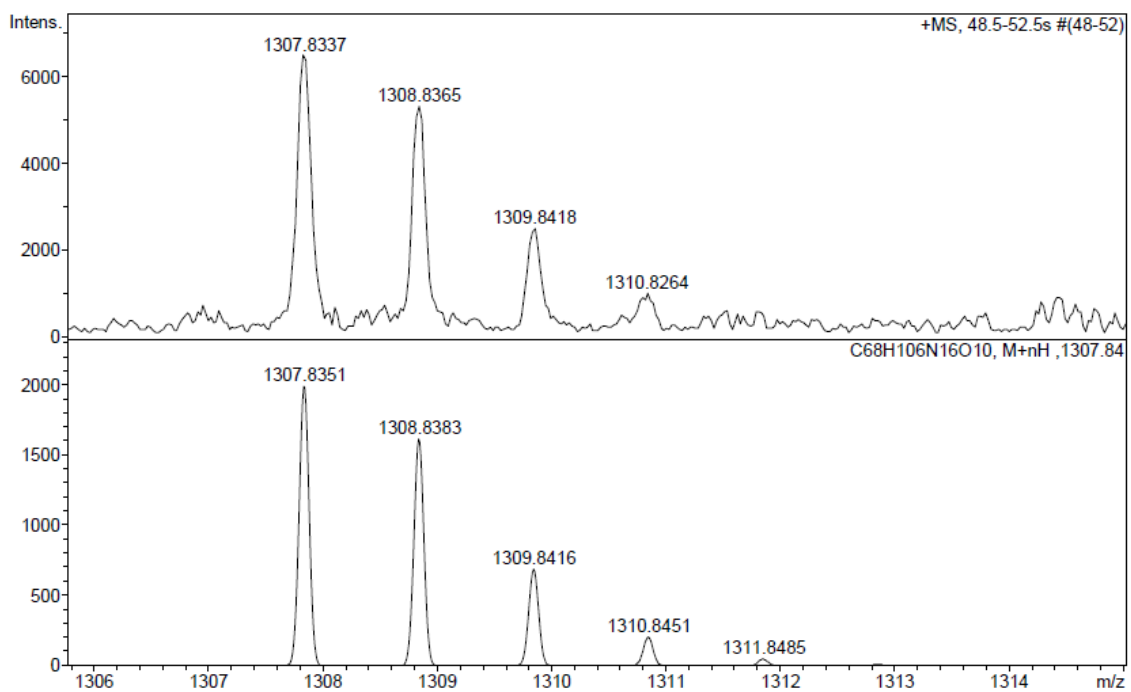
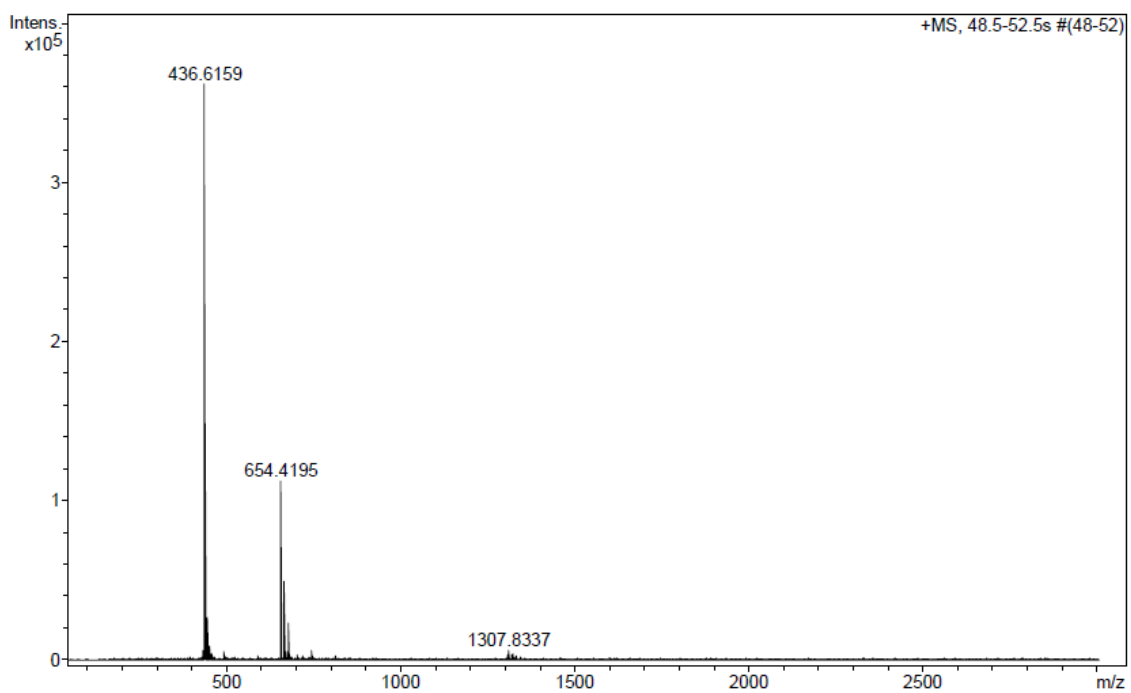
PURE PRODUCT

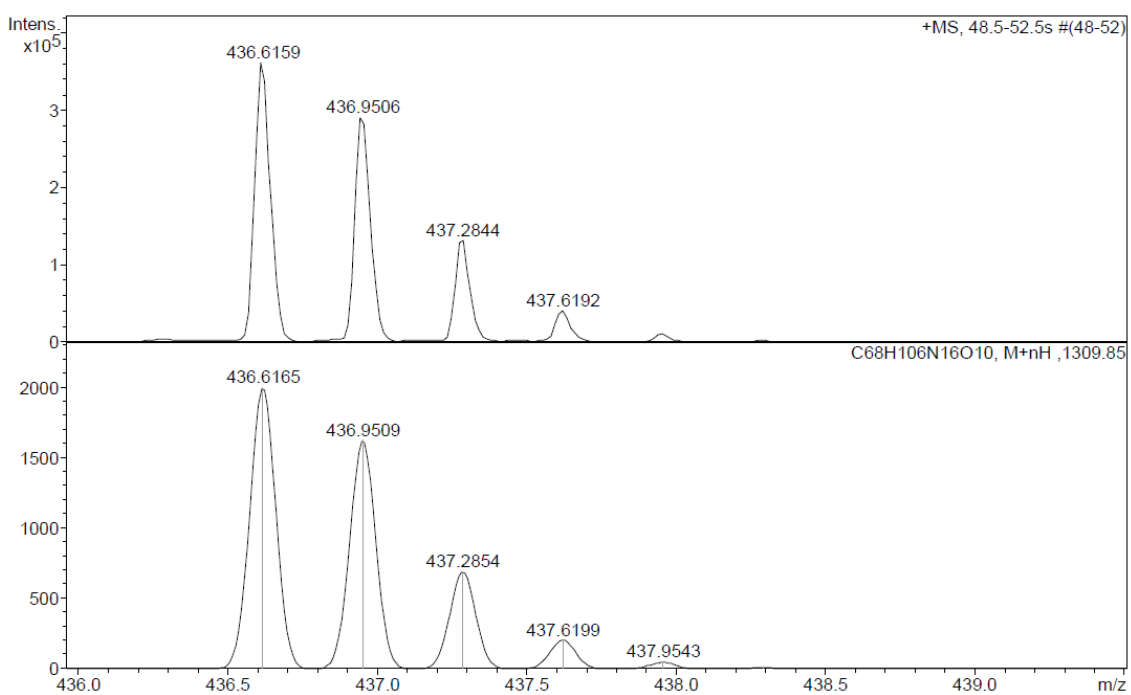
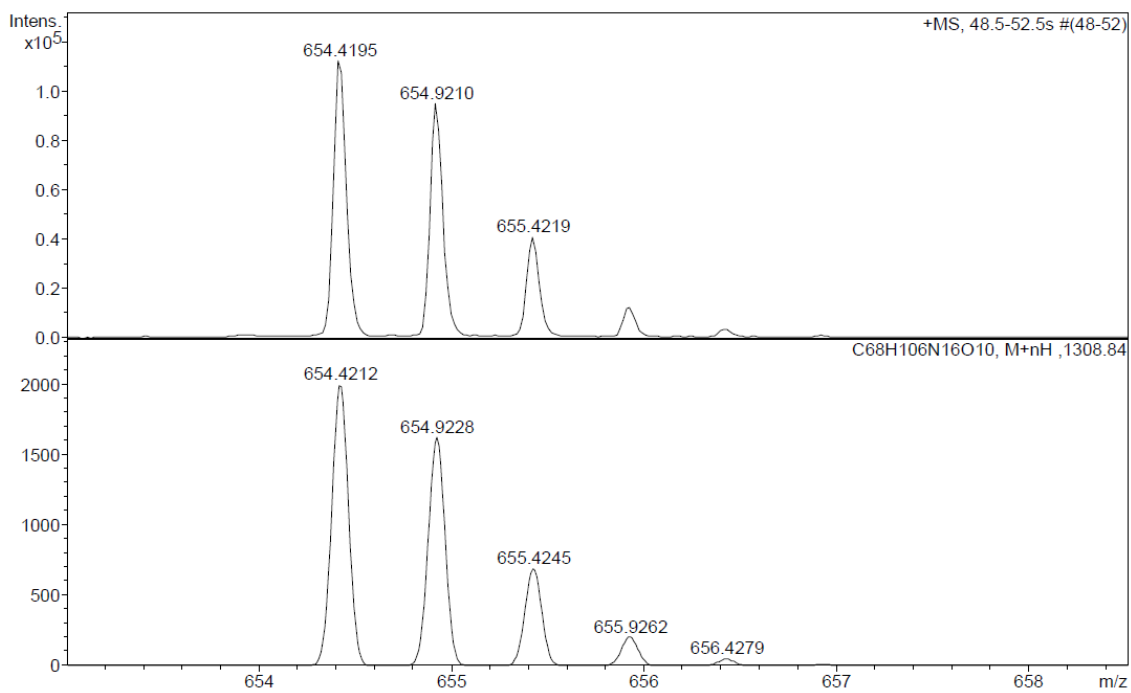
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d5-624 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1787,491 | 161,245 | 100,00 |
| Total: | | 1787,491 | 161,245 | 100,00 |

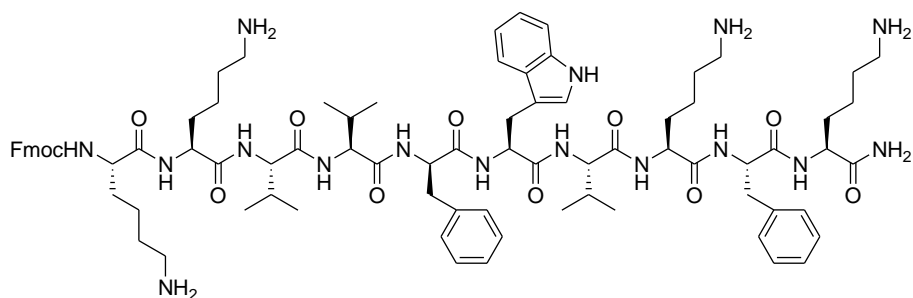
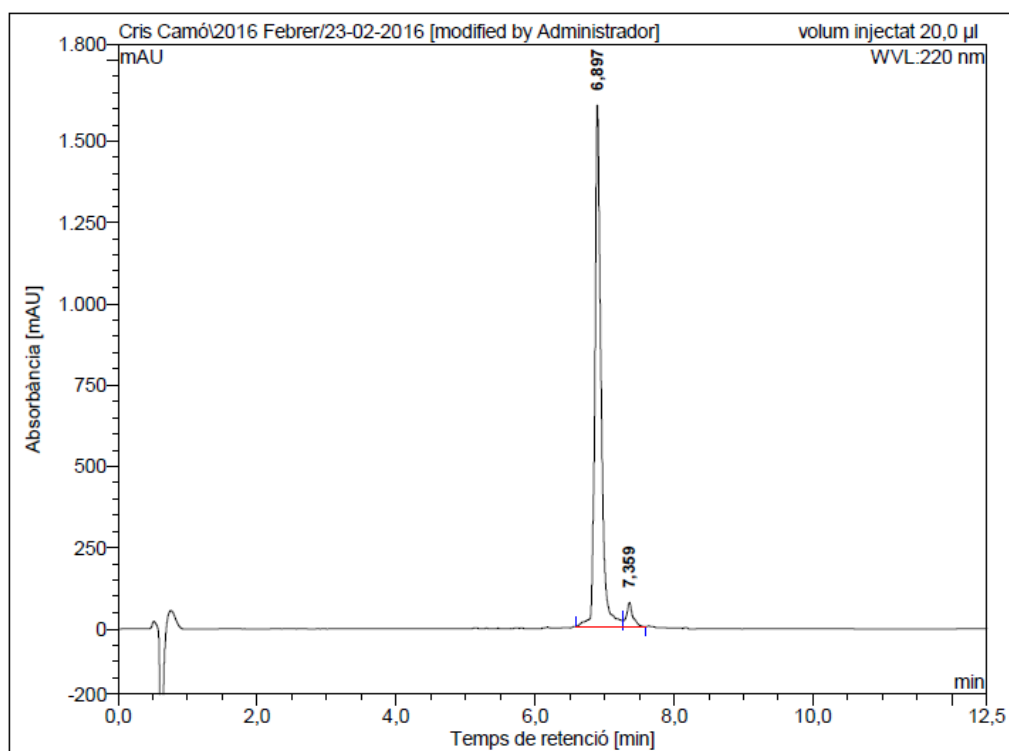
ESI-MS (m/z) (CC-4-d5-624 tub 16)

| |
|-----------------------|
| $[M+H]^+ = 1330.0$ |
| $[M+Na]^+ = 1308.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+3H]^{3+} = 665.5$ |
| $[M+TFA]^- = 676.4$ |

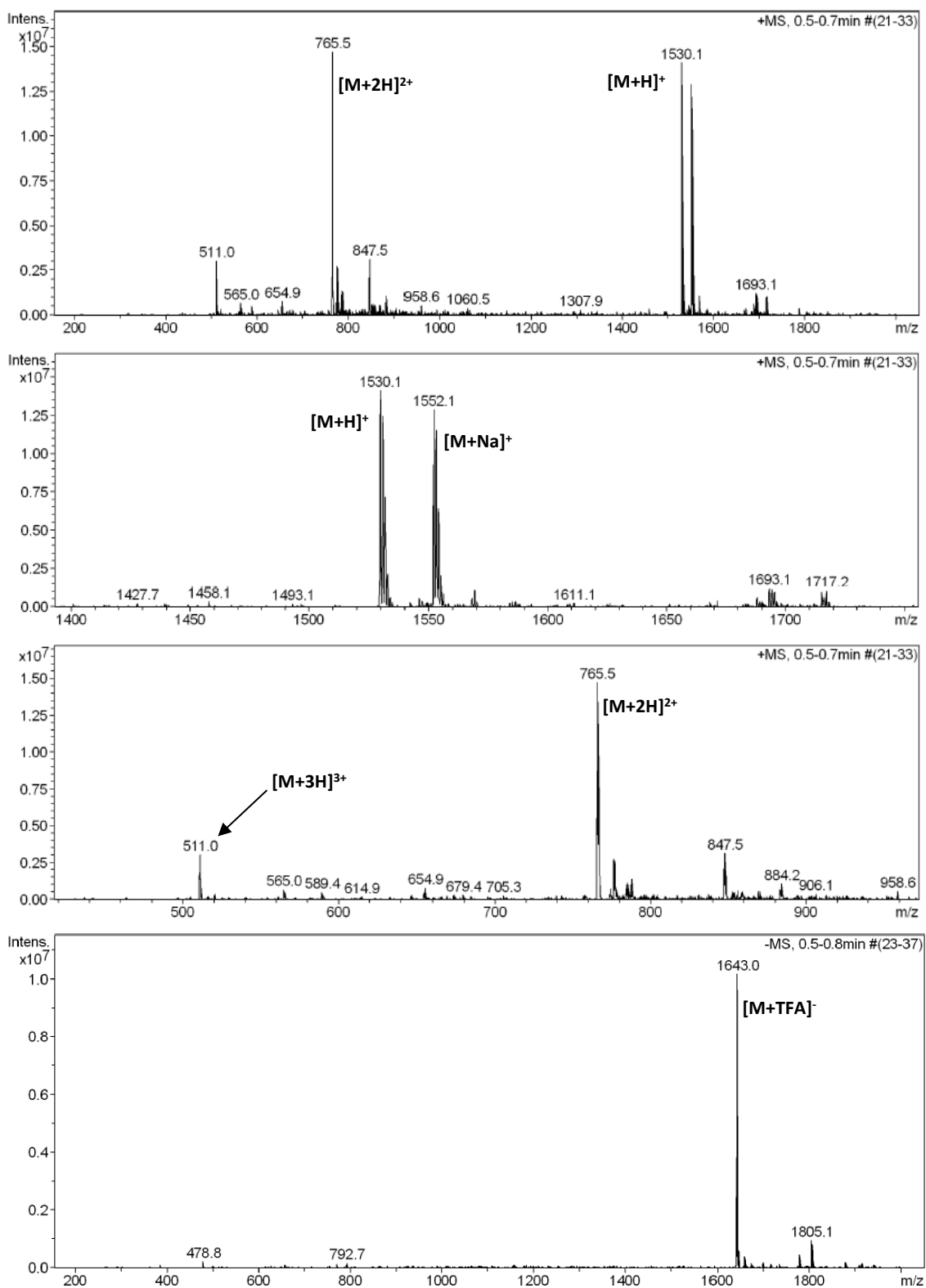
HRMS (m/z) (CC-4-d5-618 tubs 9-15)

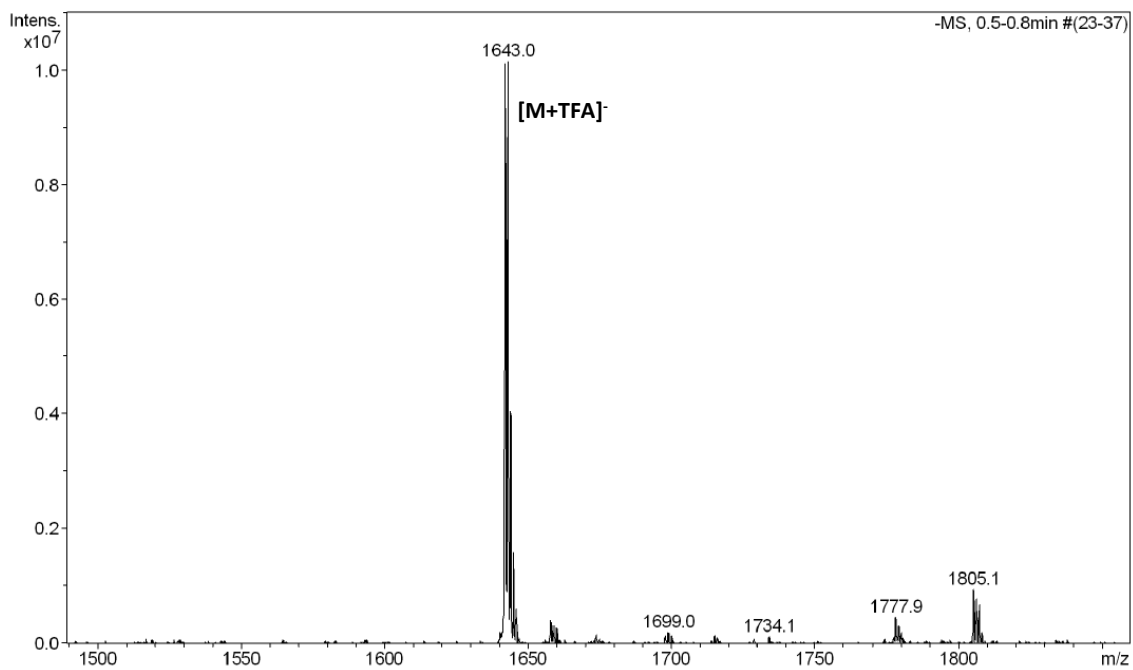


| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8337 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4195 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6159 |

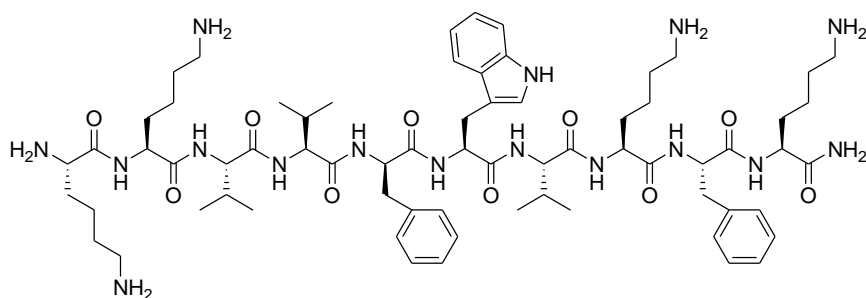
Fmoc-Lys-Lys-Val-Val-D-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d6-582)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,90 | 1602,689 | 165,512 | 95,68 |
| 2 | 7,36 | 73,630 | 7,481 | 4,32 |
| Total: | | 1676,319 | 172,993 | 100,00 |

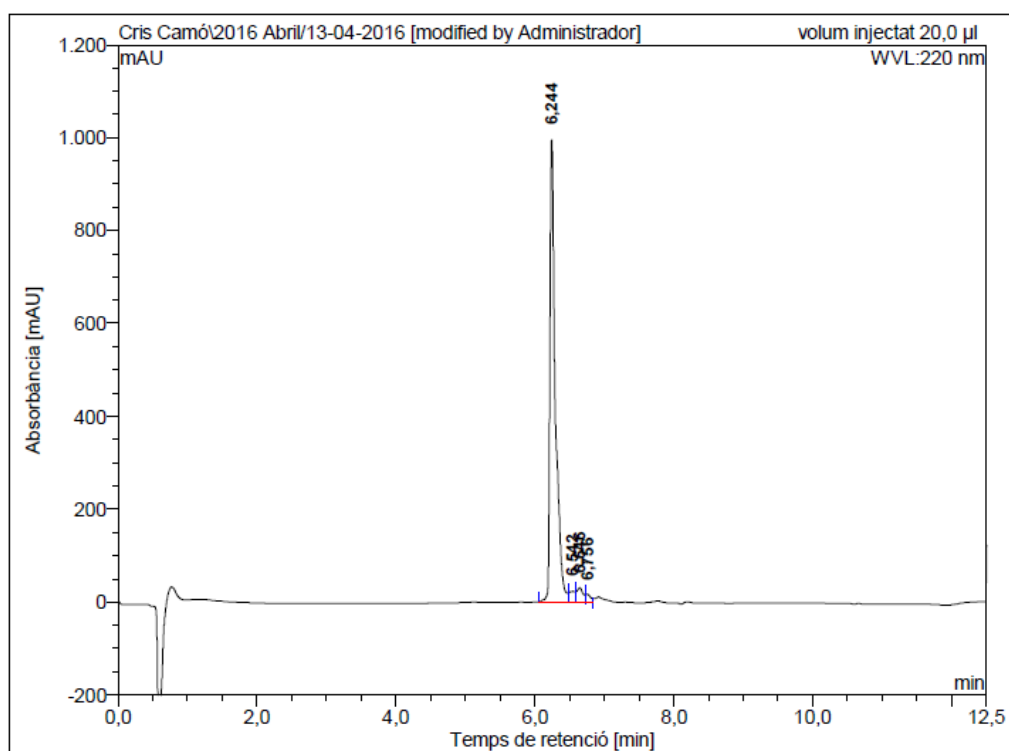
ESI-MS (m/z) (CC-4-d6-582)



| |
|-----------------------|
| $[M+H]^+ = 1530.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+2H]^{2+} = 765.5$ |
| $[M+3H]^{3+} = 511.0$ |
| $[M+TFA]^- = 1642.0$ |

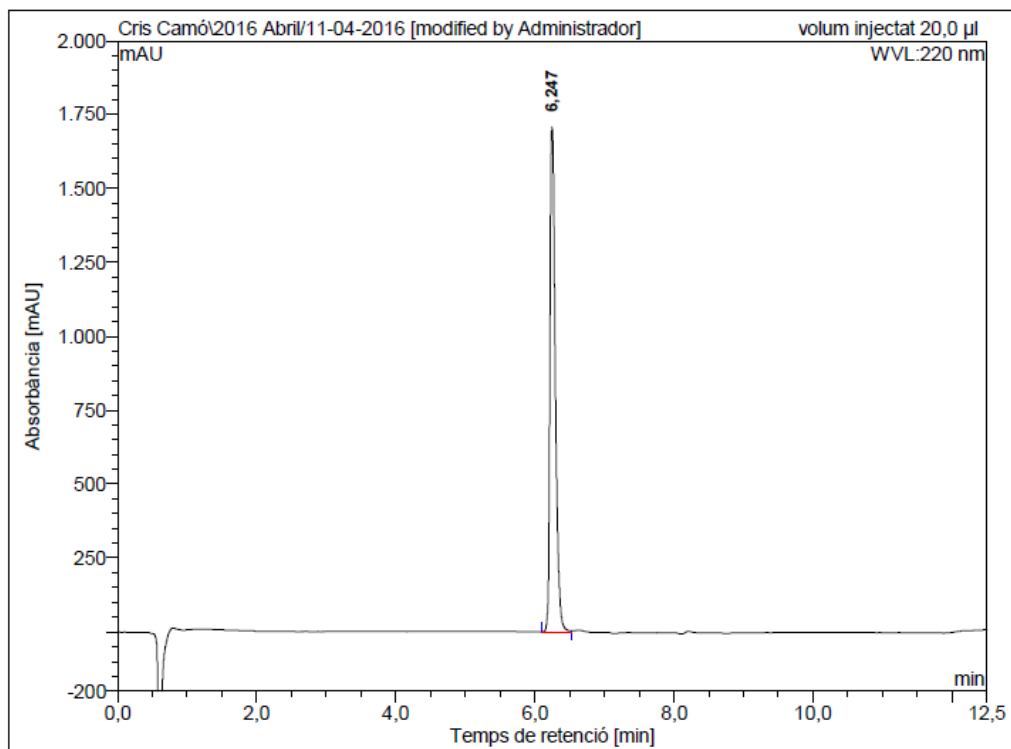
Lys-Lys-Val-Val-D-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP447**) (CC-4-d6)

IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-4-d6 impur)

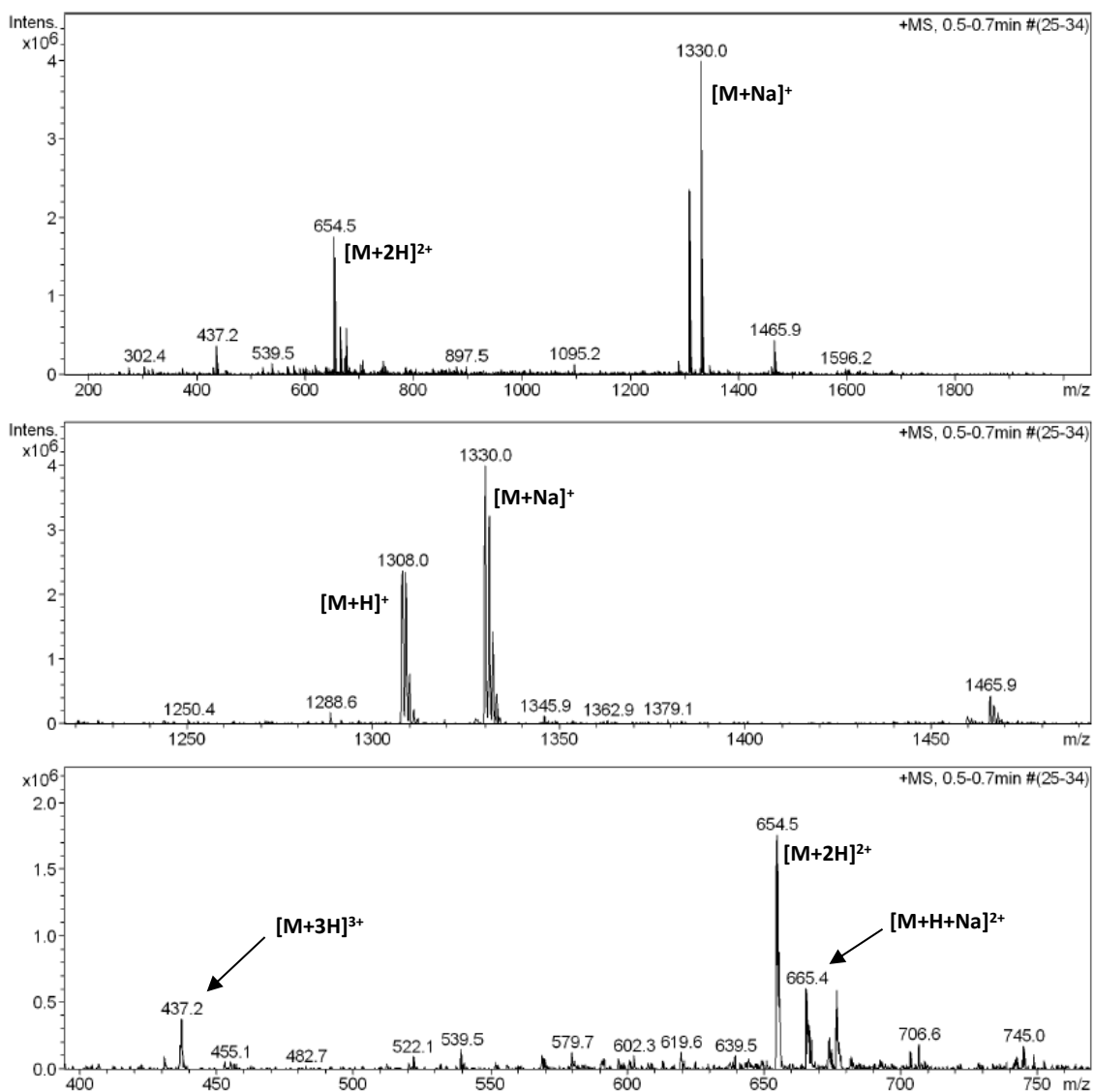
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 994,722 | 90,406 | 93,06 |
| 2 | 6,54 | 22,714 | 2,226 | 2,29 |
| 3 | 6,65 | 30,402 | 3,201 | 3,30 |
| 4 | 6,76 | 16,244 | 1,317 | 1,36 |
| Total: | | 1064,082 | 97,150 | 100,00 |

PURE PRODUCT

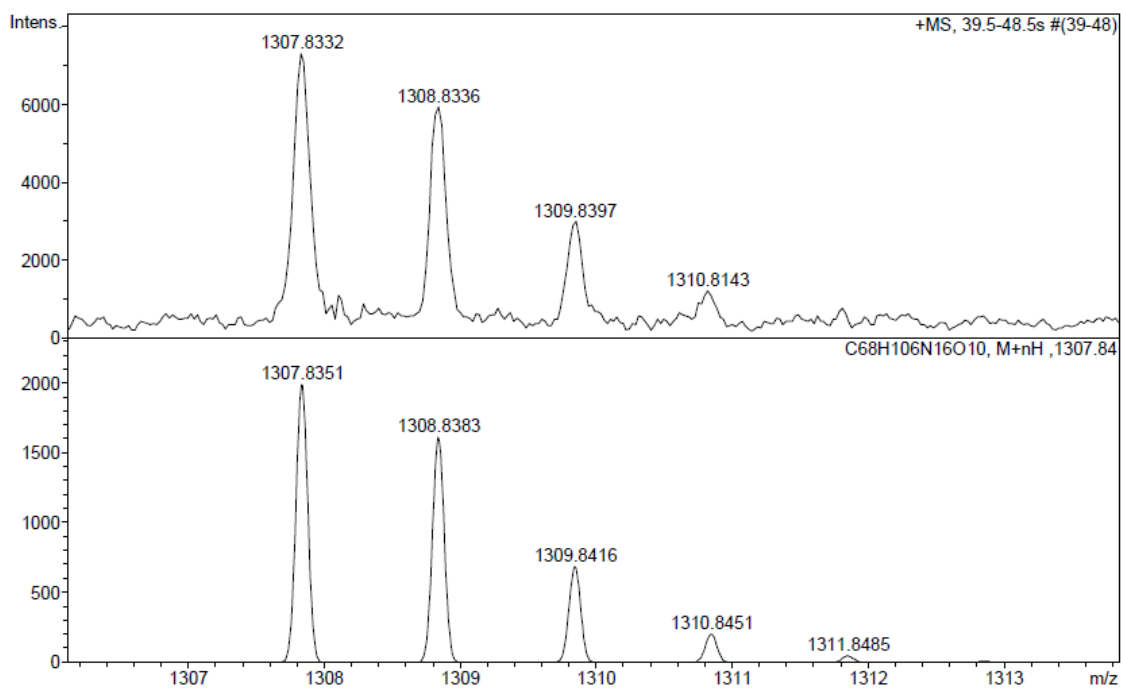
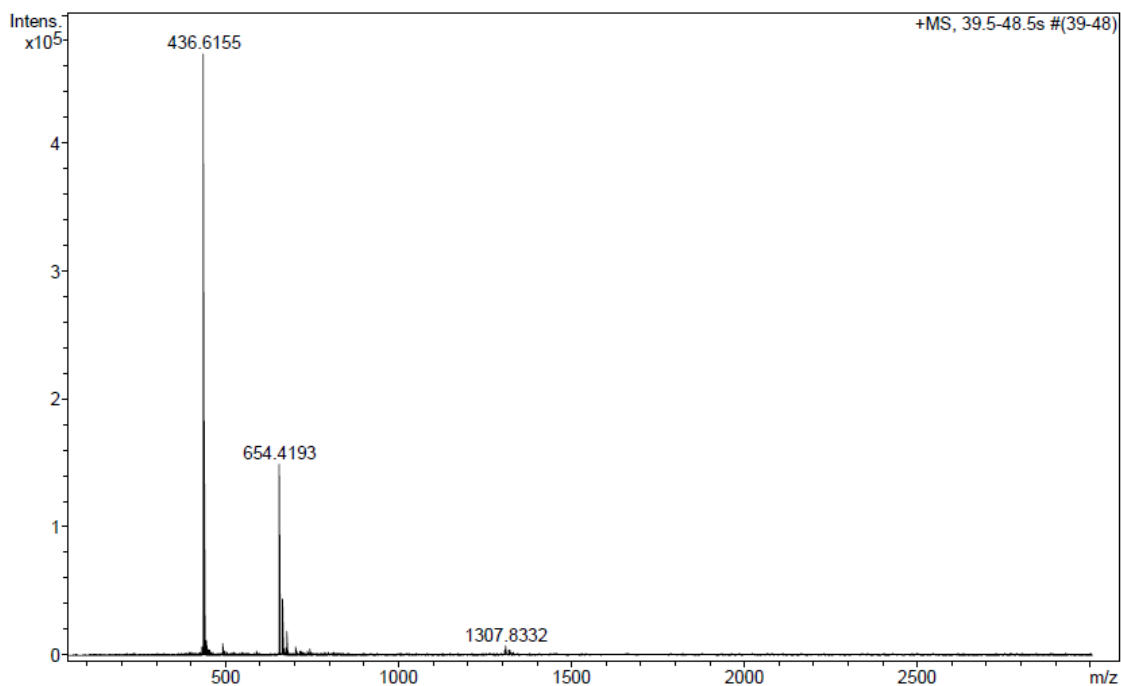
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d6-626 tub 16)

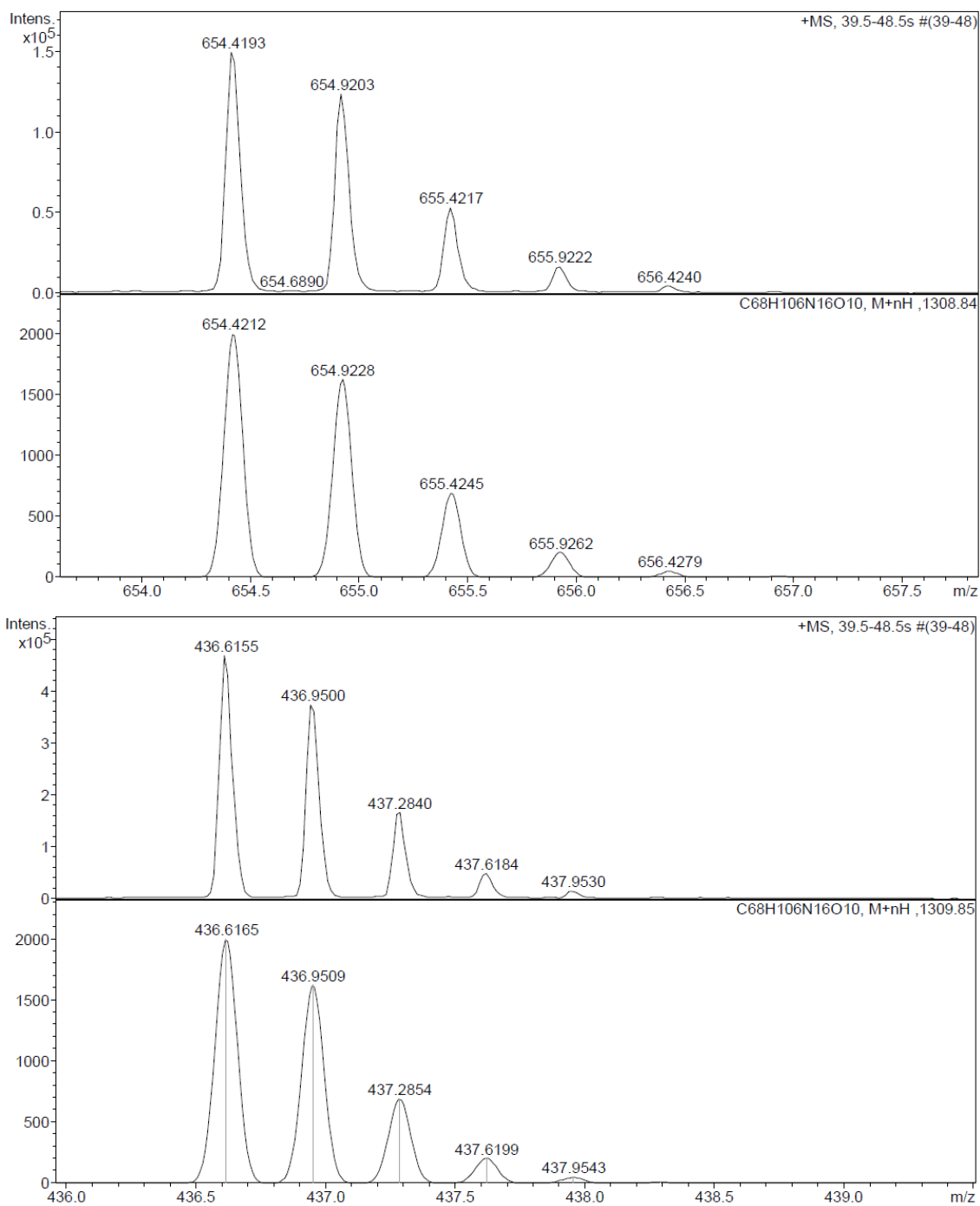
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,25 | 1709,043 | 154,301 | 100,00 |
| Total: | | 1709,043 | 154,301 | 100,00 |

ESI-MS (m/z) (CC-4-d6-626 tub 16)

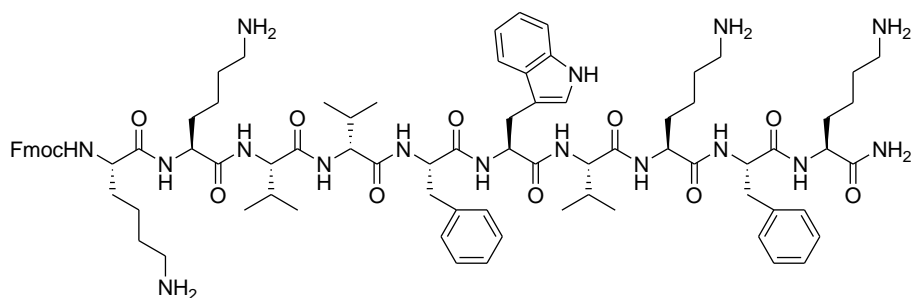
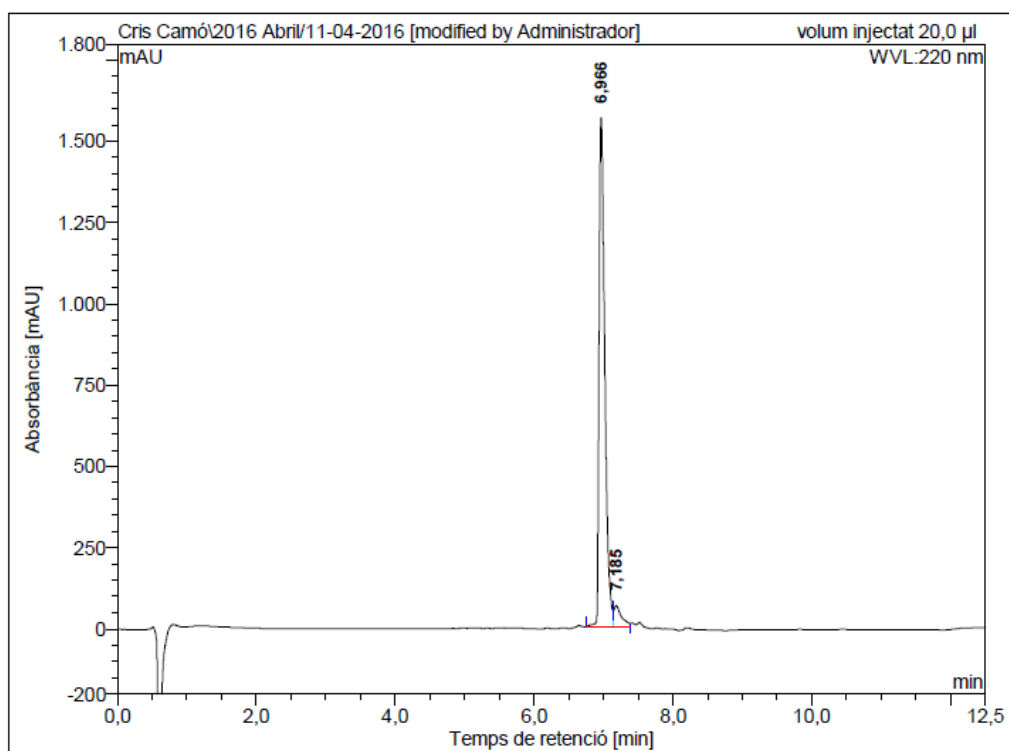
 $[M+H]^+ = 1308.0$ $[M+Na]^+ = 1330.0$ $[M+2H]^{2+} = 654.5$ $[M+H+Na]^{2+} = 665.4$ $[M+3H]^{3+} = 437.2$

HRMS (m/z) (CC-4-d6-629 tubs 9-13)

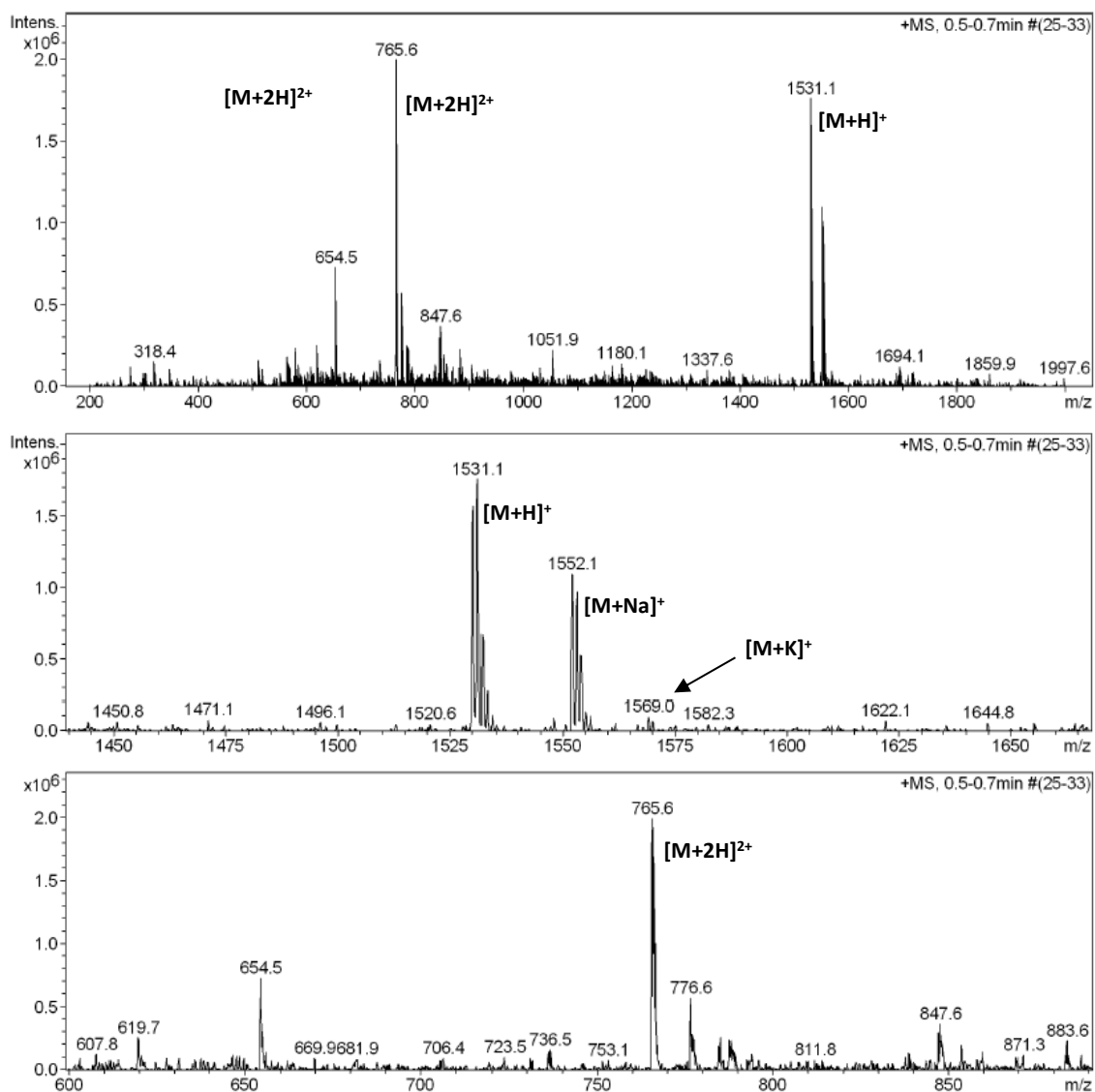




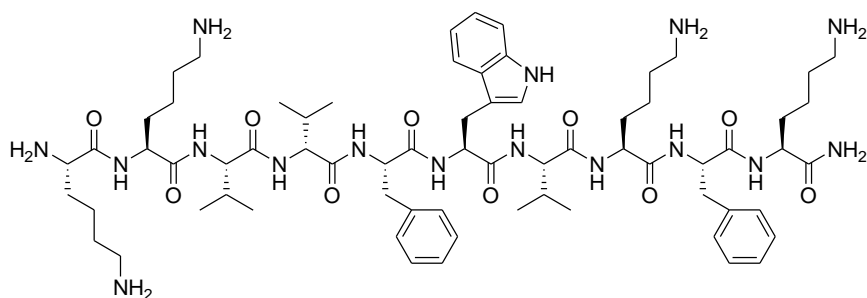
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8332 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4193 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6155 |

Fmoc-Lys-Lys-Val-D-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d7-621)

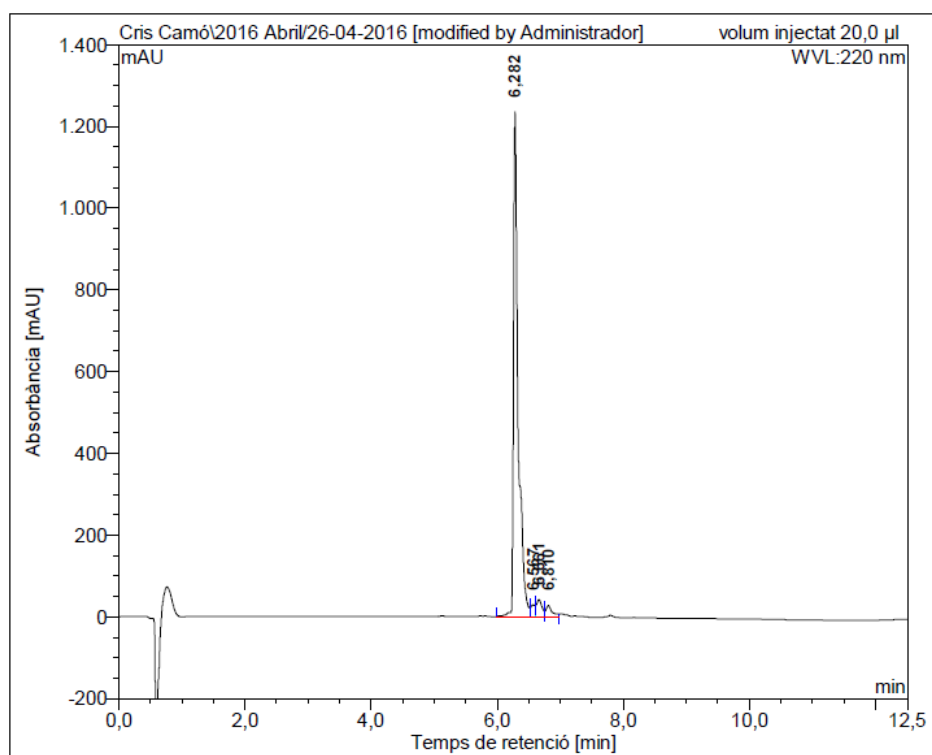
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,97 | 1565,744 | 151,335 | 94,63 |
| 2 | 7,18 | 65,032 | 8,594 | 5,37 |
| Total: | | 1630,776 | 159,928 | 100,00 |

ESI-MS (*m/z*) (CC-4-d7-621)

| |
|-----------------------|
| $[M+H]^+ = 1530.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+K]^+ = 1569.0$ |
| $[M+2H]^{2+} = 765.6$ |

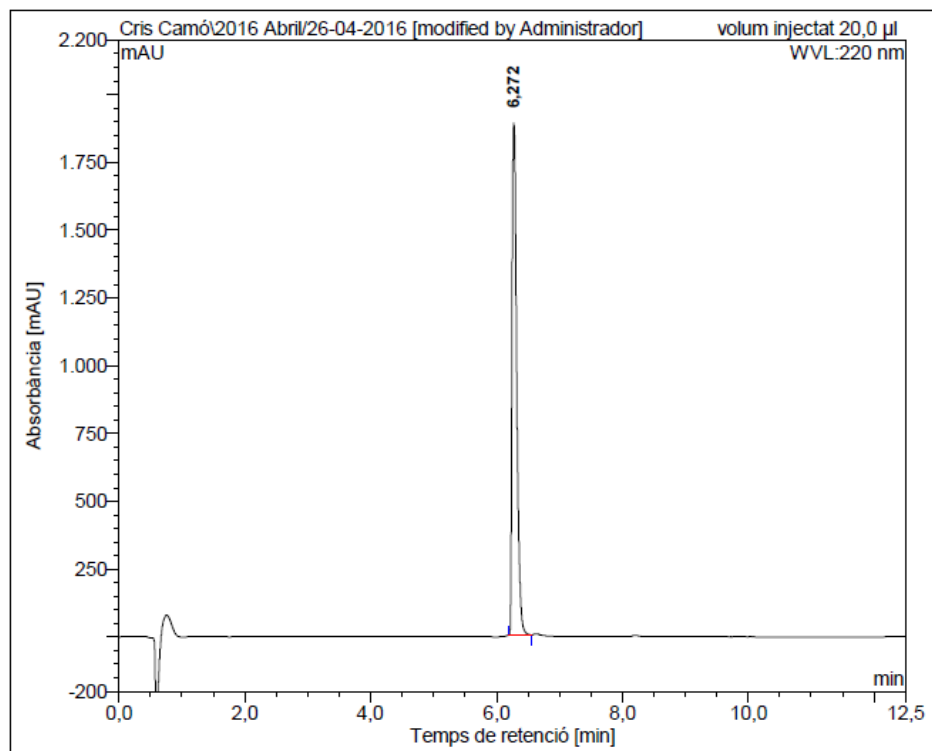
Lys-Lys-Val-D-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP448**) (CC-4-d7)

IMPURE PRODUCT

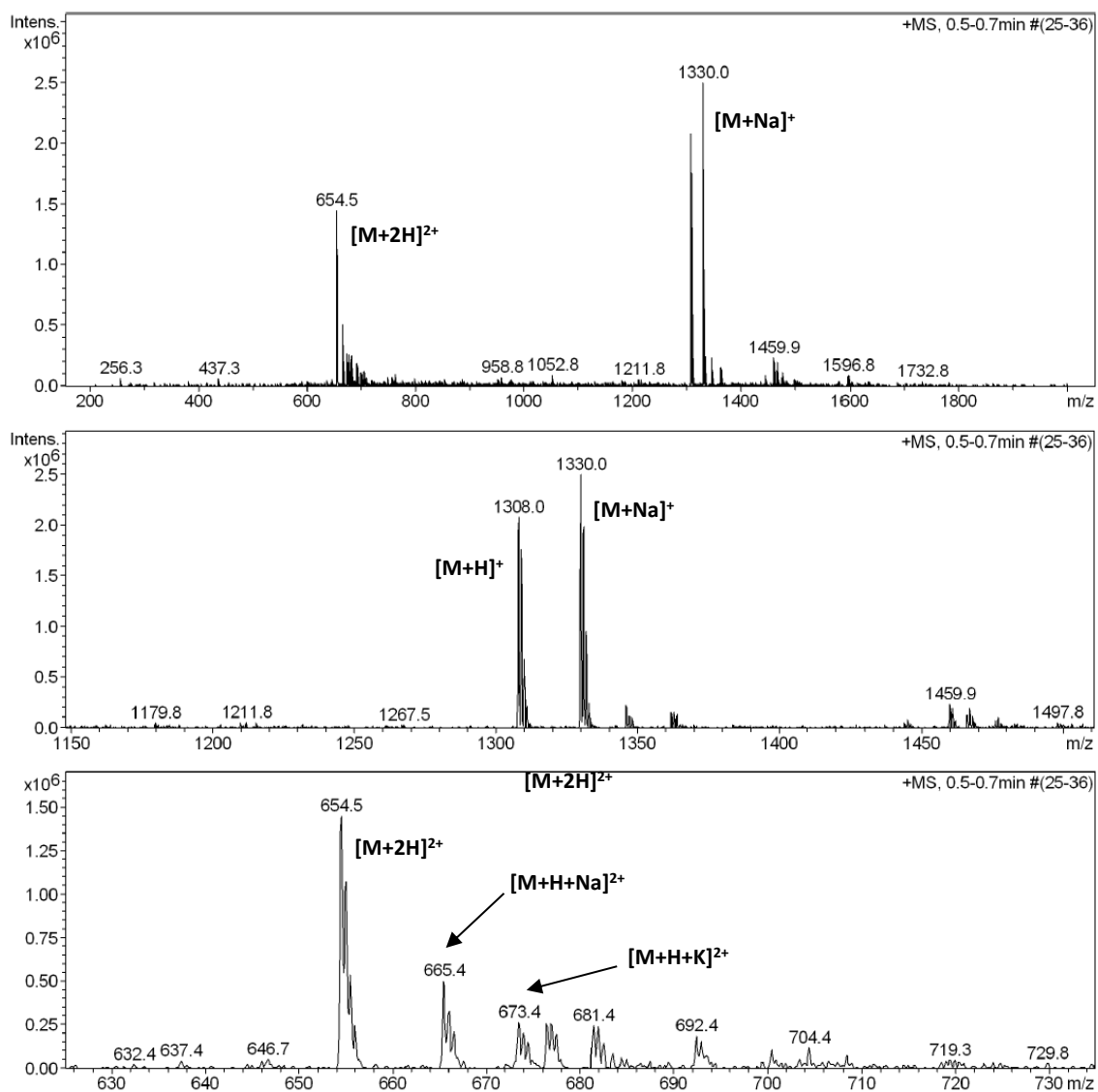
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d7-647 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,28 | 1236,037 | 105,469 | 91,32 |
| 2 | 6,57 | 29,248 | 2,437 | 2,11 |
| 3 | 6,66 | 41,942 | 4,317 | 3,74 |
| 4 | 6,81 | 27,536 | 3,267 | 2,83 |
| Total: | | 1334,763 | 115,491 | 100,00 |

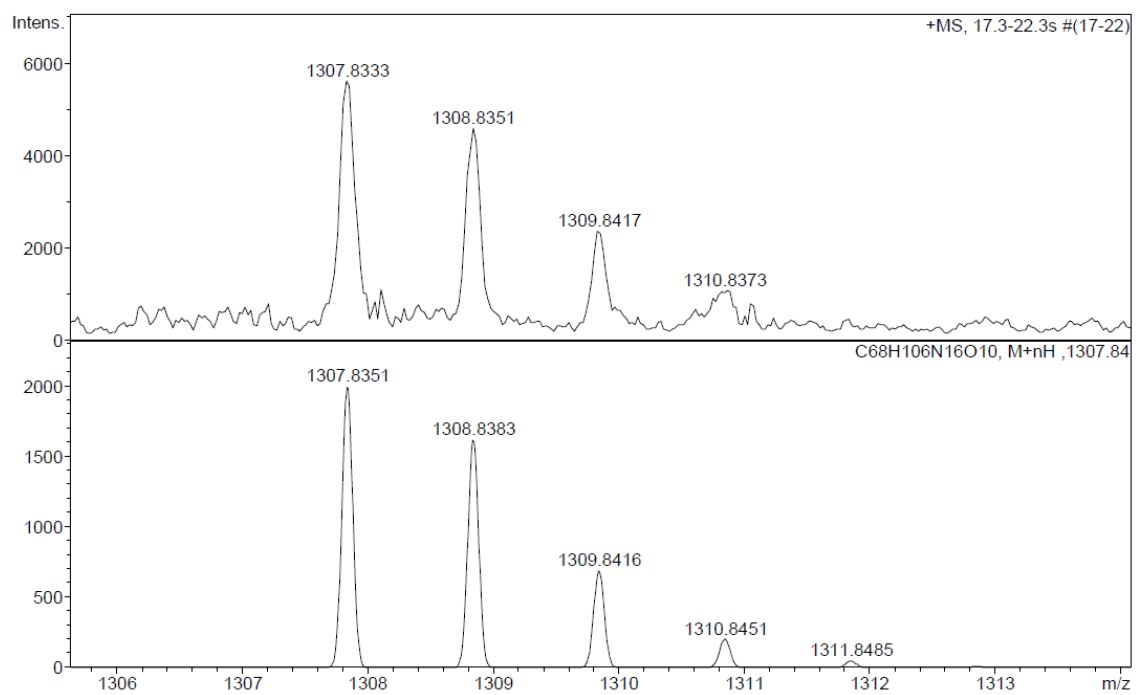
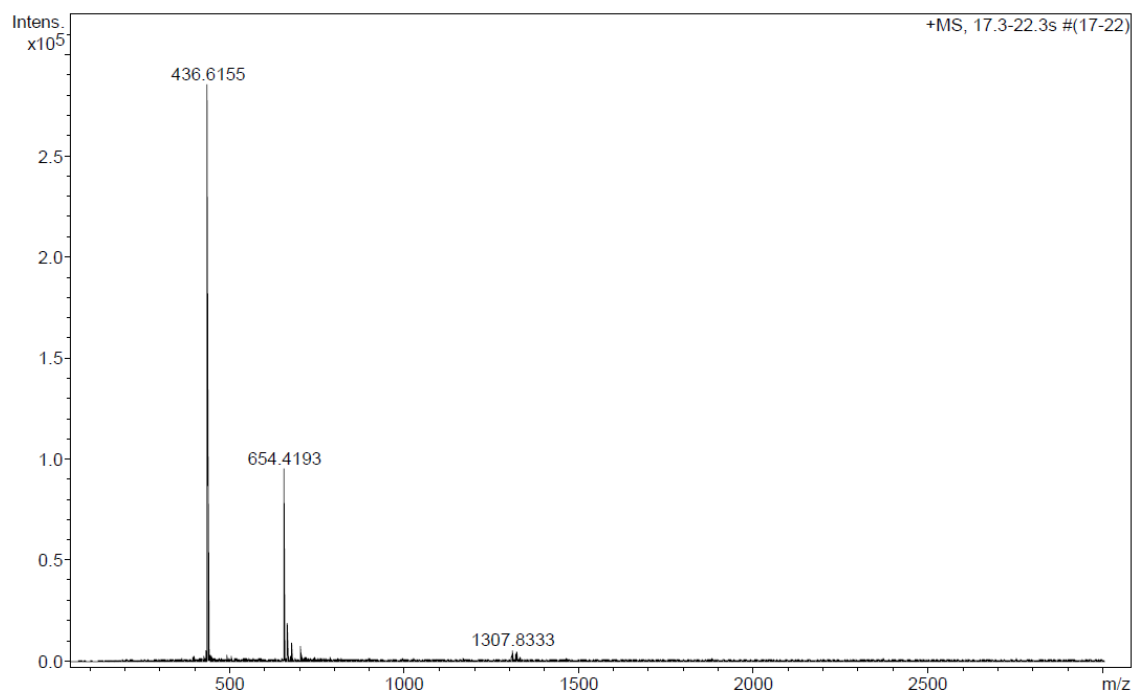
PURE PRODUCT

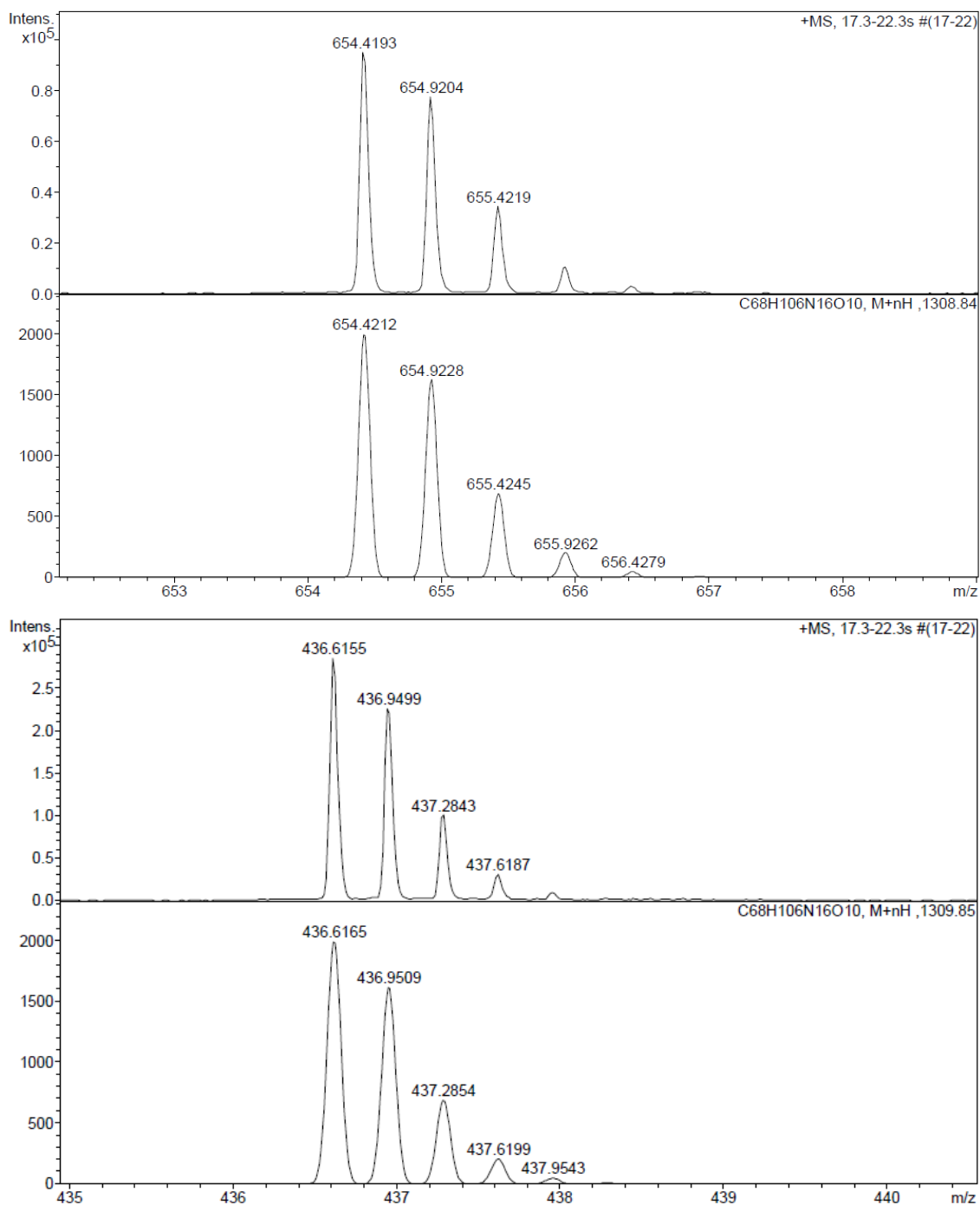
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d7-647 tub 15)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,27 | 1886,612 | 161,771 | 100,00 |
| Total: | | 1886,612 | 161,771 | 100,00 |

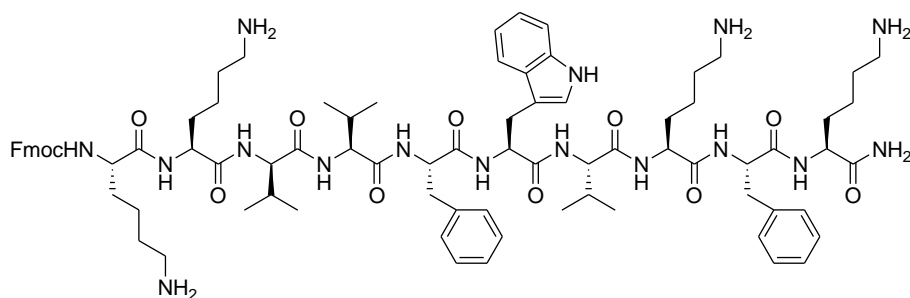
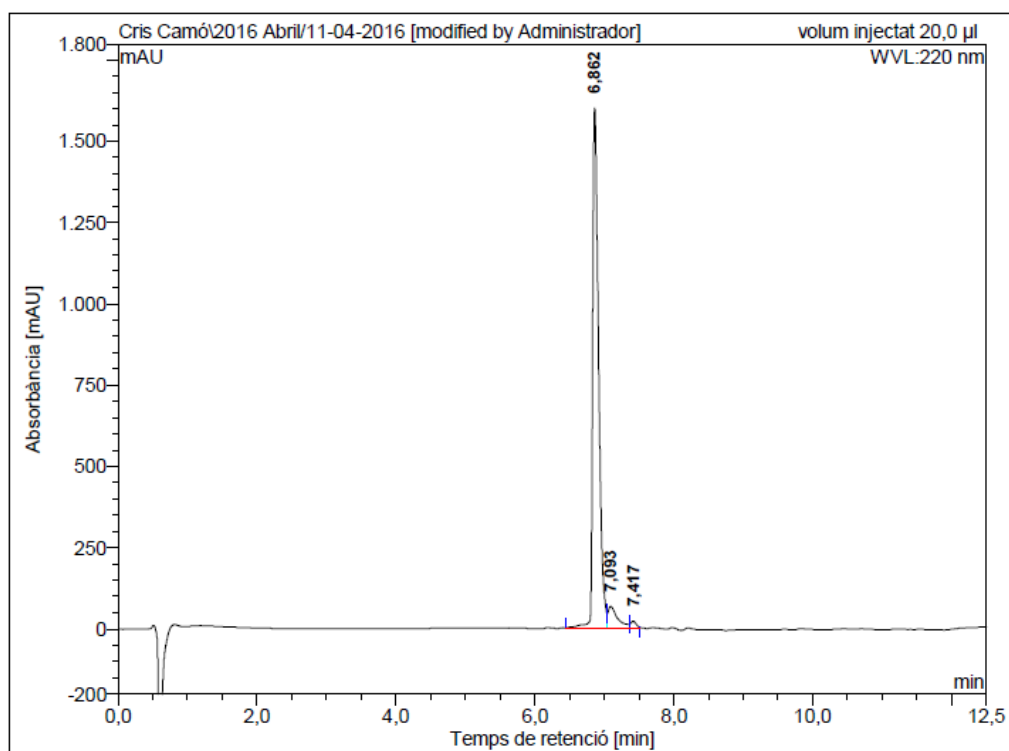
ESI-MS (m/z) (CC-4-d7-647 tub 15)

| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+H+Na]^{2+} = 665.4$ |
| $[M+H+K]^{2+} = 673.4$ |

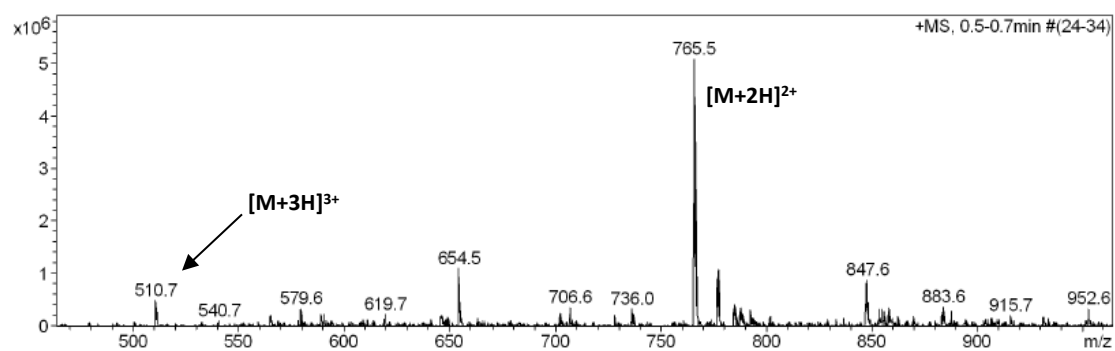
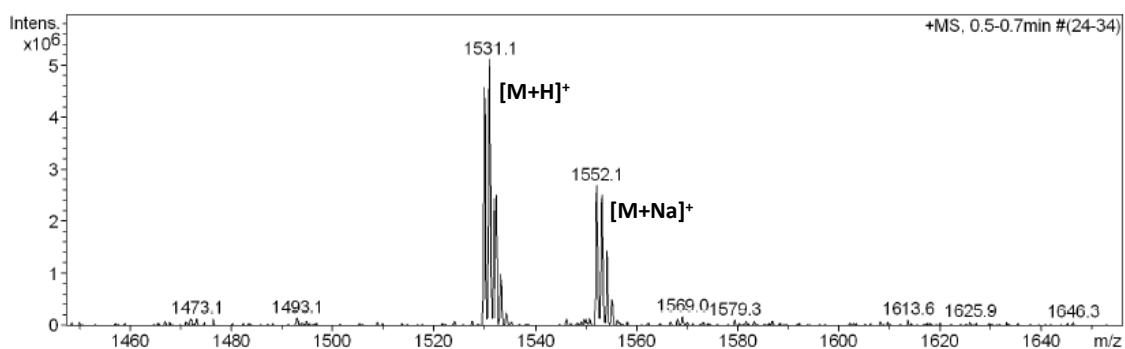
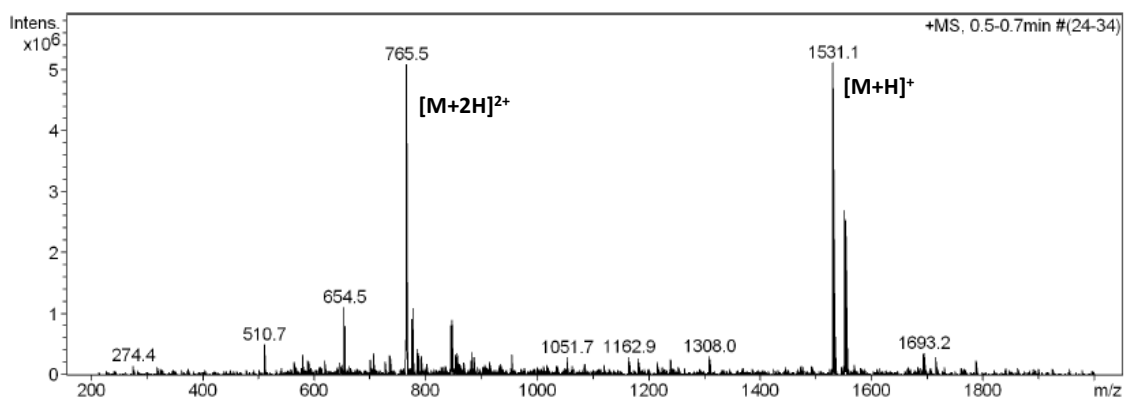
HRMS (m/z) (CC-4-d7-649 tubs 8-12)



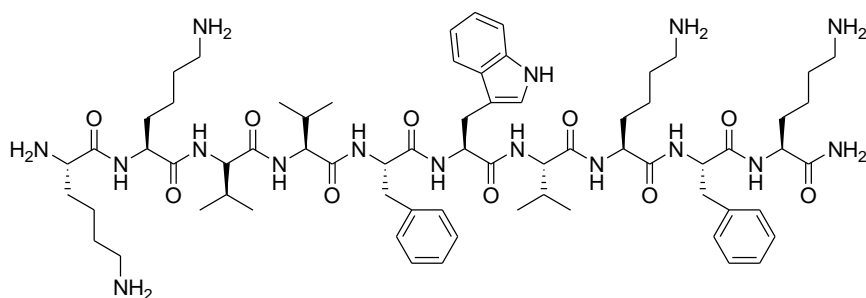
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8333 |
| [M+2H] ²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4193 |
| [M+3H] ³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6155 |

Fmoc-Lys-Lys-D-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d8-621)

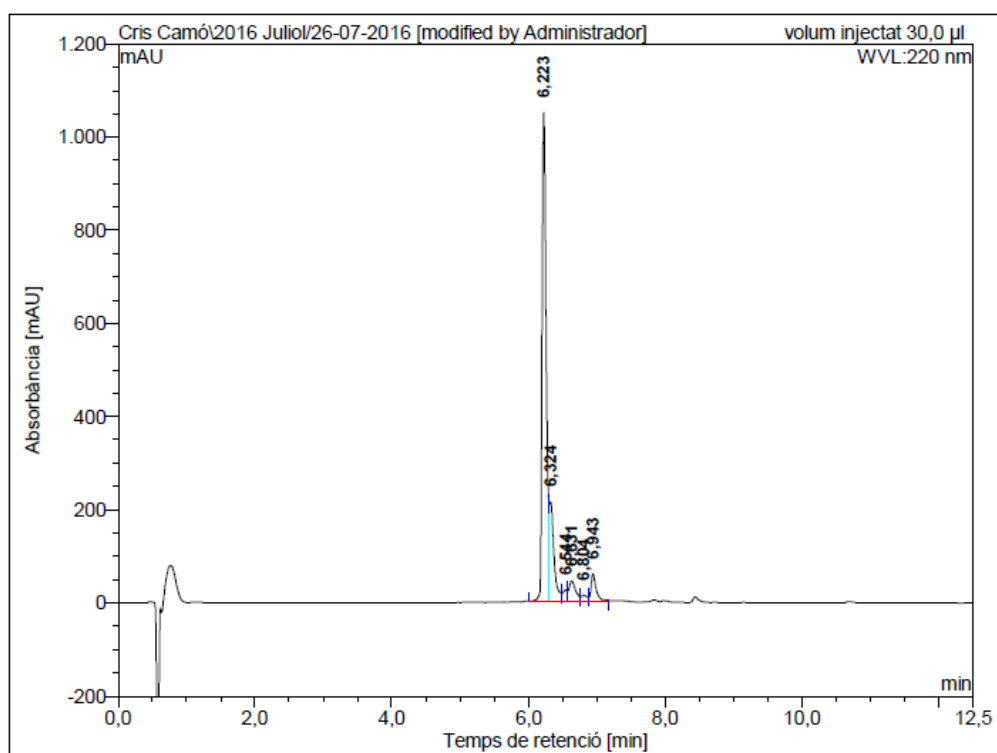
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,86 | 1599,825 | 158,825 | 92,66 |
| 2 | 7,09 | 66,802 | 10,543 | 6,15 |
| 3 | 7,42 | 20,888 | 2,038 | 1,19 |
| Total: | | 1687,515 | 171,406 | 100,00 |

ESI-MS (m/z) (CC-4-d8-621)

| |
|-----------------------|
| $[M+H]^+ = 1530.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+2H]^{2+} = 765.5$ |
| $[M+3H]^{3+} = 510.7$ |

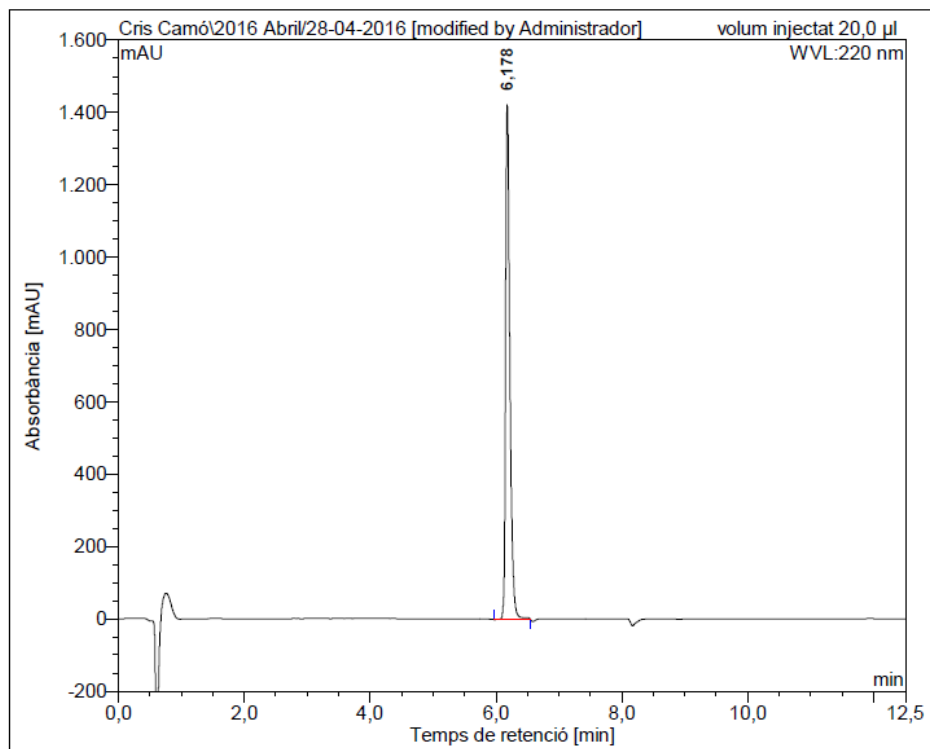
Lys-Lys-D-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (BP449) (CC-4-d8)

IMPURE PRODUCT

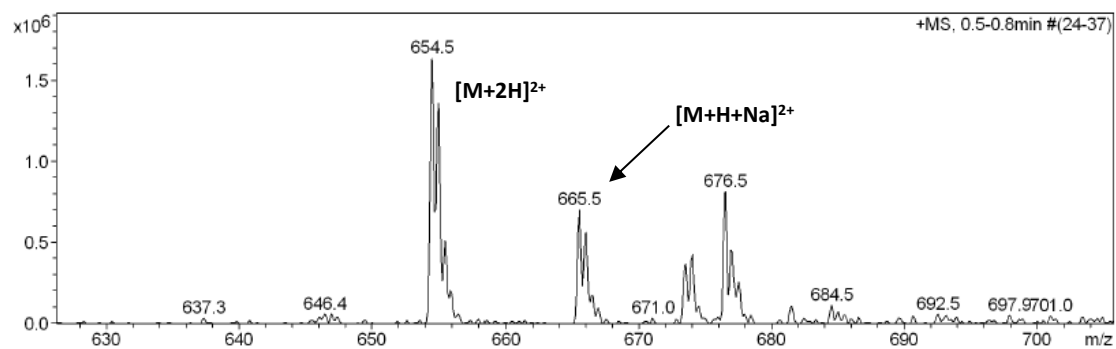
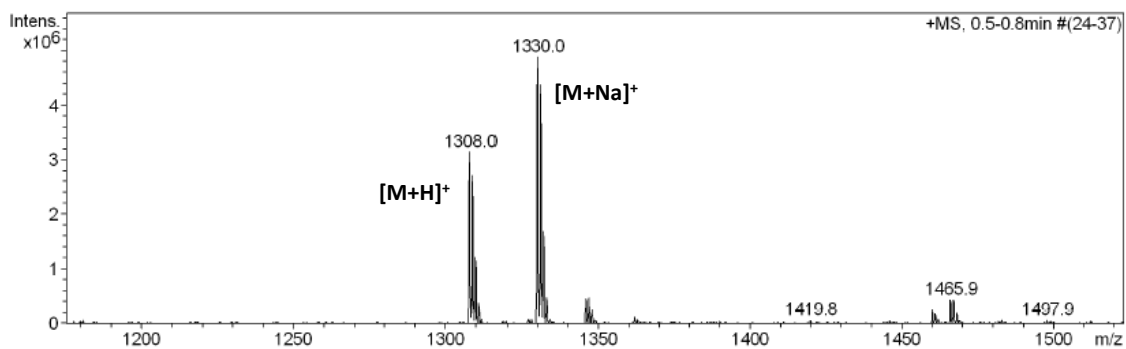
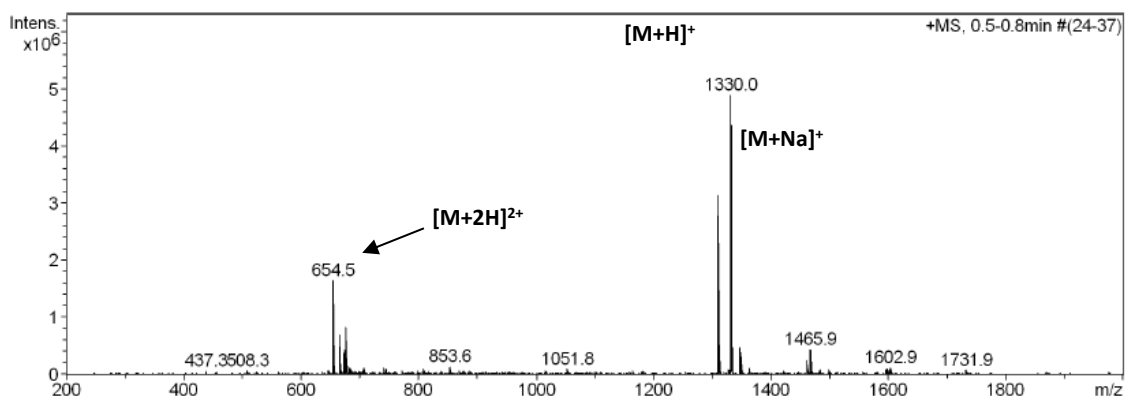
HPLC ($\lambda = 220$ nm) (CC-4-d8 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,22 | 1048,981 | 73,811 | 71,09 |
| 2 | 6,32 | 213,179 | 16,373 | 15,77 |
| 3 | 6,54 | 24,361 | 1,811 | 1,74 |
| 4 | 6,63 | 43,568 | 5,134 | 4,94 |
| 5 | 6,80 | 13,427 | 1,365 | 1,31 |
| 6 | 6,94 | 58,583 | 5,333 | 5,14 |
| Total: | | 1402,098 | 103,826 | 100,00 |

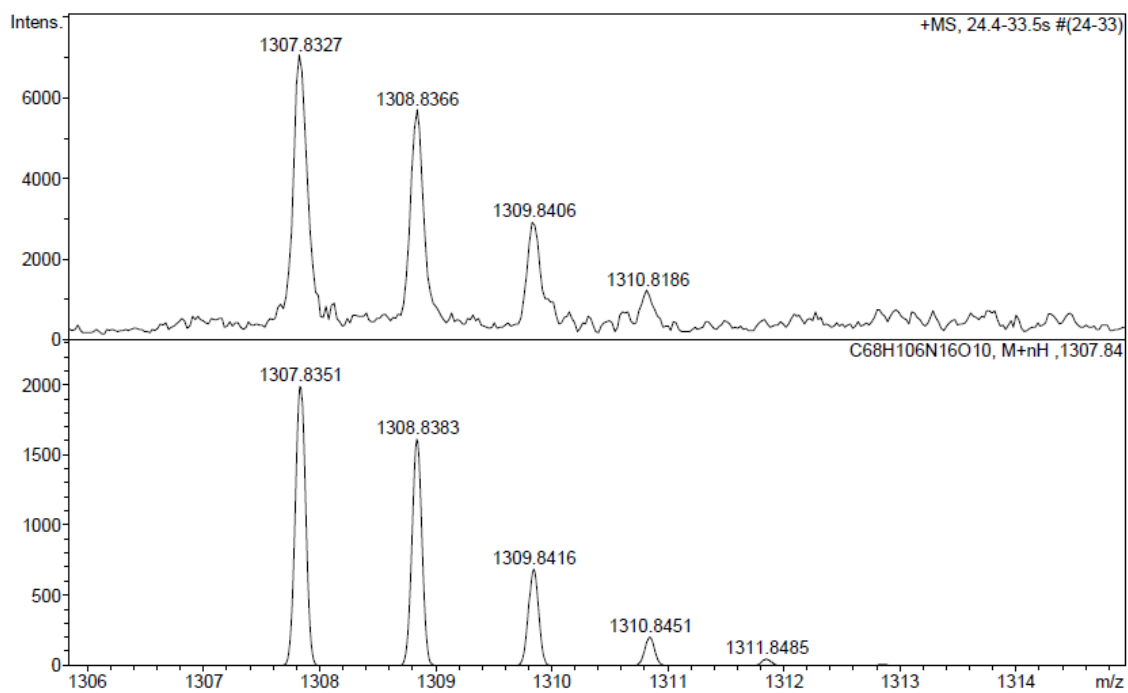
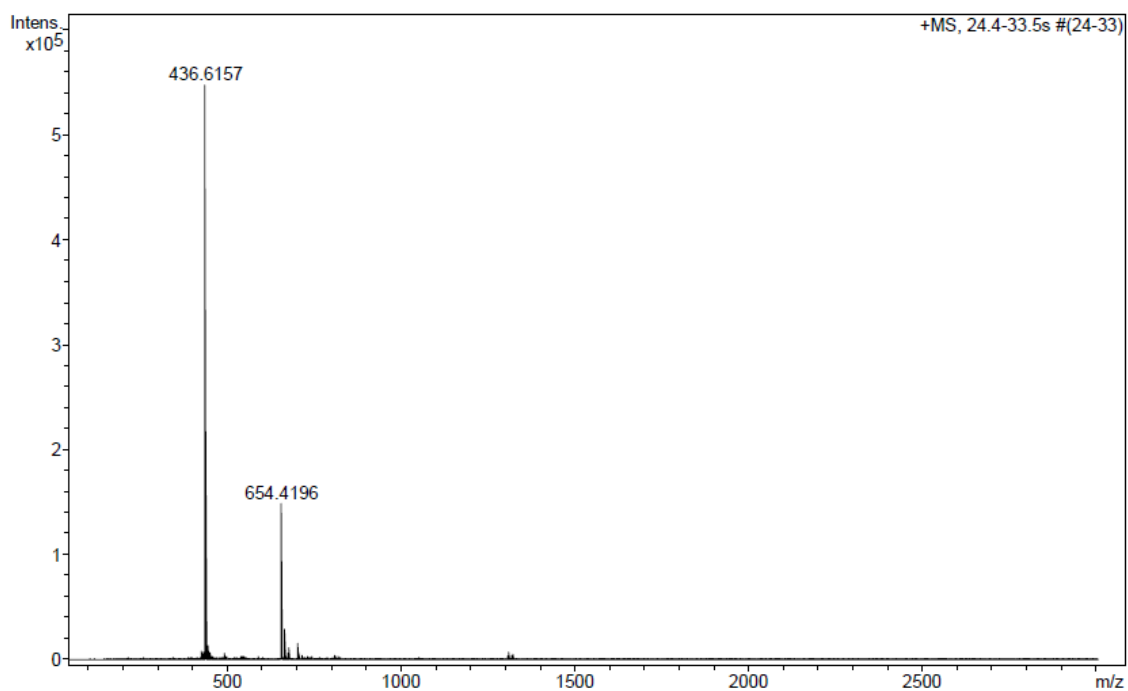
PURE PRODUCT

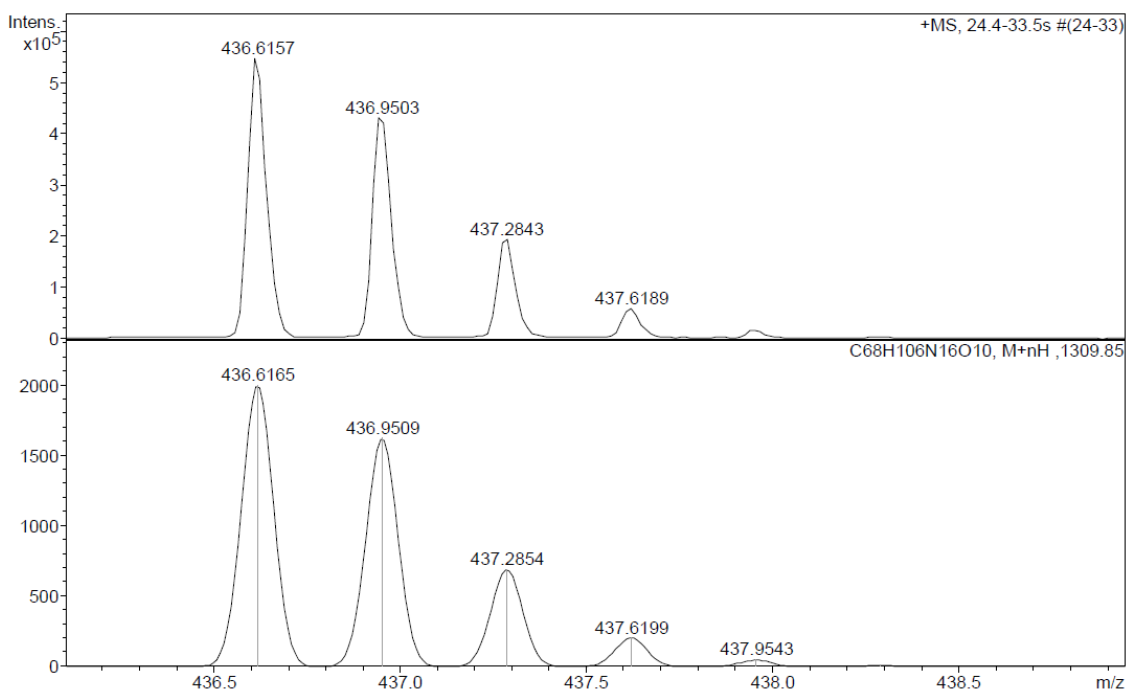
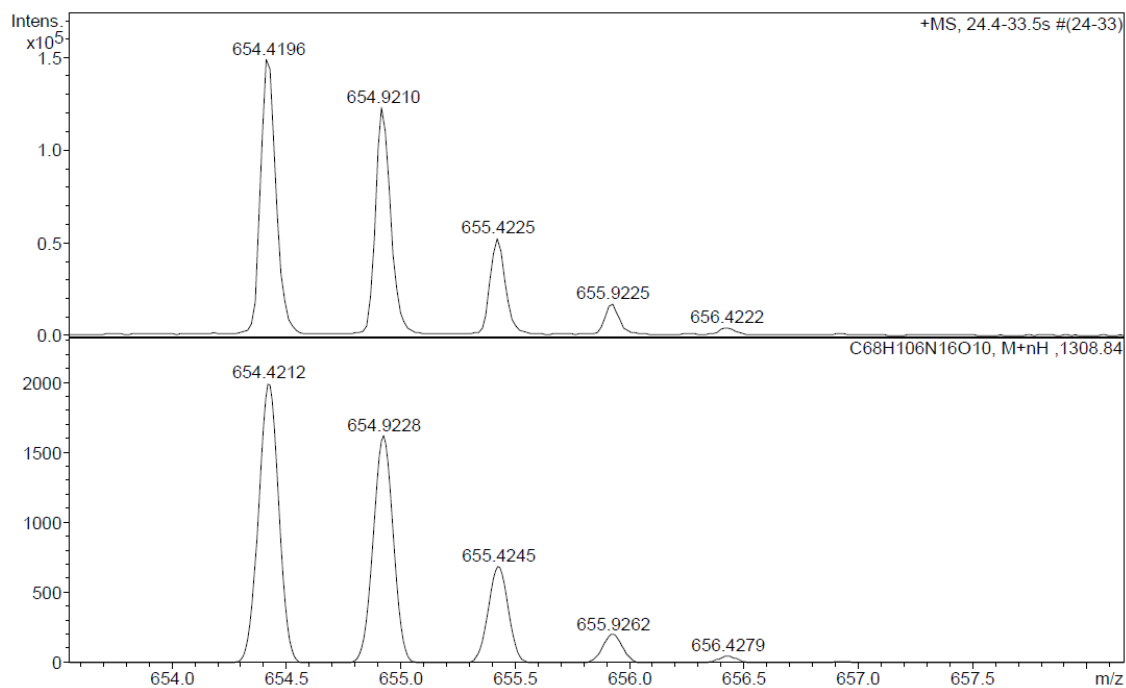
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d8-651 tub 17)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 1422,400 | 112,946 | 100,00 |
| Total: | | 1422,400 | 112,946 | 100,00 |

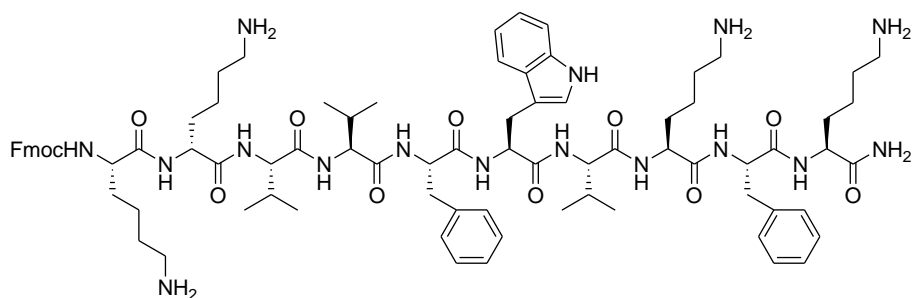
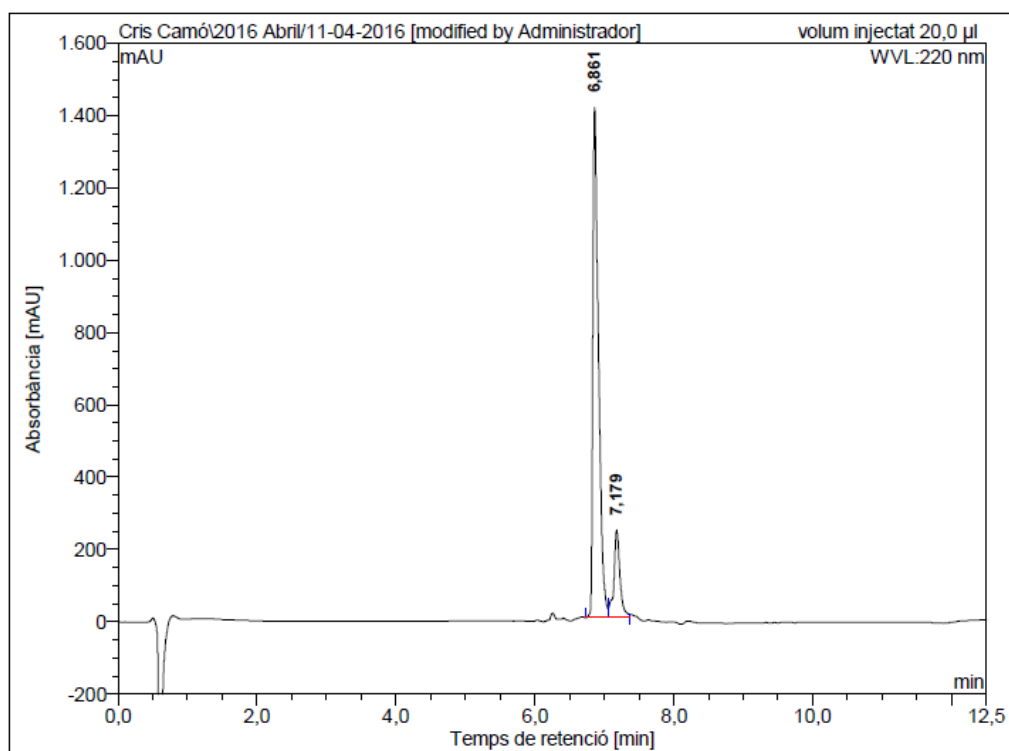
ESI-MS (m/z) (CC-4-d8-651 tub 17)

| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+H+Na]^{2+} = 665.5$ |

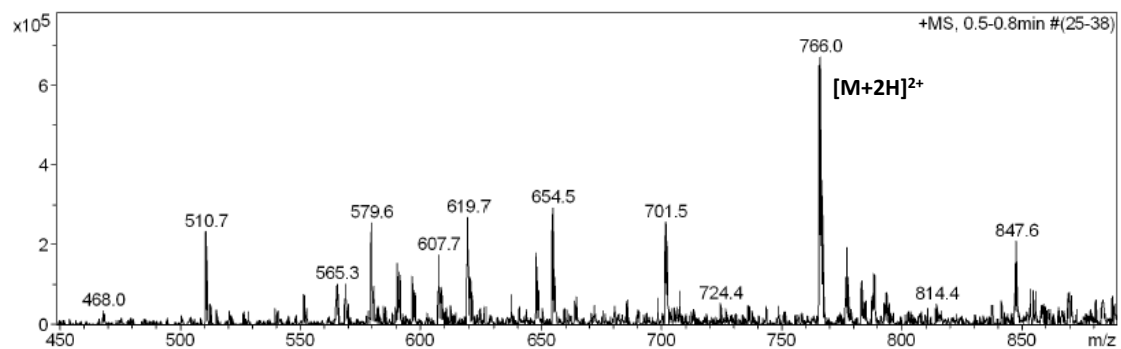
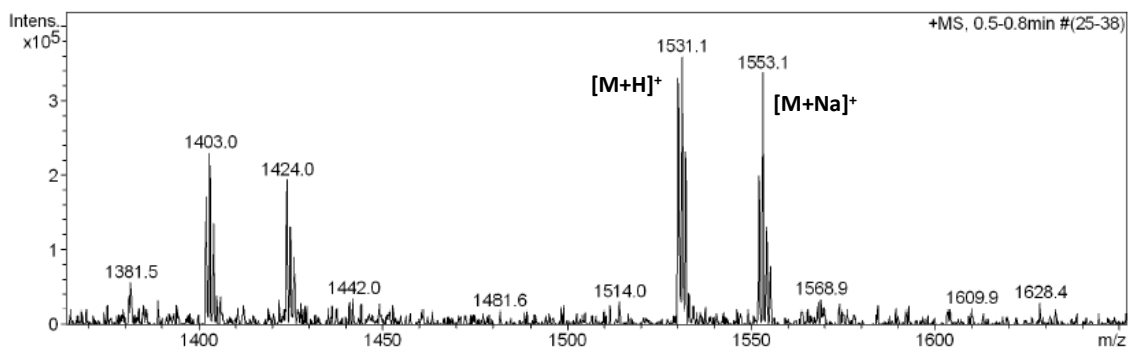
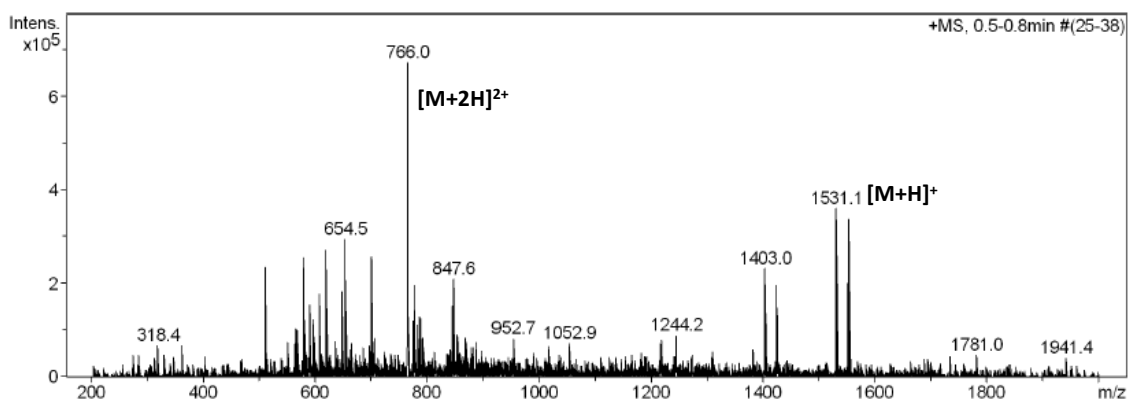
HRMS (m/z) (CC-4-d8-651 tubs 12-18)



| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8327 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4196 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6157 |

Fmoc-Lys-D-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220$ nm) (CC-4-d9-621)

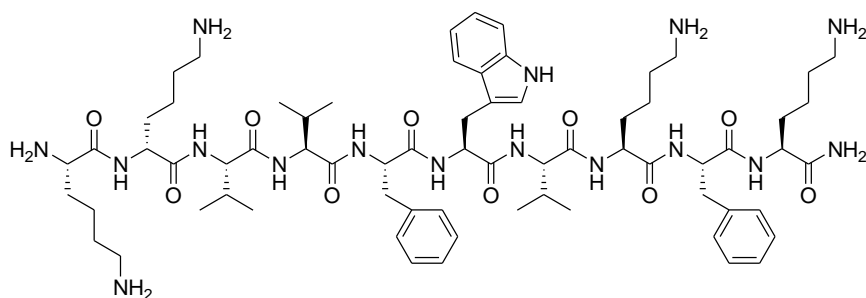
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,86 | 1412,835 | 134,458 | 84,36 |
| 2 | 7,18 | 242,638 | 24,920 | 15,64 |
| Total: | | 1655,473 | 159,378 | 100,00 |

ESI-MS (*m/z*) (CC-4-d9-621)

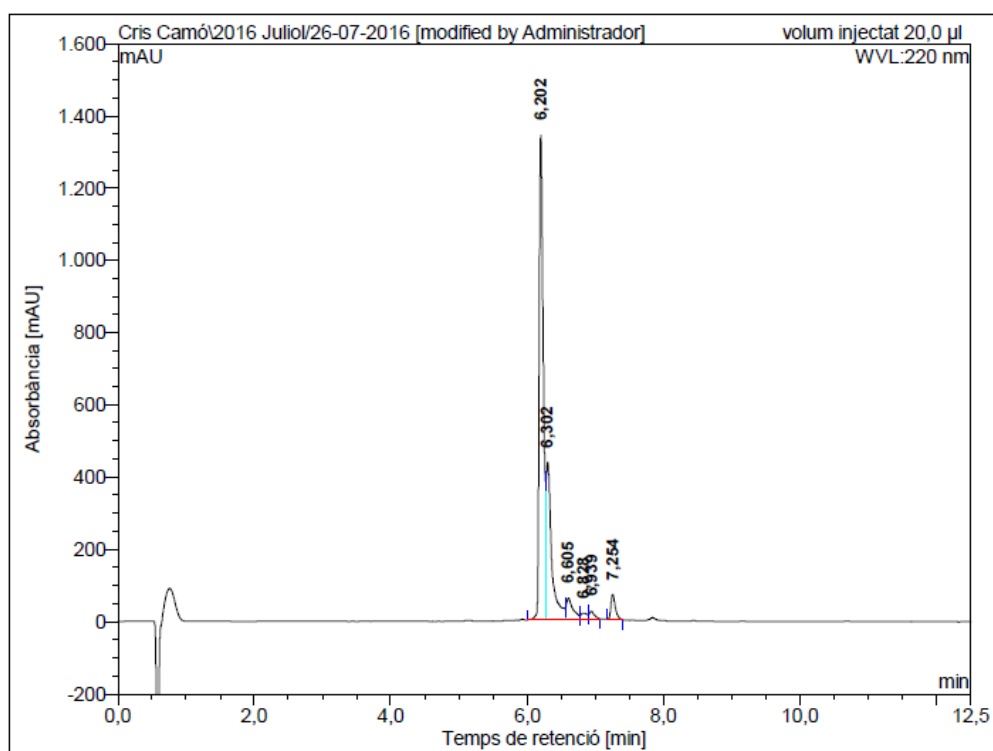
| |
|--------------------|
| $[M+H]^+ = 1530.1$ |
|--------------------|

| |
|---------------------|
| $[M+Na]^+ = 1552.1$ |
|---------------------|

| |
|-----------------------|
| $[M+2H]^{2+} = 766.0$ |
|-----------------------|

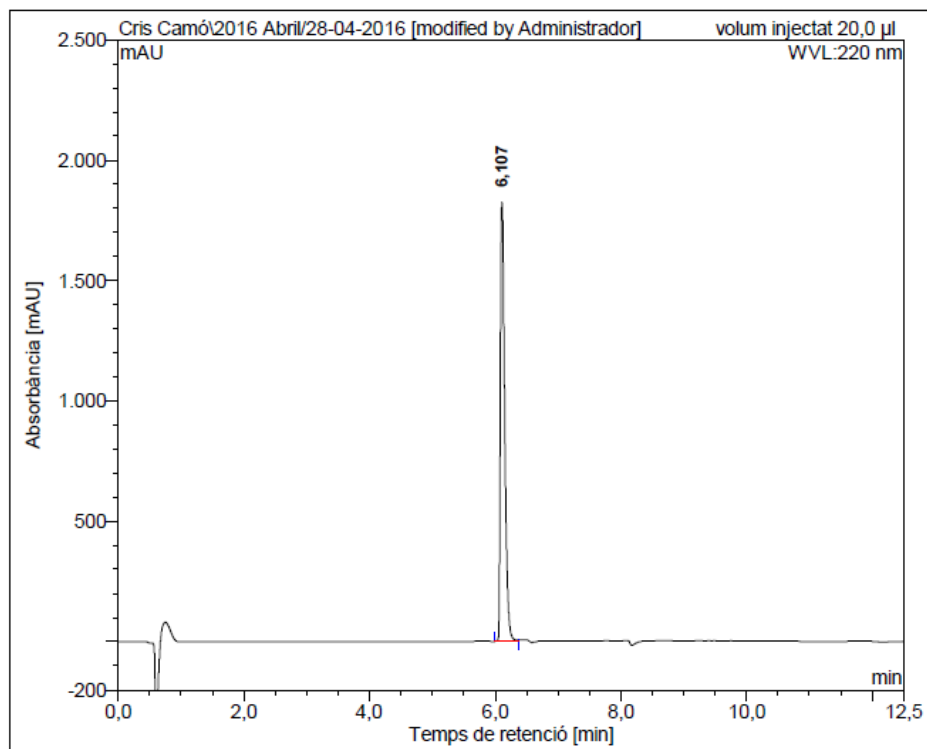
Lys-D-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP450**) (CC-4-d9)

IMPURE PRODUCT

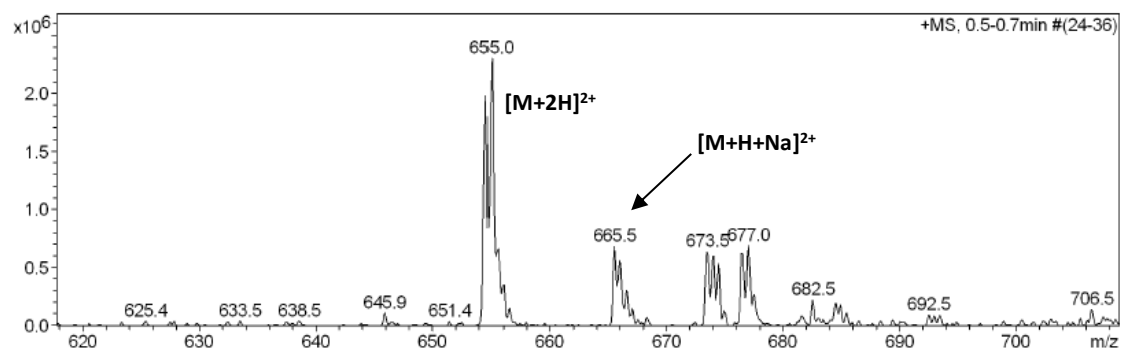
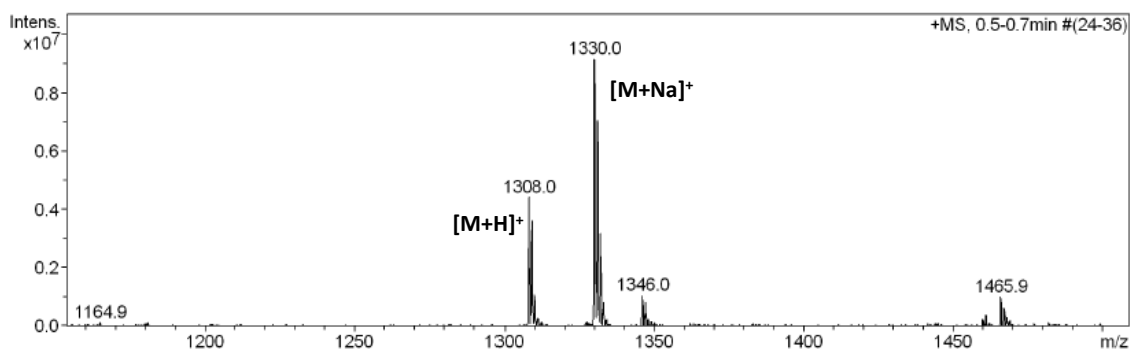
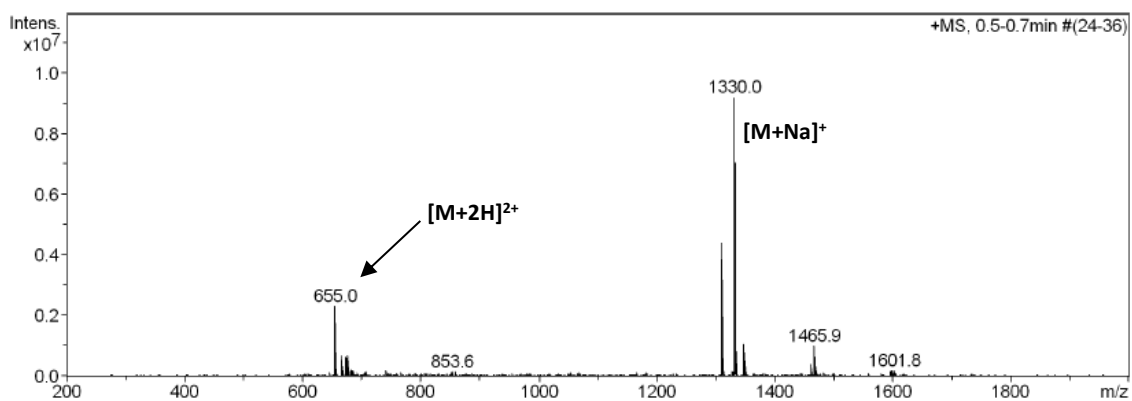
HPLC ($\lambda = 220$ nm) (CC-4-d9 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,20 | 1342,270 | 94,318 | 61,44 |
| 2 | 6,30 | 436,362 | 42,817 | 27,89 |
| 3 | 6,60 | 60,327 | 7,014 | 4,57 |
| 4 | 6,83 | 18,610 | 2,082 | 1,36 |
| 5 | 6,94 | 23,829 | 2,201 | 1,43 |
| 6 | 7,25 | 68,913 | 5,084 | 3,31 |
| Total: | | 1950,312 | 153,515 | 100,00 |

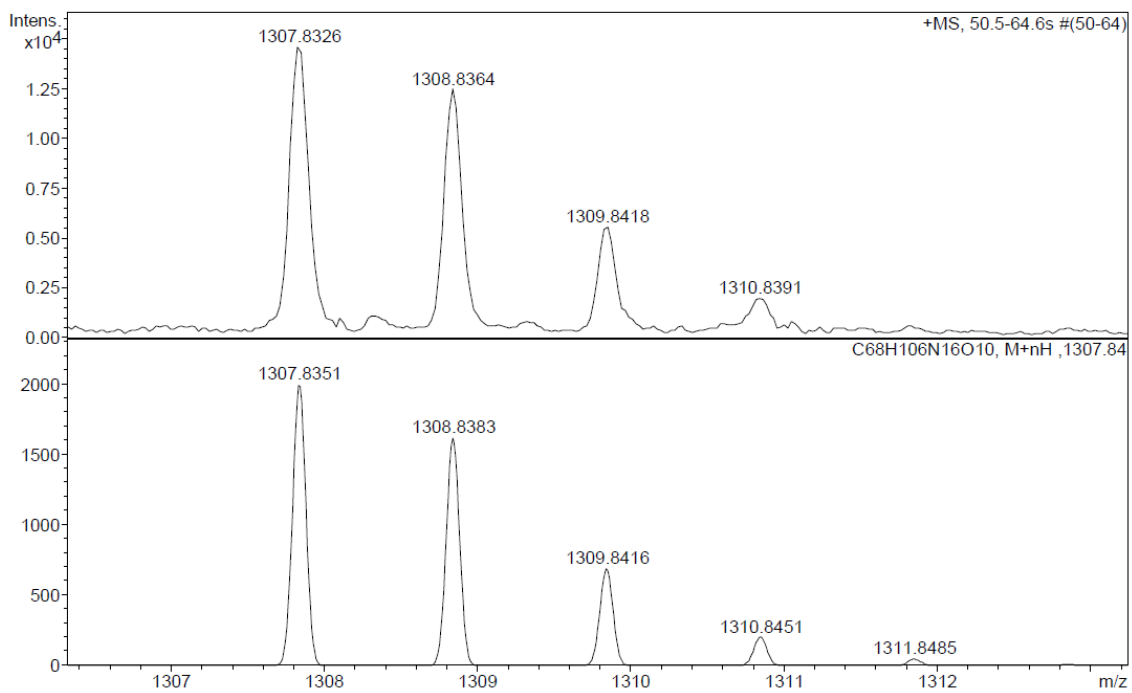
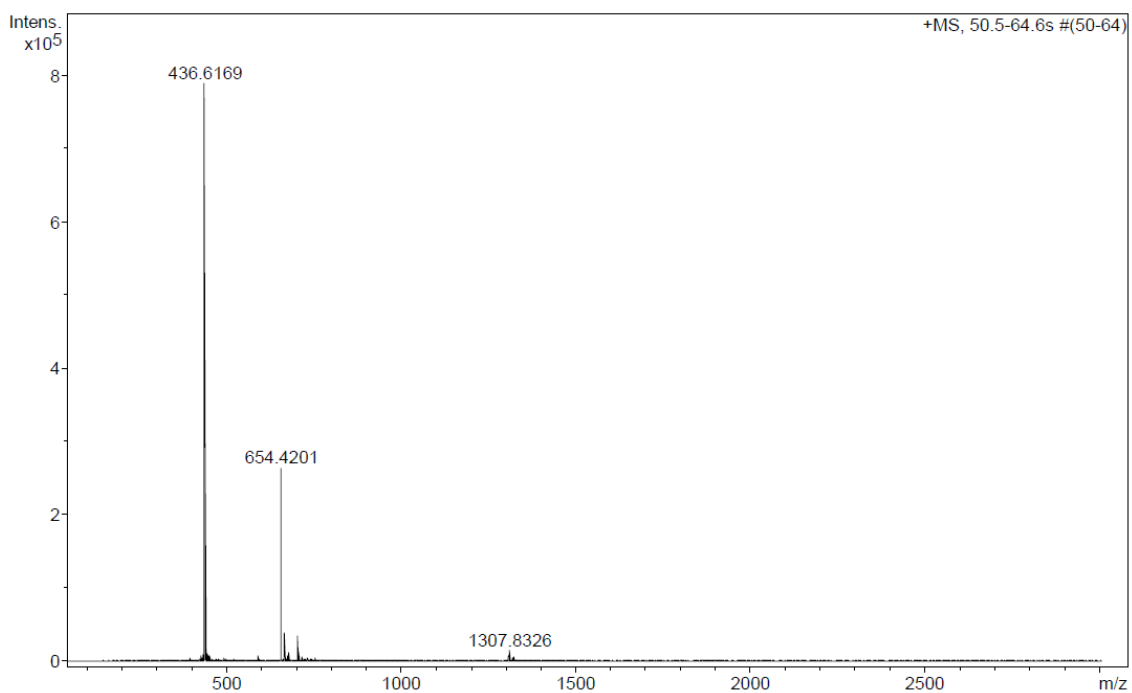
PURE PRODUCT

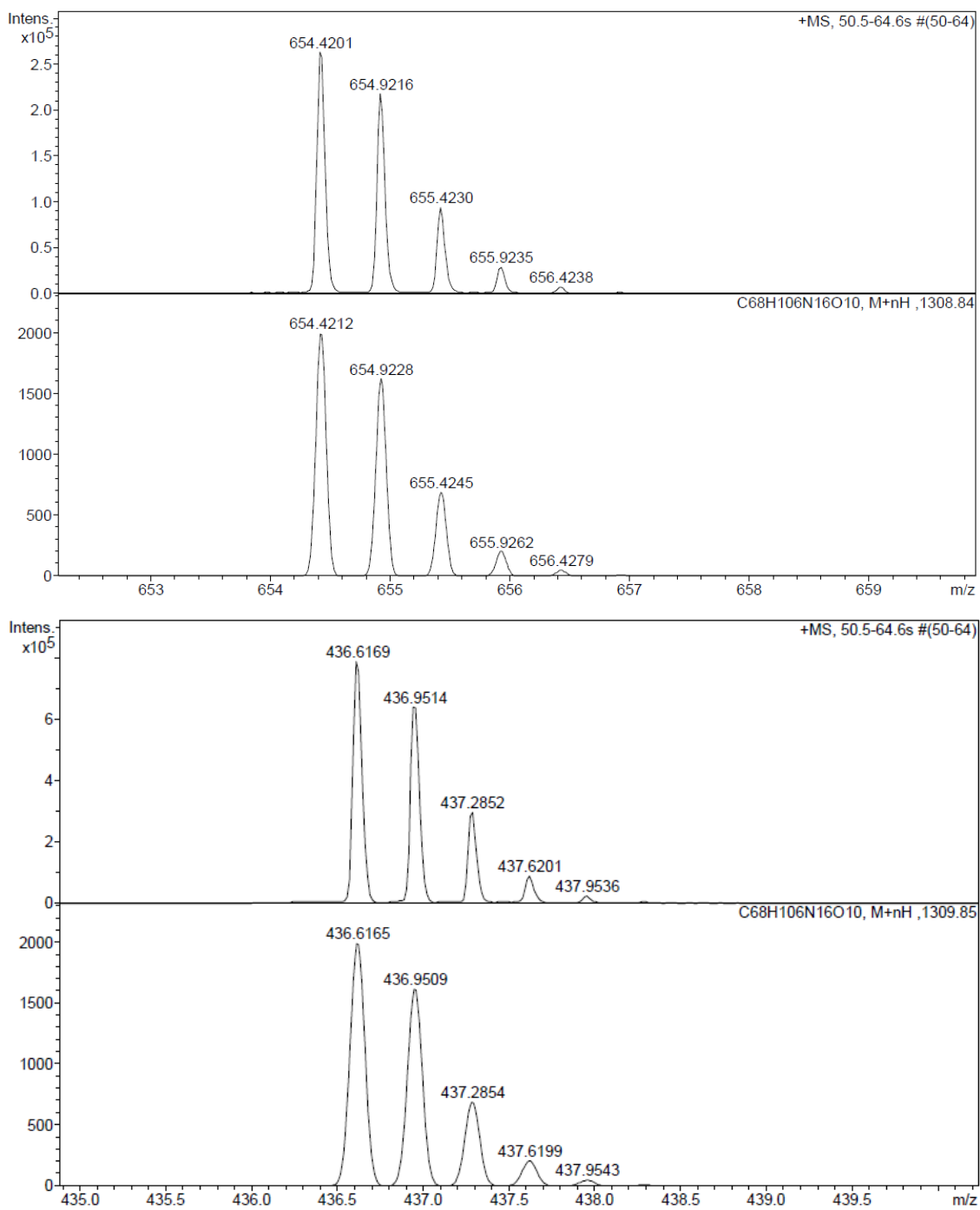
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d9-653 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,11 | 1826,210 | 148,096 | 100,00 |
| Total: | | 1826,210 | 148,096 | 100,00 |

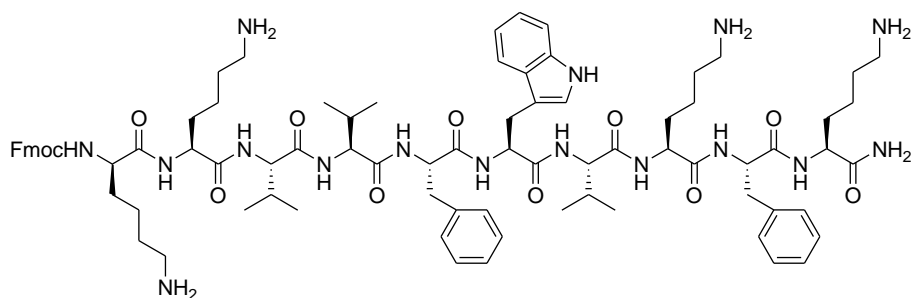
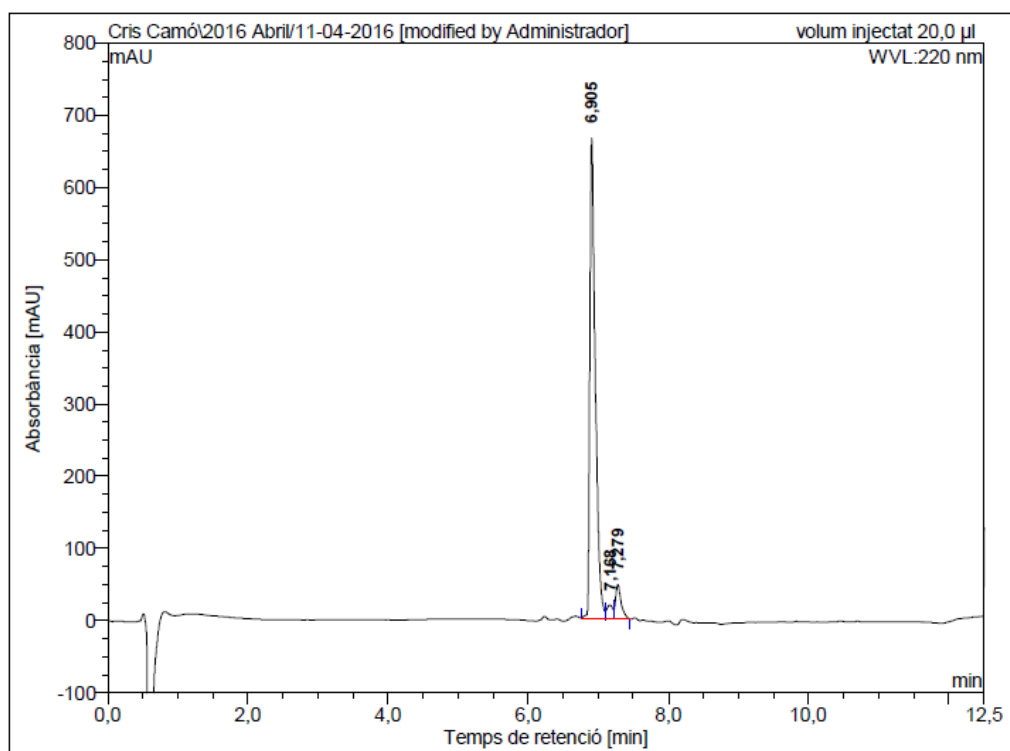
ESI-MS (m/z) (CC-4-d9-653 tub 16)

| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 655.0$ |
| $[M+H+Na]^{2+} = 665.5$ |

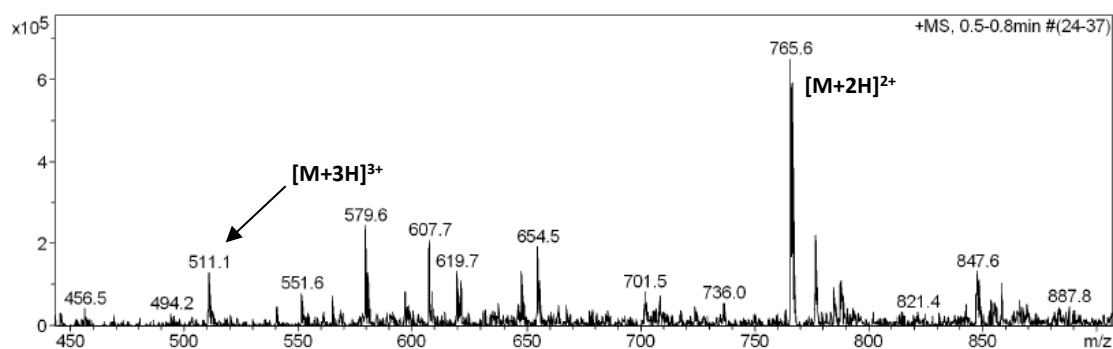
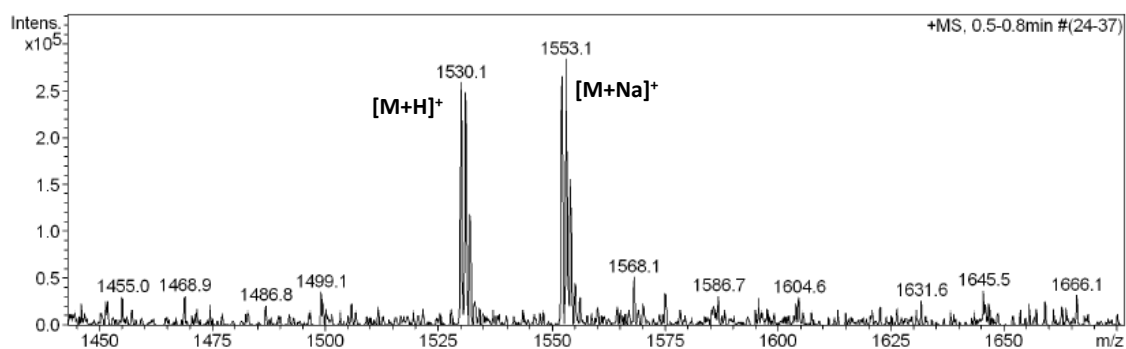
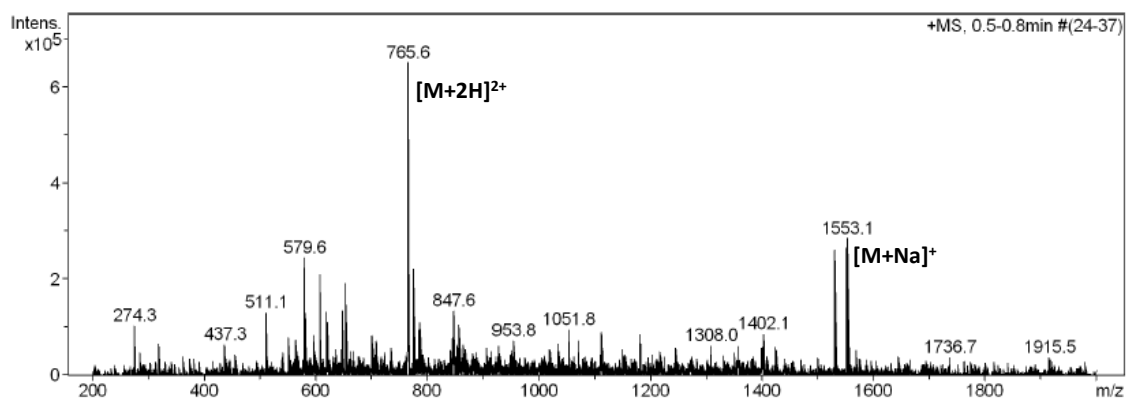
HRMS (m/z) (CC-4-d9-653 tubs 10-17)



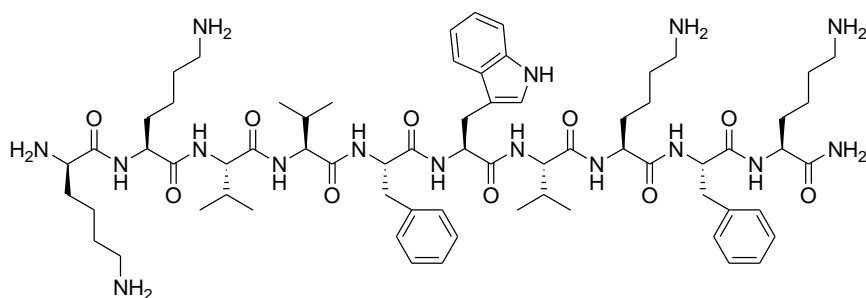
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{68}H_{107}N_{16}O_{10}$ | 1307.8351 | 1307.8326 |
| $[M+2H]^{2+}$ | $C_{68}H_{108}N_{16}O_{10}$ | 654.4212 | 654.4201 |
| $[M+3H]^{3+}$ | $C_{68}H_{109}N_{16}O_{10}$ | 436.6165 | 436.6169 |

Fmoc-D-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d10-621)

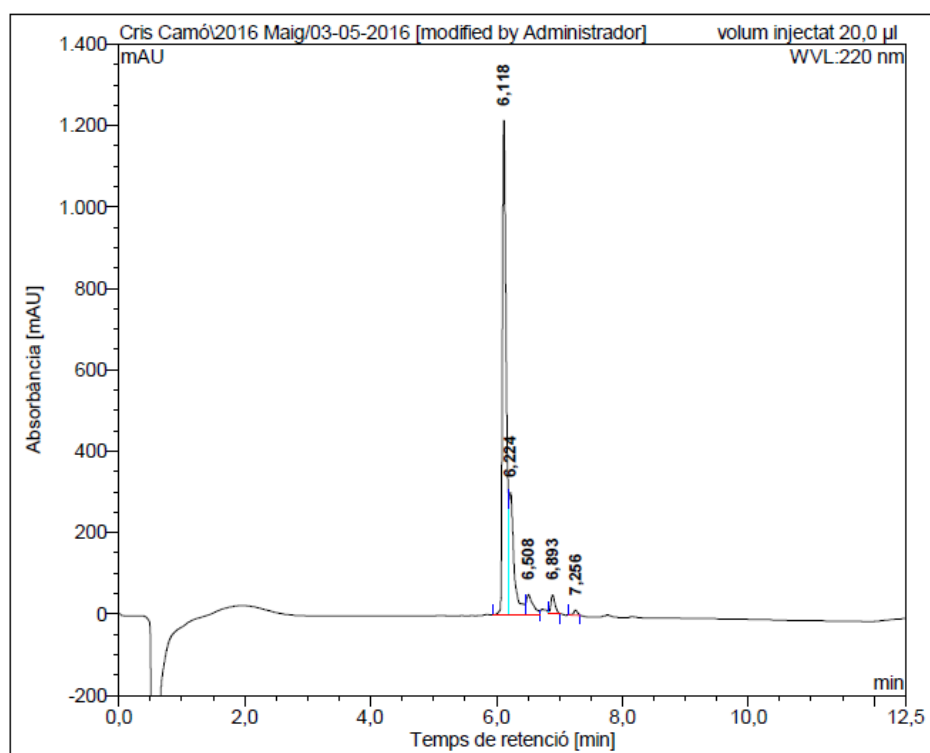
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,91 | 666,577 | 60,639 | 90,61 |
| 2 | 7,17 | 18,960 | 1,917 | 2,86 |
| 3 | 7,28 | 47,224 | 4,368 | 6,53 |
| Total: | | 732,760 | 66,925 | 100,00 |

ESI-MS (m/z) (CC-4-d10-621)

| |
|-----------------------|
| $[M+H]^+ = 1530.1$ |
| $[M+Na]^+ = 1552.1$ |
| $[M+2H]^{2+} = 765.6$ |
| $[M+3H]^{3+} = 511.1$ |

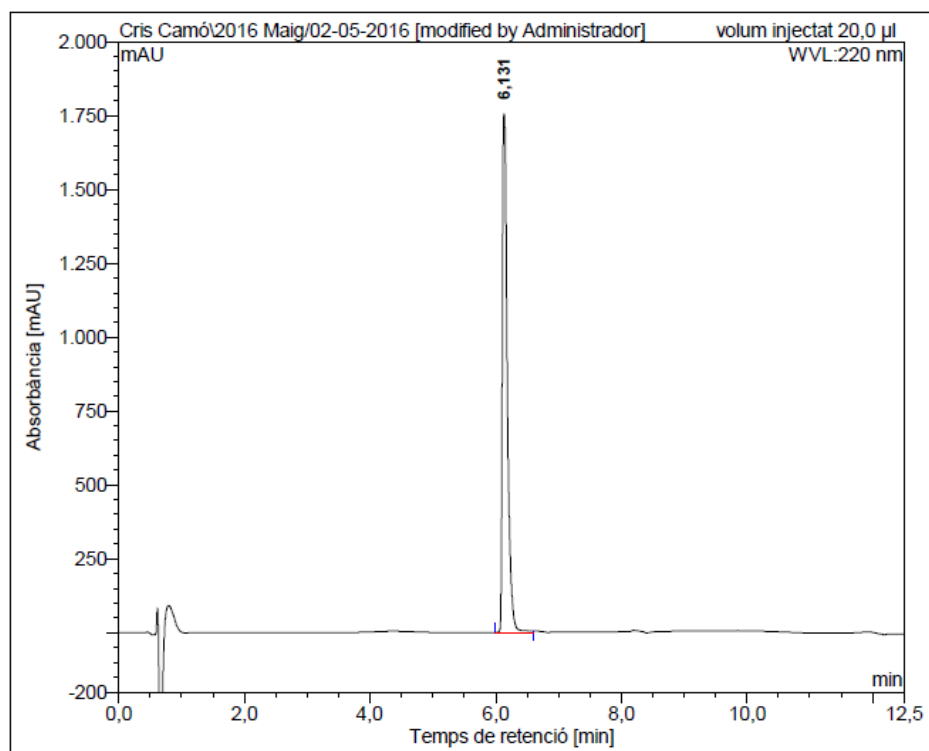
D-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ (**BP451**) (CC-4-d10)

IMPURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d10-657-659 impur)

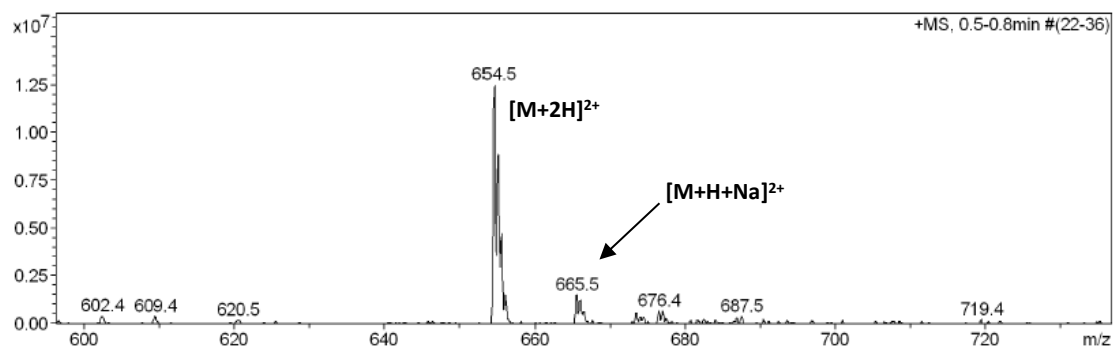
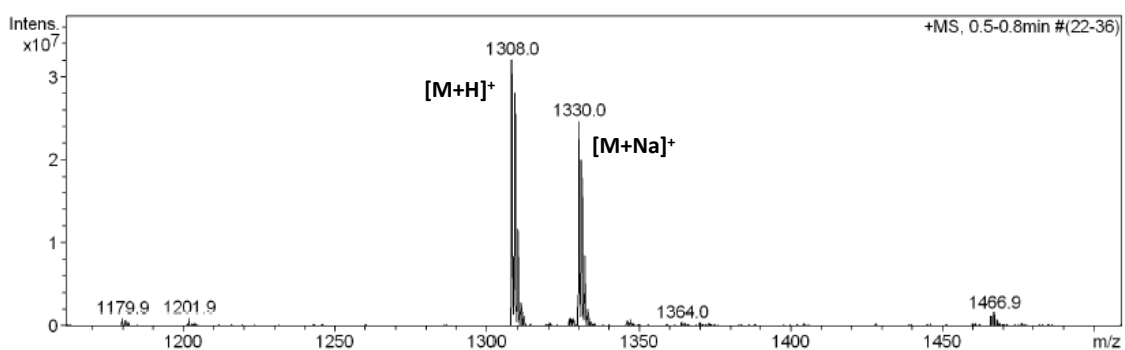
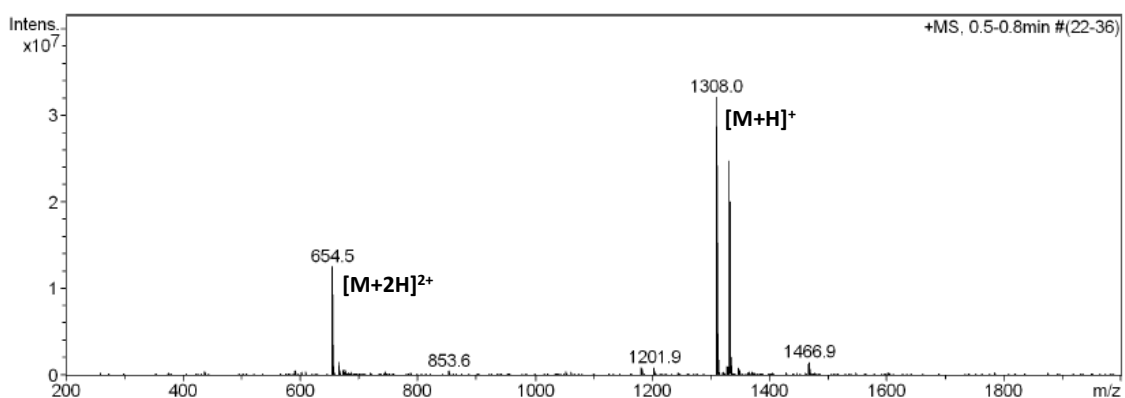
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,12 | 1215,754 | 86,920 | 68,24 |
| 2 | 6,22 | 300,846 | 27,250 | 21,39 |
| 3 | 6,51 | 49,844 | 6,503 | 5,11 |
| 4 | 6,73 | 14,228 | 1,723 | 1,35 |
| 5 | 6,89 | 49,497 | 4,092 | 3,21 |
| 6 | 7,26 | 11,923 | 0,890 | 0,70 |
| Total: | | 1642,091 | 127,378 | 100,00 |

PURE PRODUCT

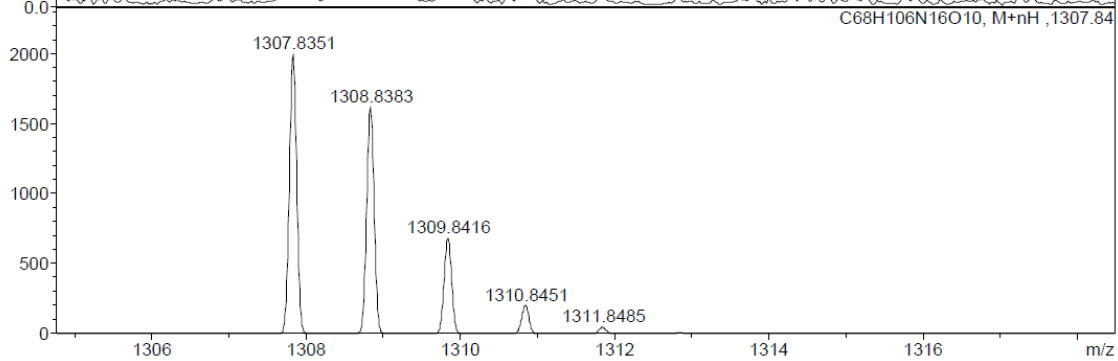
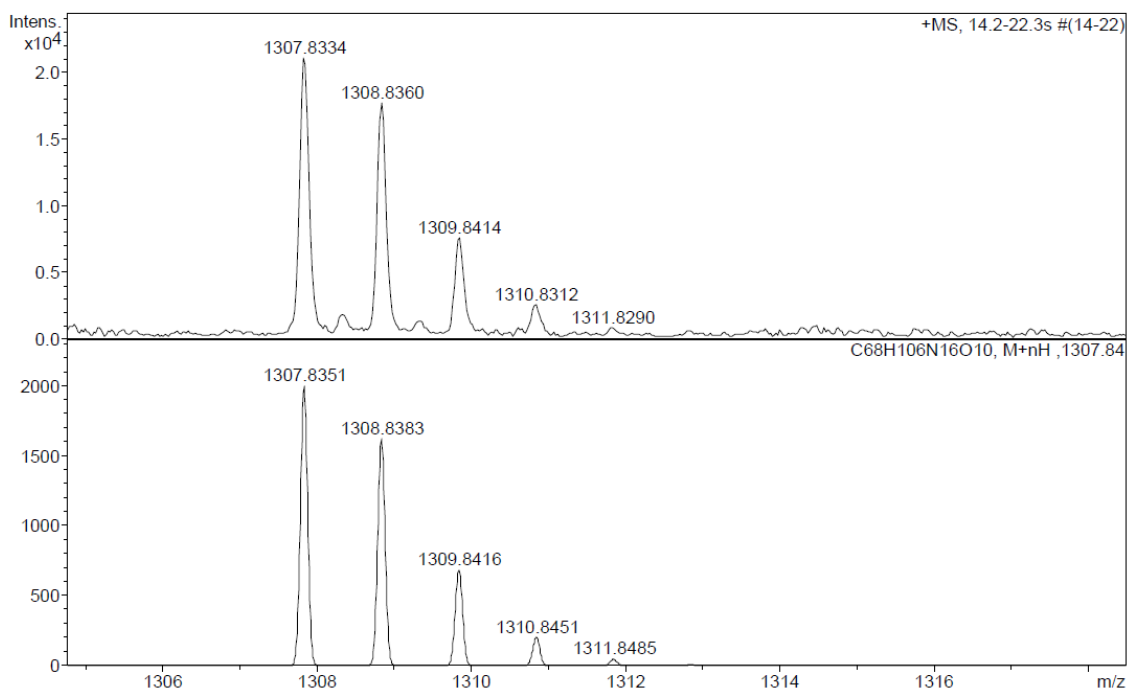
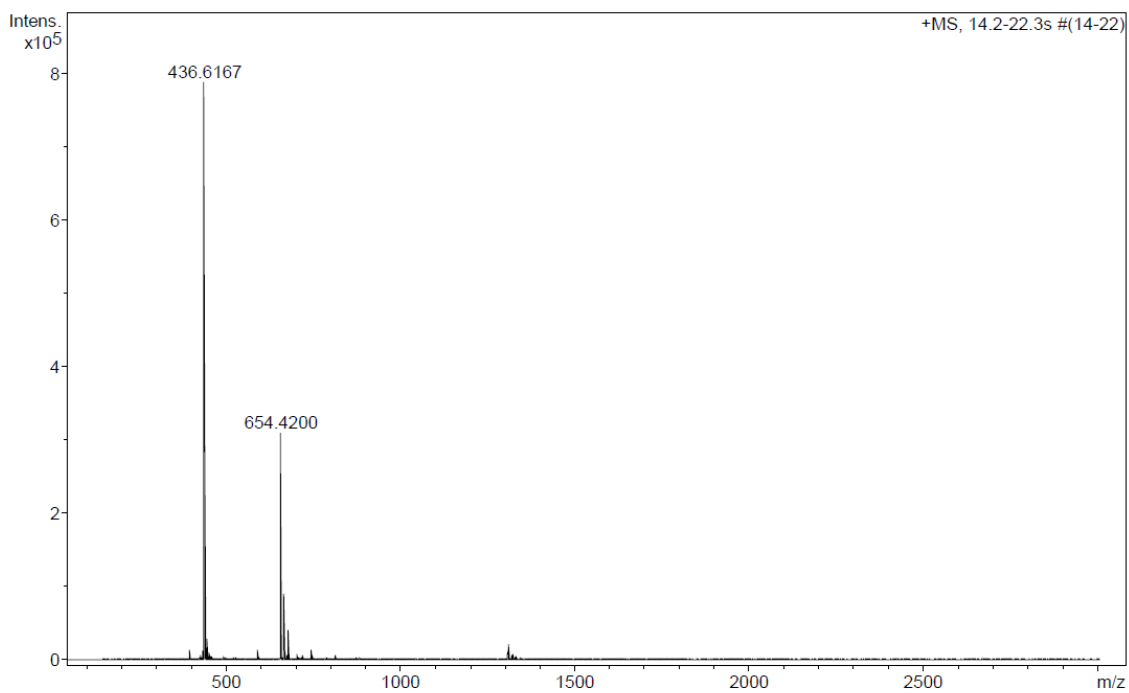
HPLC ($\lambda = 220 \text{ nm}$) (CC-4-d10-657 tub 16)

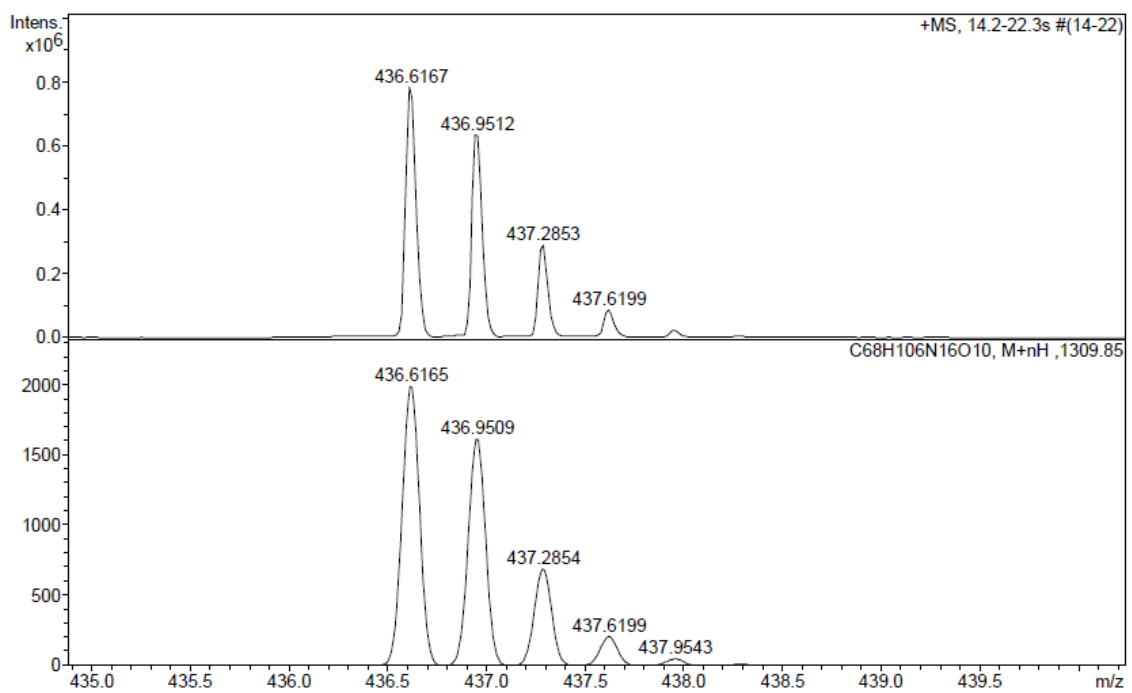
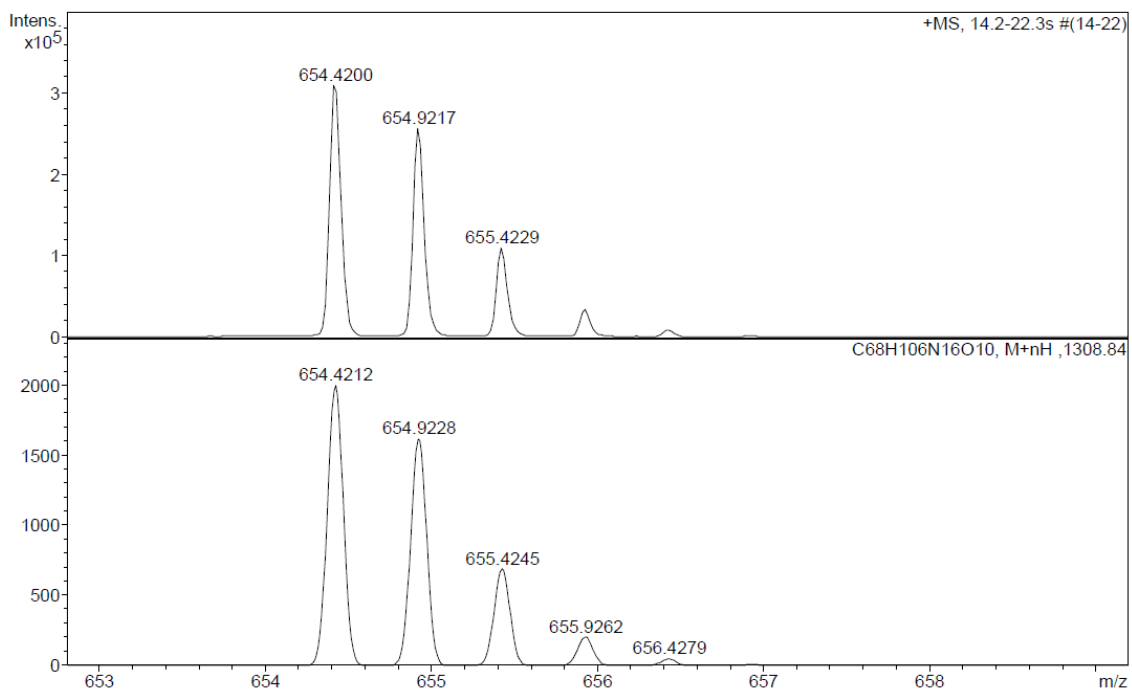
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,13 | 1755,023 | 160,986 | 100,00 |
| Total: | | 1755,023 | 160,986 | 100,00 |

ESI-MS (m/z) (CC-4-d10-657 tub 16)

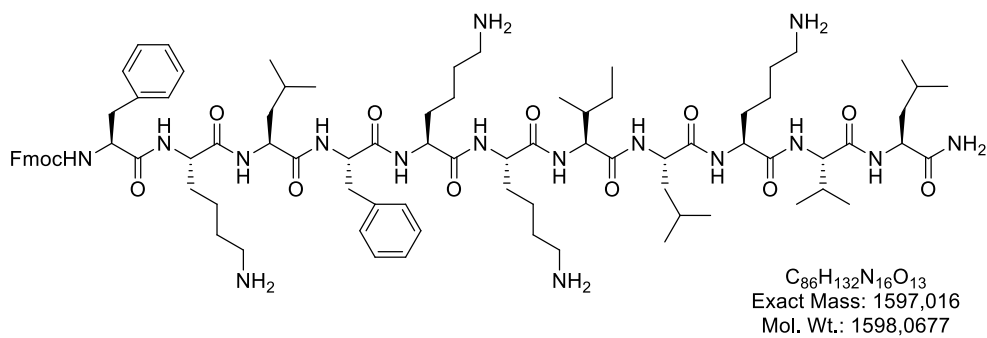
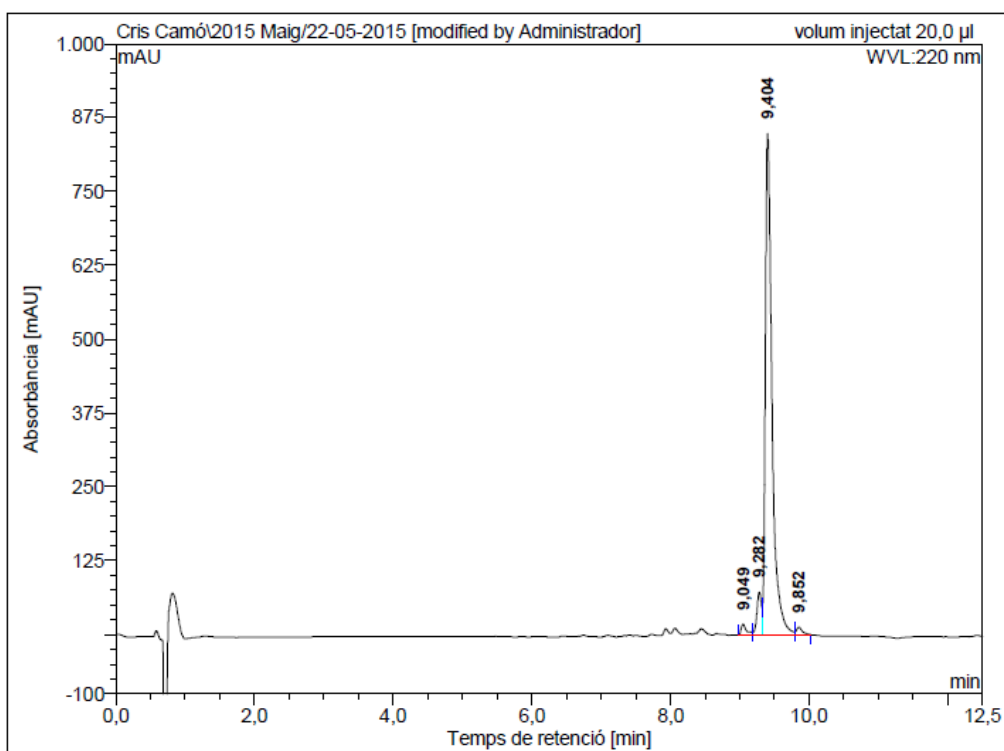


| |
|-------------------------|
| $[M+H]^+ = 1308.0$ |
| $[M+Na]^+ = 1330.0$ |
| $[M+2H]^{2+} = 654.5$ |
| $[M+H+Na]^{2+} = 665.5$ |

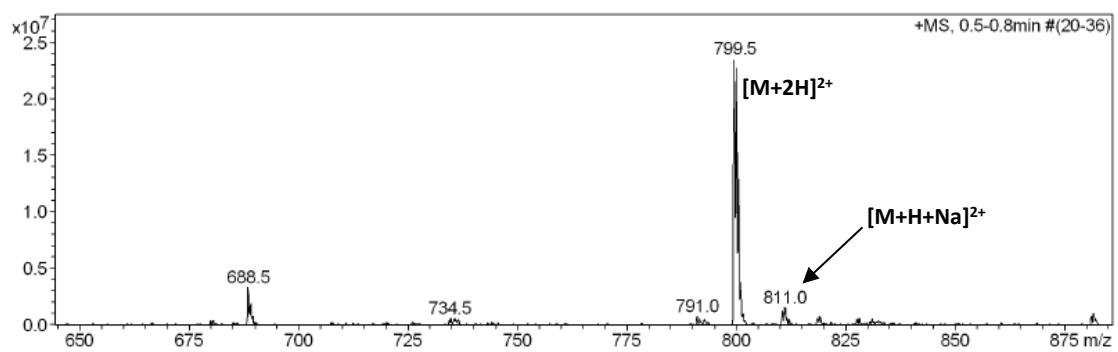
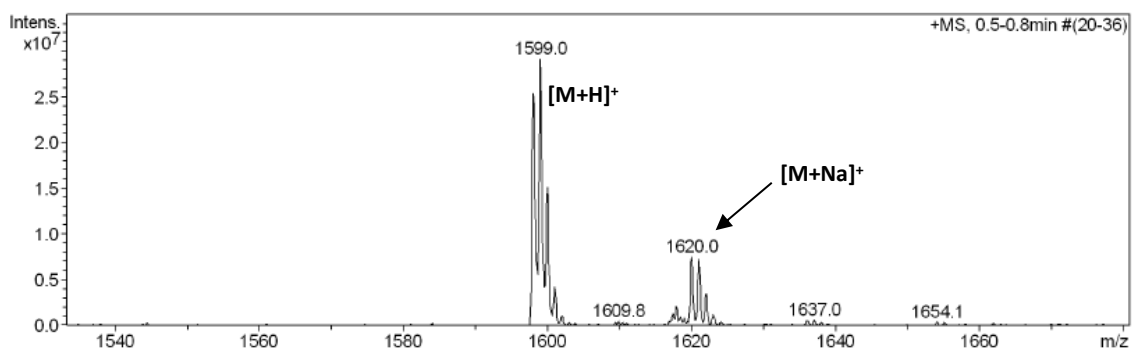
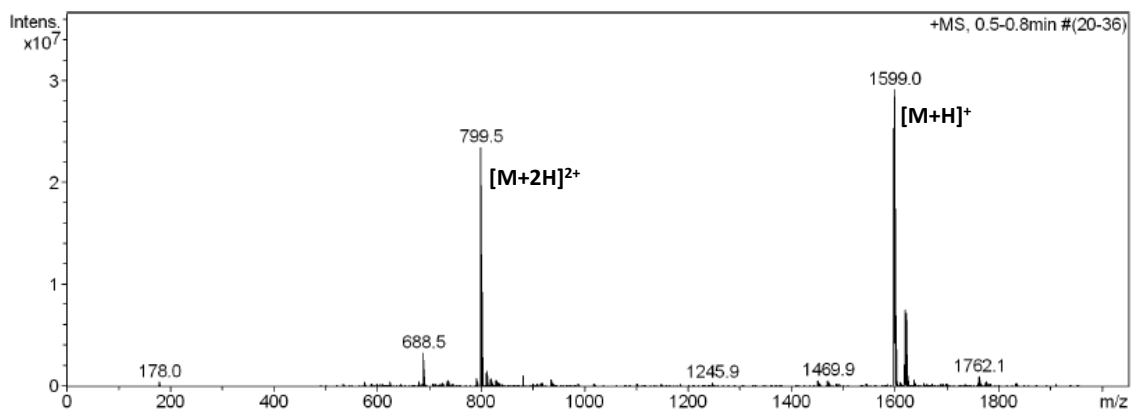
HRMS (m/z) (CC-4-d10-657 tubs 9-16)



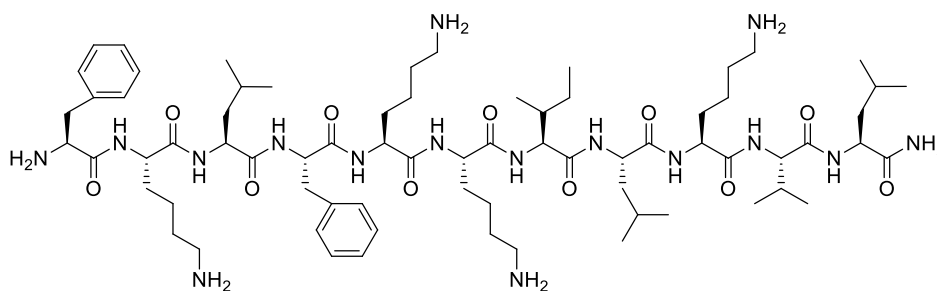
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₈ H ₁₀₇ N ₁₆ O ₁₀ | 1307.8351 | 1307.8384 |
| [M+2H]²⁺ | C ₆₈ H ₁₀₈ N ₁₆ O ₁₀ | 654.4212 | 654.4200 |
| [M+3H]³⁺ | C ₆₈ H ₁₀₉ N ₁₆ O ₁₀ | 436.6165 | 436.6167 |

Fmoc-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂HPLC ($\lambda = 220$ nm) (BP13-1-256)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 9,05 | 17,954 | 1,559 | 1,50 |
| 2 | 9,28 | 71,913 | 5,515 | 5,32 |
| 3 | 9,40 | 848,768 | 95,312 | 91,90 |
| 4 | 9,85 | 12,972 | 1,332 | 1,28 |
| Total: | | 951,606 | 103,718 | 100,00 |

ESI-MS (m/z) (BP13-1-256)

| |
|-------------------------|
| $[M+H]^+ = 1599.0$ |
| $[M+Na]^+ = 1620.0$ |
| $[M+2H]^{2+} = 799.5$ |
| $[M+H+Na]^{2+} = 811.0$ |

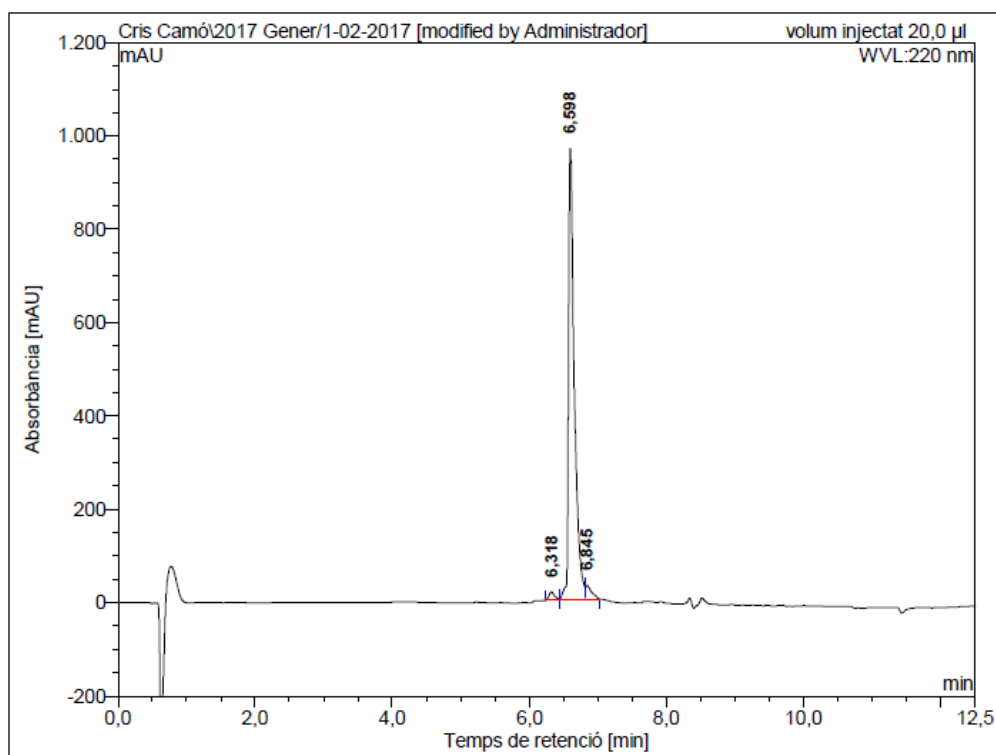
Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ (BP13)Chemical Formula: C₇₁H₁₂₂N₁₆O₁₁

Exact Mass: 1374,9479

Molecular Weight: 1375,8290

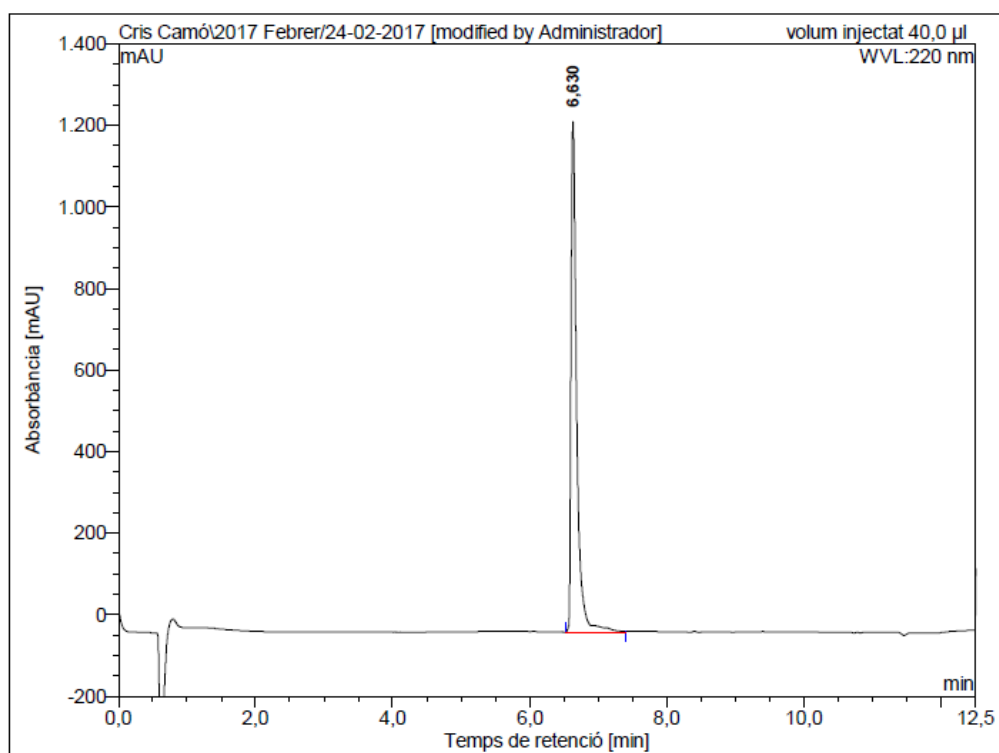
IMPURE PRODUCT

HPLC (λ = 220 nm) (BP13-3 impur)

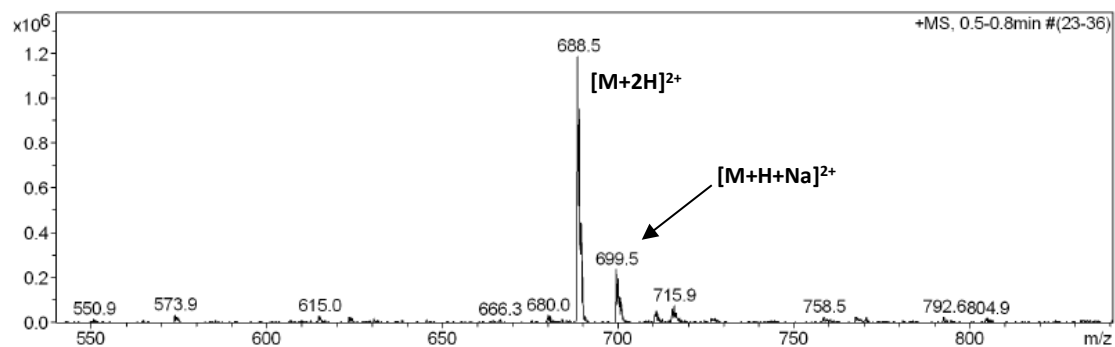
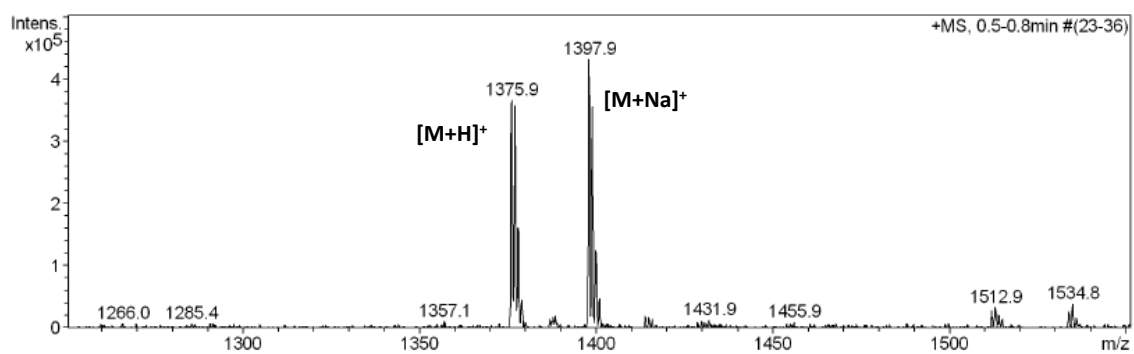
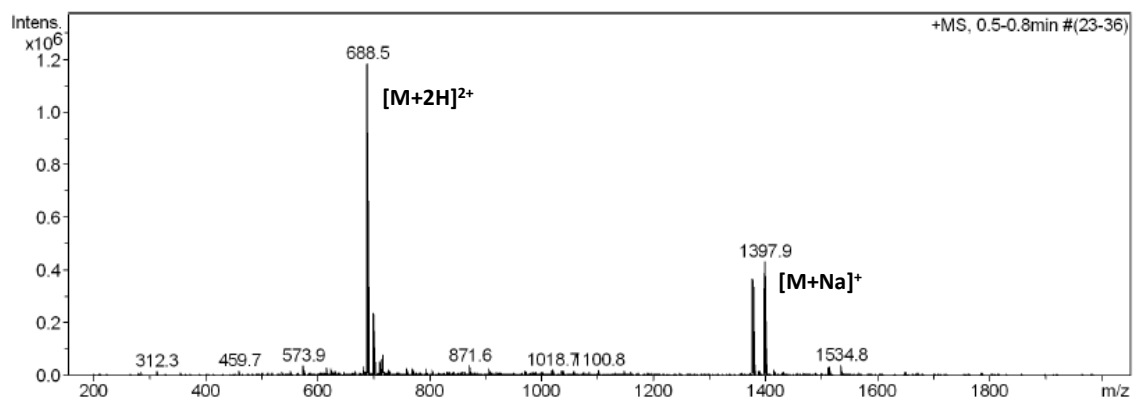


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,32 | 18,458 | 1,882 | 1,86 |
| 2 | 6,60 | 968,363 | 95,874 | 94,61 |
| 3 | 6,84 | 32,395 | 3,576 | 3,53 |
| Total: | | 1019,215 | 101,332 | 100,00 |

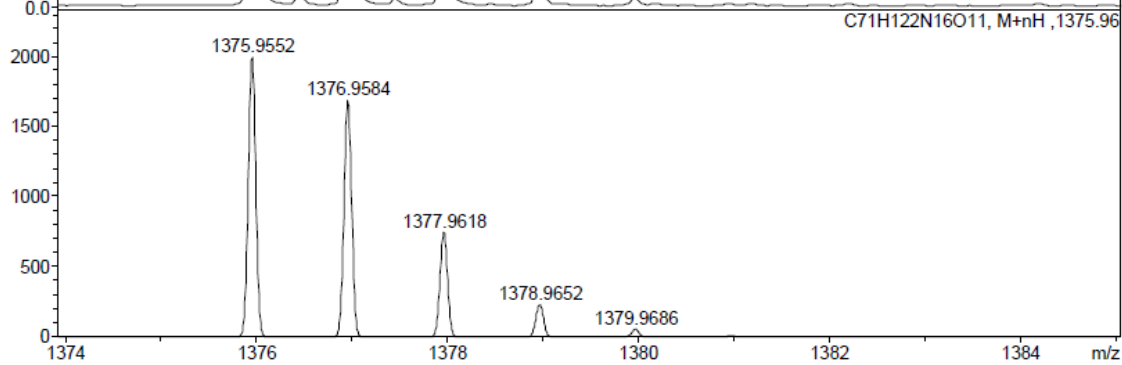
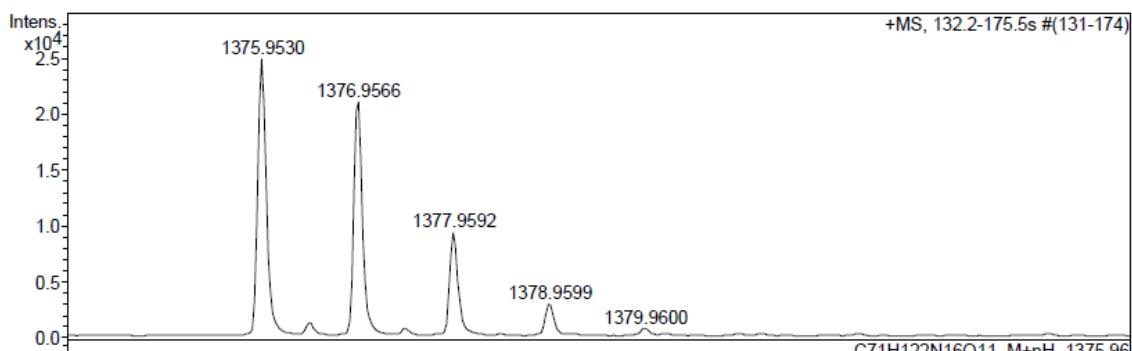
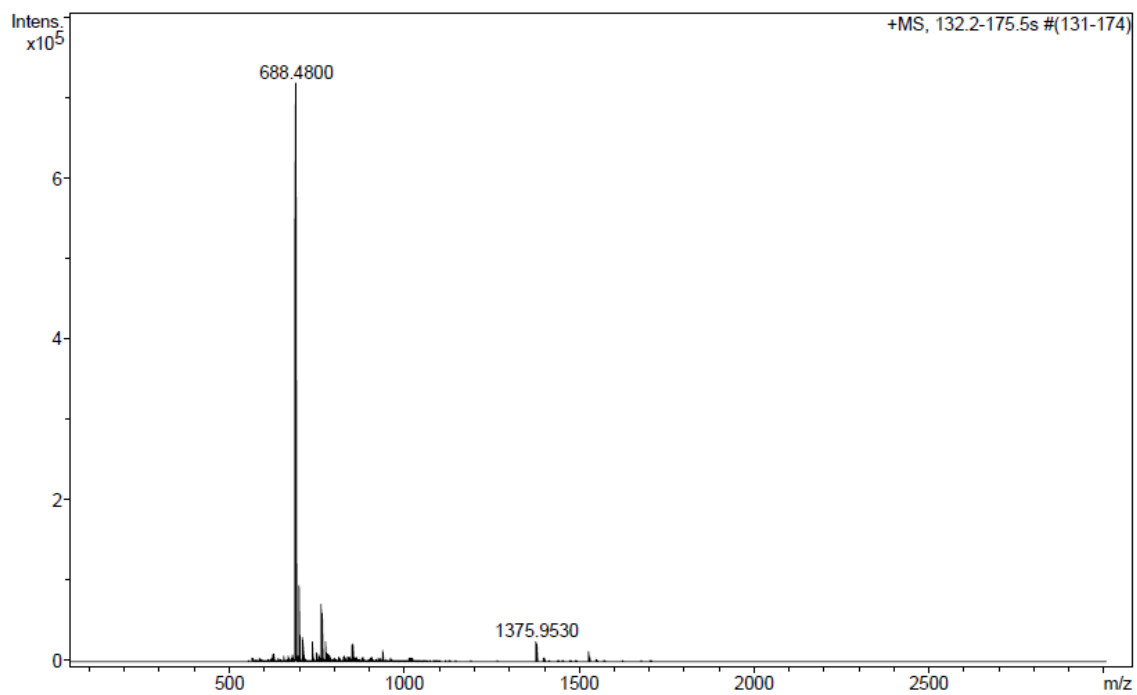
PURE PRODUCT

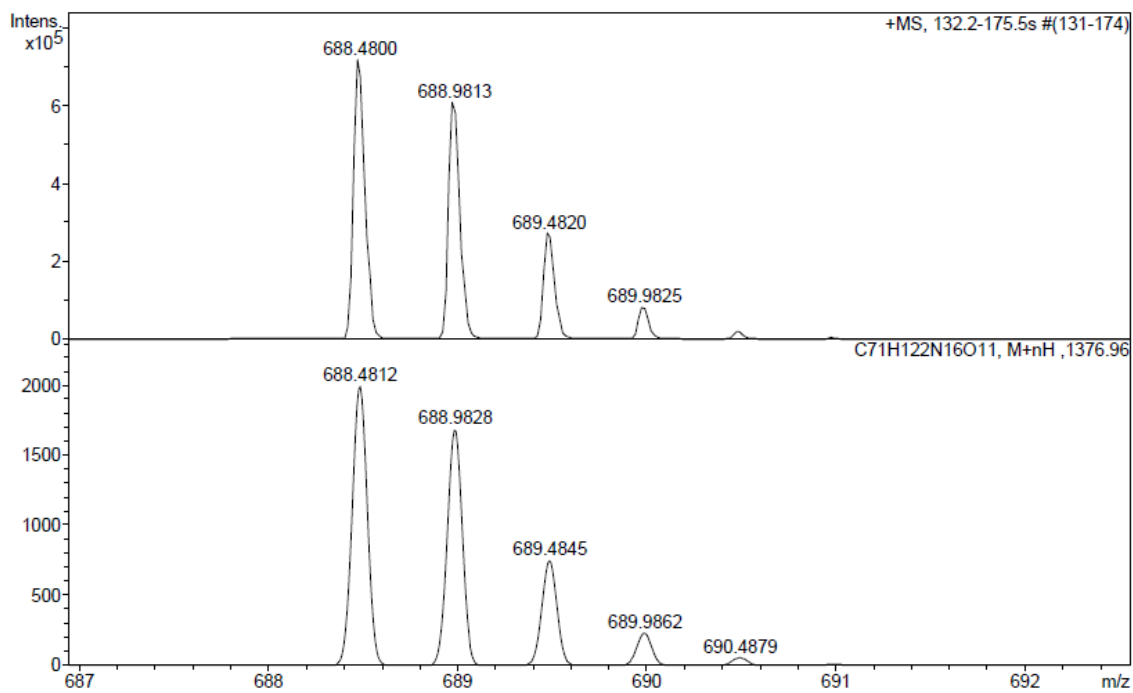
HPLC ($\lambda = 220$ nm) (BP13-4-2 tub 25)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,63 | 1252,370 | 121,537 | 100,00 |
| Total: | | 1252,370 | 121,537 | 100,00 |

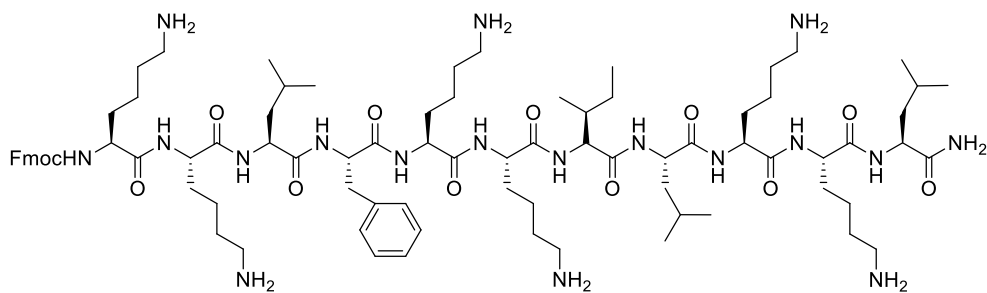
ESI-MS (m/z) (BP13-4-2 tub 25)

| |
|-------------------------|
| $[M+H]^+ = 1375.9$ |
| $[M+Na]^+ = 1397.9$ |
| $[M+2H]^{2+} = 688.5$ |
| $[M+H+Na]^{2+} = 699.5$ |

HRMS (ESI) (m/z)



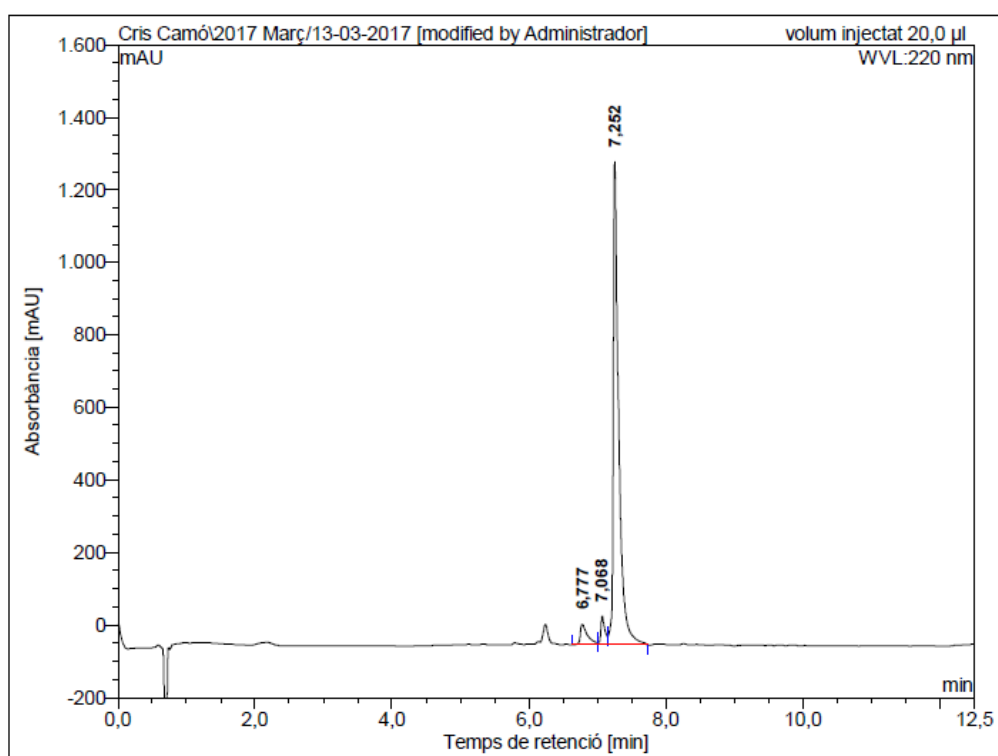
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₇₁ H ₁₂₃ N ₁₆ O ₁₁ | 1375.9552 | 1375.9530 |
| [M+2H]²⁺ | C ₇₁ H ₁₂₄ N ₁₆ O ₁₁ | 688.4812 | 688.4800 |

Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂Chemical Formula: C₈₄H₁₃₈N₁₈O₁₃

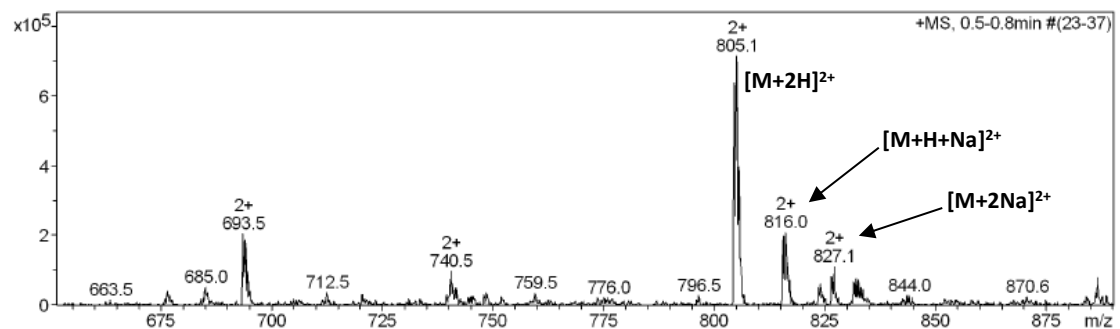
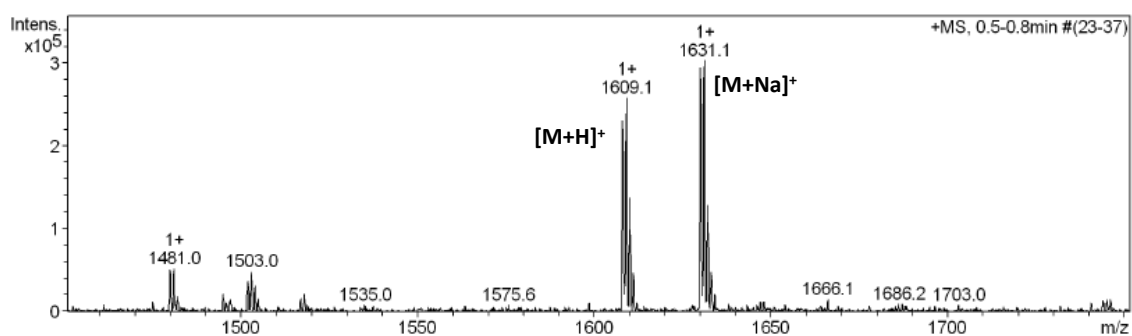
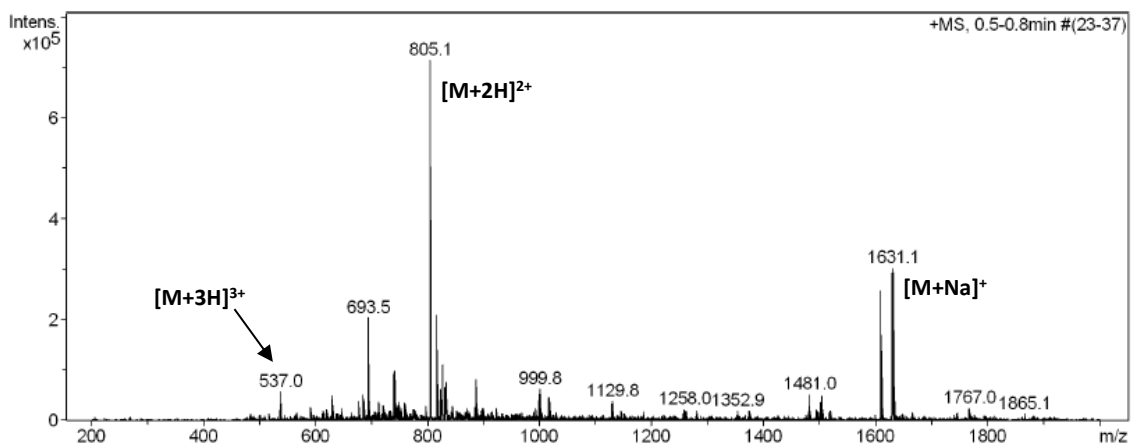
Exact Mass: 1607,0691

Molecular Weight: 1608,1073

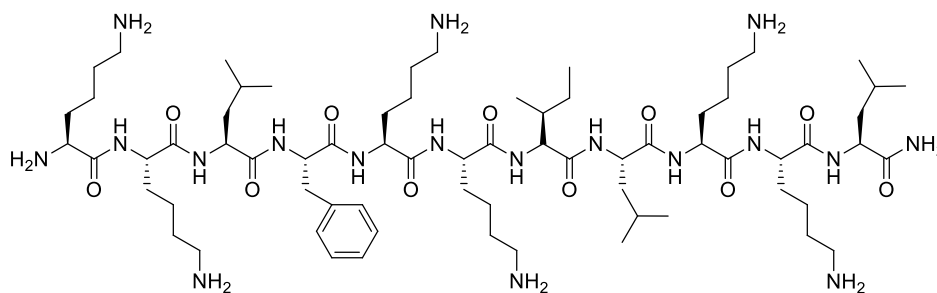
HPLC (λ = 220 nm) (BP16-2-986)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,78 | 56,125 | 7,009 | 5,17 |
| 2 | 7,07 | 80,001 | 5,539 | 4,08 |
| 3 | 7,25 | 1333,269 | 123,096 | 90,75 |
| Total: | | 1469,395 | 135,644 | 100,00 |

ESI-MS (m/z) (BP16-2-986)

| |
|-------------------------|
| $[M+H]^+ = 1608.1$ |
| $[M+Na]^+ = 1630.1$ |
| $[M+2H]^{2+} = 805.1$ |
| $[M+H+Na]^{2+} = 816.0$ |
| $[M+2Na]^{2+} = 827.1$ |

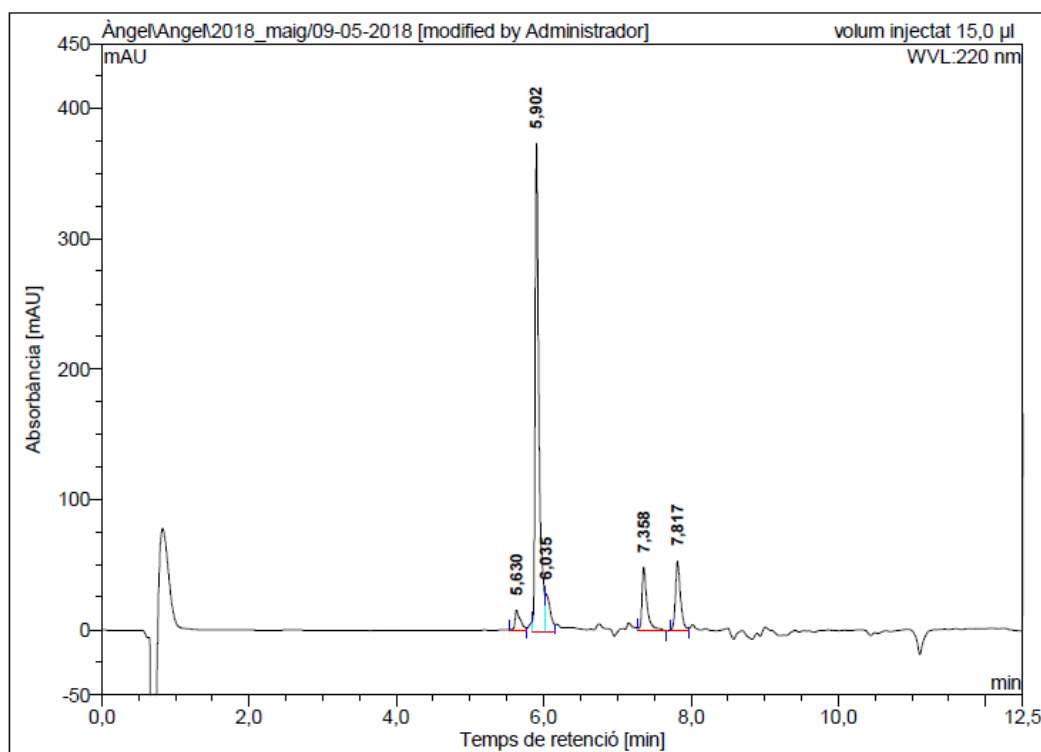
Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂ (BP16)Chemical Formula: C₆₉H₁₂₈N₁₈O₁₁

Exact Mass: 1385,0010

Molecular Weight: 1385,8686

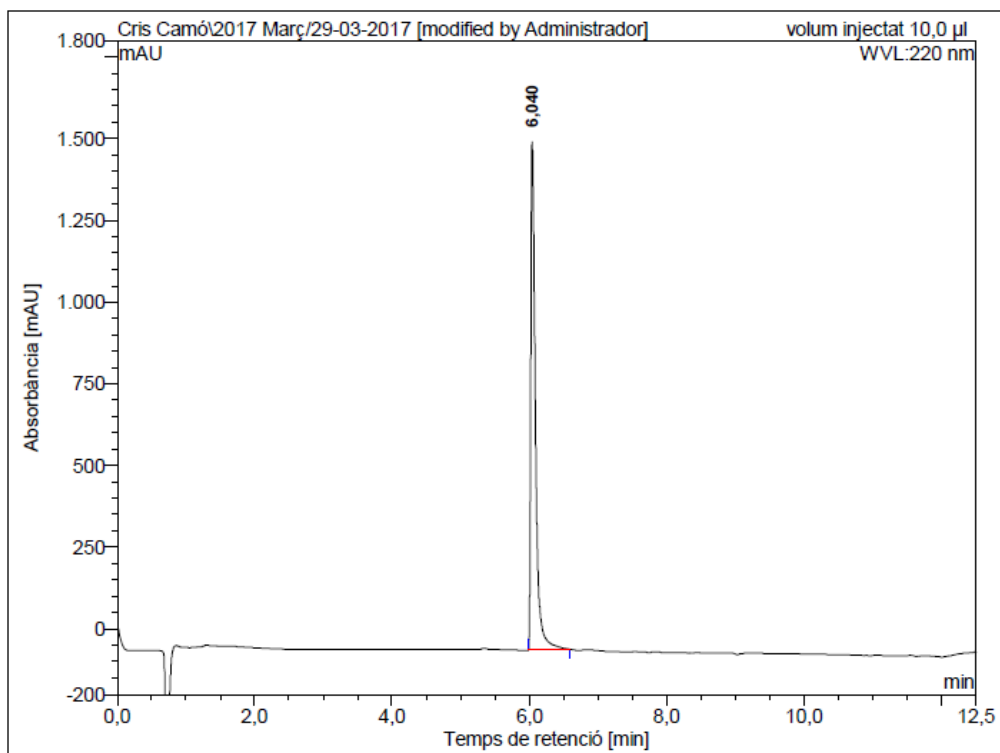
IMPURE PRODUCT

HPLC (λ = 220 nm) (BP16)

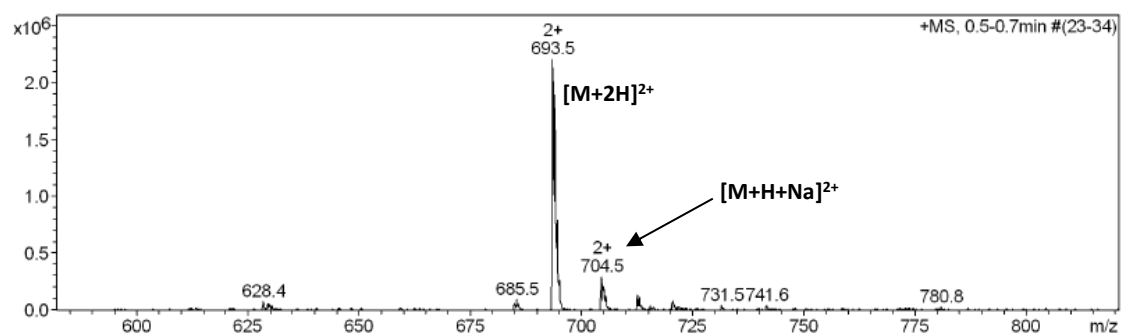
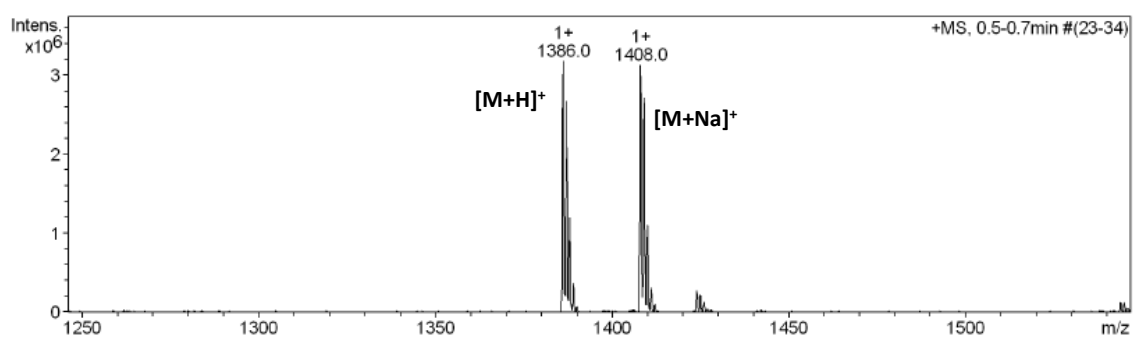
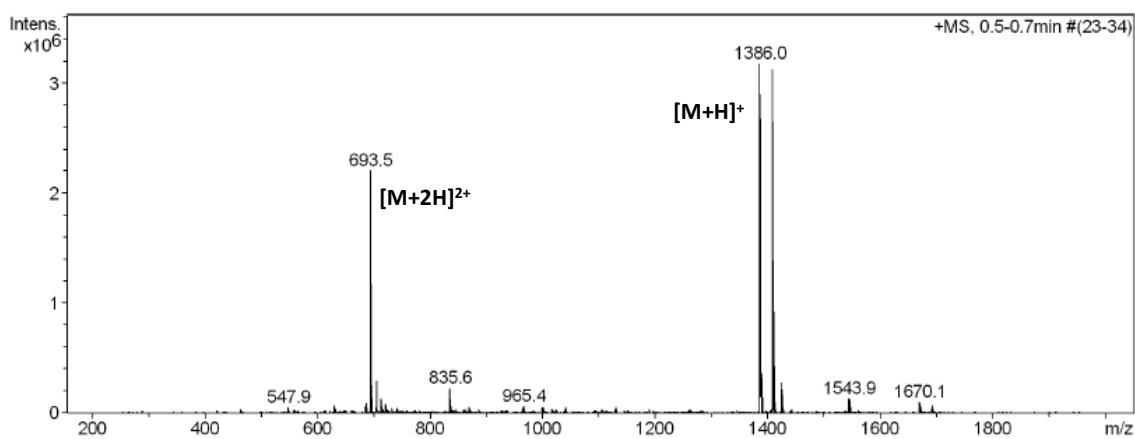


| No. | Ret.Time (detected) min | Height mAU | Area mAU*min | Rel.Area % |
|--------|----------------------------|---------------|-----------------|---------------|
| 1 | 5,63 | 15,202 | 1,221 | 3,56 |
| 2 | 5,90 | 374,302 | 22,383 | 65,34 |
| 3 | 6,04 | 28,755 | 2,376 | 6,94 |
| 4 | 7,36 | 48,967 | 4,092 | 11,95 |
| 5 | 7,82 | 53,245 | 4,183 | 12,21 |
| Total: | | 520,470 | 34,254 | 100,00 |

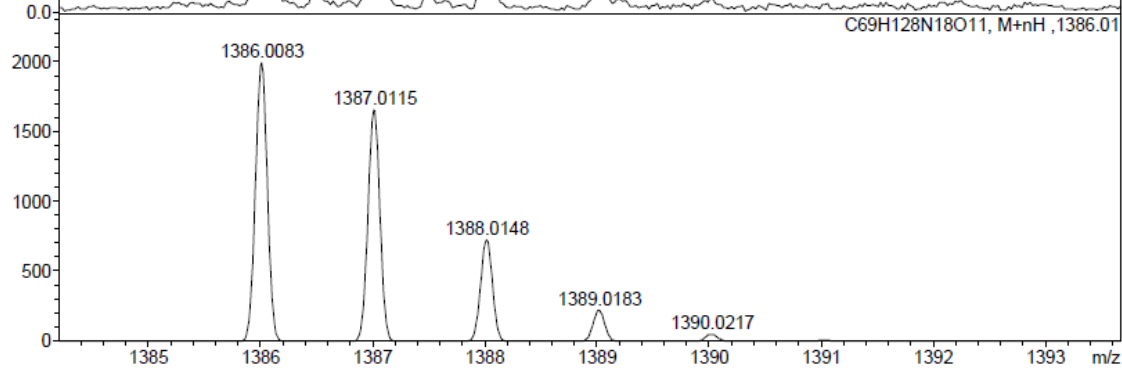
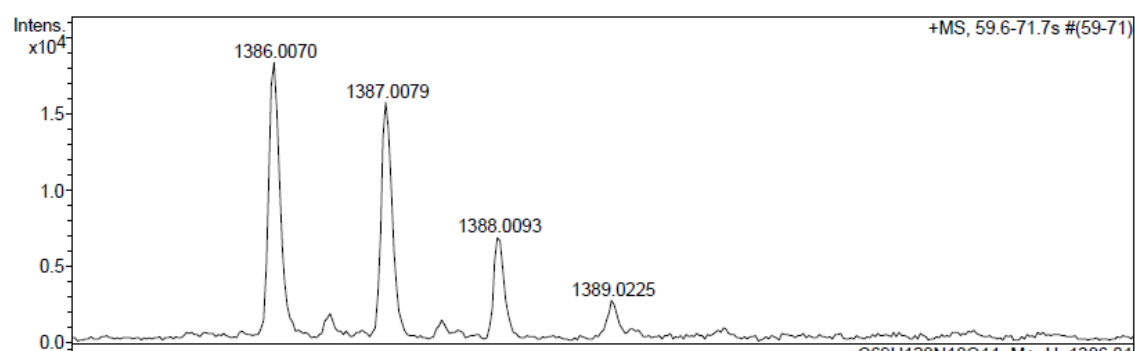
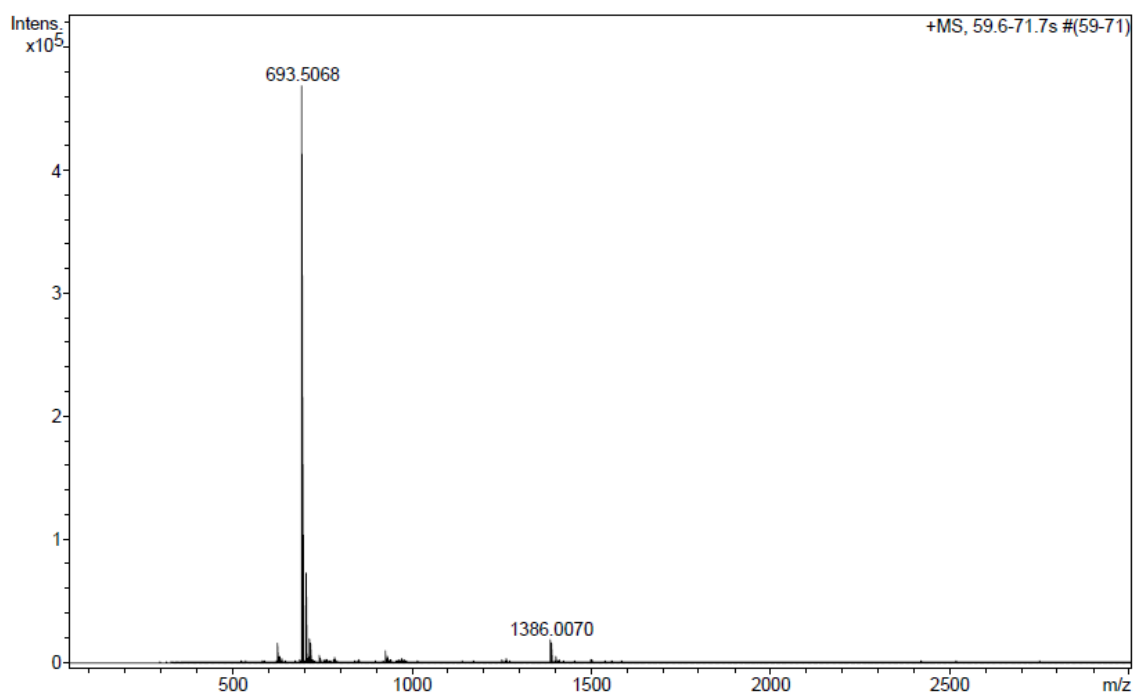
PURE PRODUCT

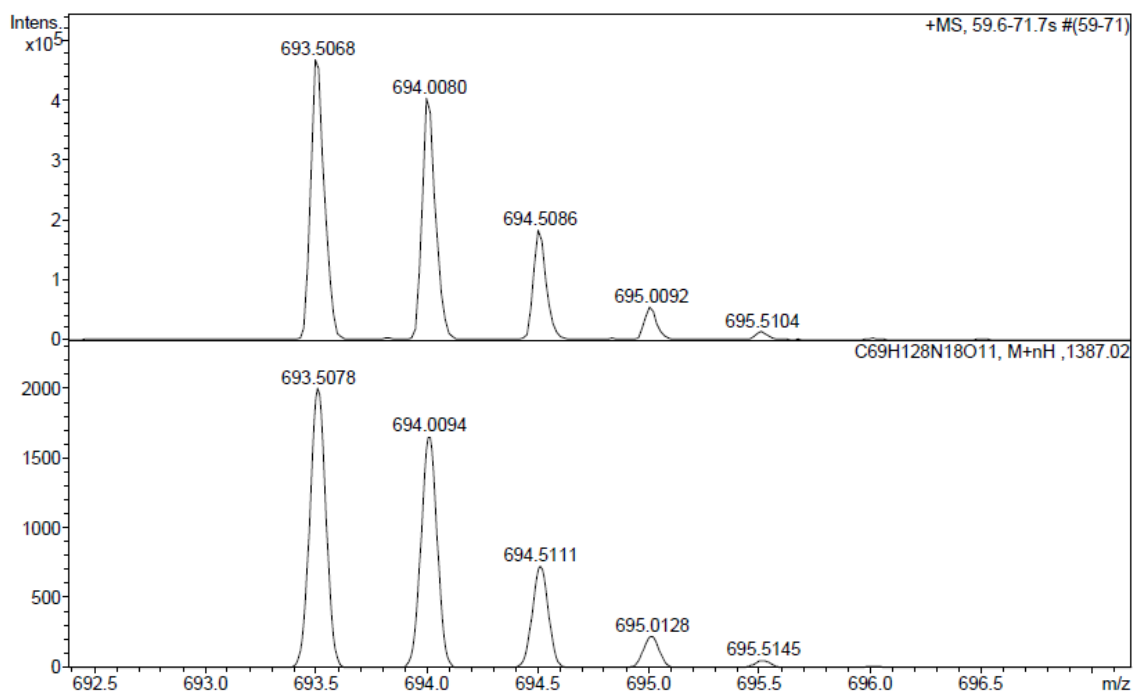
HPLC ($\lambda = 220 \text{ nm}$) (BP16-2 cleav1 tub 16)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,04 | 1551,826 | 121,114 | 100,00 |
| Total: | | 1551,826 | 121,114 | 100,00 |

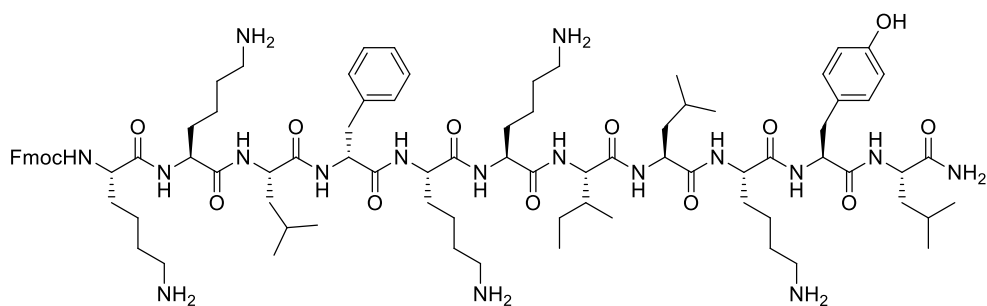
ESI-MS (m/z) (BP16-2 cleav1 tub 16)

| |
|-------------------------|
| $[M+H]^+ = 1386.0$ |
| $[M+Na]^+ = 1408.0$ |
| $[M+2H]^{2+} = 693.5$ |
| $[M+H+Na]^{2+} = 704.5$ |

HRMS (ESI) (m/z)



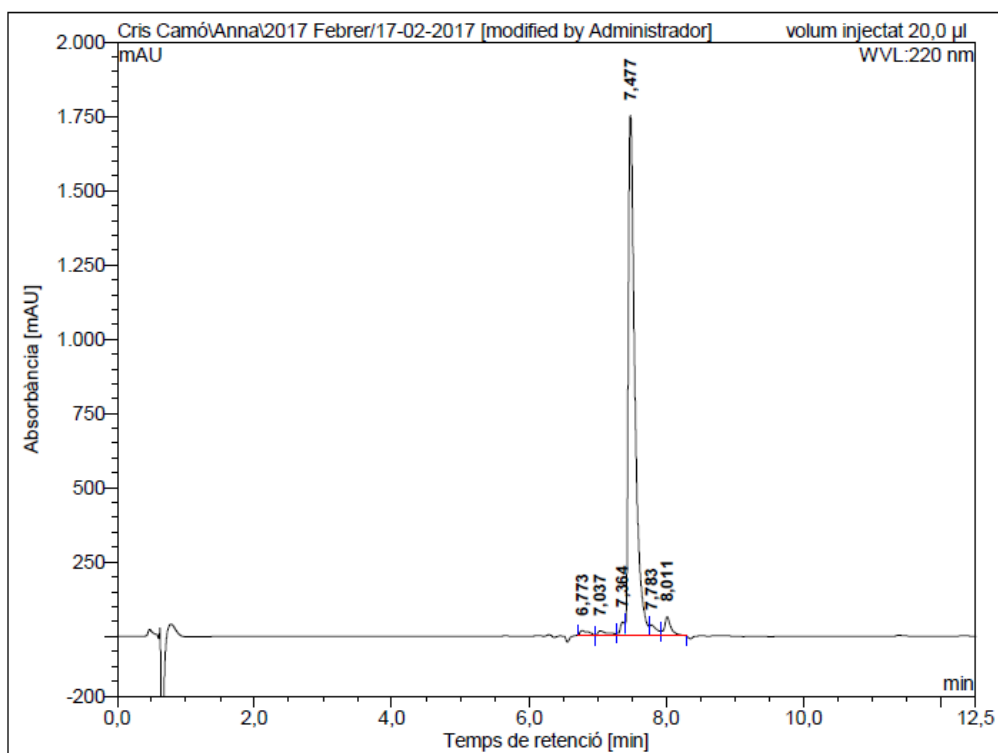
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₉ H ₁₂₉ N ₁₈ O ₁₁ | 1386.0083 | 1386.0070 |
| [M+2H]²⁺ | C ₆₉ H ₁₃₀ N ₁₈ O ₁₁ | 693.5078 | 693.5068 |

Fmoc-Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂Chemical Formula: C₈₇H₁₃₅N₁₇O₁₄

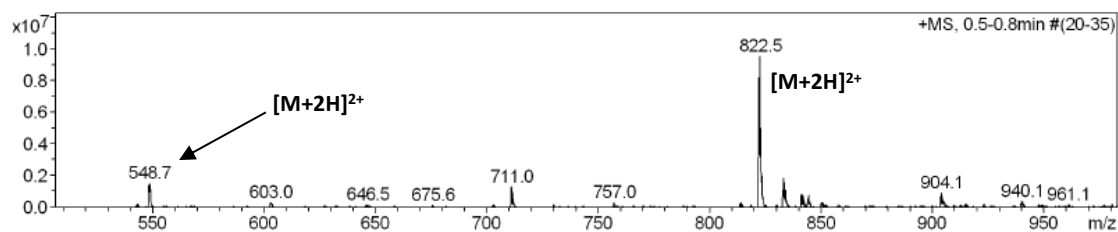
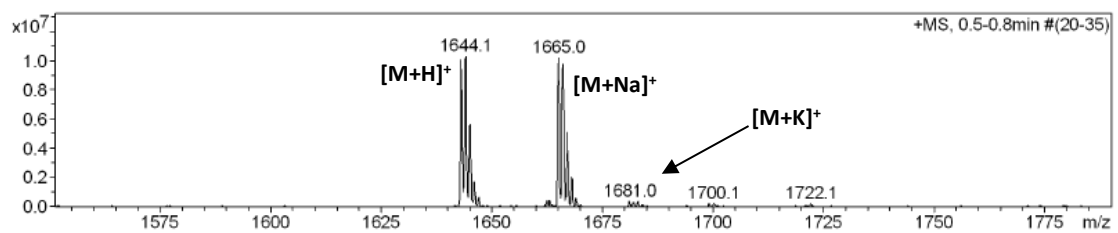
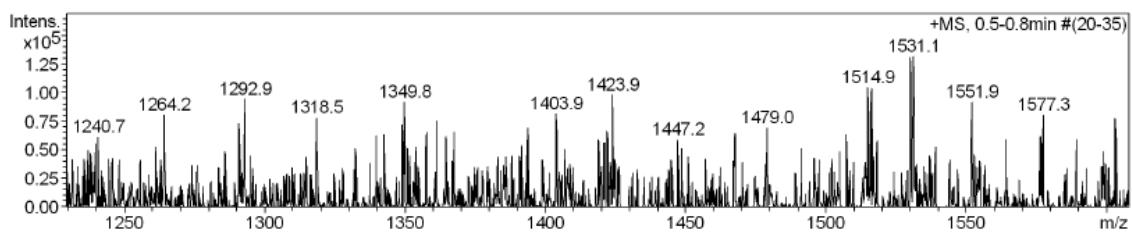
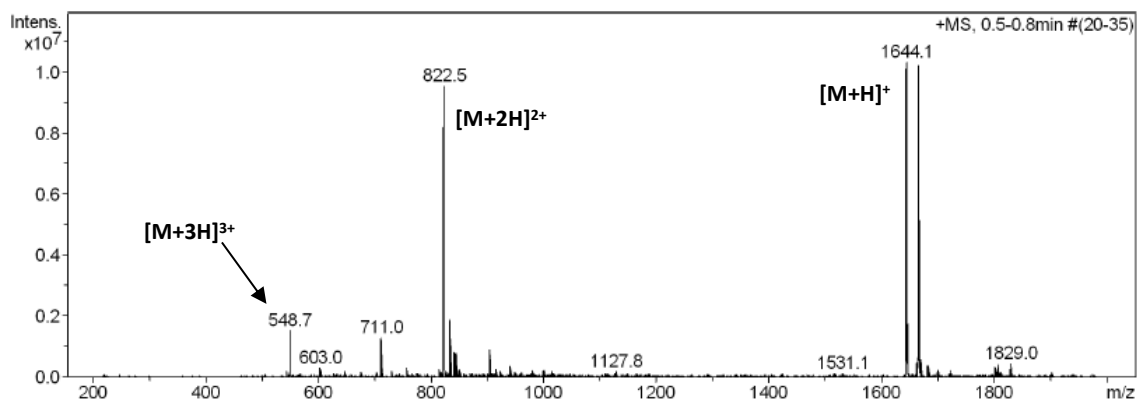
Exact Mass: 1642,0374

Molecular Weight: 1643,1083

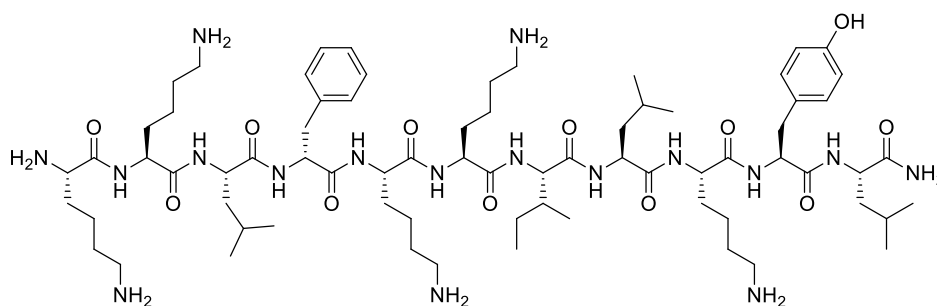
HPLC (λ = 220 nm) (BP143.1-10)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,77 | 16,982 | 2,603 | 1,20 |
| 2 | 7,04 | 16,174 | 2,897 | 1,34 |
| 3 | 7,36 | 45,132 | 3,701 | 1,71 |
| 4 | 7,48 | 1751,334 | 195,634 | 90,40 |
| 5 | 7,78 | 36,168 | 4,656 | 2,15 |
| 6 | 8,01 | 63,934 | 6,918 | 3,20 |
| Total: | | 1929,723 | 216,409 | 100,00 |

ESI-MS (m/z) (BP143.1-10)

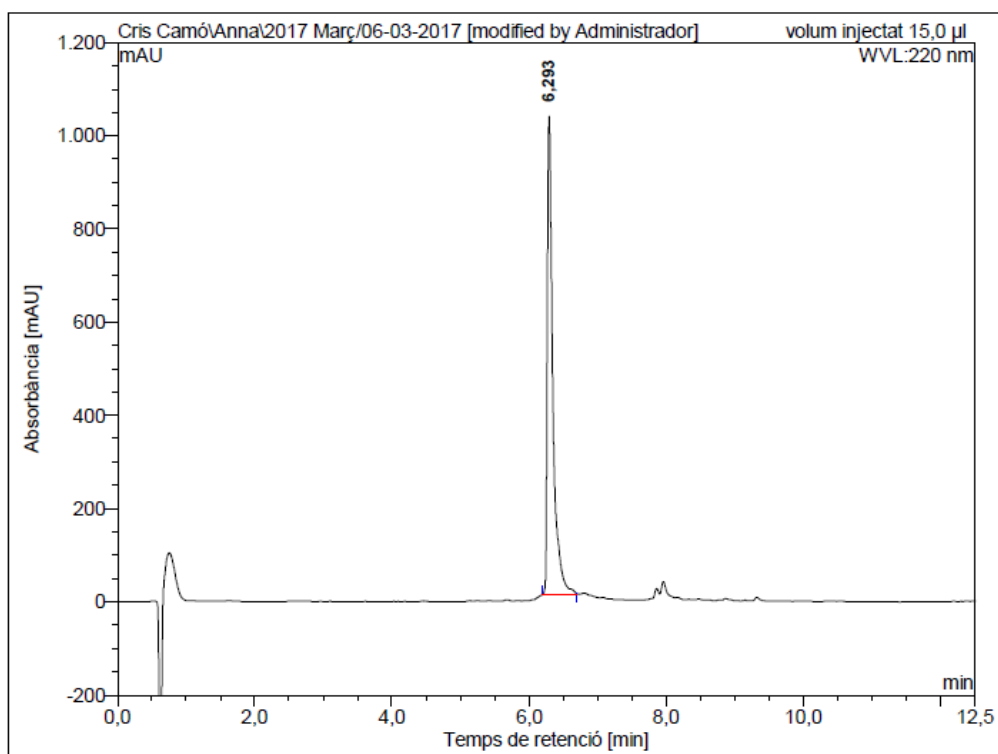
| |
|-----------------------|
| $[M+H]^+ = 1644.1$ |
| $[M+Na]^+ = 1665.0$ |
| $[M+K]^+ = 1681.0$ |
| $[M+2H]^{2+} = 822.5$ |
| $[M+3H]^{3+} = 548.7$ |

Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ (BP143)Chemical Formula: C₇₂H₁₂₅N₁₇O₁₂

Exact Mass: 1419,9694

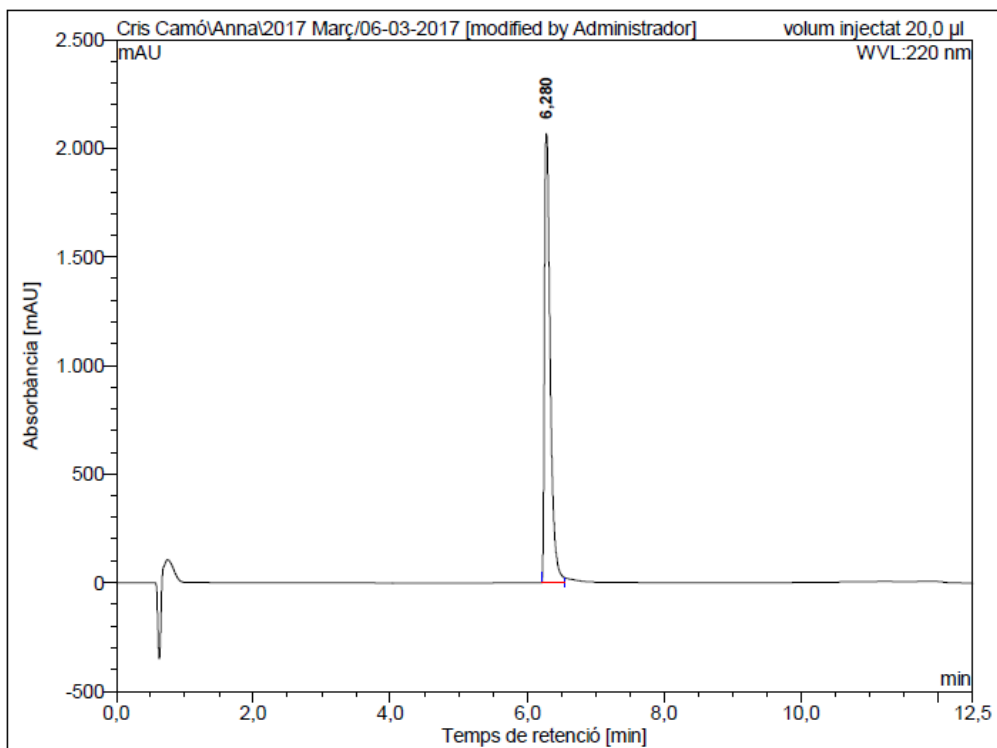
Molecular Weight: 1420,8696

PRODUCTE IMPUR

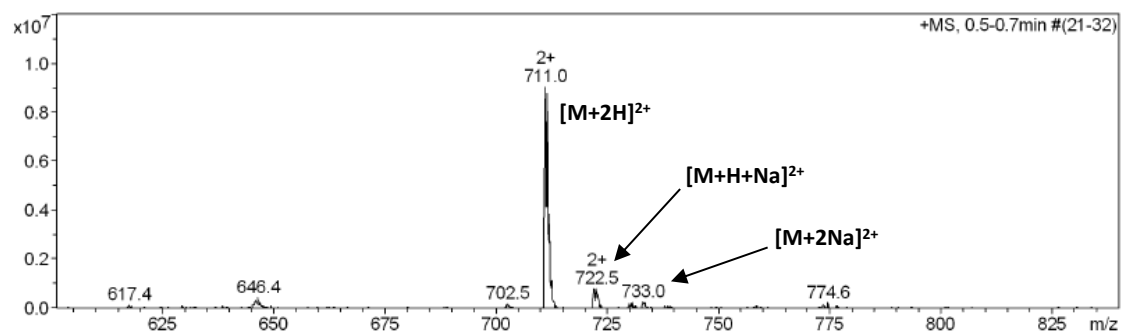
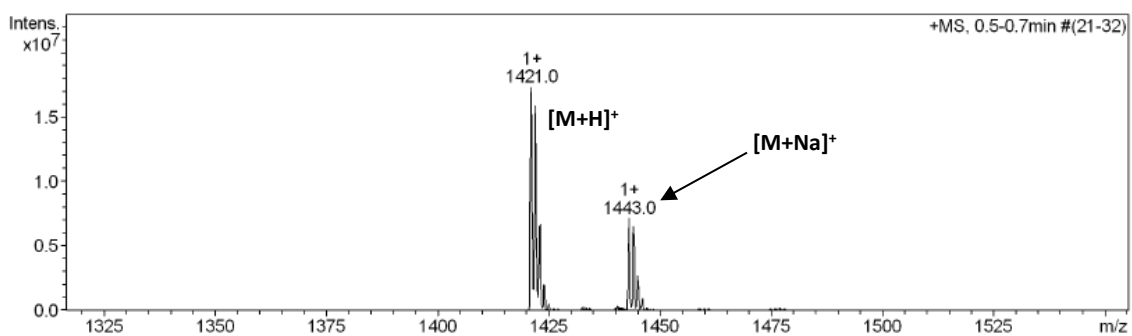
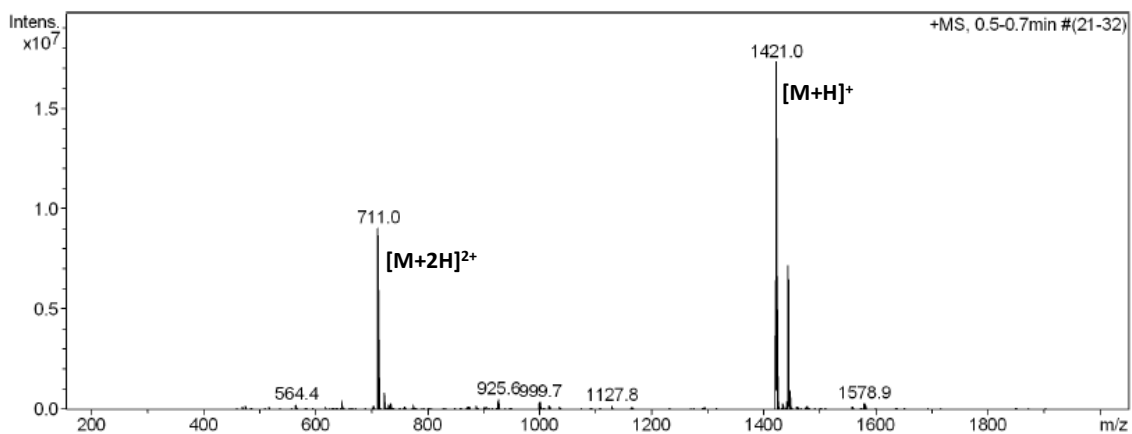
HPLC ($\lambda = 220$ nm) (BP143 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,29 | 1027,235 | 97,297 | 100,00 |
| Total: | | 1027,235 | 97,297 | 100,00 |

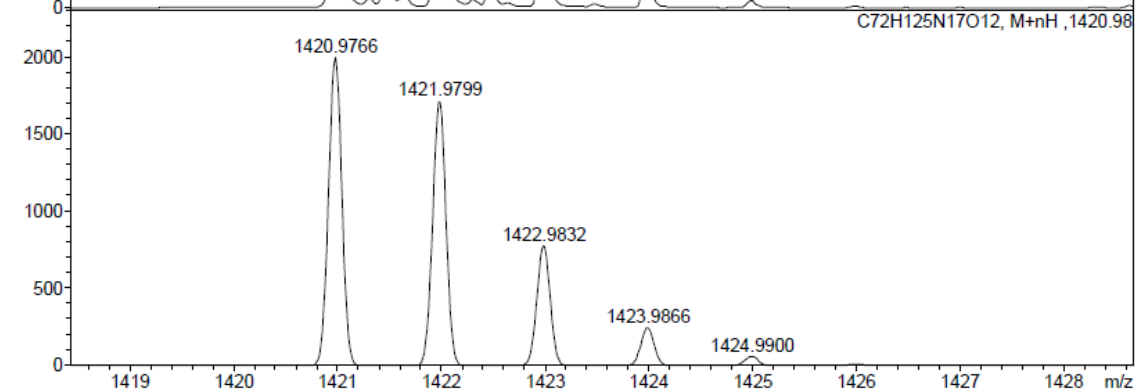
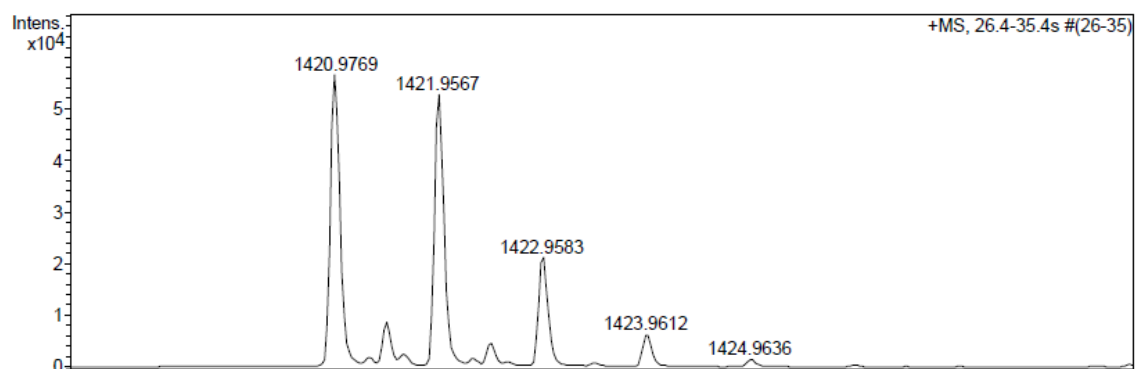
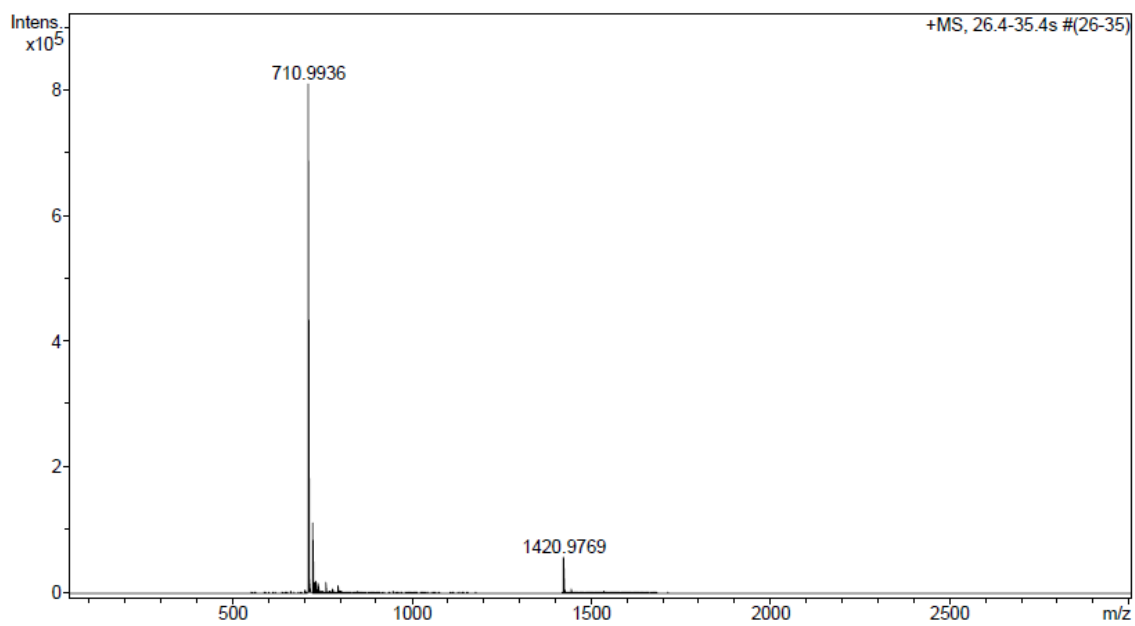
PRODUCTE PUR

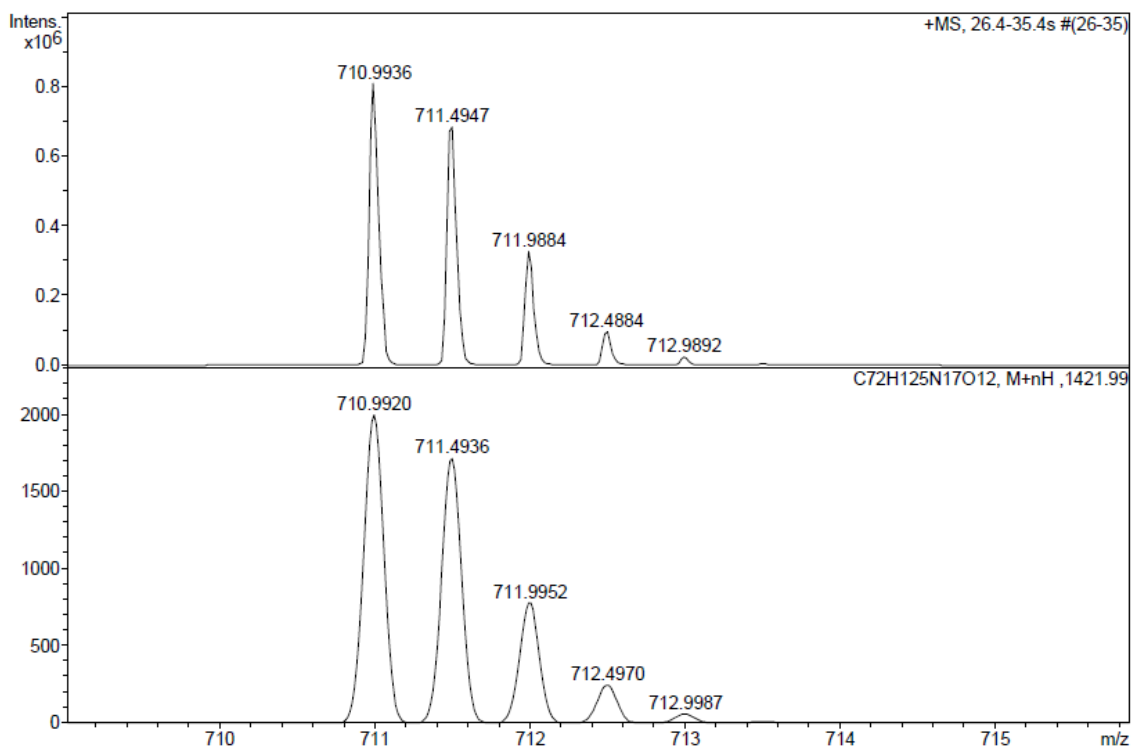
HPLC ($\lambda = 220 \text{ nm}$) (BP143-1.1-pag30 tub 21)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,28 | 2068,327 | 203,150 | 100,00 |
| Total: | | 2068,327 | 203,150 | 100,00 |

ESI-MS (m/z) (BP143-1.1-pag30 tub 21)

| |
|-------------------------|
| $[M+H]^+ = 1421.0$ |
| $[M+Na]^+ = 1443.0$ |
| $[M+2H]^{2+} = 711.0$ |
| $[M+H+Na]^{2+} = 722.5$ |
| $[M+2Na]^{2+} = 733.0$ |

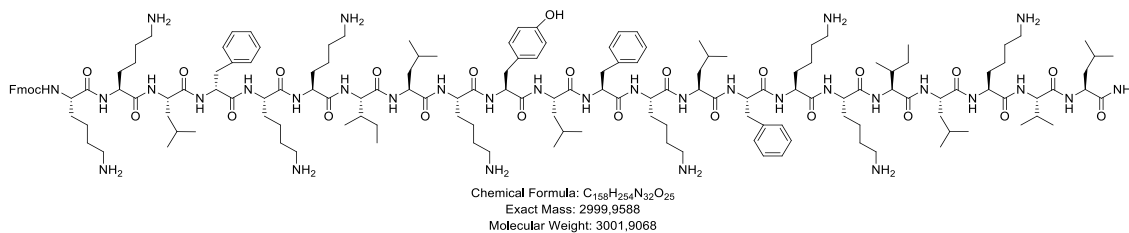
HRMS (ESI) (m/z) (BP143)



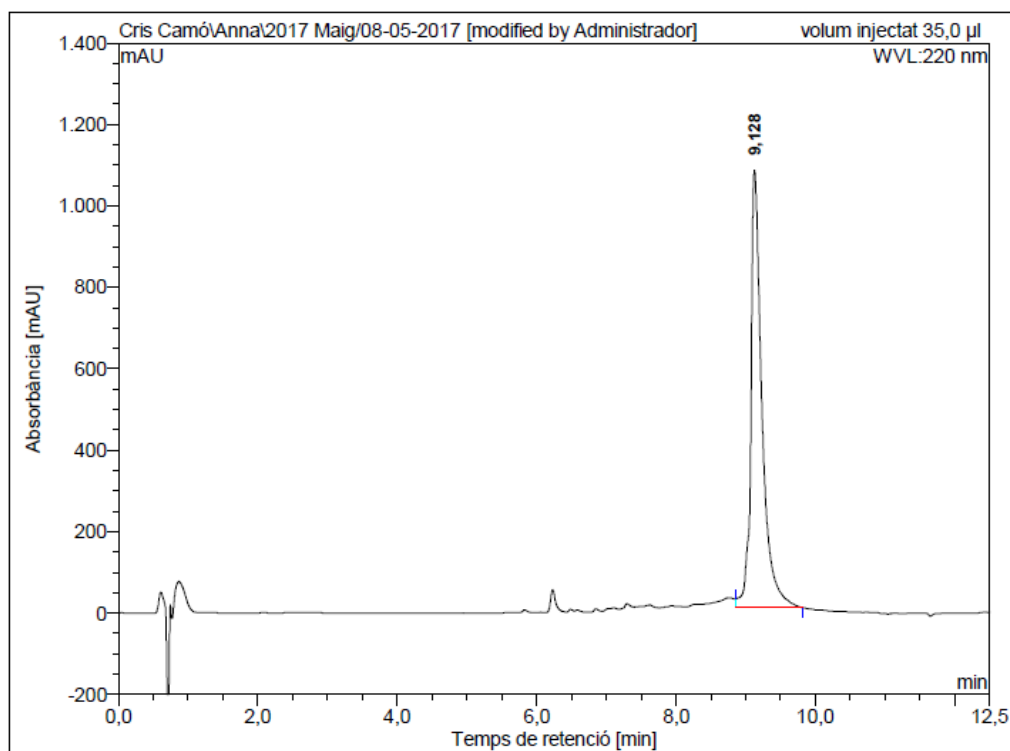
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₇₂ H ₁₂₆ N ₁₇ O ₁₂ | 1420.9766 | 1420.9769 |
| [M+2H] ²⁺ | C ₇₂ H ₁₂₇ N ₁₇ O ₁₂ | 710.9920 | 710.9936 |

Peptide conjugates

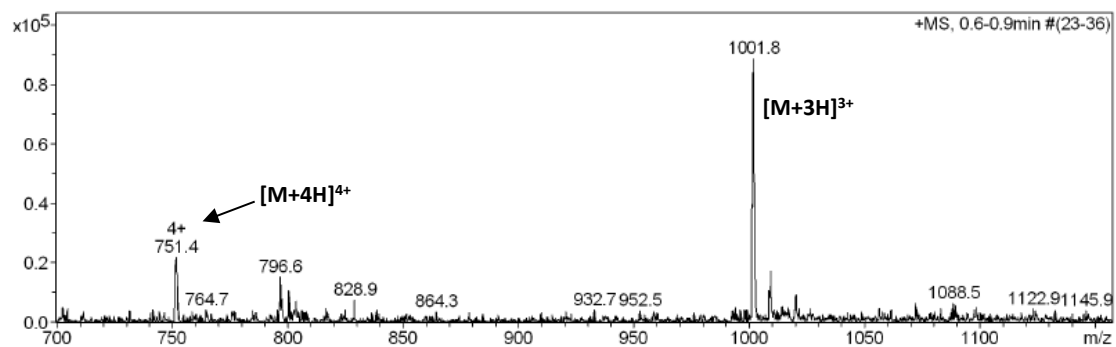
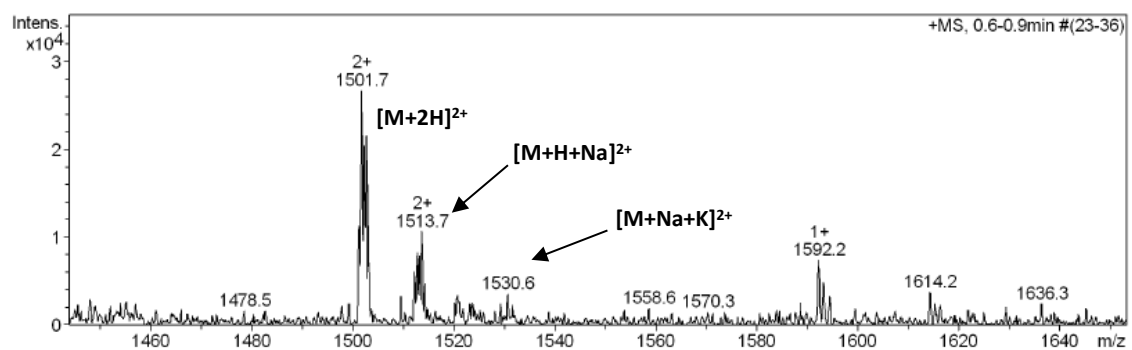
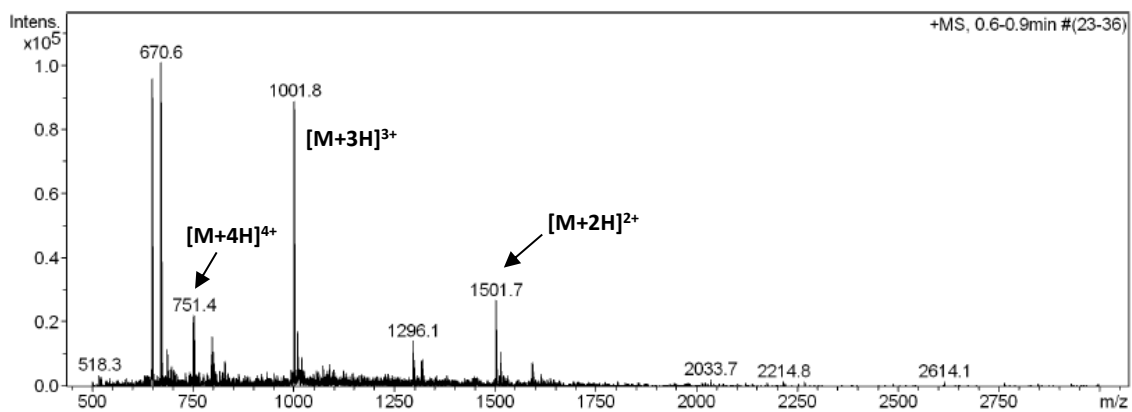
Fmoc-Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ AC-
1 (BP143-BP13)



HPLC ($\lambda = 220$ nm) (AC-1 pg86)



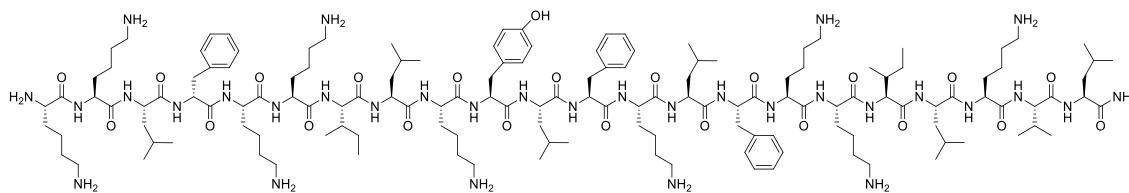
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 9,13 | 1073,760 | 198,695 | 100,00 |
| Total: | | 1073,760 | 198,695 | 100,00 |

ESI-MS (m/z) (AC1-43F)

| |
|--------------------------|
| $[M+2H]^{2+} = 1501.7$ |
| $[M+H+Na]^{2+} = 1513.7$ |
| $[M+Na+K]^{2+} = 1530.6$ |
| $[M+3H]^{3+} = 1001.8$ |
| $[M+4H]^{4+} = 751.4$ |

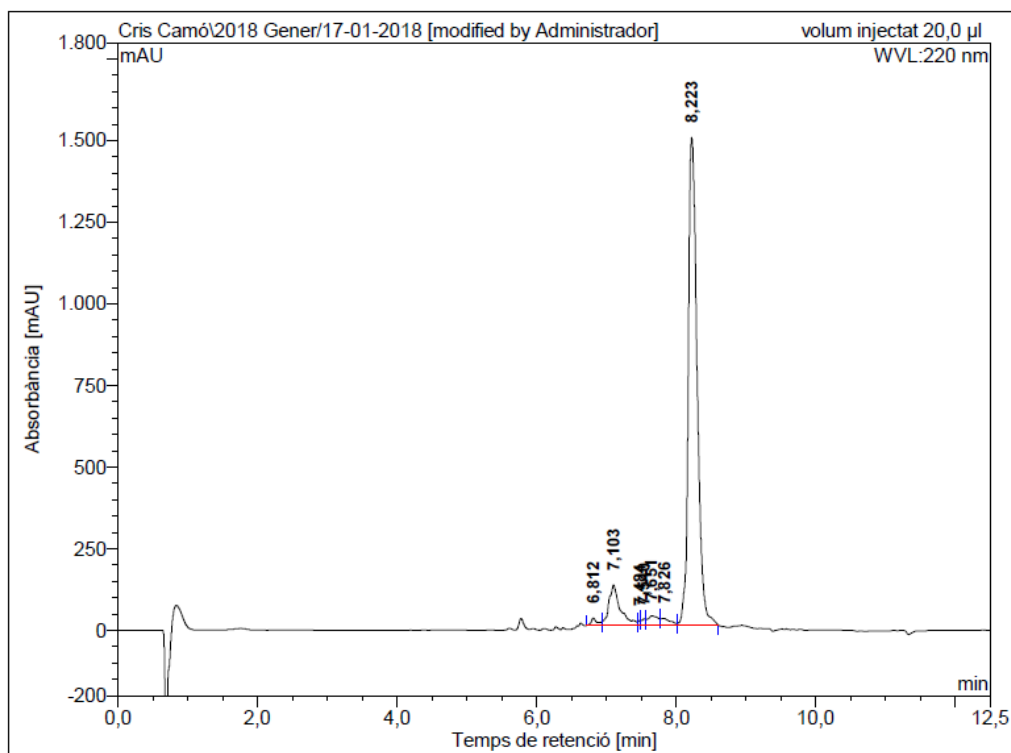
Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ AC-1

(BP143-BP13)

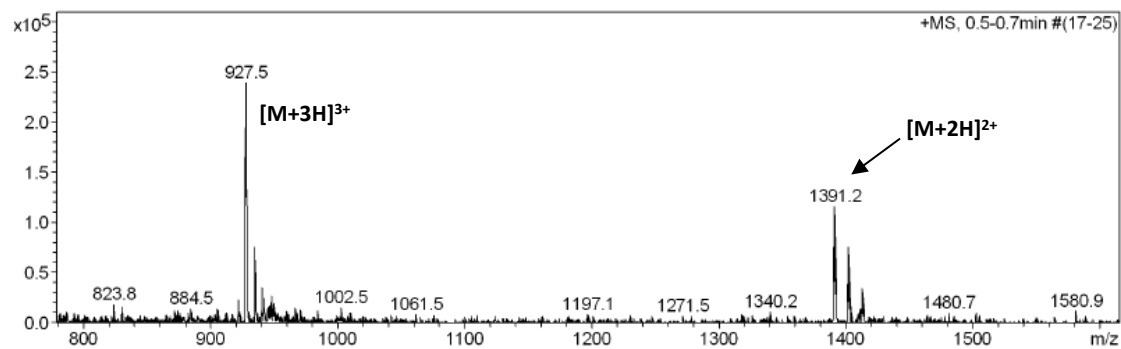
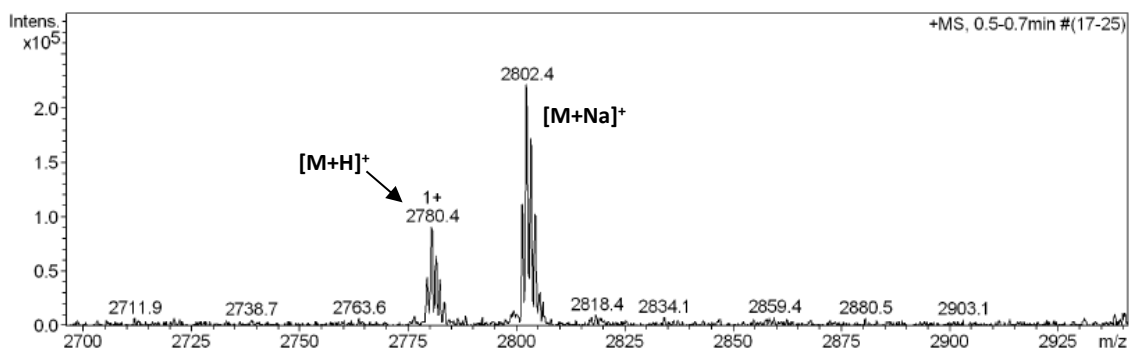
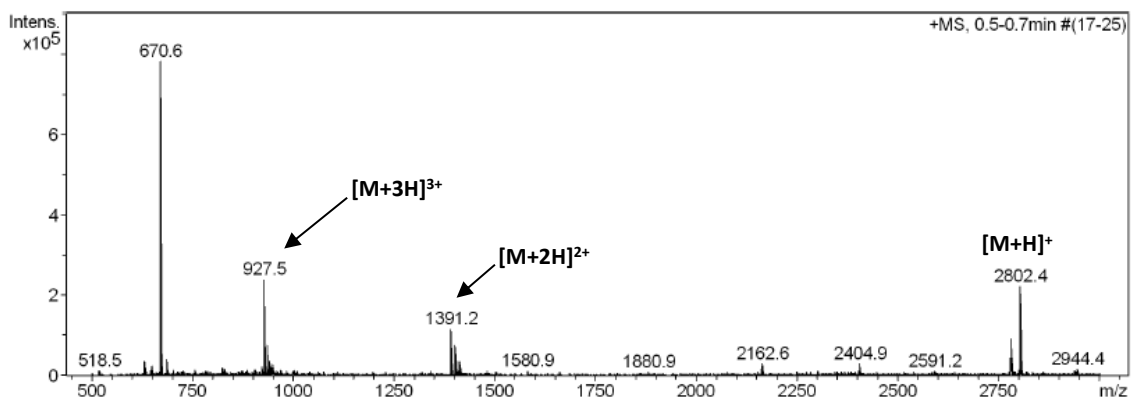


Chemical Formula: C₁₄₃H₂₄₄N₃₂O₂₃
 Exact Mass: 2777,8907
 Molecular Weight: 2779,6681

IMPURE PRODUCT

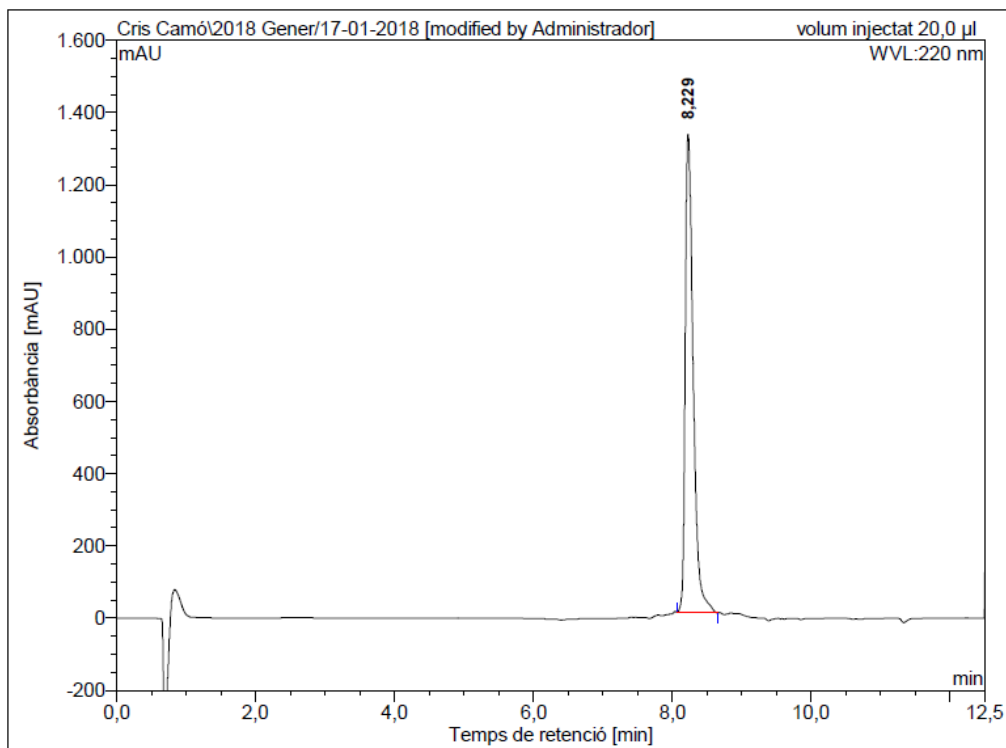
HPLC ($\lambda = 220$ nm) (AC-1.1 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,81 | 22,659 | 2,191 | 0,86 |
| 2 | 7,10 | 124,744 | 23,492 | 9,24 |
| 3 | 7,48 | 16,379 | 0,465 | 0,18 |
| 4 | 7,54 | 20,057 | 1,463 | 0,58 |
| 5 | 7,65 | 29,859 | 5,148 | 2,03 |
| 6 | 7,83 | 22,208 | 3,483 | 1,37 |
| 7 | 8,22 | 1494,782 | 217,889 | 85,74 |
| Total: | | 1730,686 | 254,131 | 100,00 |

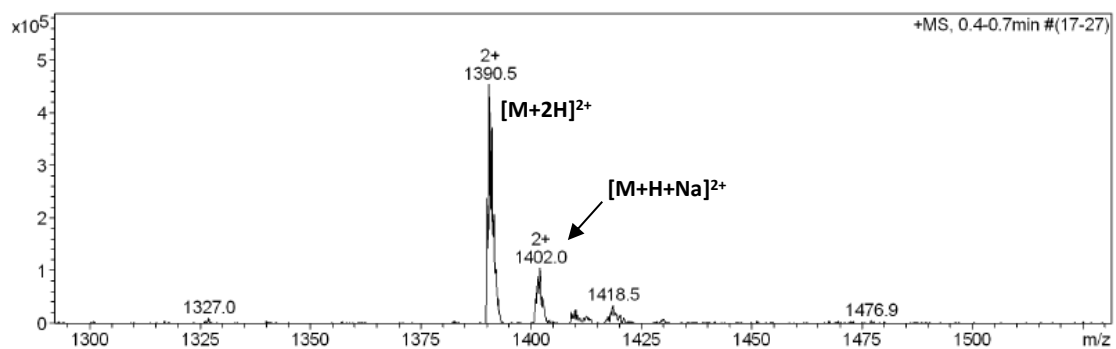
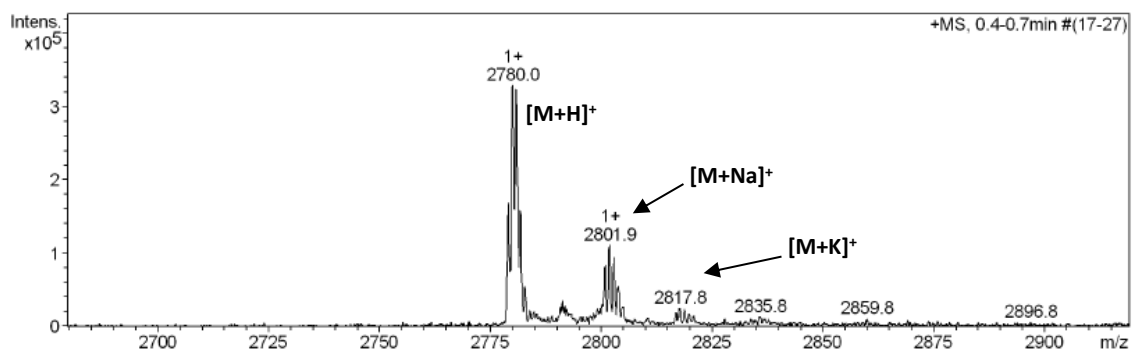
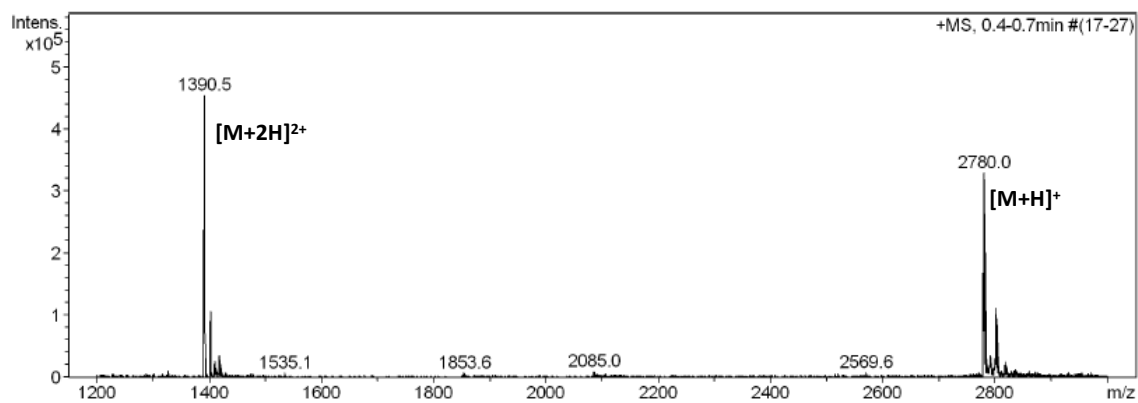
ESI-MS (m/z) (AC1-43)

| |
|------------------------|
| $[M+H]^+ = 2780.4$ |
| $[M+Na]^+ = 2802.4$ |
| $[M+2H]^{2+} = 1391.2$ |
| $[M+3H]^{3+} = 927.5$ |

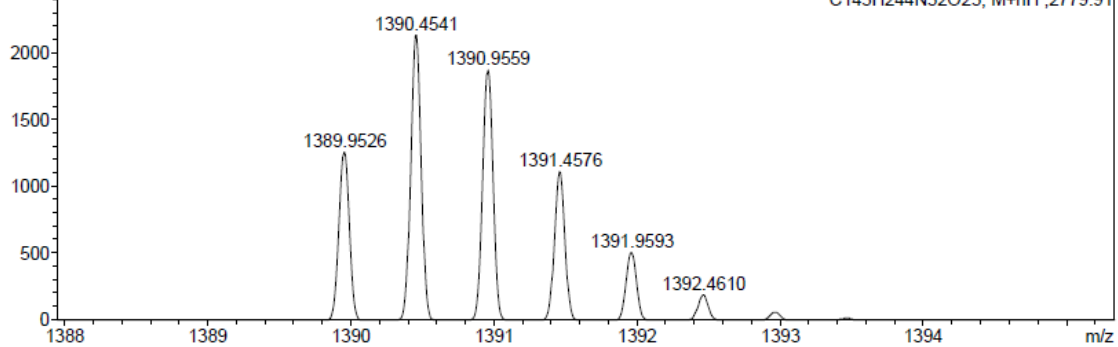
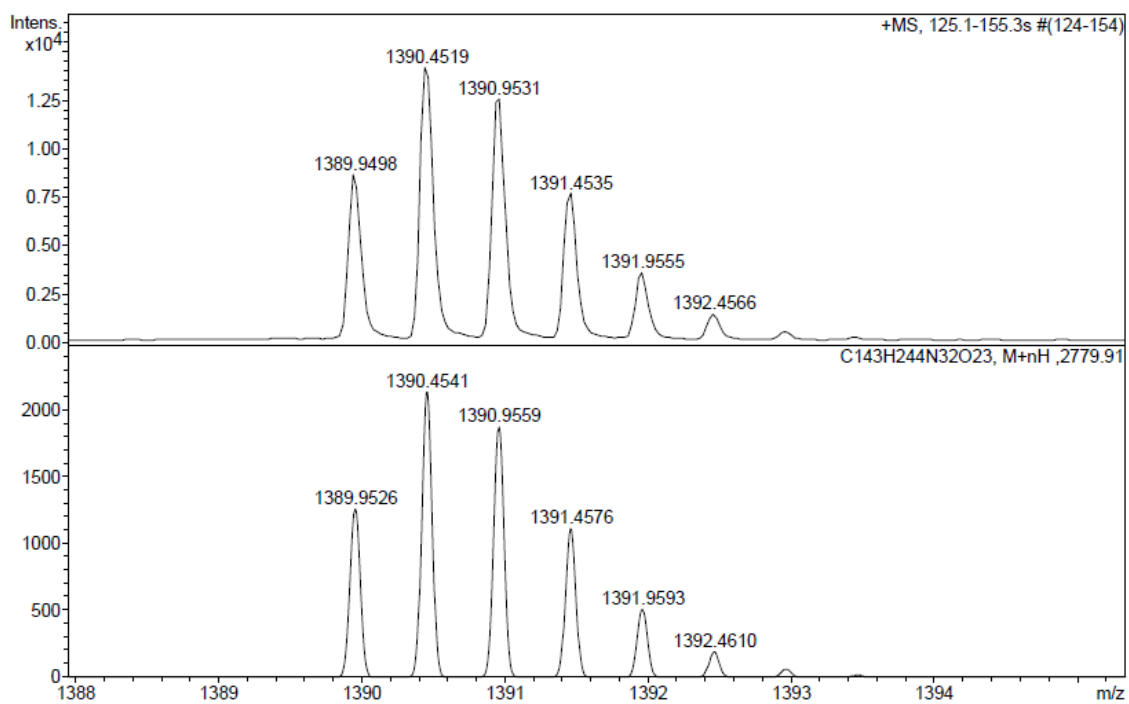
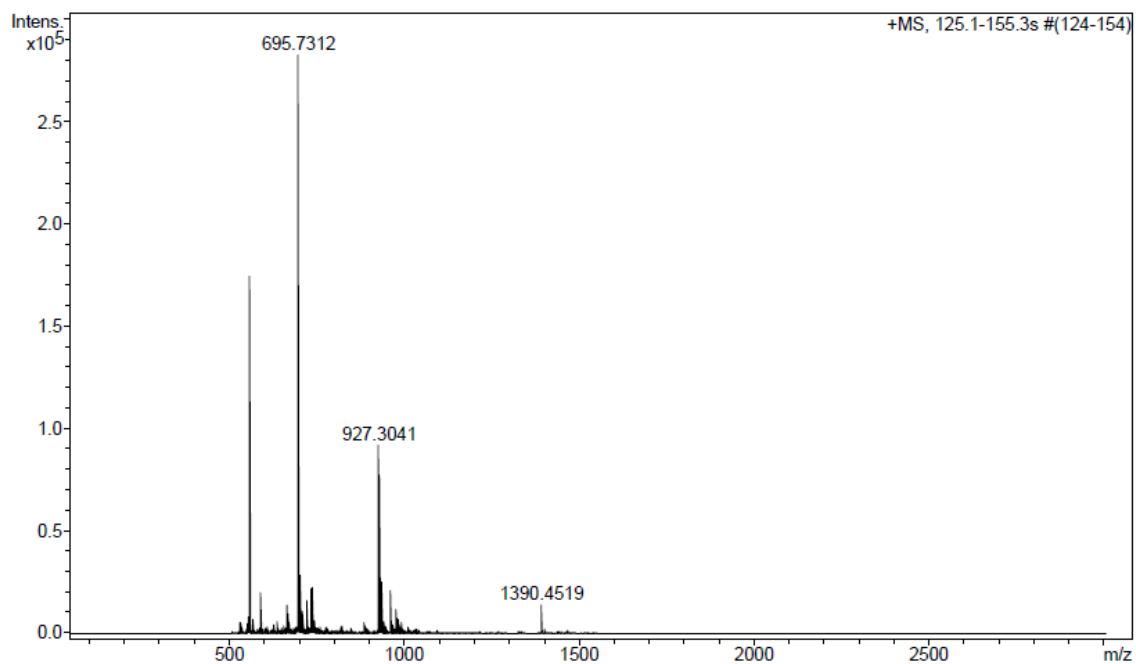
PURE PRODUCT

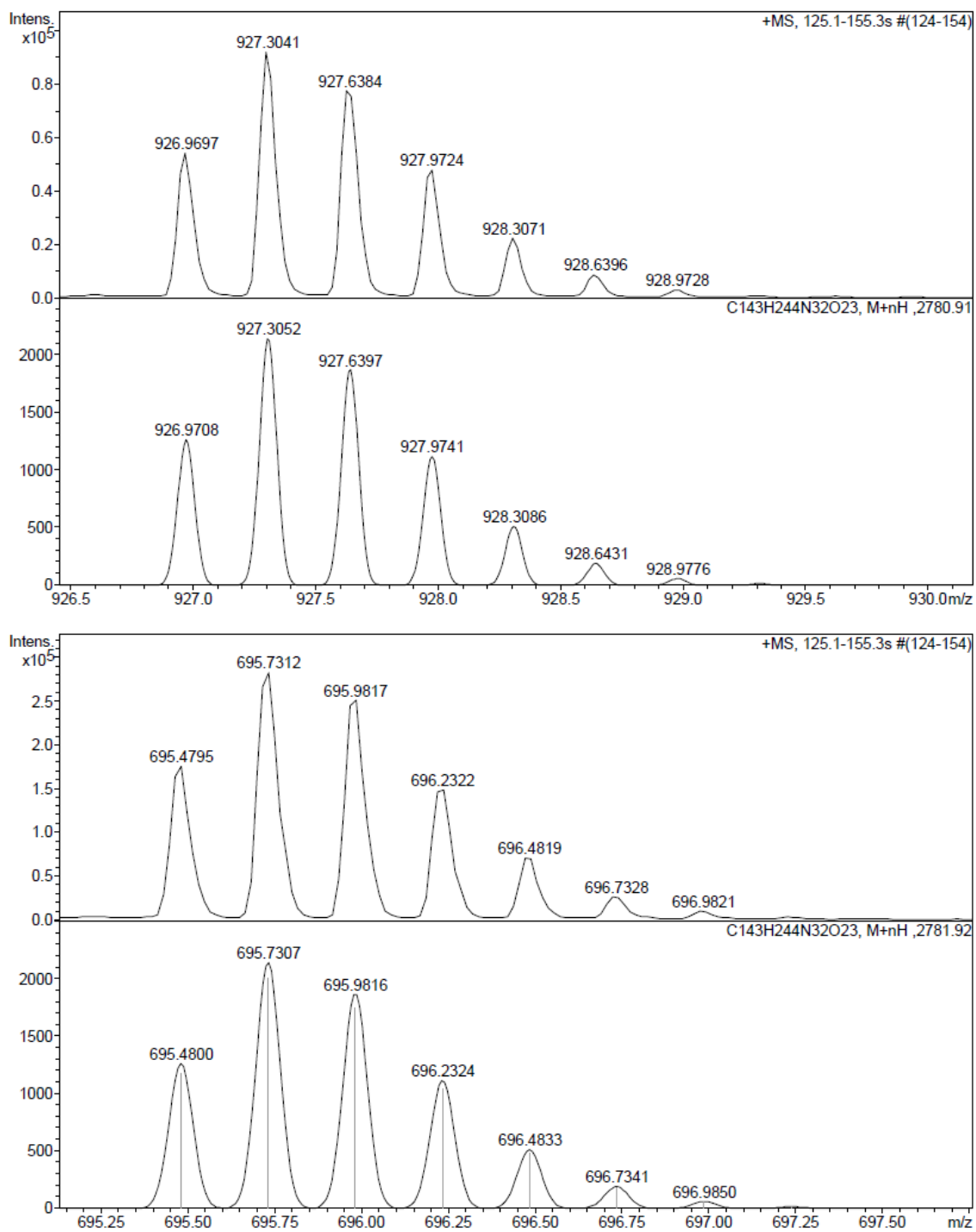
HPLC ($\lambda = 220 \text{ nm}$) (AC-1.1 tub 76)

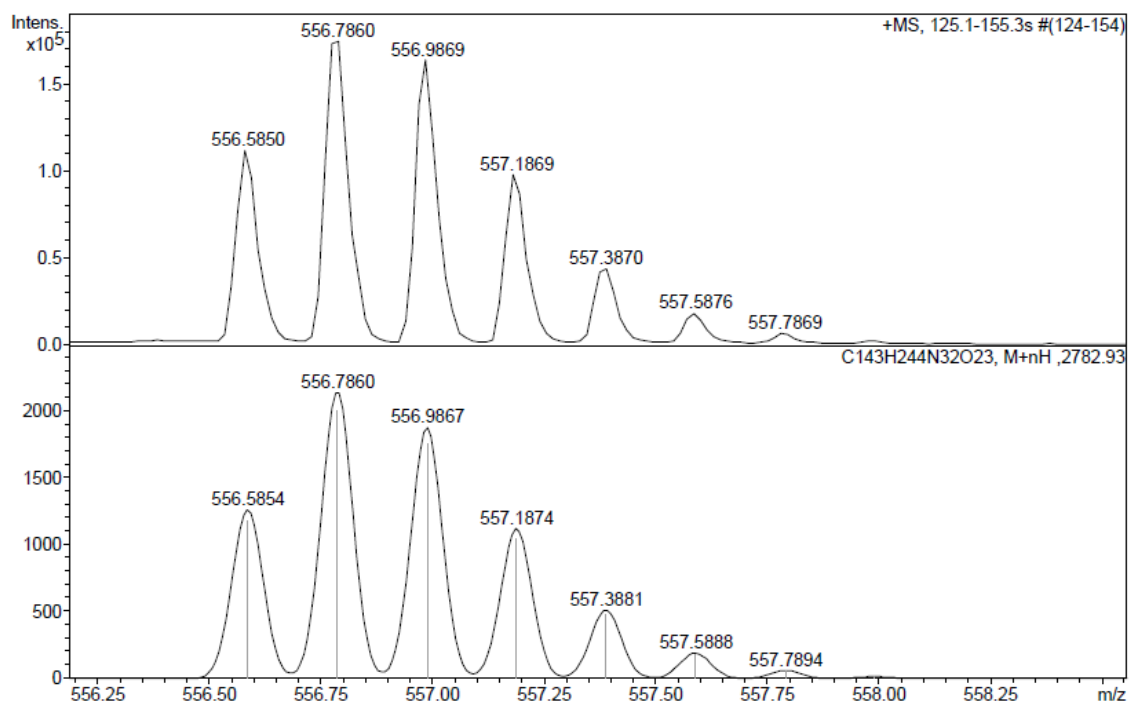
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,23 | 1325,618 | 176,508 | 100,00 |
| Total: | | 1325,618 | 176,508 | 100,00 |

ESI-MS (m/z) (AC-1.1 tub 76)

| |
|--------------------------|
| $[M+H]^+ = 2780.0$ |
| $[M+Na]^+ = 2801.9$ |
| $[M+K]^+ = 2817.8$ |
| $[M+2H]^{2+} = 1390.5$ |
| $[M+H+Na]^{2+} = 1402.0$ |

HRMS (ESI) (m/z)

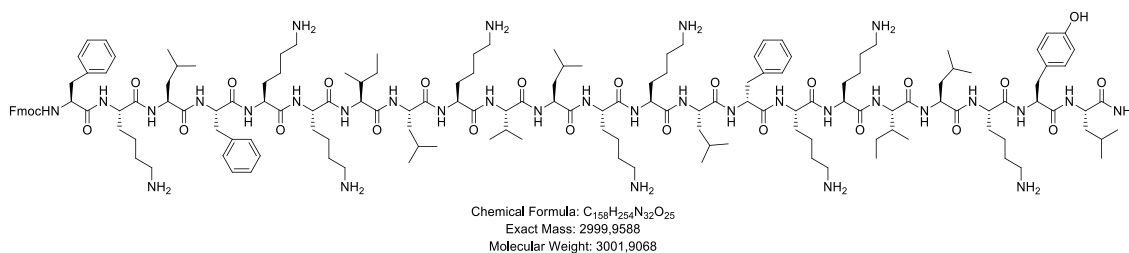
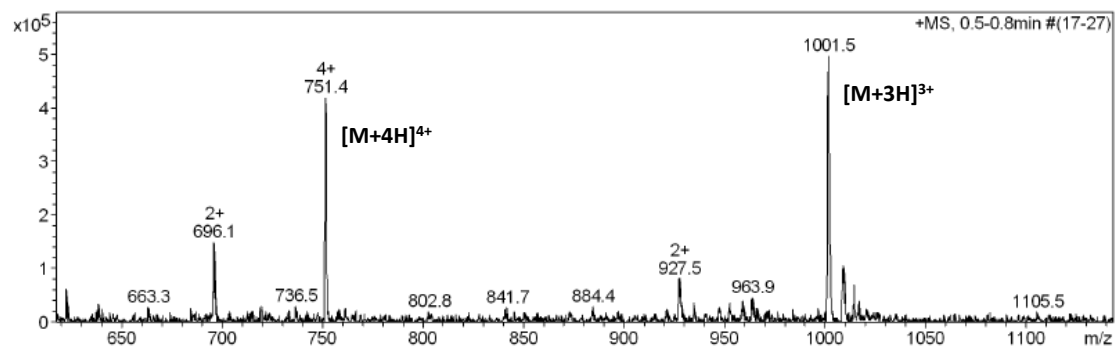
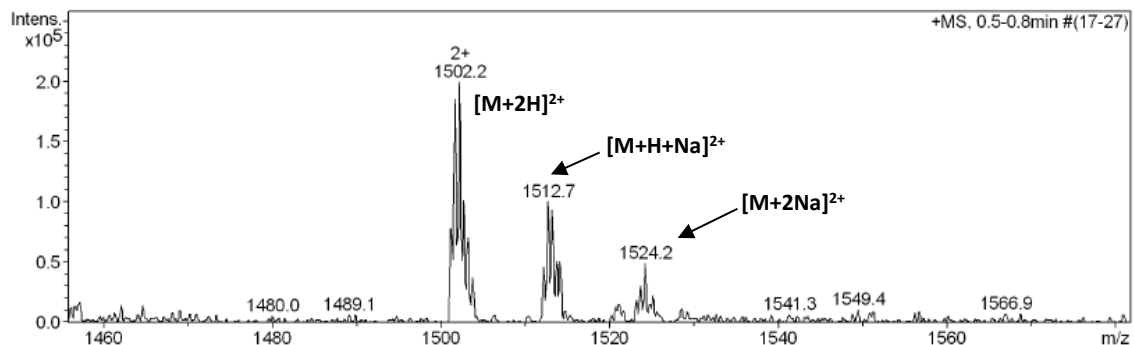
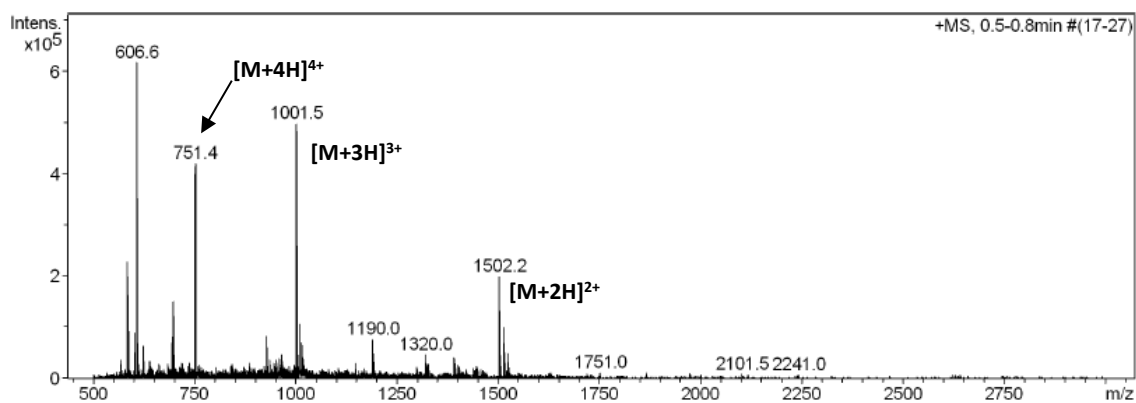




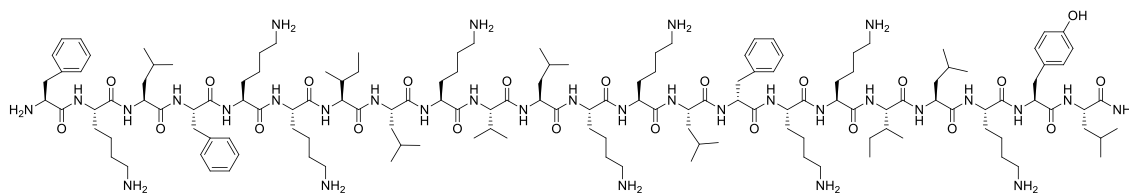
| | Molecular formula | Calculated | Found |
|----------------------------|---|-------------------|--------------|
| [M+2H]²⁺ | C ₁₄₃ H ₂₄₆ N ₃₂ O ₂₃ | 1389.9526 | 1389.9498 |
| [M+3H]³⁺ | C ₁₄₃ H ₂₄₇ N ₃₂ O ₂₃ | 926.9708 | 926.9697 |
| [M+4H]⁴⁺ | C ₁₄₃ H ₂₄₈ N ₃₂ O ₂₃ | 695.4800 | 695.4795 |
| [M+5H]⁵⁺ | C ₁₄₃ H ₂₄₉ N ₃₂ O ₂₃ | 556.5854 | 556.5850 |

Fmoc-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂

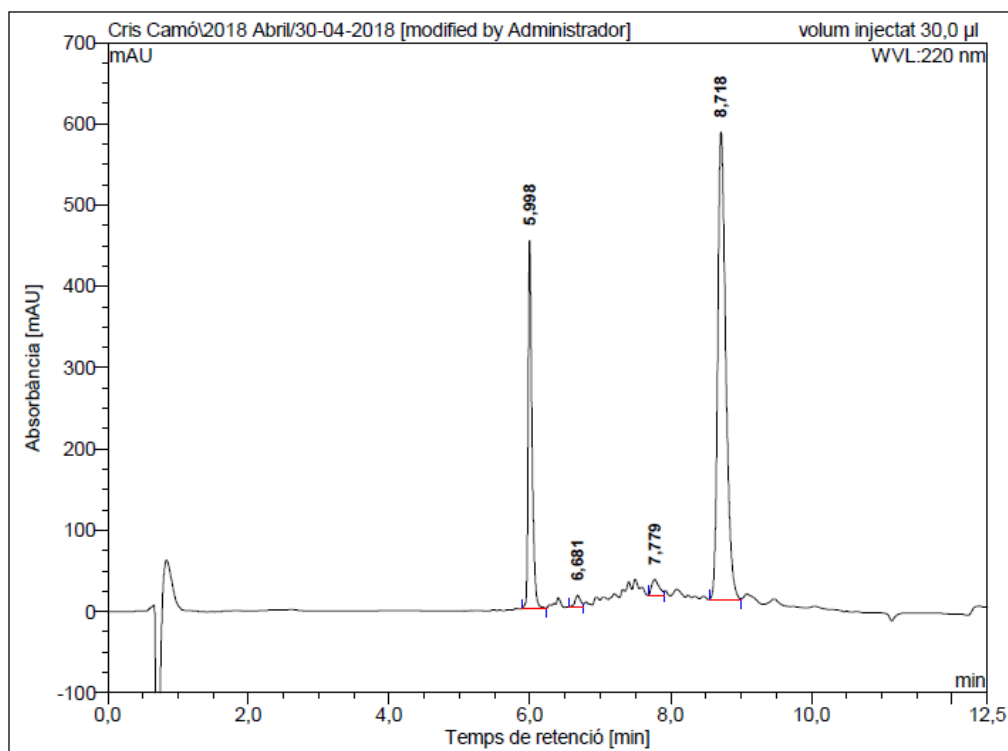
AC-2 (BP13-BP143)

ESI-MS (*m/z*) (AC2-43F)

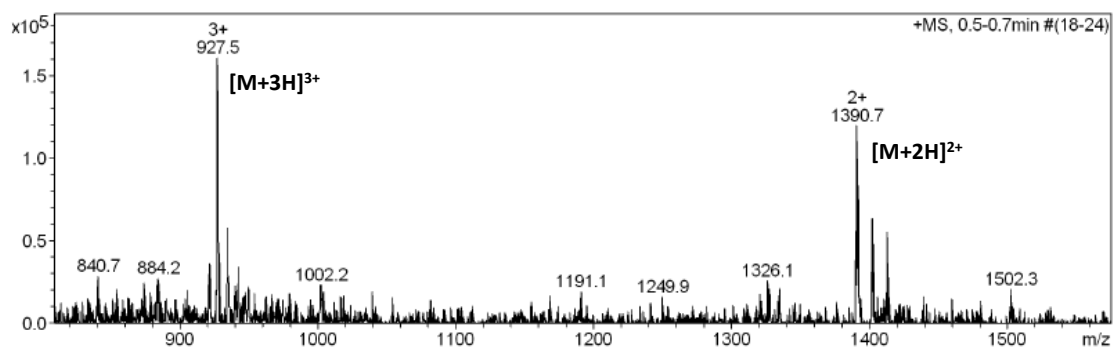
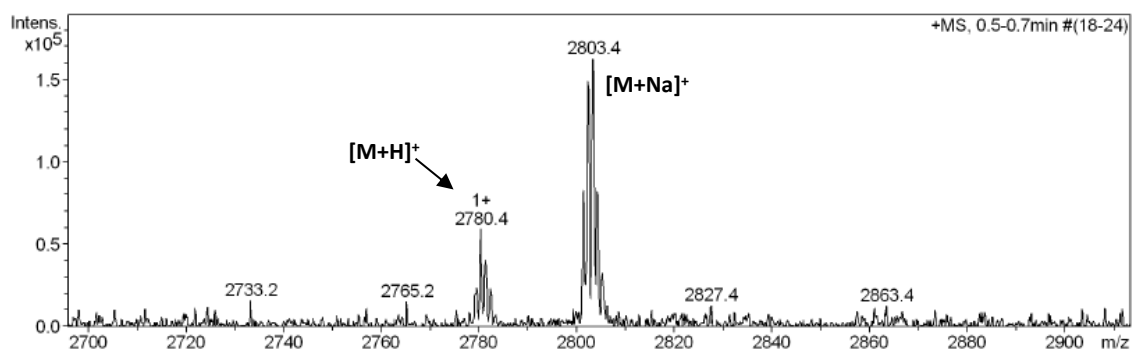
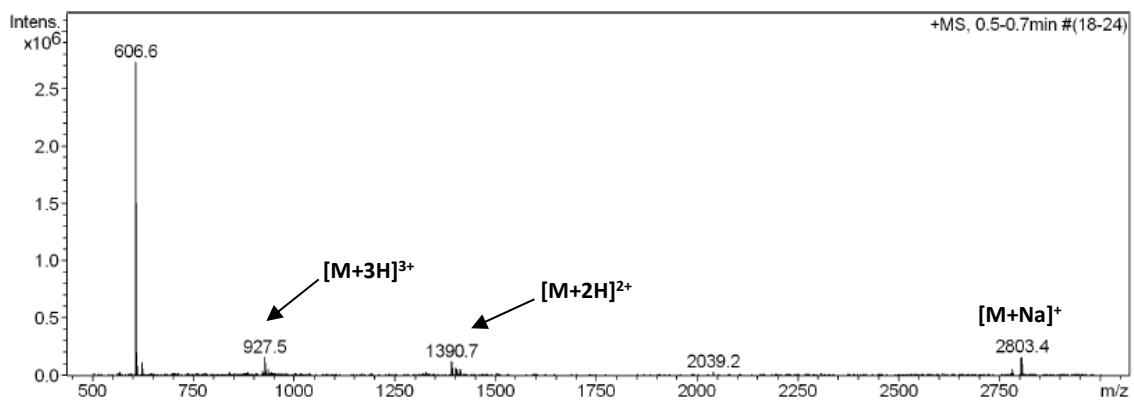
| |
|---------------------------------|
| [M+2H] ²⁺ = 1502.2 |
| [M+H+Na] ²⁺ = 1512.7 |
| [M+2Na] ²⁺ = 1524.0 |
| [M+3H] ³⁺ = 1001.5 |
| [M+4H] ⁴⁺ = 751.4 |

Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ **AC-2****(BP13-BP143)**

Chemical Formula: C₁₄₃H₂₄₄N₃₂O₂₃
 Exact Mass: 2777,8907
 Molecular Weight: 2779,6681

IMPURE PRODUCT**HPLC (λ = 220 nm) (AC-2 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,00 | 452,806 | 28,820 | 26,51 |
| 2 | 6,68 | 14,151 | 1,326 | 1,22 |
| 3 | 7,78 | 19,625 | 2,392 | 2,20 |
| 4 | 8,72 | 575,056 | 76,174 | 70,07 |
| Total: | | 1061,639 | 108,712 | 100,00 |

ESI-MS (m/z) (AC2-43)

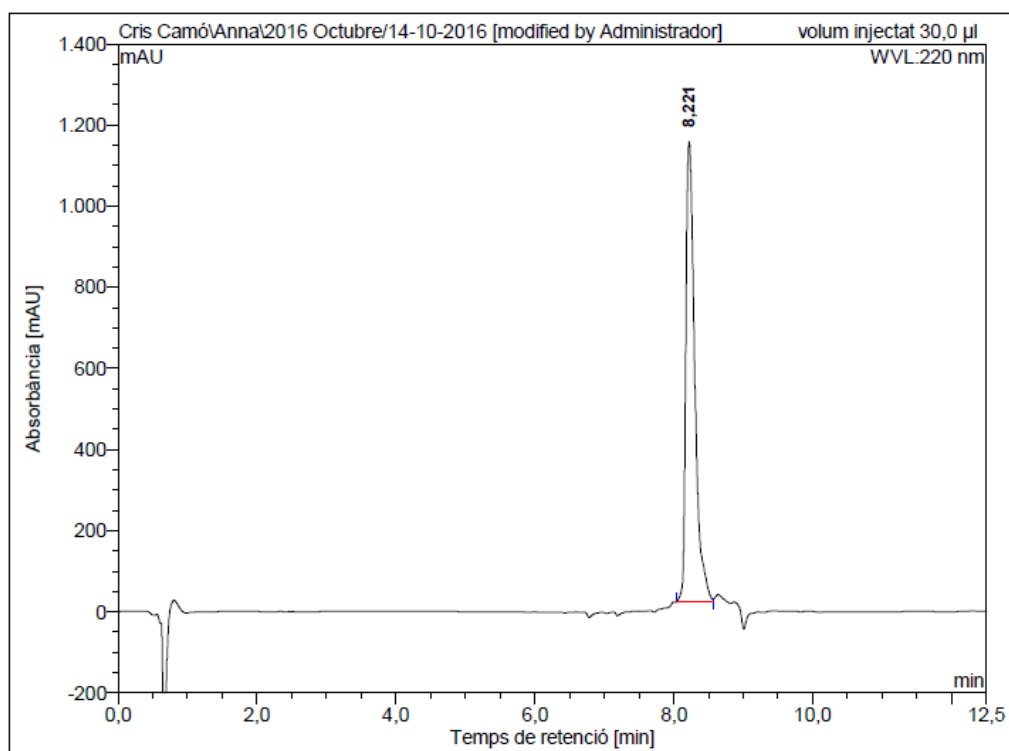
$$[M+H]^+ = 2780.4$$

$$[M+Na]^+ = 2803.4$$

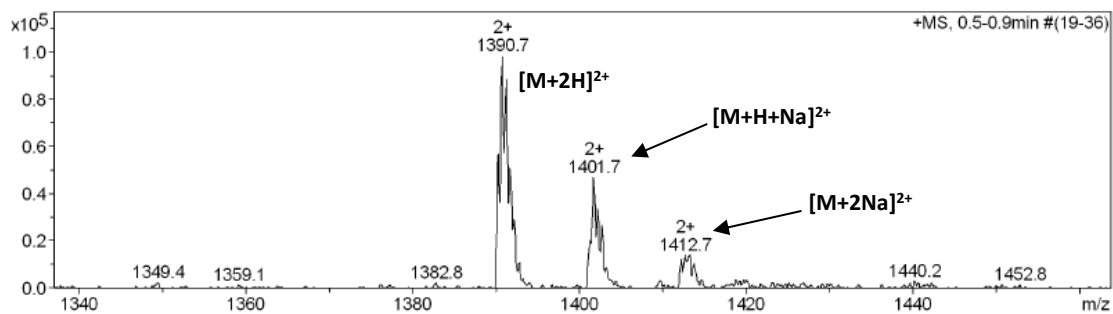
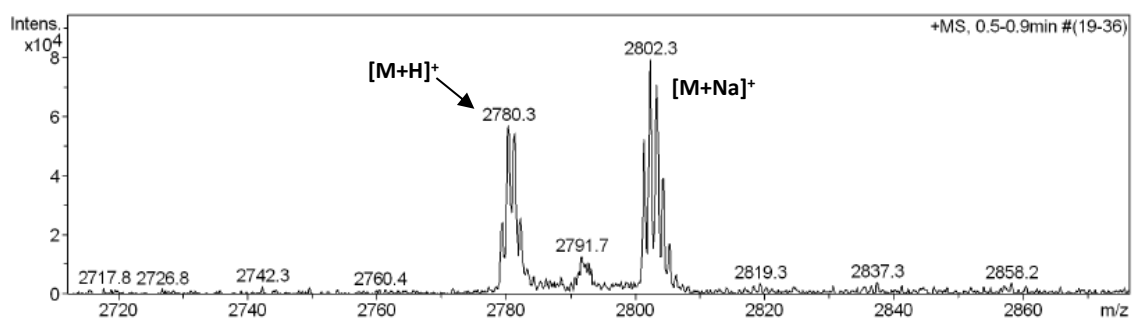
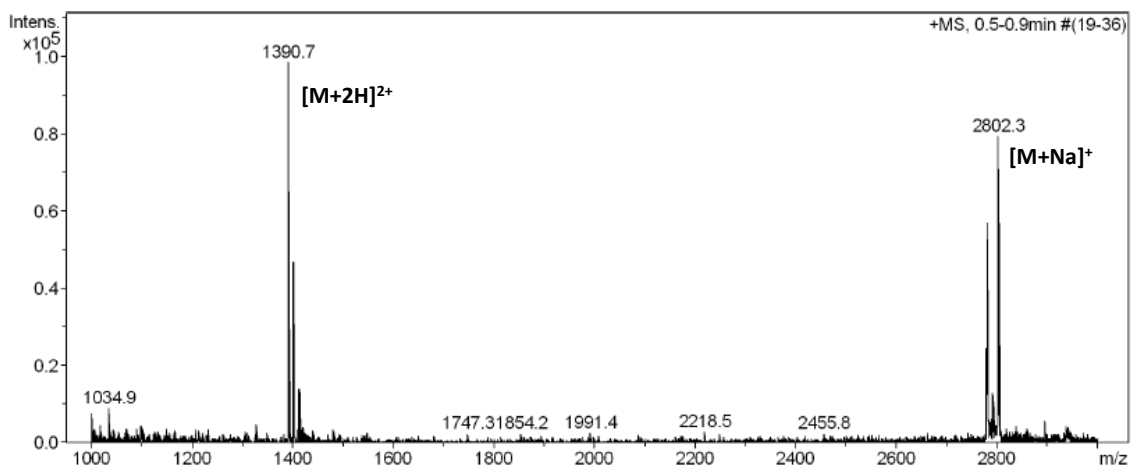
$$[M+2H]^{2+} = 1390.7$$

$$[M+3H]^{3+} = 927.5$$

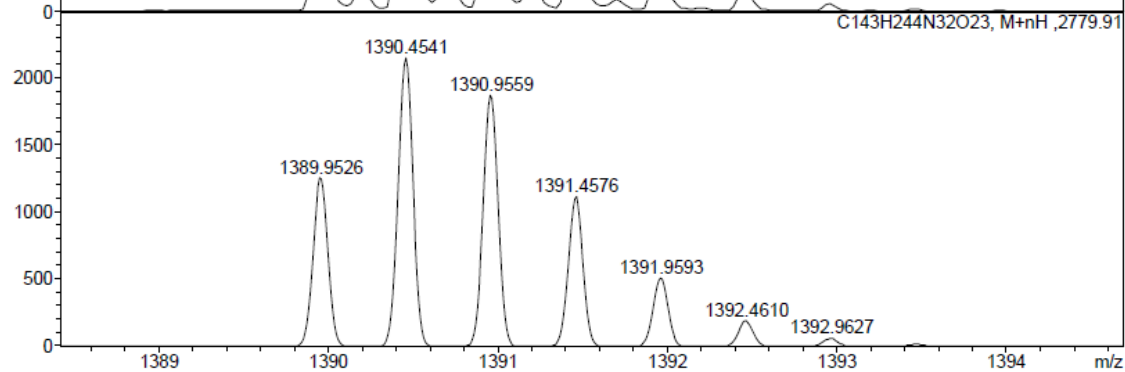
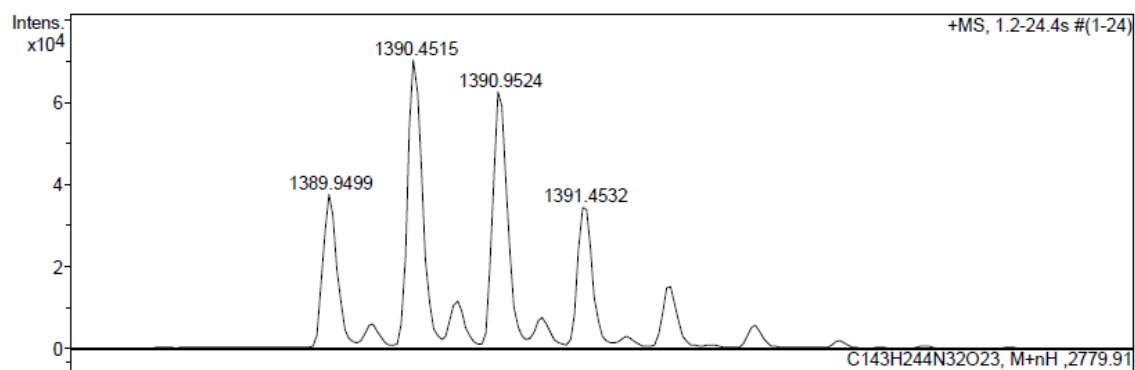
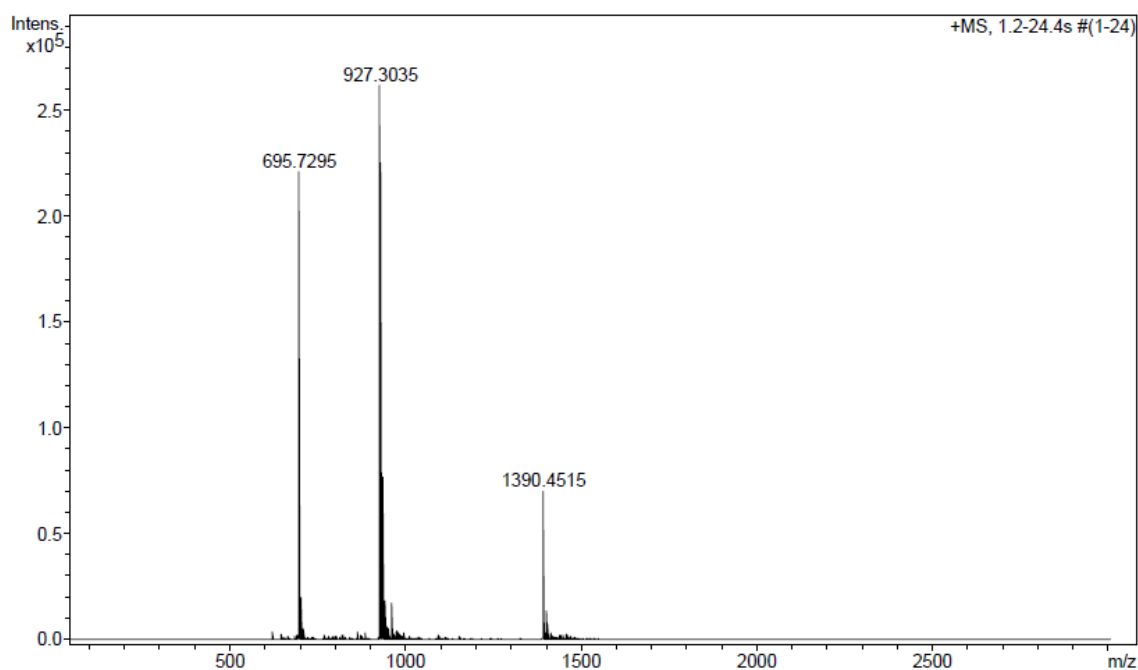
PURE PRODUCT

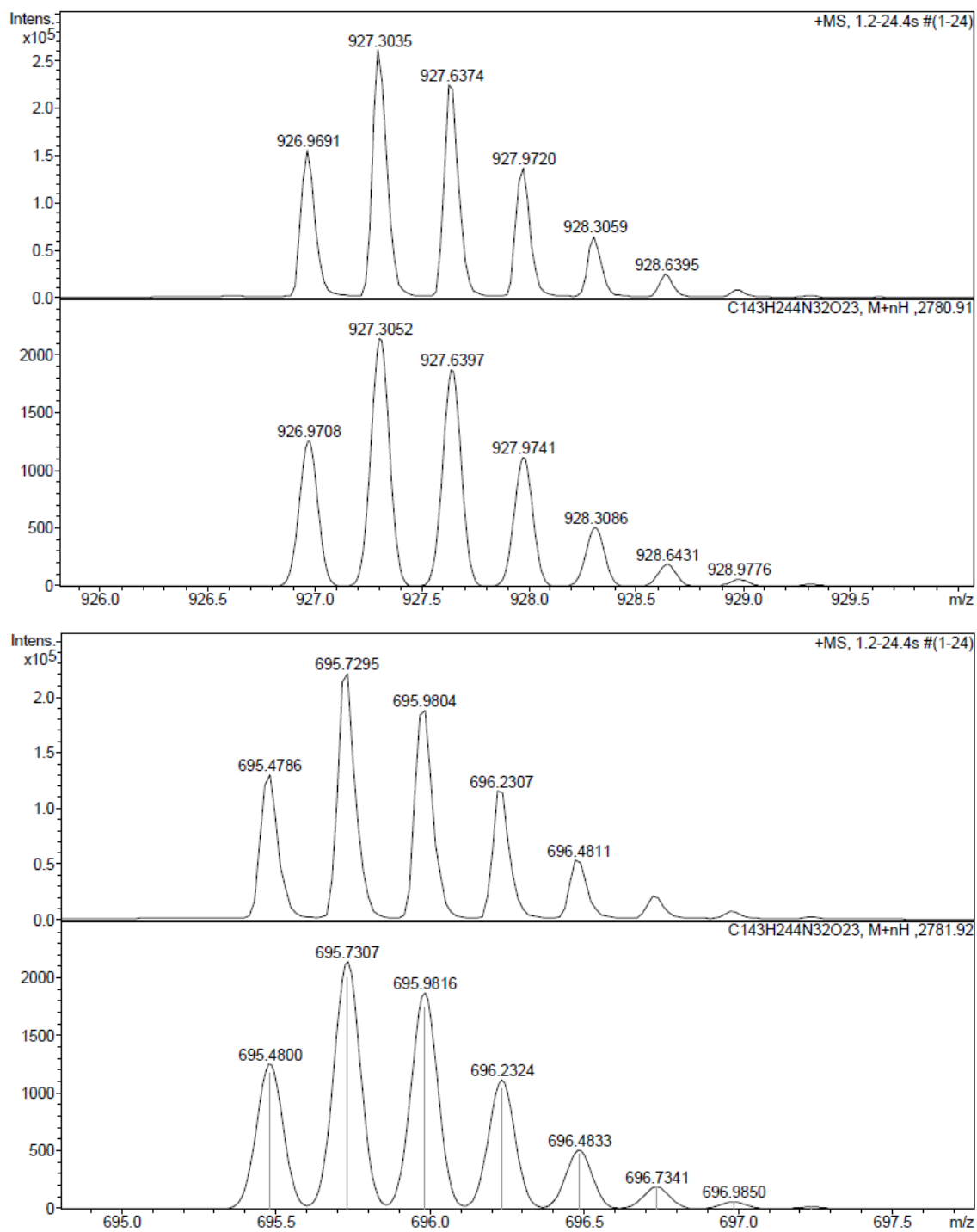
HPLC ($\lambda = 220 \text{ nm}$) (AC2.1-48 tub 38)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,22 | 1134,712 | 169,763 | 100,00 |
| Total: | | 1134,712 | 169,763 | 100,00 |

ESI-MS (m/z) (AC2.1-48 tub 38)

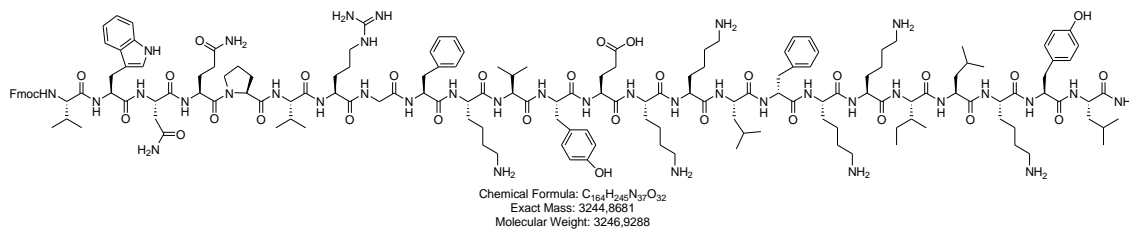
| |
|--------------------------|
| $[M+H]^+ = 2780.3$ |
| $[M+Na]^+ = 2802.3$ |
| $[M+2H]^{2+} = 1390.7$ |
| $[M+H+Na]^{2+} = 1401.7$ |
| $[M+2Na]^{2+} = 1412.7$ |

HRMS (ESI) (m/z)

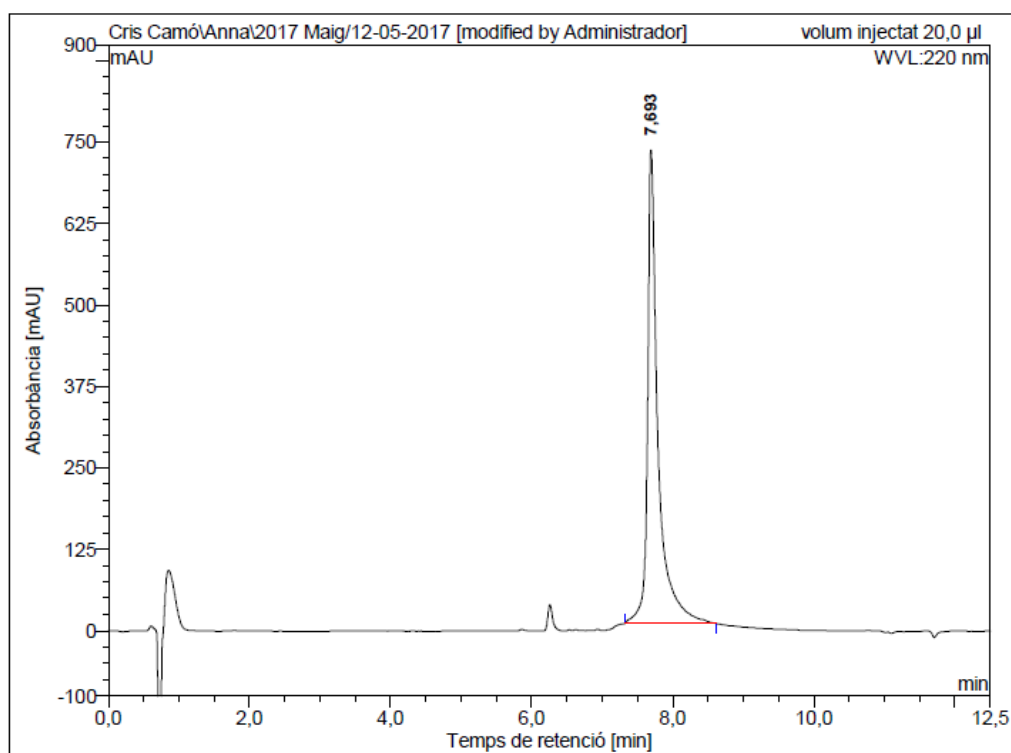


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₃ H ₂₄₆ N ₃₂ O ₂₃ | 1389.9526 | 1389.9499 |
| [M+3H]³⁺ | C ₁₄₃ H ₂₄₇ N ₃₂ O ₂₃ | 926.9708 | 926.9691 |
| [M+4H]⁴⁺ | C ₁₄₃ H ₂₄₈ N ₃₂ O ₂₃ | 695.4800 | 695.4786 |

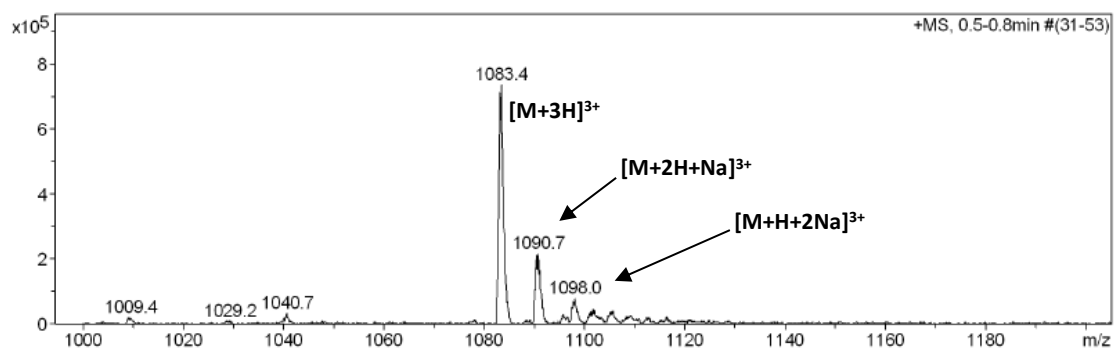
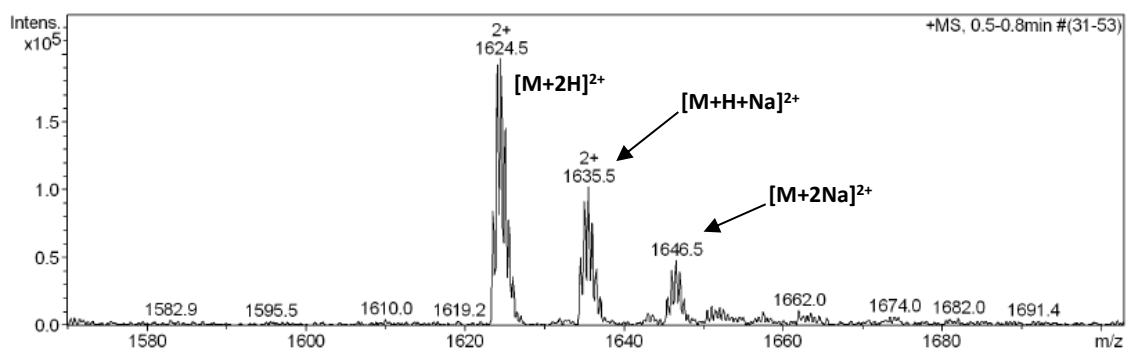
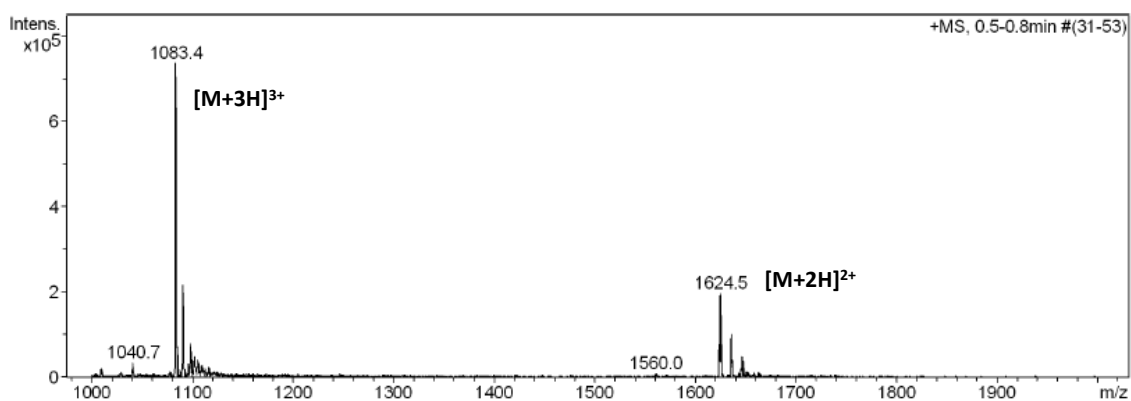
Fmoc-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu- Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-
Leu-NH₂ **AC-5 (Pep13-BP143)**



HPLC ($\lambda = 220 \text{ nm}$) (AC5-90)



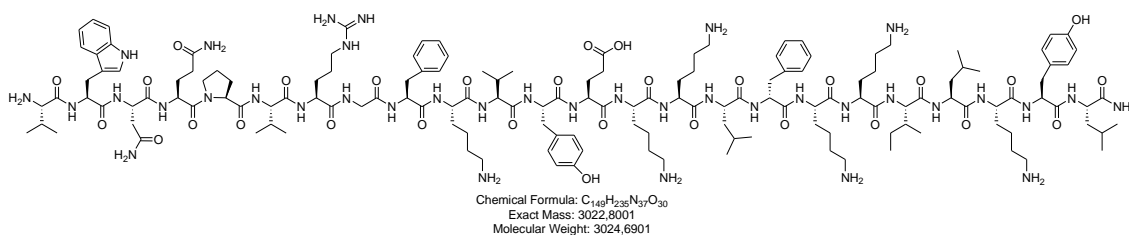
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,69 | 727,046 | 125,349 | 100,00 |
| Total: | | 727,046 | 125,349 | 100,00 |

ESI-MS (m/z) (AC5 pag 90 amb Fmoc)

| |
|---------------------------|
| $[M+2H]^{2+} = 1624.5$ |
| $[M+H+Na]^{2+} = 1635.5$ |
| $[M+2Na]^{2+} = 1646.5$ |
| $[M+3H]^{3+} = 1083.4$ |
| $[M+2H+Na]^{3+} = 1090.7$ |
| $[M+3H]^{3+} = 1098.0$ |

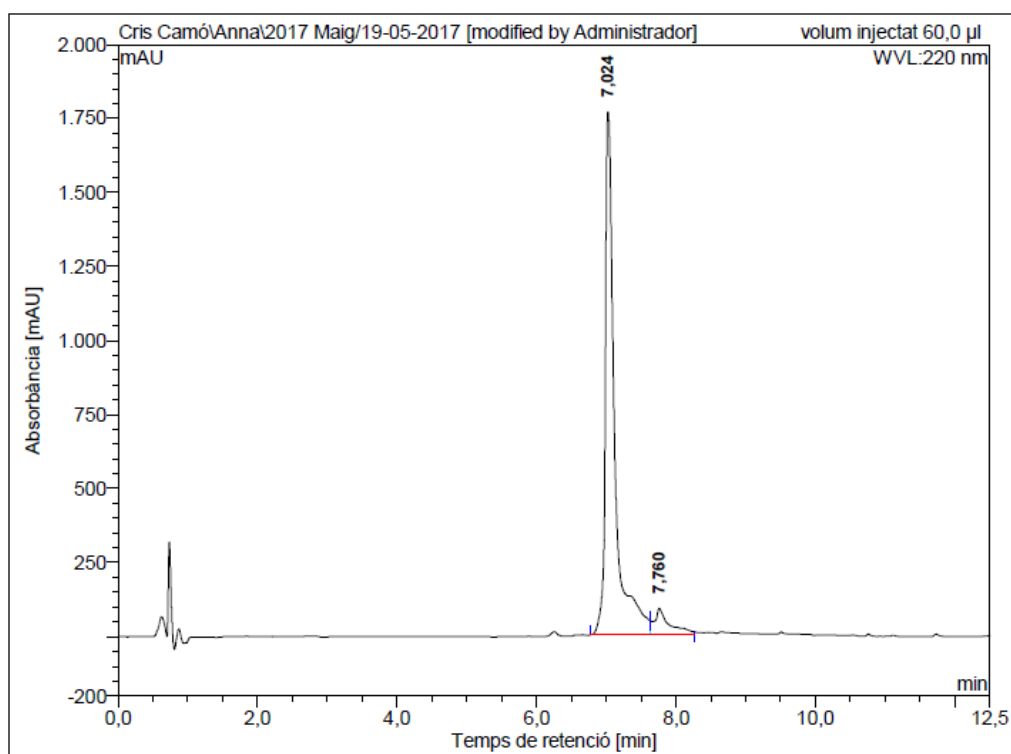
Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu- Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂

AC-5 (Pep13-BP143)

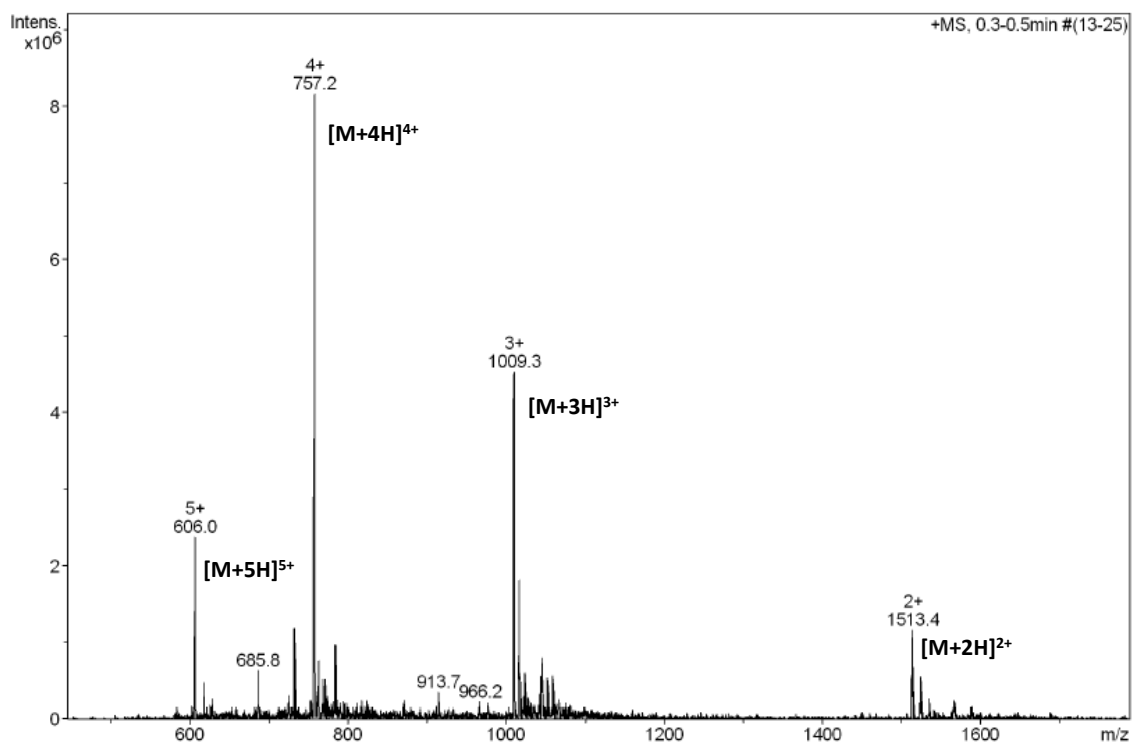
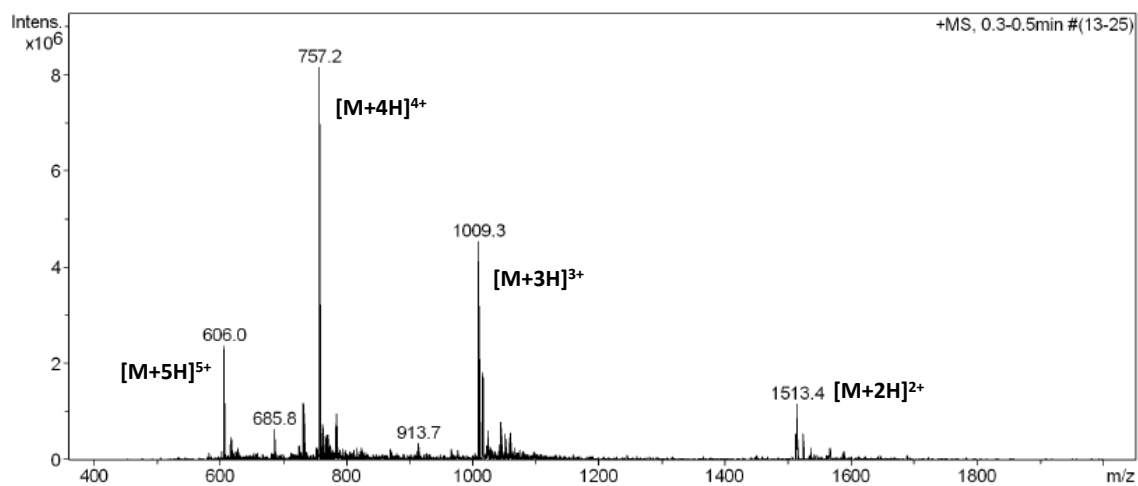


IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (AC-5 no Fmoc pag 98 C1)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,02 | 1764,262 | 274,925 | 92,44 |
| 2 | 7,76 | 88,986 | 22,478 | 7,56 |
| Total: | | 1853,248 | 297,403 | 100,00 |

ESI-MS (m/z) (AC-5 No Fmoc pag 98)

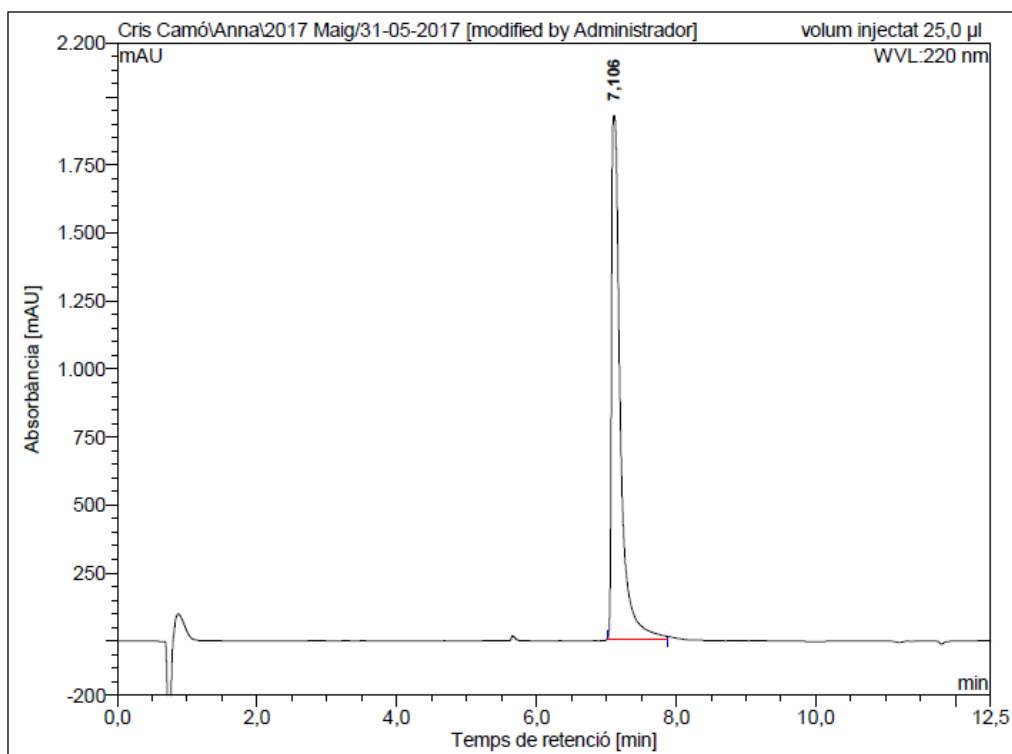
$$[M+2H]^{2+} = 1513.4$$

$$[M+3H]^{3+} = 1009.3$$

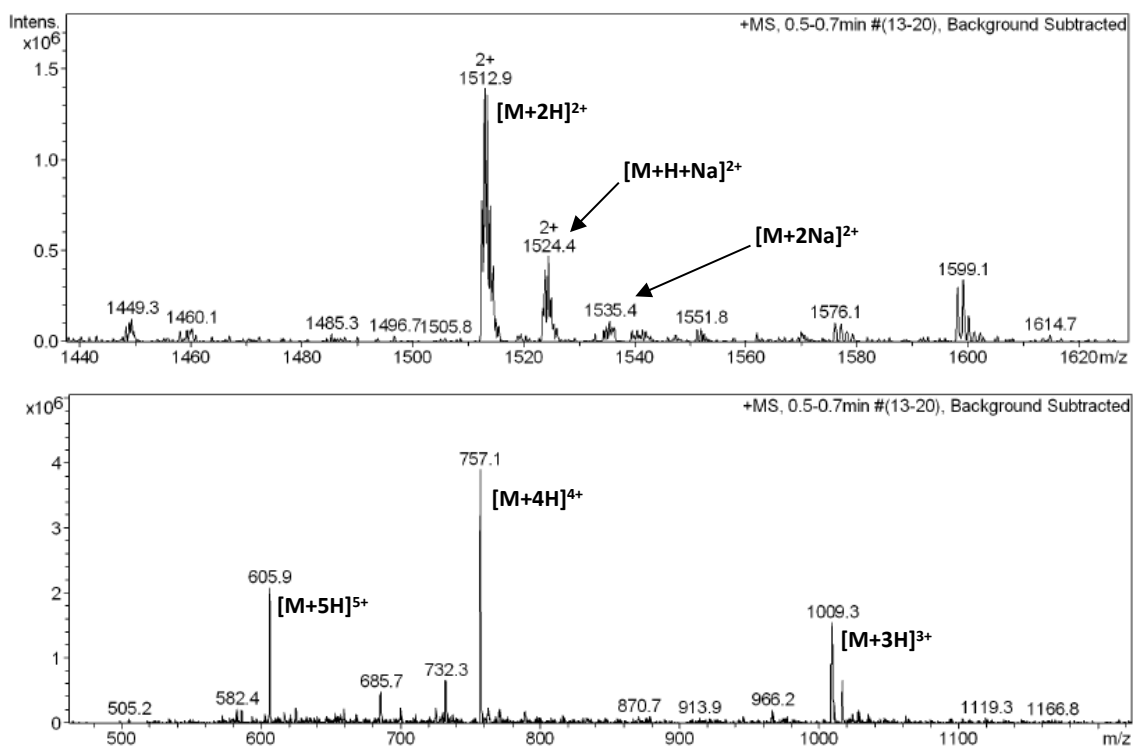
$$[M+4H]^{4+} = 757.2$$

$$[M+5H]^{5+} = 606.0$$

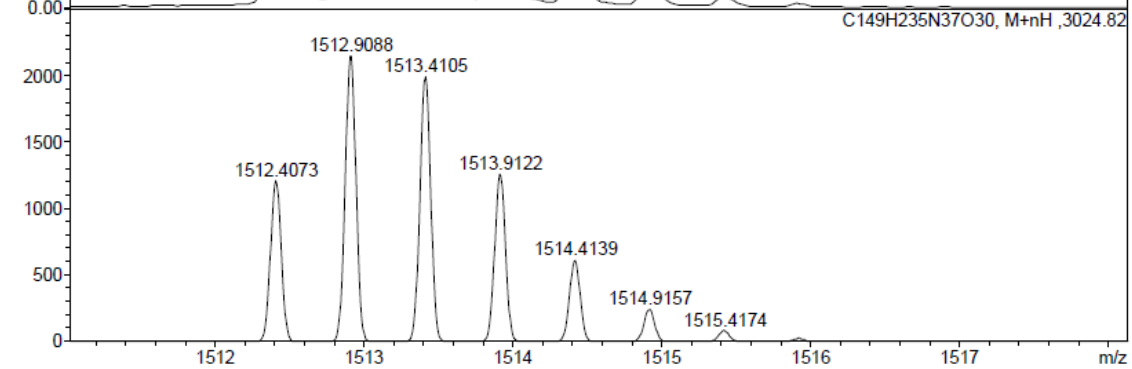
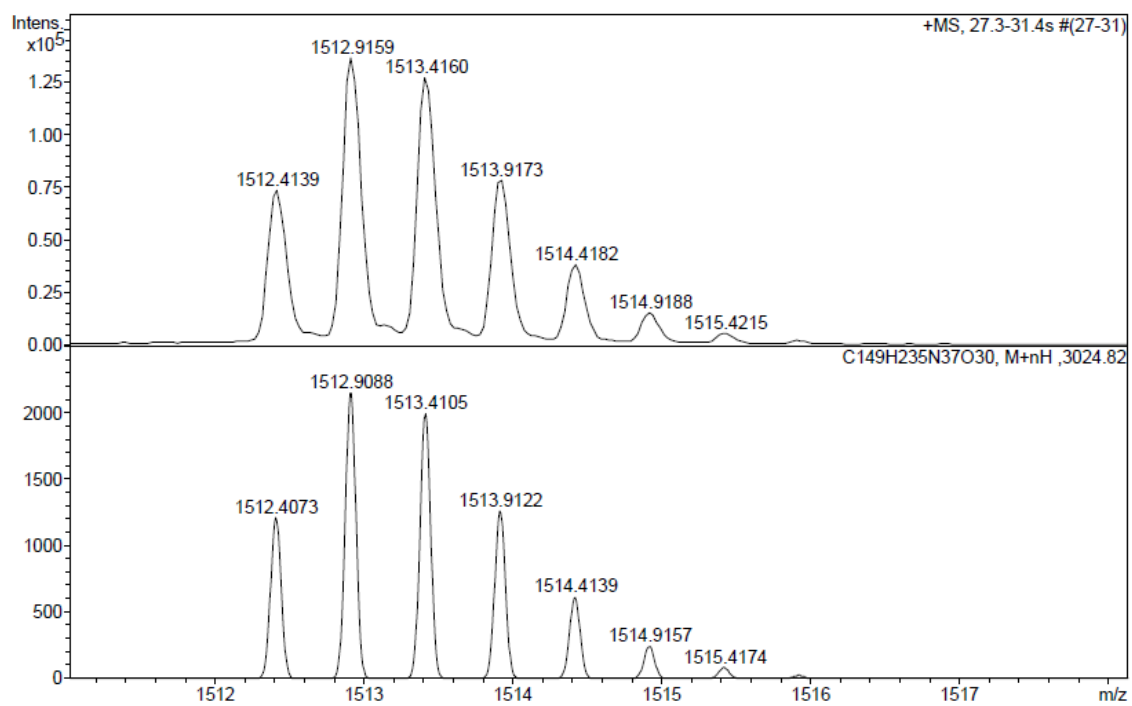
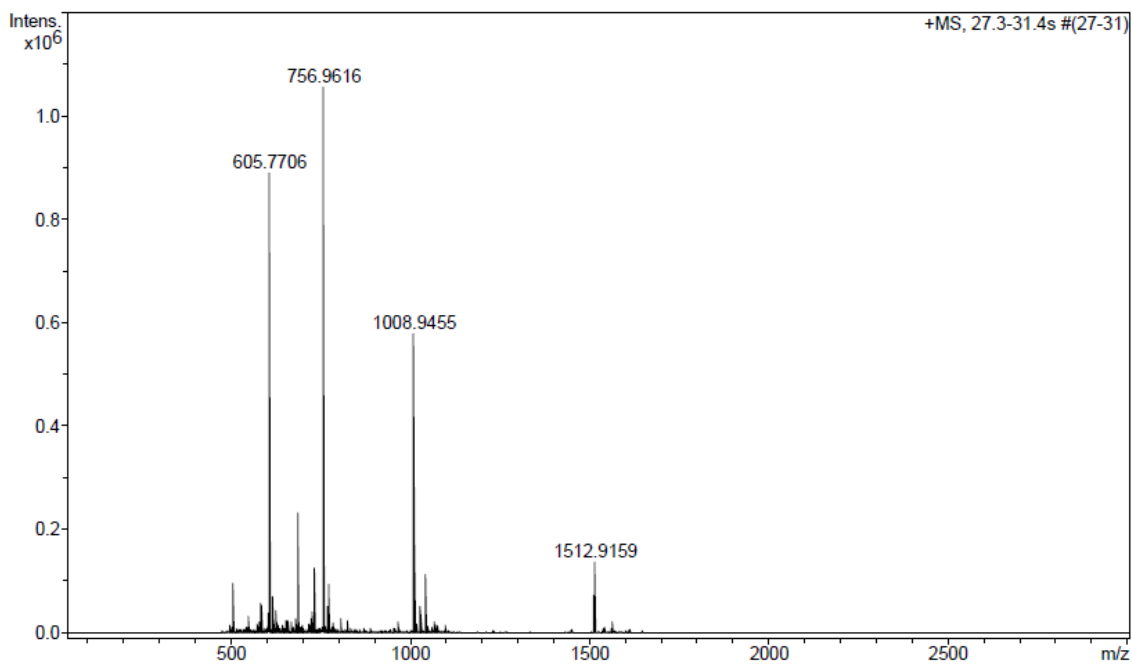
PURE PRODUCT

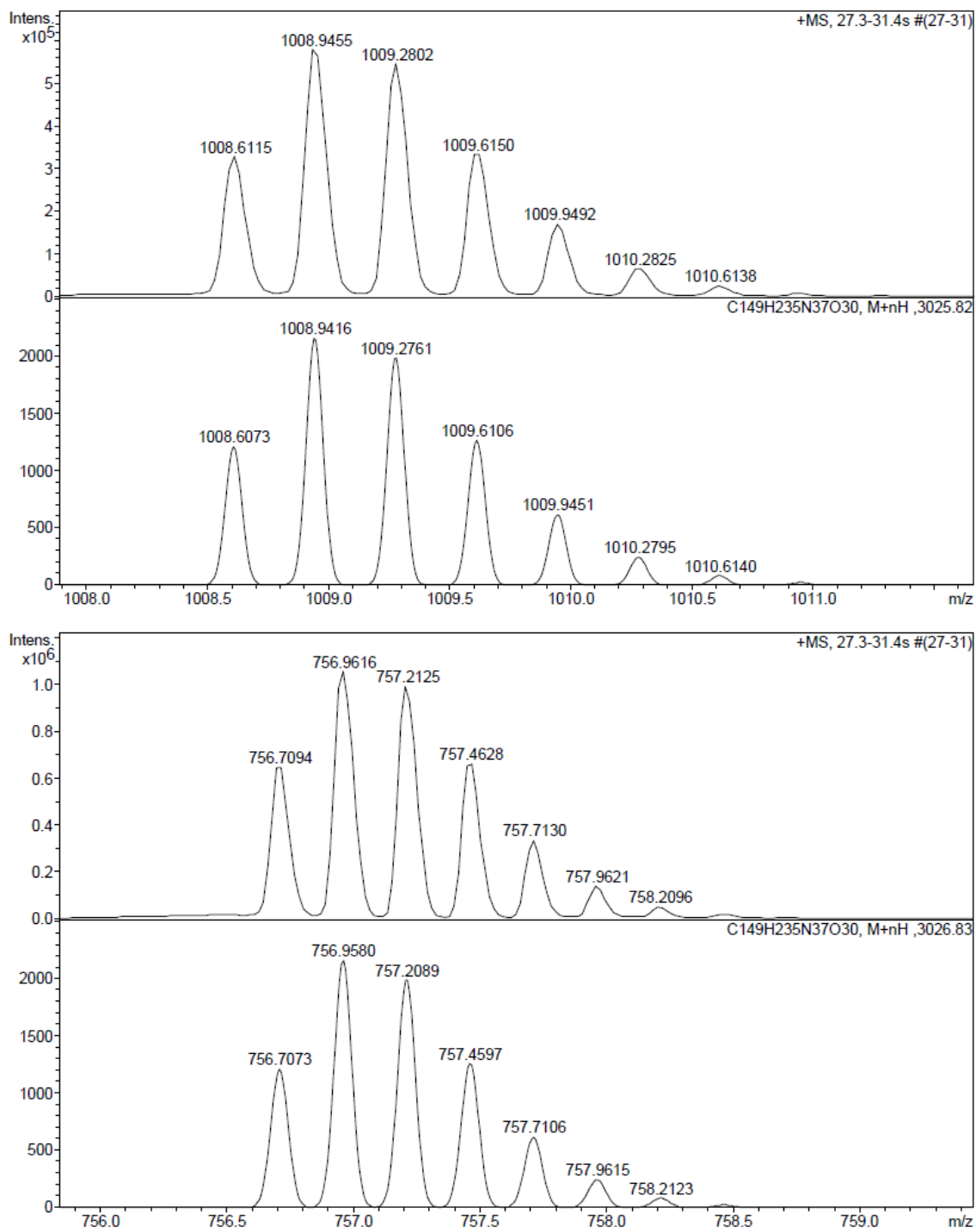
HPLC ($\lambda = 220 \text{ nm}$) (AC5 C1.1 pag 101 Track 1 tub 72)

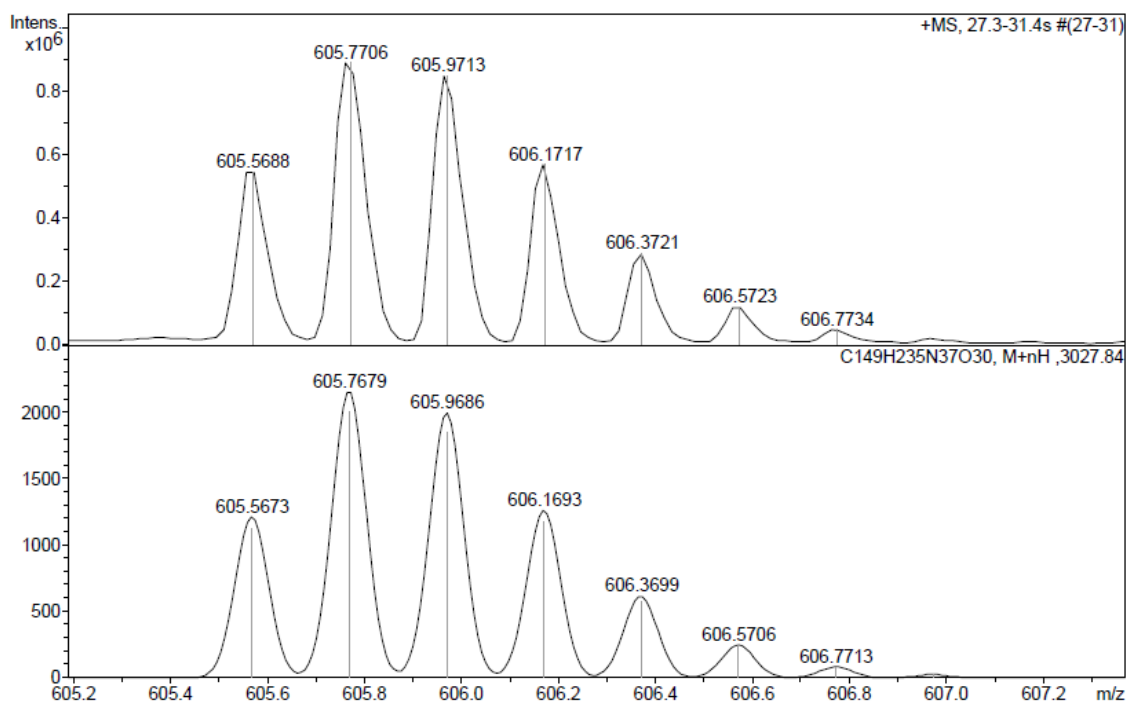
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,11 | 1925,876 | 283,494 | 100,00 |
| Total: | | 1925,876 | 283,494 | 100,00 |

ESI-MS (m/z) (AC-5 C1 no fmoc pag 101 tub 72)

| |
|--------------------------|
| $[M+2H]^{2+} = 1512.9$ |
| $[M+H+Na]^{2+} = 1524.4$ |
| $[M+2Na]^{2+} = 1535.4$ |
| $[M+3H]^{3+} = 1009.3$ |
| $[M+4H]^{4+} = 757.1$ |
| $[M+5H]^{5+} = 605.9$ |

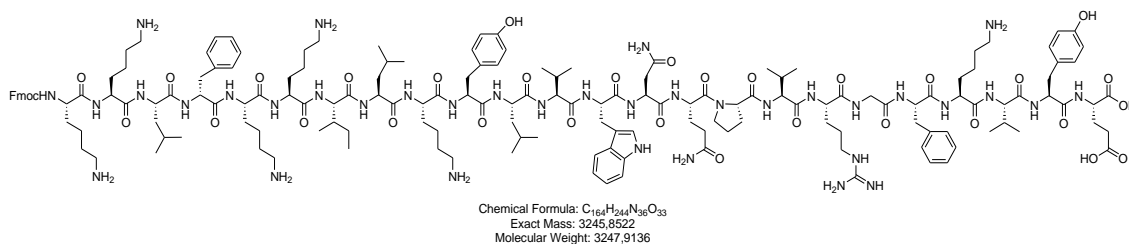
HRMS (ESI) (m/z) (AC-5 no fmoc pag 98)



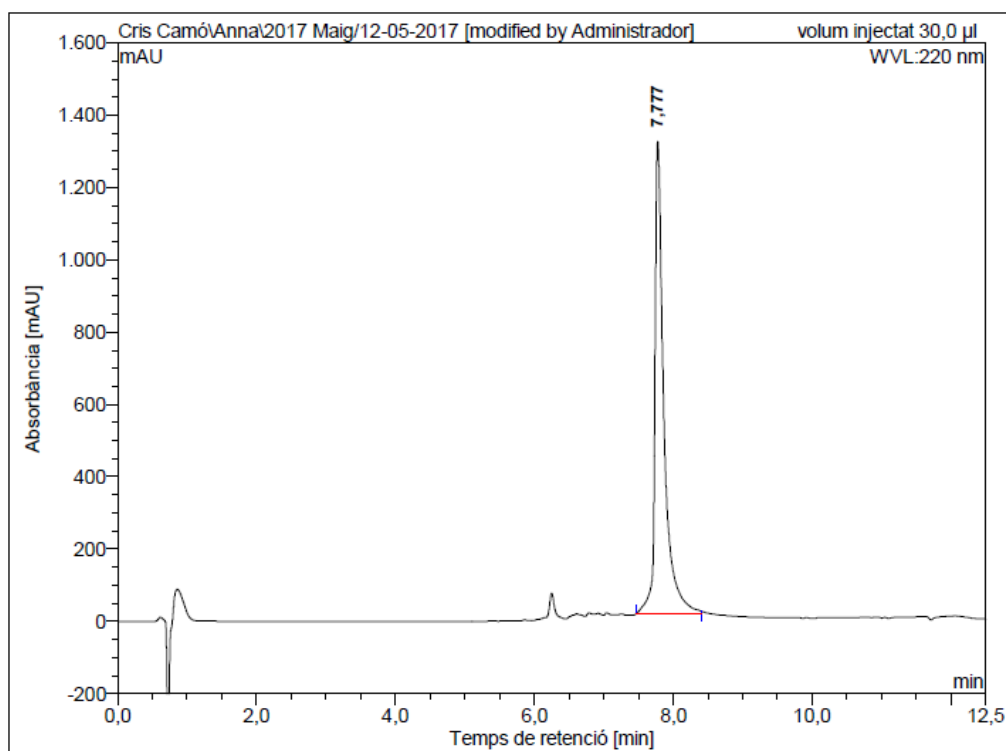


| | Molecular formula | Calculated | Found |
|----------------------------|---|-------------------|--------------|
| [M+2H]²⁺ | C ₁₄₉ H ₂₃₇ N ₃₇ O ₃₀ | 1512.4073 | 1512.4139 |
| [M+3H]³⁺ | C ₁₄₉ H ₂₃₈ N ₃₇ O ₃₀ | 1008.6073 | 1008.6115 |
| [M+4H]⁴⁺ | C ₁₄₉ H ₂₃₉ N ₃₇ O ₃₀ | 756.7073 | 756.7094 |
| [M+5H]⁵⁺ | C ₁₄₉ H ₂₄₀ N ₃₇ O ₃₀ | 605.5673 | 605.5688 |

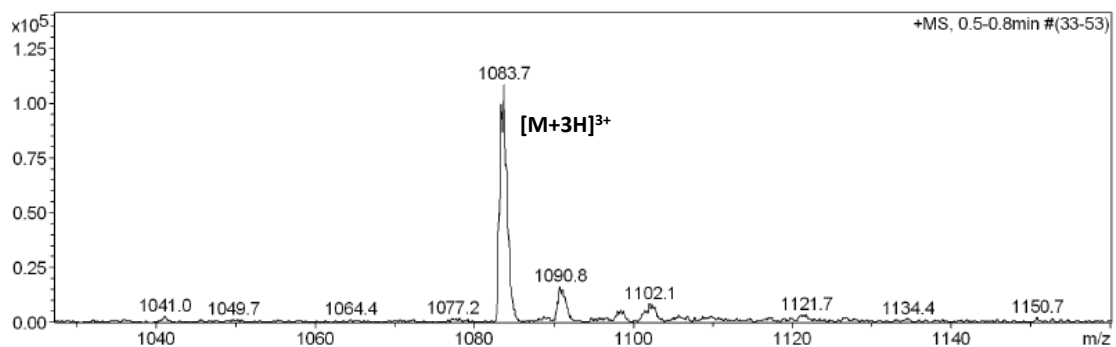
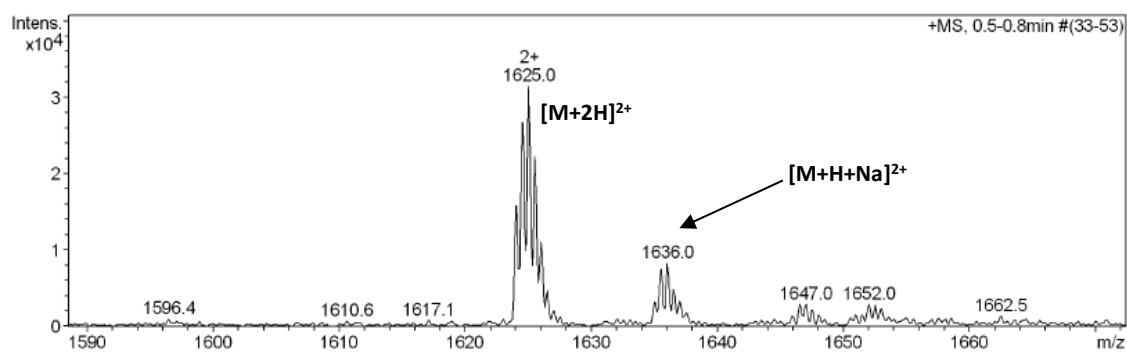
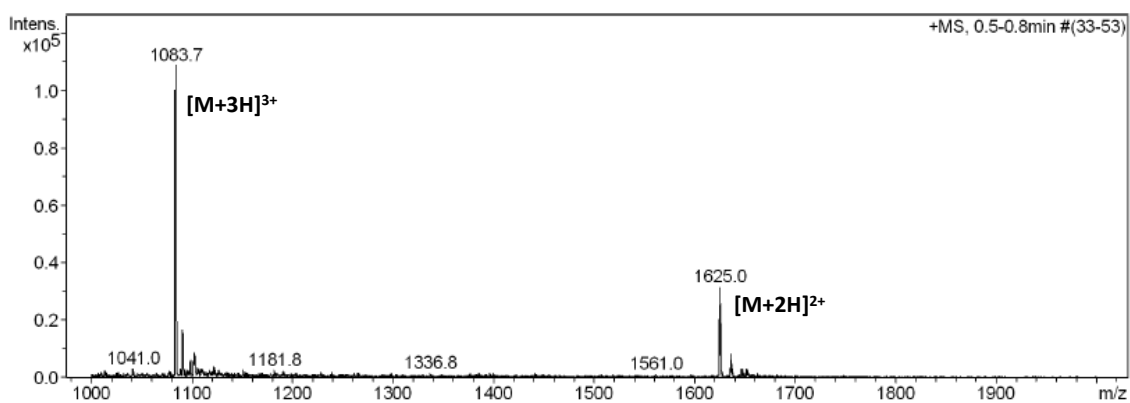
Fmoc-Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-
Glu-OH AC-6 (BP143-Pep13)



HPLC ($\lambda = 220 \text{ nm}$) (AC-6-90)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,78 | 1308,607 | 198,870 | 100,00 |
| Total: | | 1308,607 | 198,870 | 100,00 |

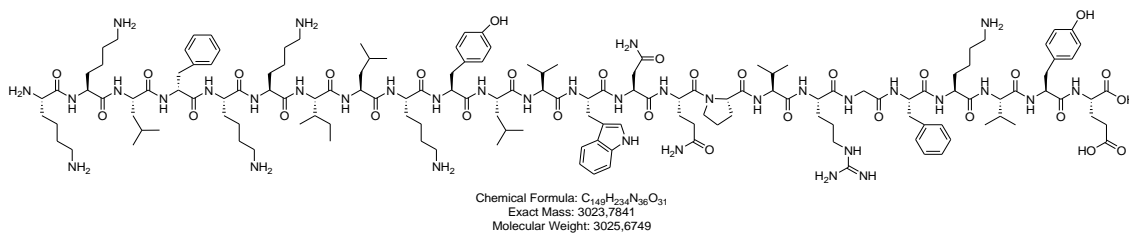
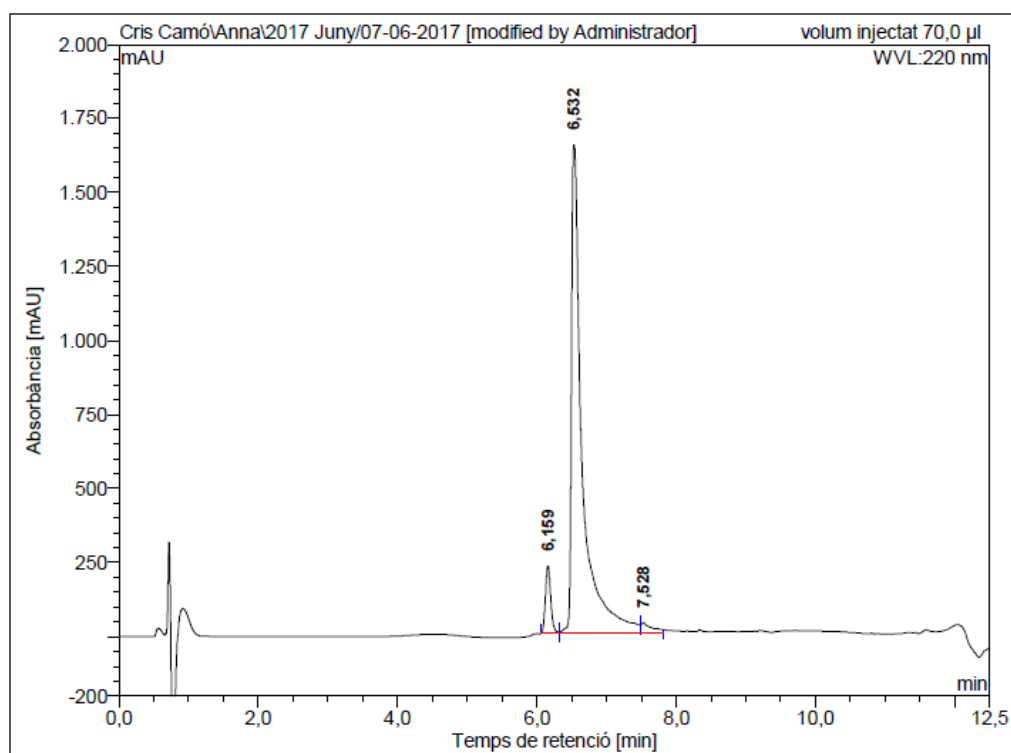
ESI-MS (m/z) (AC6-90)

$$[M+2H]^{2+} = 16240$$

$$[M+H+Na]^{2+} = 1635.0$$

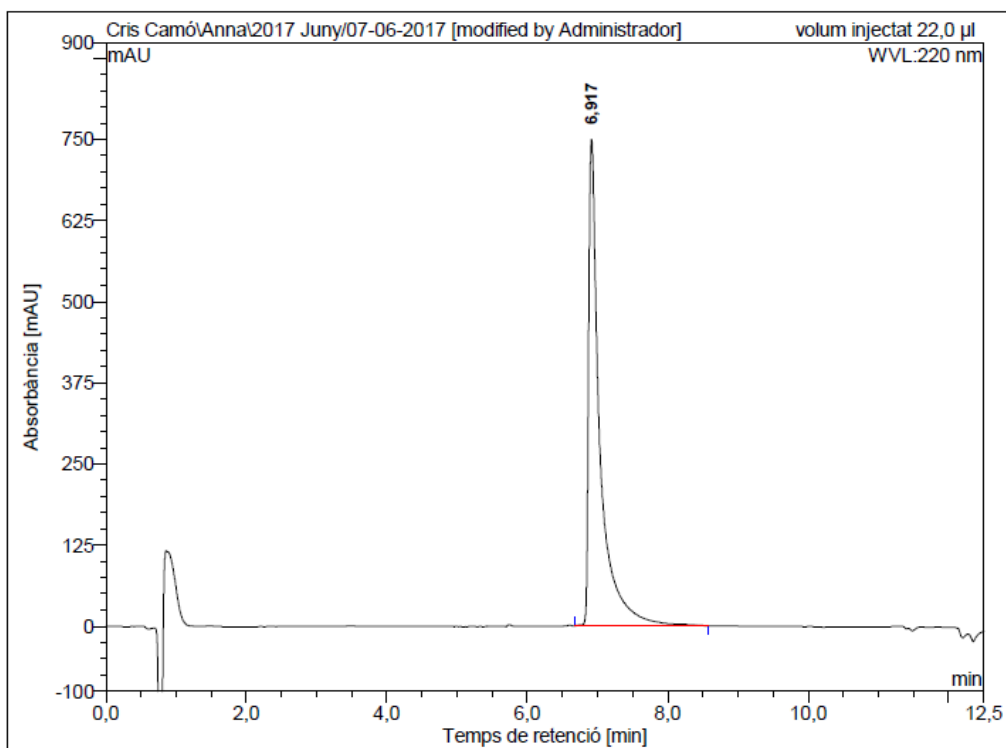
$$[M+3H]^{3+} = 1083.7$$

Lys-Lys-Leu-D-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu- Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH

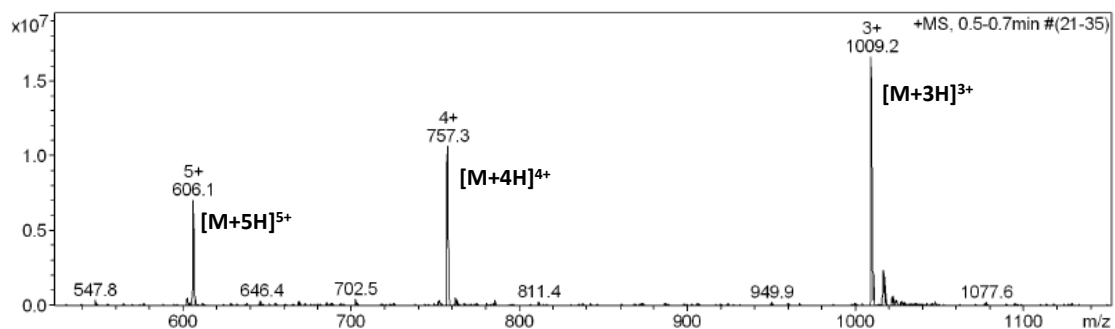
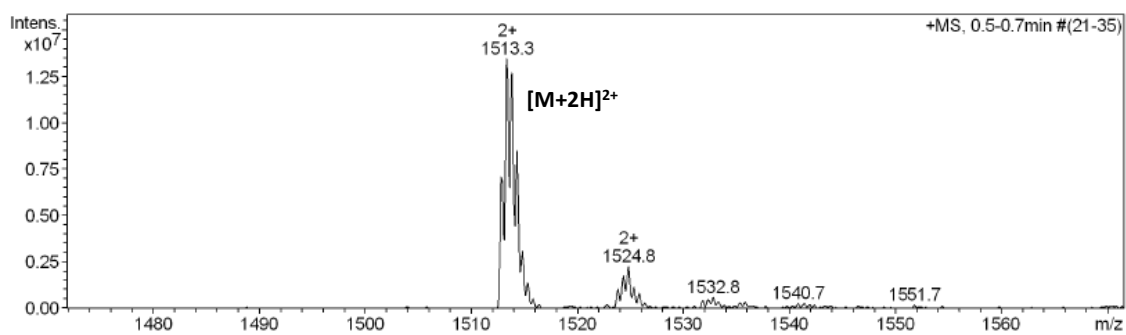
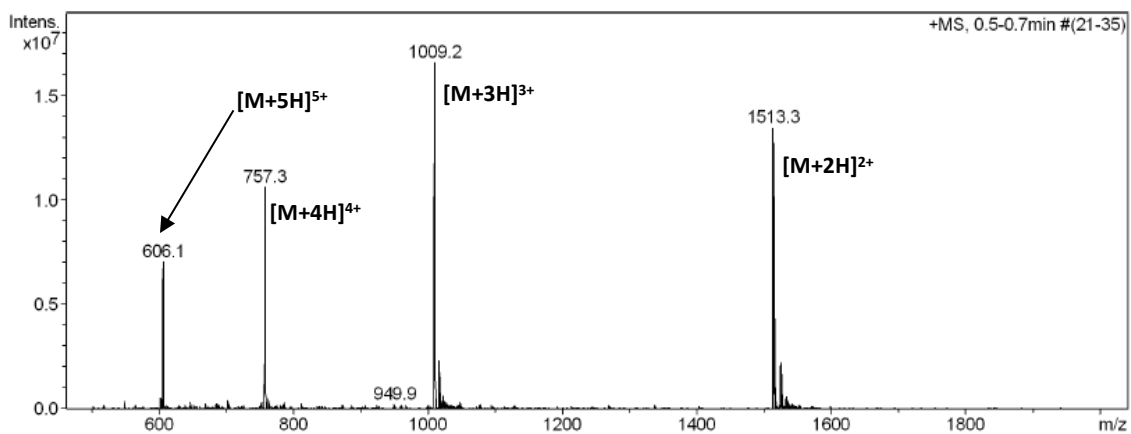
AC-6 (BP143-Pep13)**IMPURE PRODUCT**HPLC ($\lambda = 220$ nm) (AC-6.1 C1 pag 104 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,16 | 228,183 | 20,229 | 6,25 |
| 2 | 6,53 | 1649,718 | 296,319 | 91,58 |
| 3 | 7,53 | 37,571 | 7,003 | 2,16 |
| Total: | | 1915,473 | 323,550 | 100,00 |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (AC-6.1 C1 pag 104 tub 70)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,92 | 749,433 | 139,866 | 100,00 |
| Total: | | 749,433 | 139,866 | 100,00 |

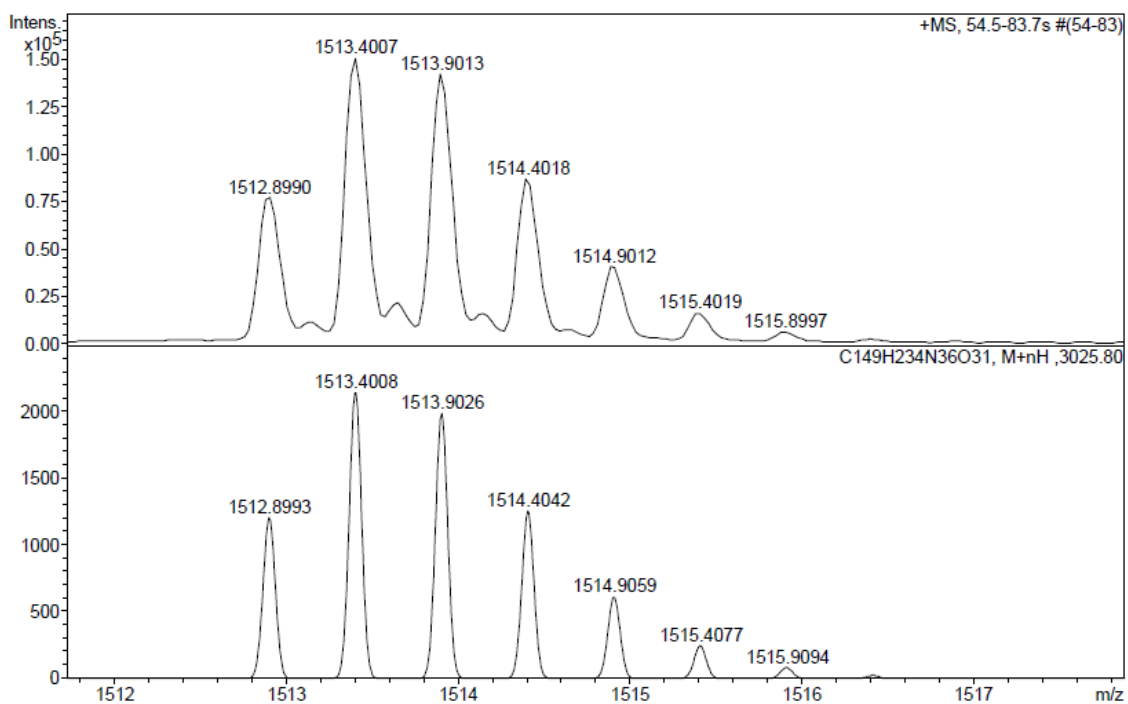
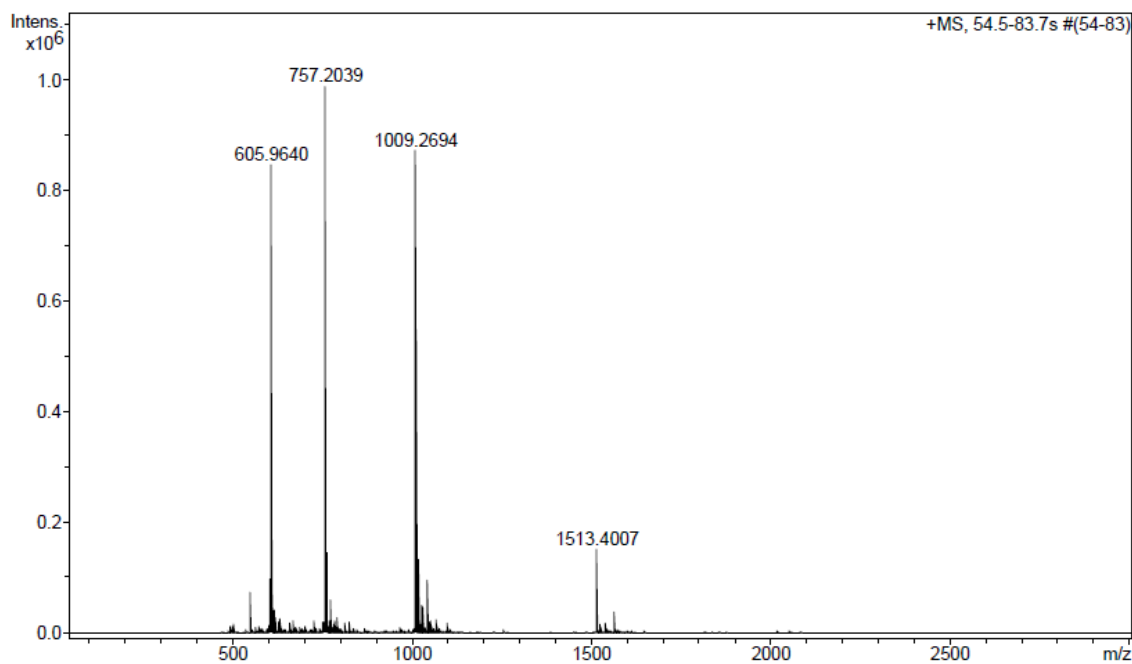
ESI-MS (m/z) (AC-6.1 C1 pag 104 tub 70)

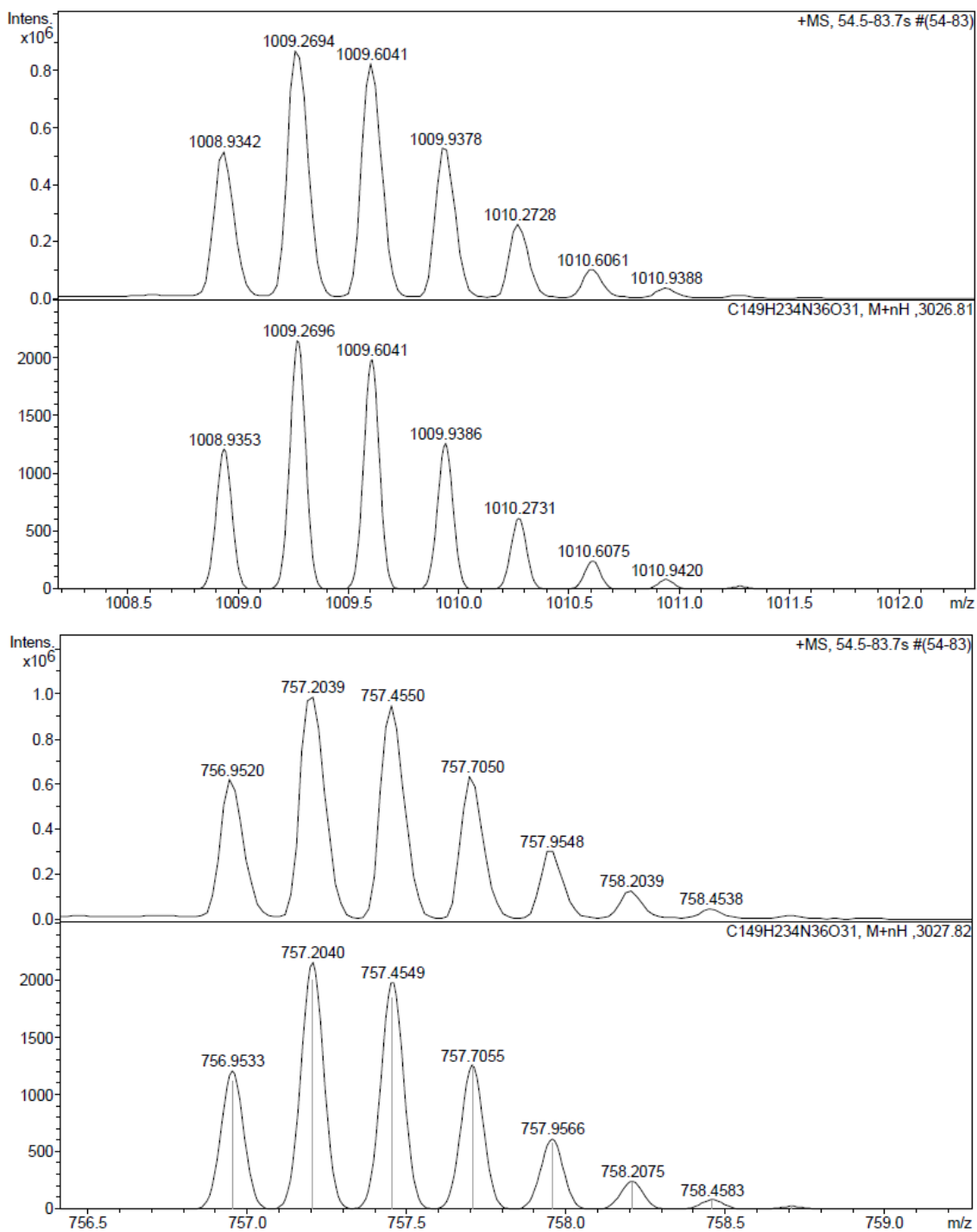
$$[M+2H]^{2+} = 1513.3$$

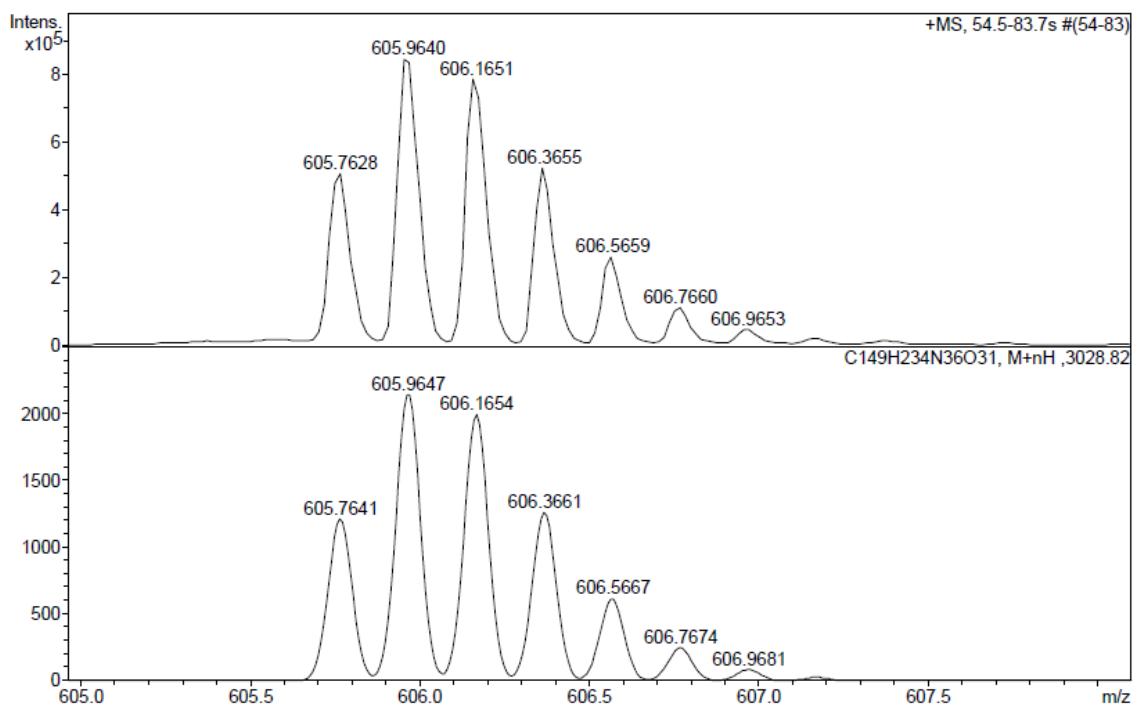
$$[M+3H]^{3+} = 1009.2$$

$$[M+4H]^{4+} = 757.3$$

$$[M+5H]^{5+} = 606.1$$

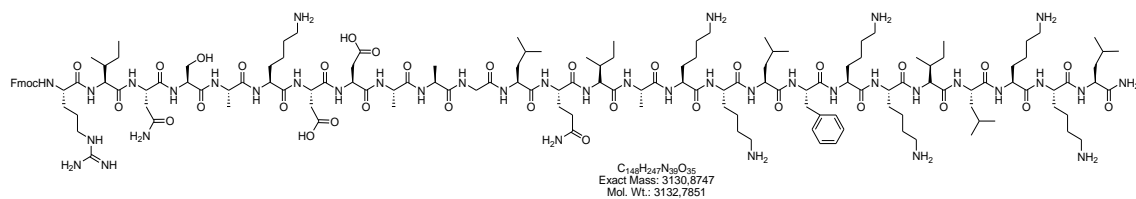
HRMS (ESI) (m/z) (AC6 no fmoc pag 98)



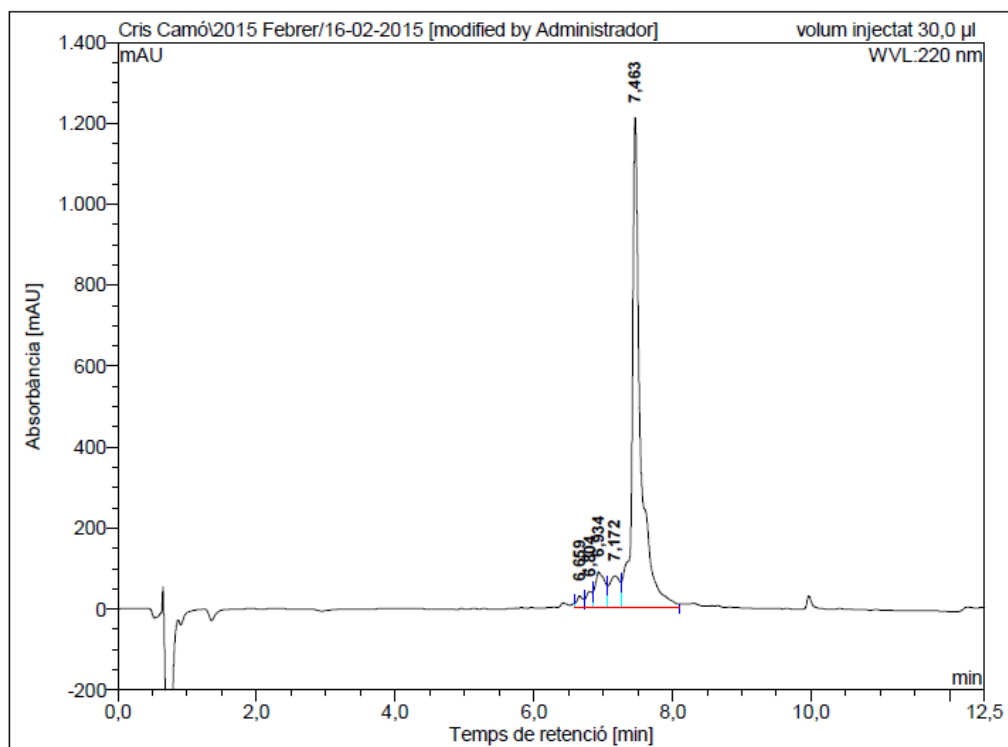


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₉ H ₂₃₆ N ₃₆ O ₃₁ | 1512.8993 | 1512.8990 |
| [M+3H]³⁺ | C ₁₄₉ H ₂₃₇ N ₃₆ O ₃₁ | 1008.9353 | 1008.9342 |
| [M+4H]⁴⁺ | C ₁₄₉ H ₂₃₈ N ₃₆ O ₃₁ | 756.9533 | 756.9520 |
| [M+5H]⁵⁺ | C ₁₄₉ H ₂₃₉ N ₃₆ O ₃₁ | 605.7641 | 605.7628 |

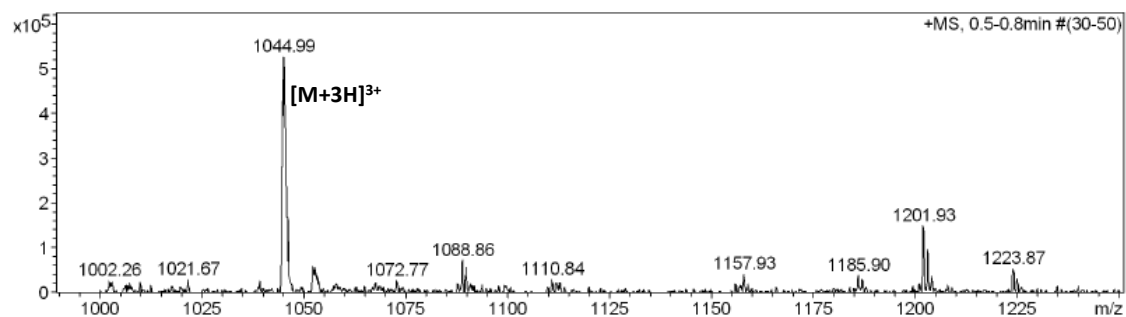
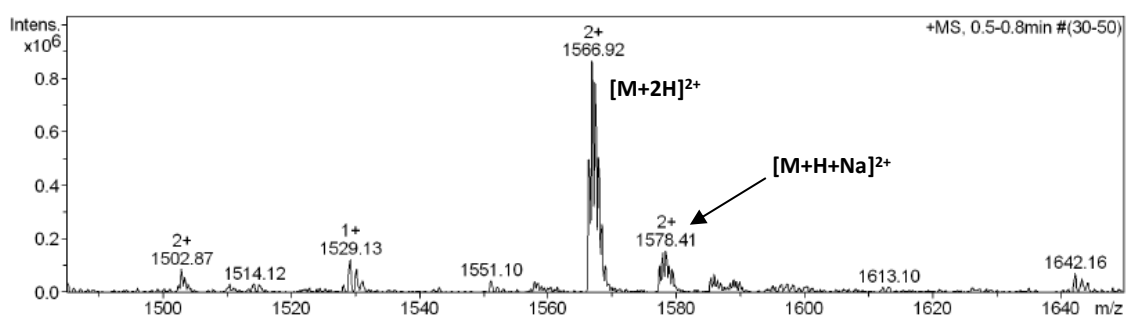
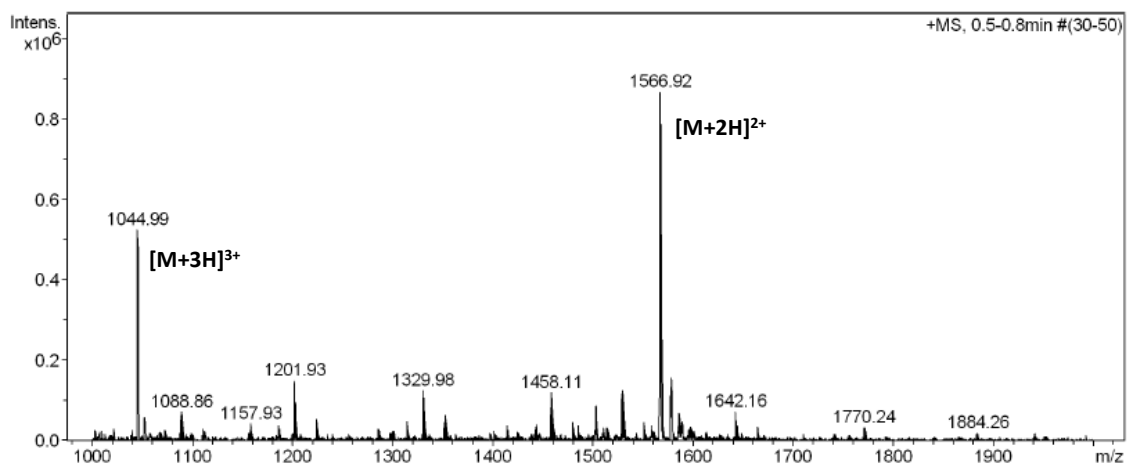
Fmoc-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-
Lys-Leu-NH₂ **CC-8 (fig15-BP16)**



HPLC (λ = 220 nm) (CC-8-180)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,66 | 27,744 | 2,890 | 1,42 |
| 2 | 6,80 | 39,080 | 3,975 | 1,96 |
| 3 | 6,93 | 87,062 | 14,677 | 7,22 |
| 4 | 7,17 | 78,003 | 12,706 | 6,25 |
| 5 | 7,46 | 1209,454 | 169,047 | 83,15 |
| Total: | | 1441,342 | 203,295 | 100,00 |

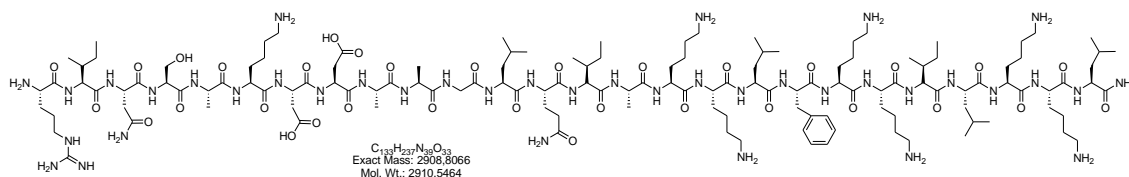
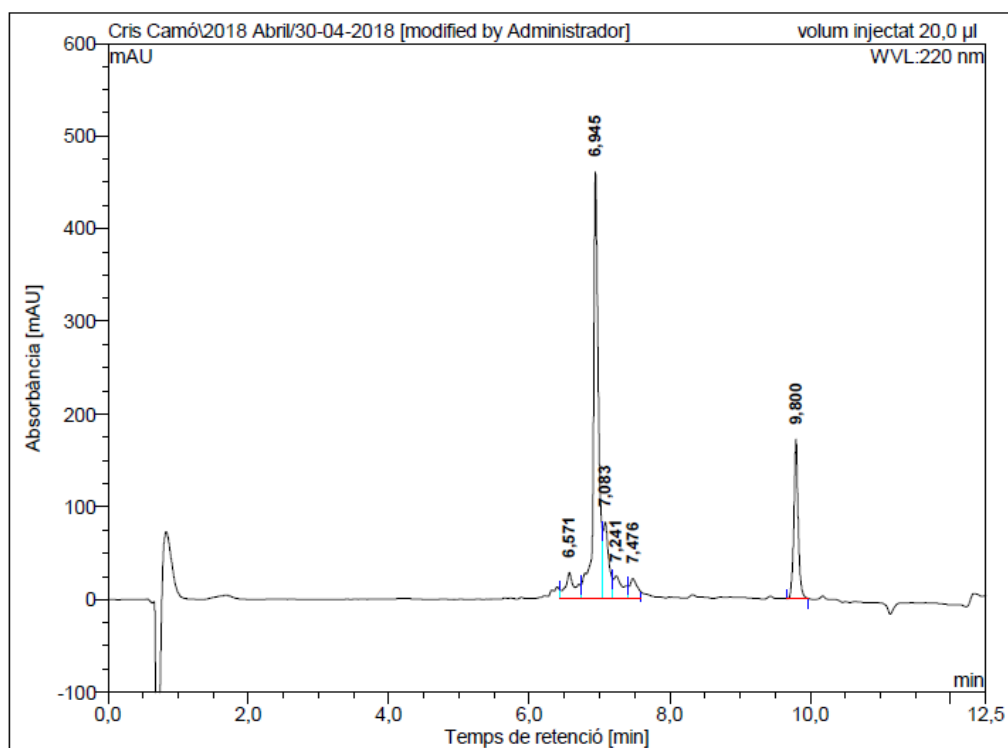
ESI-MS (m/z) (CC-8-180)

$$[M+2H]^{2+} = 1566.92$$

$$[M+H+Na]^{2+} = 1578.41$$

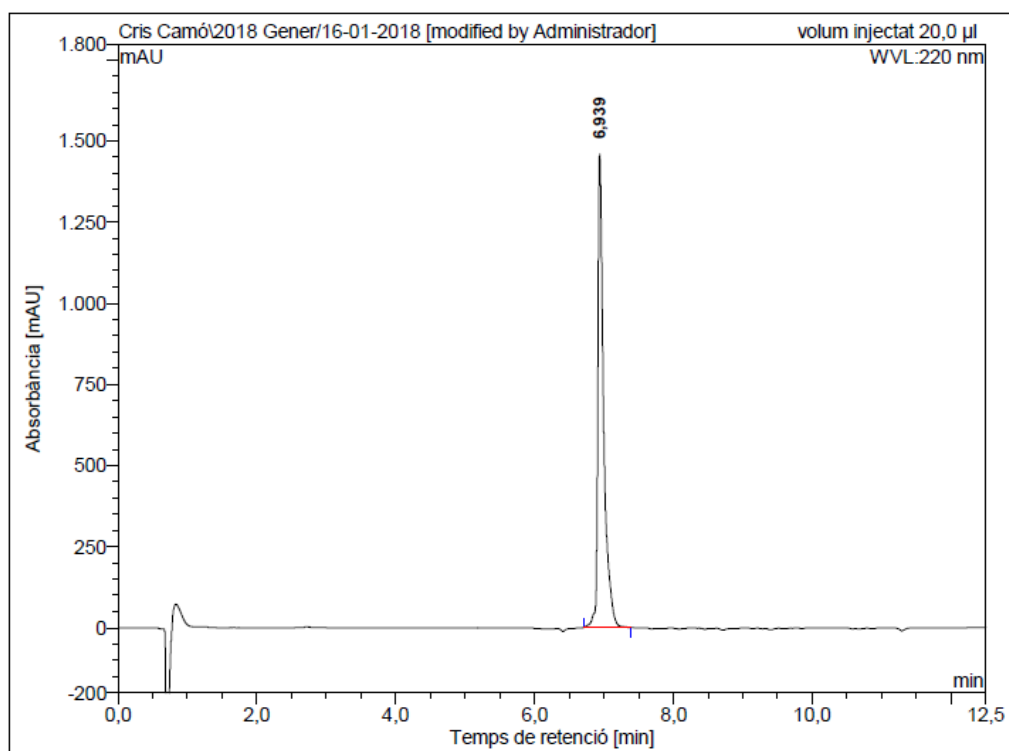
$$[M+3H]^{3+} = 1044.99$$

Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-

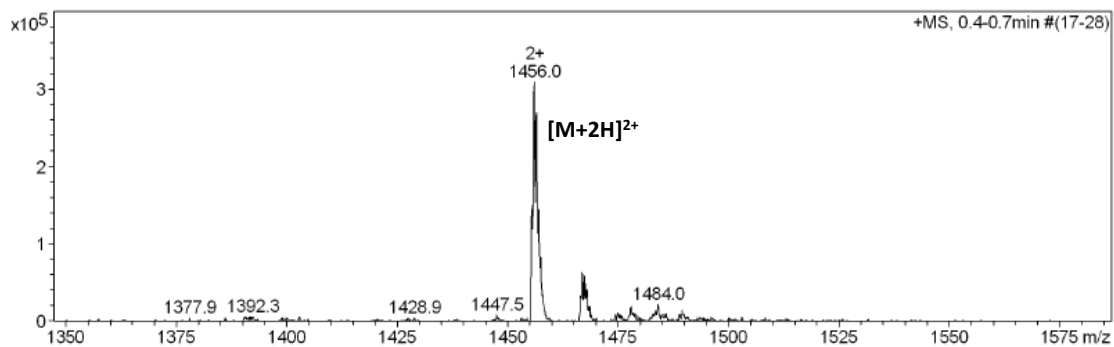
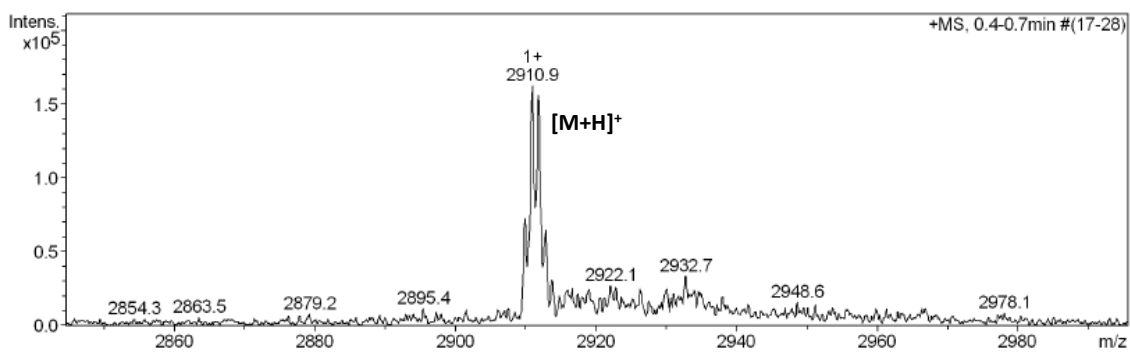
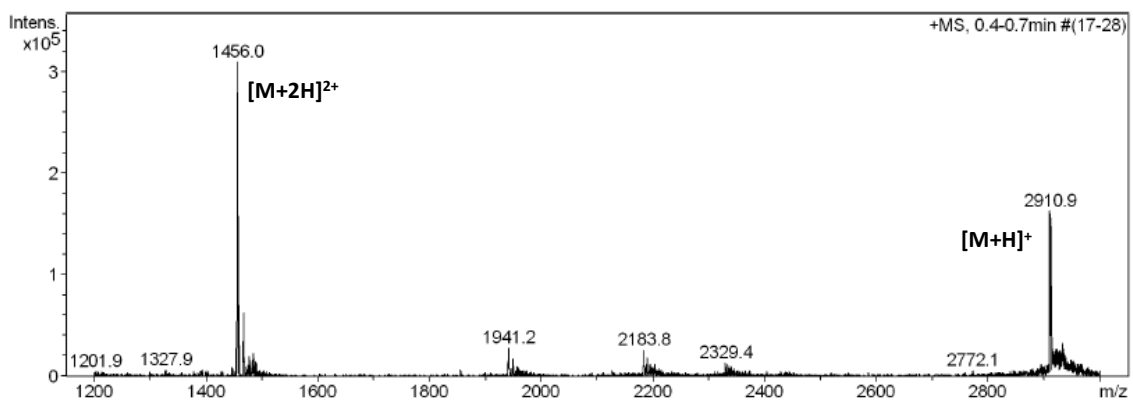
NH₂ CC-8 (flg15-BP16)**IMPURE PRODUCT**HPLC ($\lambda = 220$ nm) (CC-8 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,57 | 27,259 | 4,294 | 6,23 |
| 2 | 6,94 | 459,255 | 38,870 | 56,42 |
| 3 | 7,08 | 81,855 | 7,394 | 10,73 |
| 4 | 7,24 | 23,448 | 3,557 | 5,16 |
| 5 | 7,48 | 20,719 | 2,653 | 3,85 |
| 6 | 9,80 | 171,475 | 12,121 | 17,59 |
| Total: | | 784,012 | 68,889 | 100,00 |

PURE PRODUCT

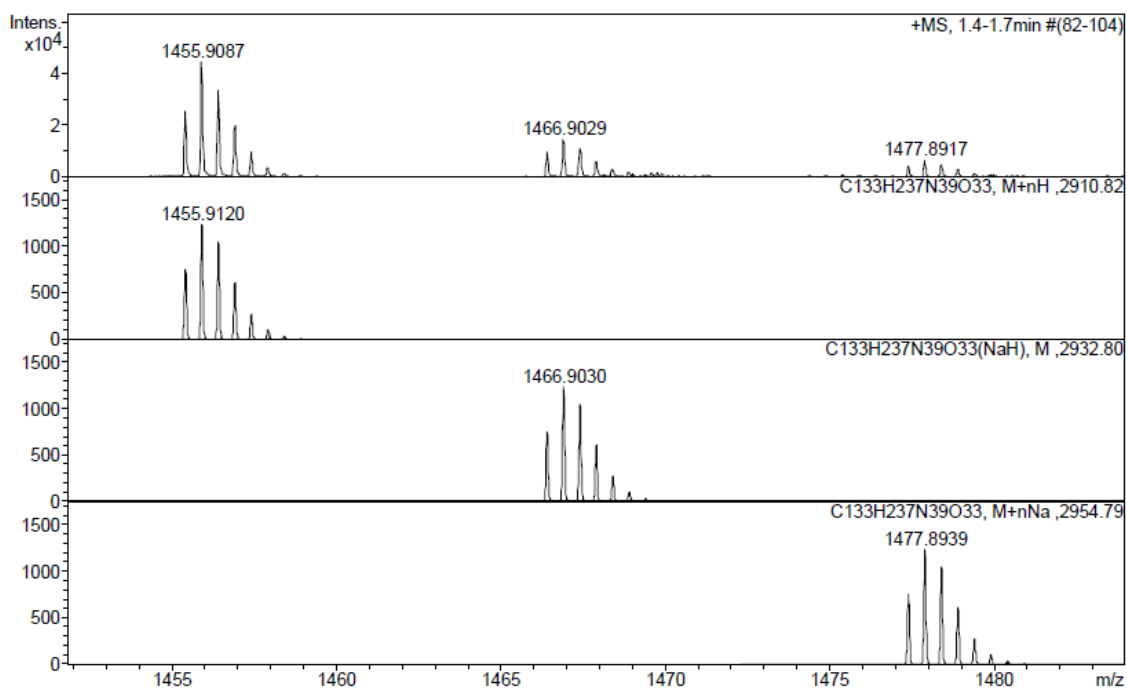
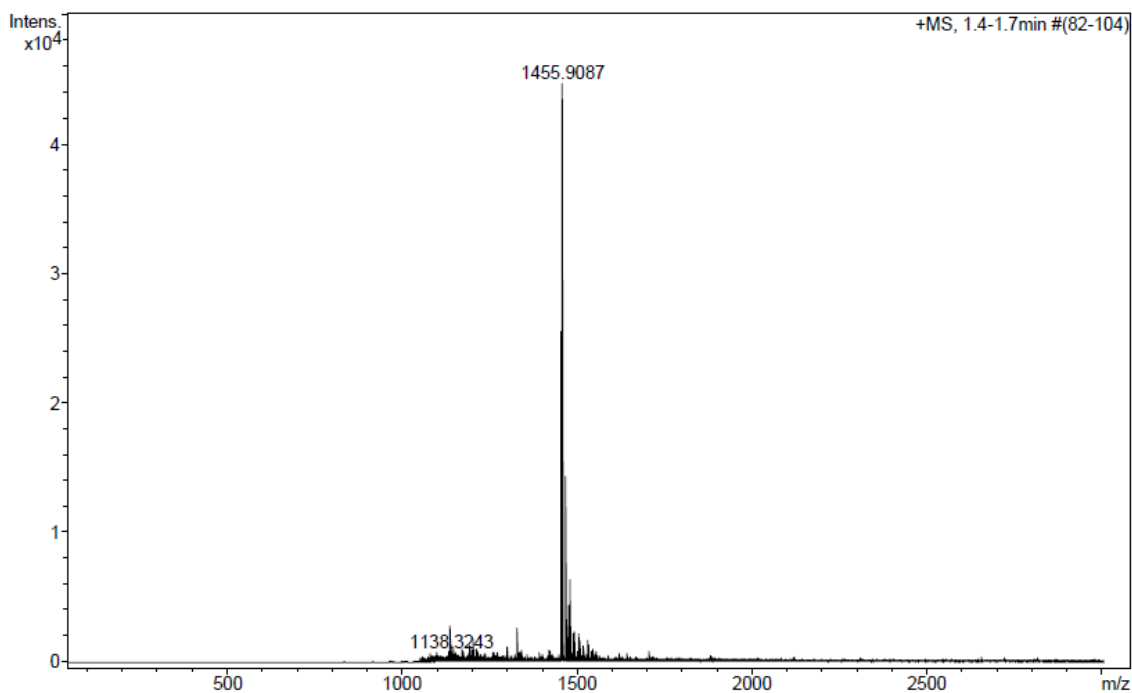
HPLC ($\lambda = 220 \text{ nm}$) (CC-8.1-cleav 1 tub 68)

| No. | Temps retenció min | alçada mAU | Area mAU \cdot min | Area relativa % |
|--------|-----------------------|---------------|-------------------------|--------------------|
| 1 | 6,94 | 1457,802 | 142,886 | 100,00 |
| Total: | | 1457,802 | 142,886 | 100,00 |

ESI-MS (m/z) (CC-8.1-cleav1 tub 68)

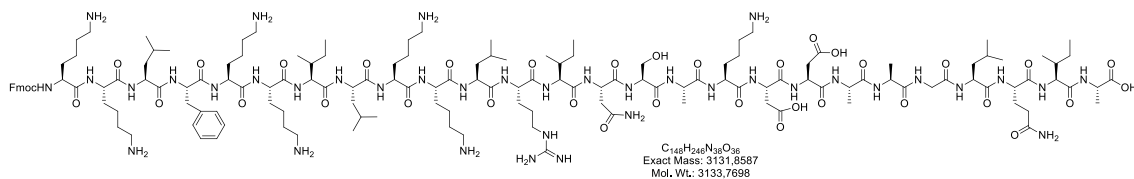
| |
|------------------------|
| $[M+H]^+ = 2910.9$ |
| $[M+2H]^{2+} = 1456.0$ |

HRMS (ESI) (m/z)

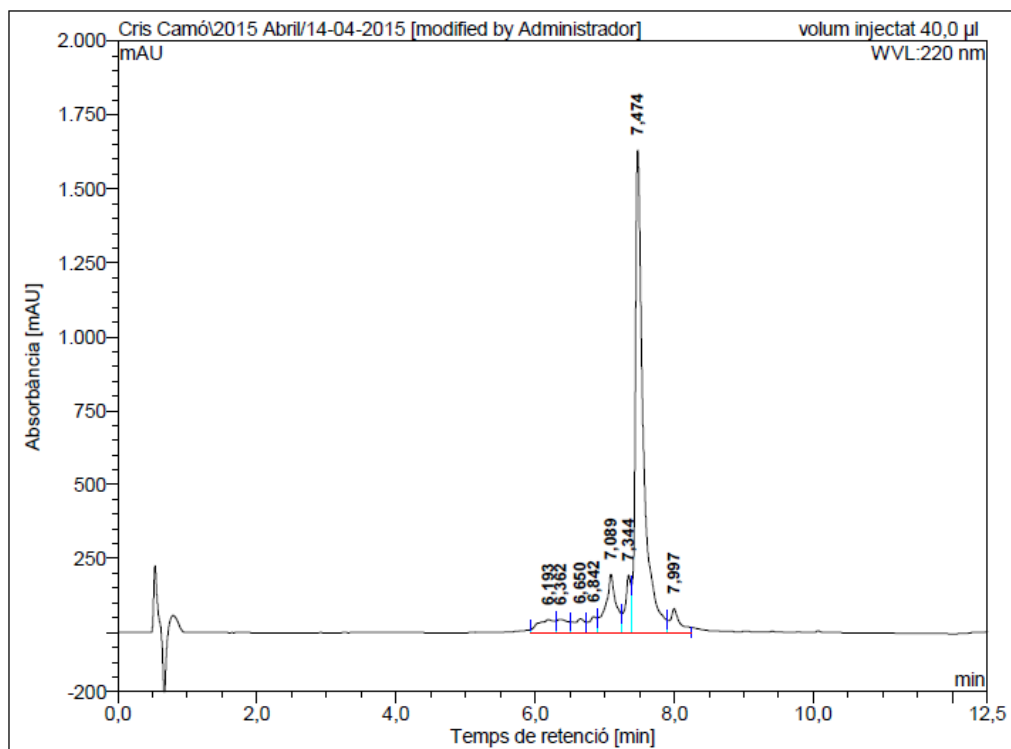


| | Molecular formula | Calculated | Found |
|-----------------|----------------------------------|------------|-----------|
| $[M+2H]^{2+}$ | $C_{133}H_{239}N_{39}O_{33}$ | 1455.9120 | 1455.9087 |
| $[M+H+Na]^{2+}$ | $C_{133}H_{238}N_{39}O_{33}Na$ | 1466.9030 | 1466.9029 |
| $[M+2Na]^{2+}$ | $C_{133}H_{237}N_{39}O_{33}Na_2$ | 1477.8939 | 1477.8917 |

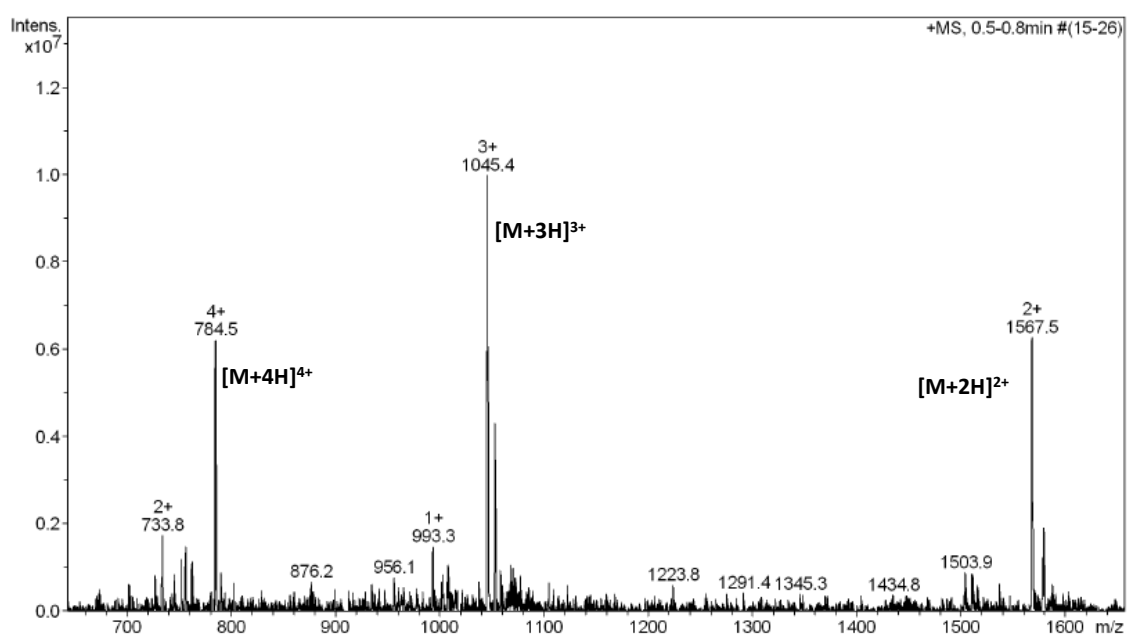
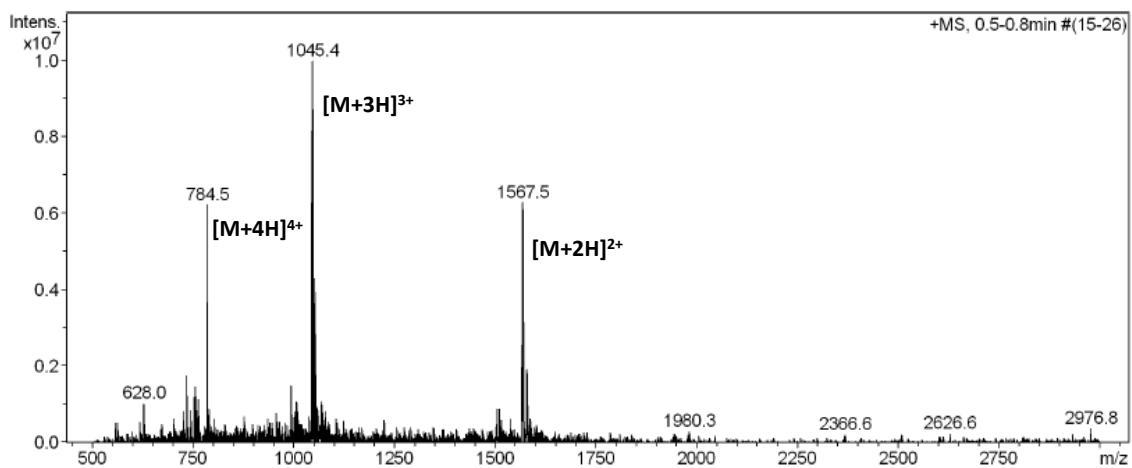
Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-OH **CC-9 (BP16-flg15)**



HPLC ($\lambda = 220 \text{ nm}$) (CC-9-207)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,19 | 44,271 | 12,275 | 3,82 |
| 2 | 6,36 | 45,231 | 8,151 | 2,53 |
| 3 | 6,65 | 47,359 | 9,145 | 2,84 |
| 4 | 6,84 | 54,501 | 7,328 | 2,28 |
| 5 | 7,09 | 197,299 | 35,265 | 10,96 |
| 6 | 7,34 | 195,110 | 17,829 | 5,54 |
| 7 | 7,47 | 1632,534 | 217,982 | 67,78 |
| 8 | 8,00 | 82,195 | 13,642 | 4,24 |
| Total: | | 2298,501 | 321,617 | 100,00 |

ESI-MS (m/z) (CC-9-207)

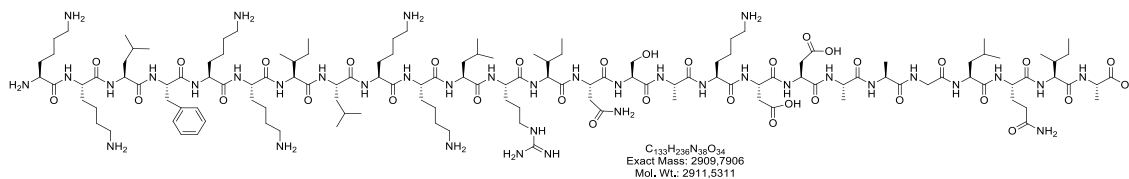
$$[M+2H]^{2+} = 1567.5$$

$$[M+3H]^{3+} = 1045.4$$

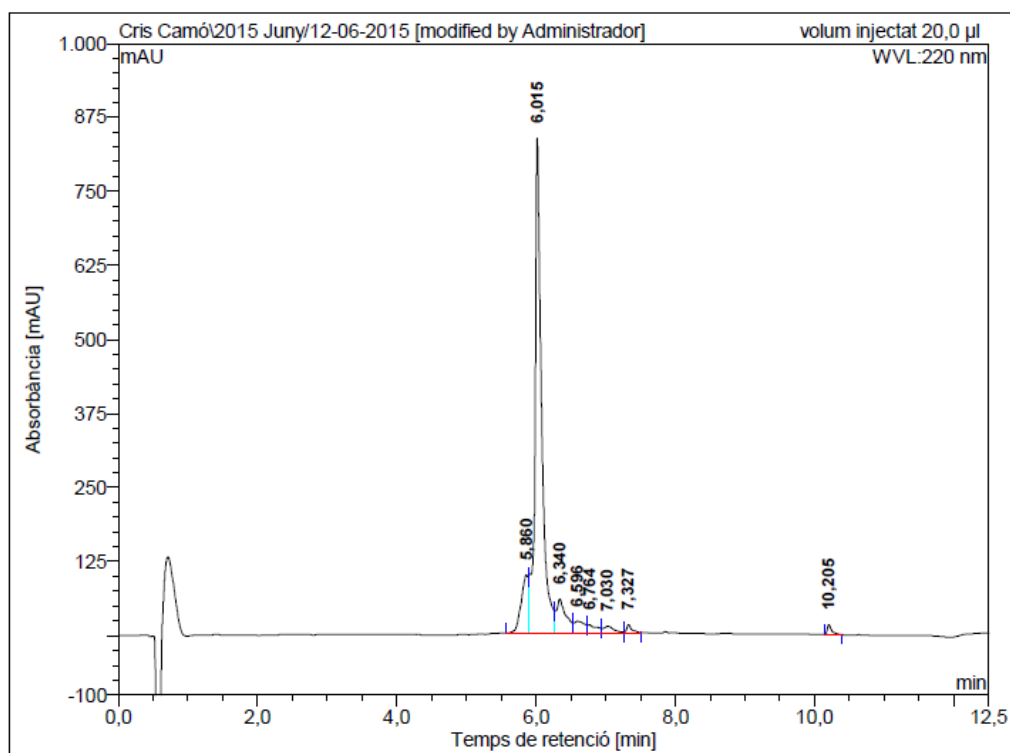
$$[M+4H]^{4+} = 784.5$$

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-

OH CC-9 (BP16-flg15)

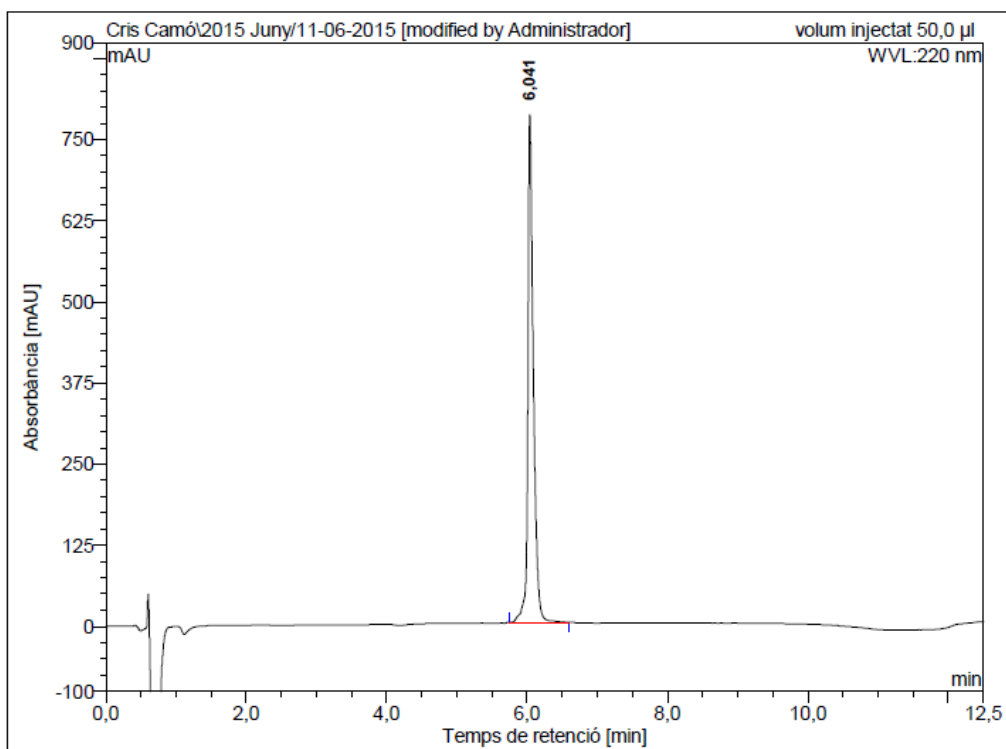


IMPURE PRODUCT

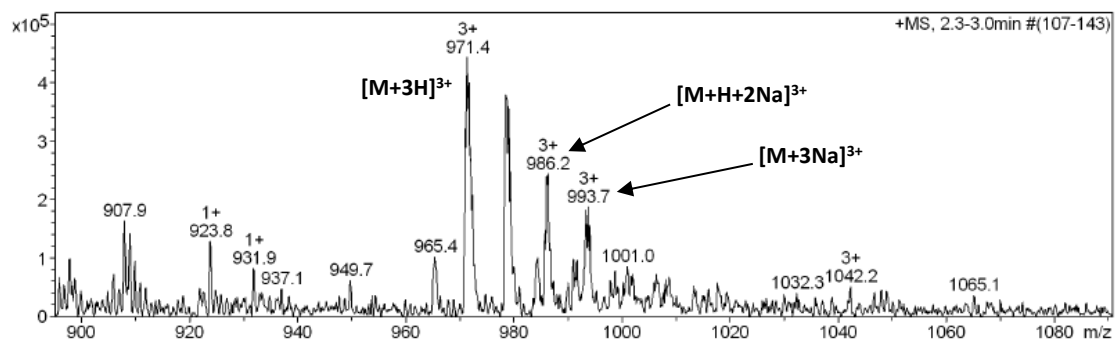
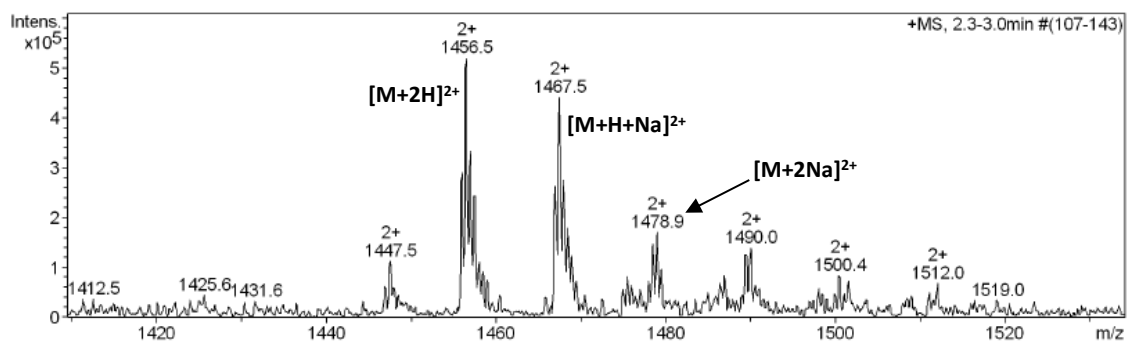
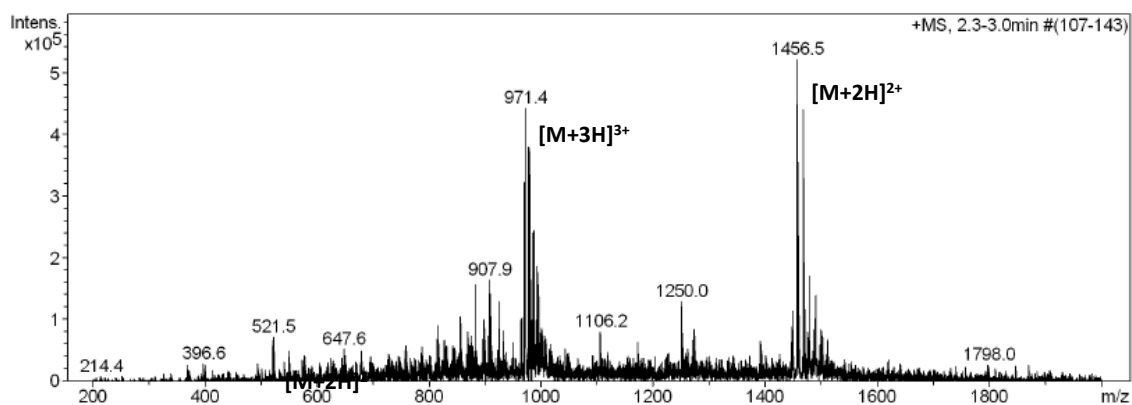
HPLC ($\lambda = 220 \text{ nm}$) (CC-9-300 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 5,86 | 98,397 | 10,676 | 8,61 |
| 2 | 6,02 | 835,826 | 93,413 | 75,36 |
| 3 | 6,34 | 57,641 | 9,420 | 7,60 |
| 4 | 6,60 | 20,232 | 3,533 | 2,85 |
| 5 | 6,76 | 14,160 | 2,194 | 1,77 |
| 6 | 7,03 | 11,613 | 2,124 | 1,71 |
| 7 | 7,33 | 14,717 | 1,370 | 1,10 |
| 8 | 10,21 | 16,814 | 1,221 | 0,98 |
| Total: | | 1069,398 | 123,950 | 100,00 |

PURE PRODUCT

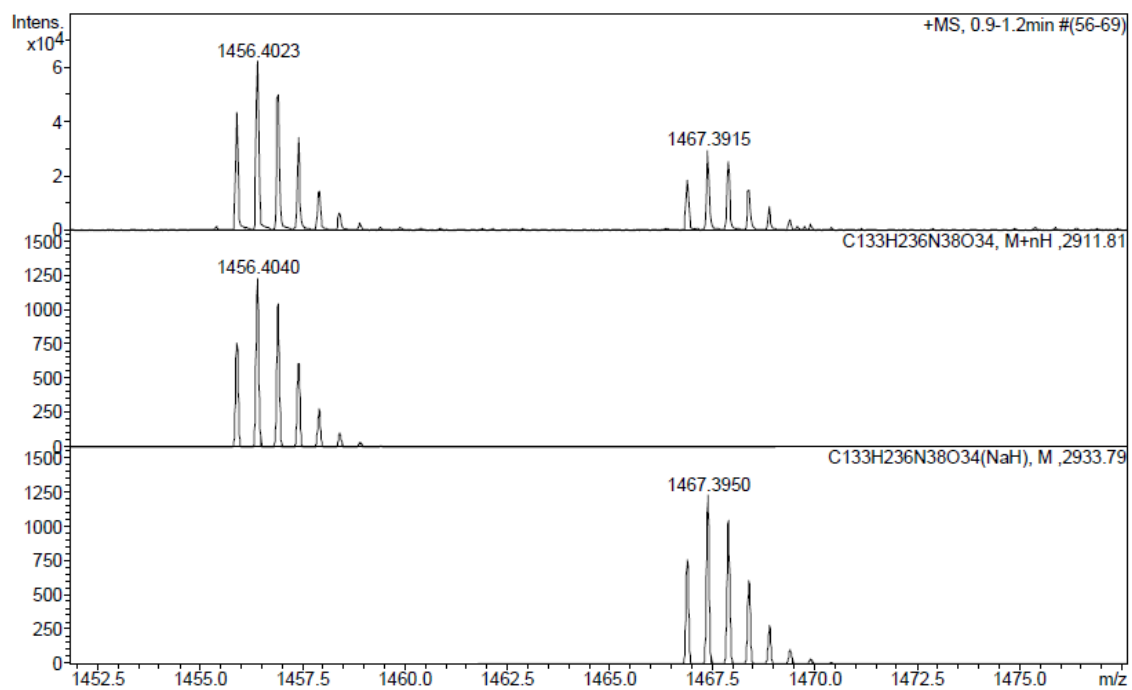
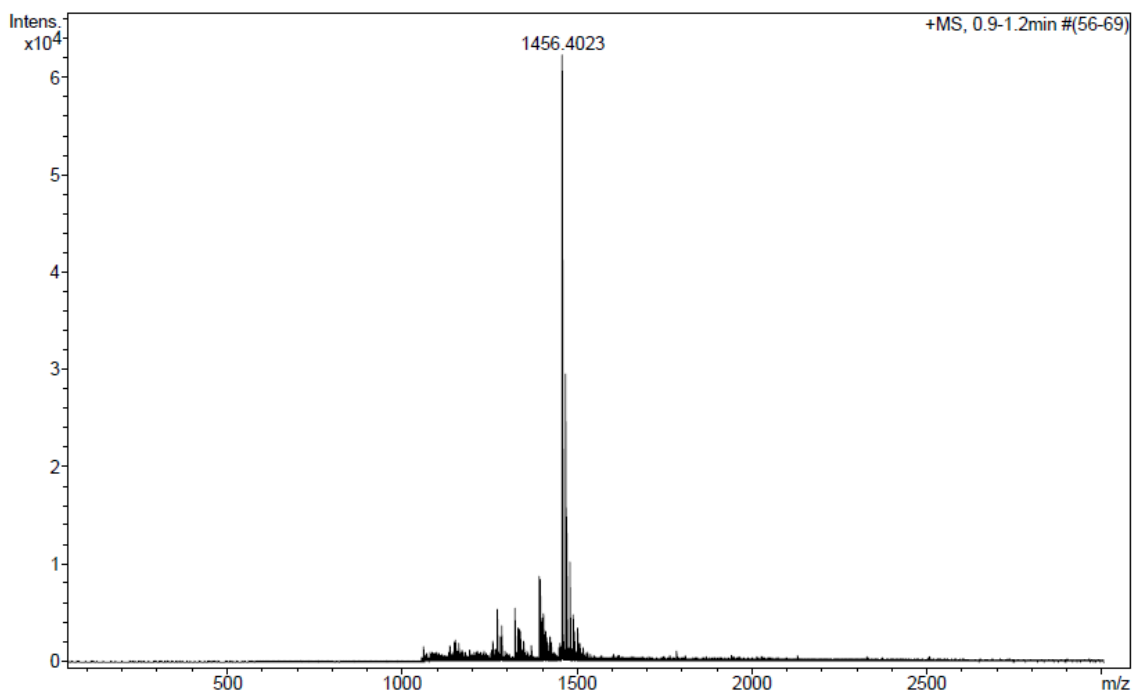
HPLC ($\lambda = 220 \text{ nm}$) (CC-9-300 tub 11)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,04 | 782,370 | 71,301 | 100,00 |
| Total: | | 782,370 | 71,301 | 100,00 |

ESI-MS (m/z) (CC-9-300 tub 11)

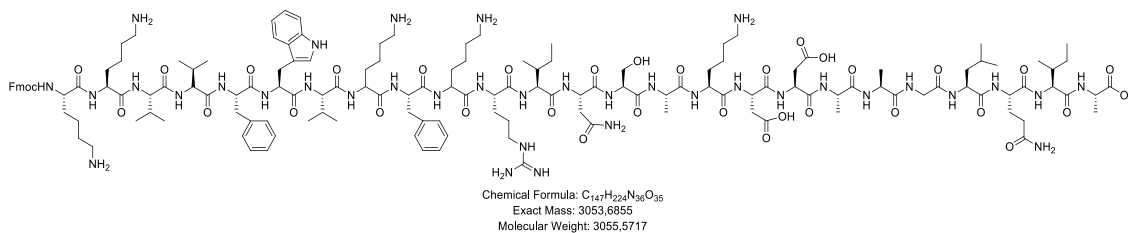
| |
|--------------------------|
| $[M+2H]^{2+} = 1456.5$ |
| $[M+H+Na]^{2+} = 1467.5$ |
| $[M+2Na]^{2+} = 1478.9$ |
| $[M+3H]^{3+} = 971.4$ |
| $[M+H+2Na]^{3+} = 986.2$ |
| $[M+3Na]^{3+} = 993.7$ |

HRMS (ESI) (m/z)

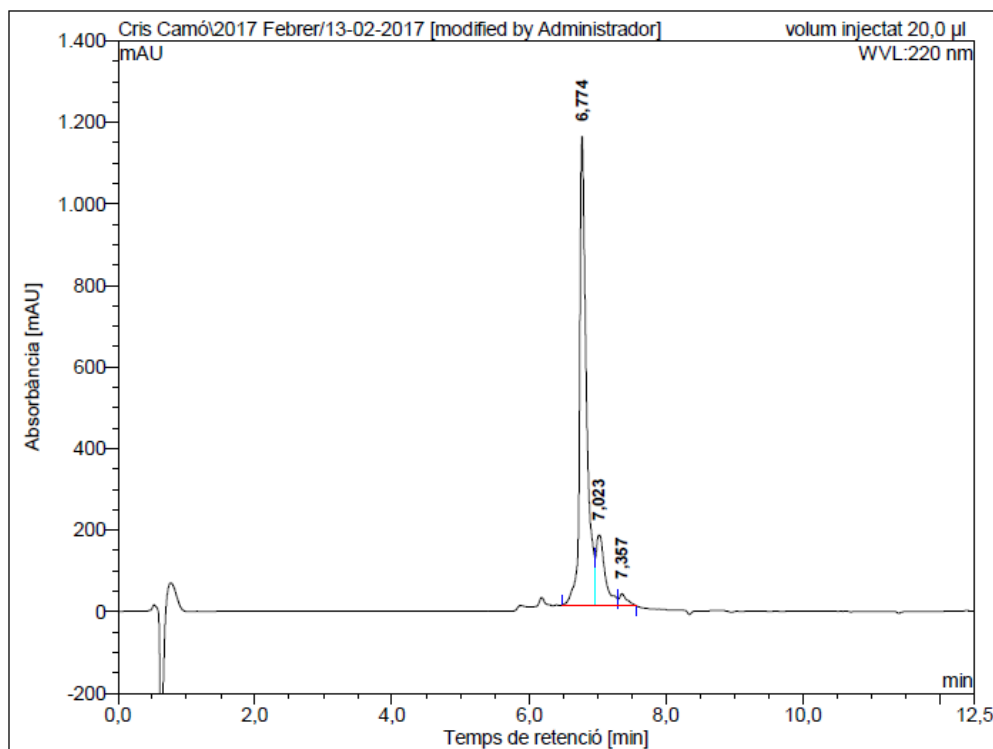


| | Molecular formula | Calculated | Found |
|-----------------|--------------------------------|------------|-----------|
| $[M+2H]^{2+}$ | $C_{133}H_{238}N_{38}O_{34}$ | 1456.4040 | 1456.4023 |
| $[M+H+Na]^{2+}$ | $C_{133}H_{237}N_{38}O_{34}Na$ | 1467.3950 | 1467.3915 |

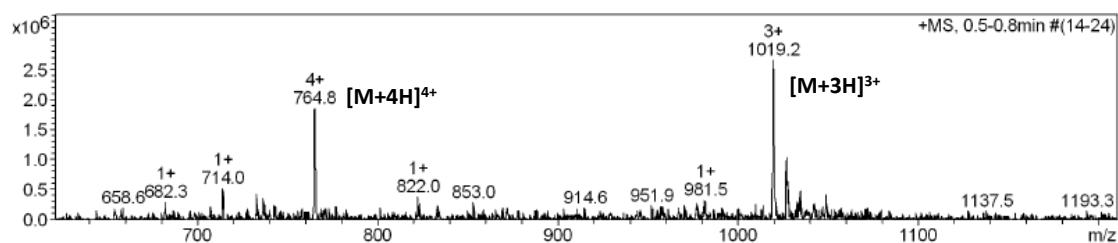
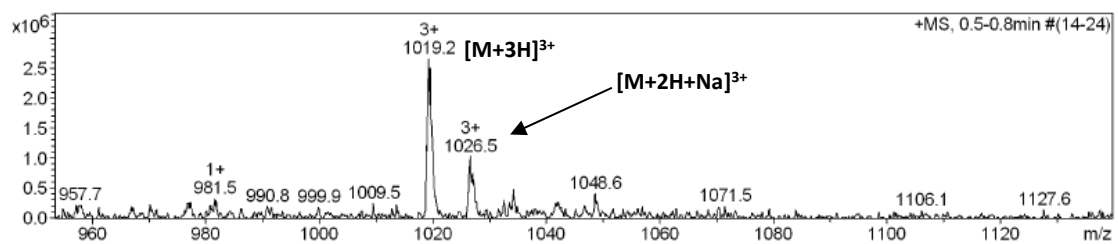
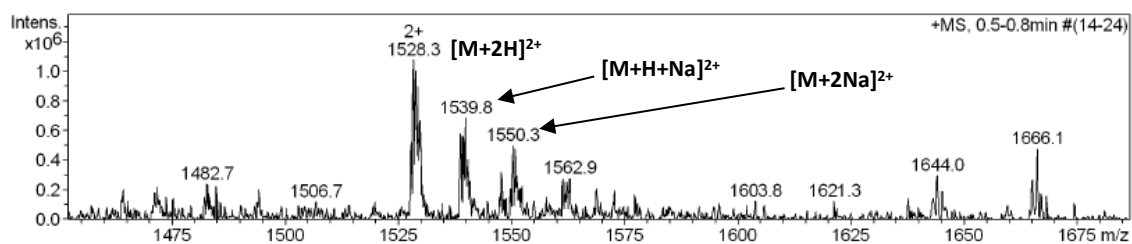
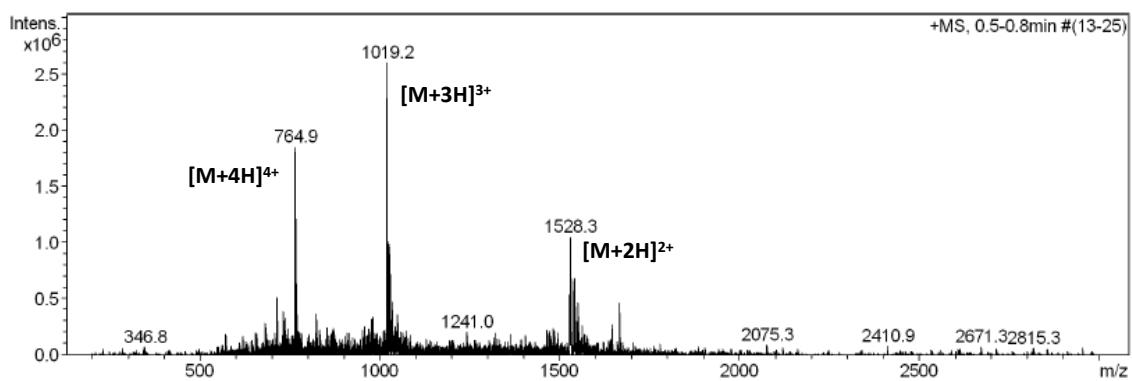
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-
Ala-OH **CC-31 (KSLW-flg15)**



HPLC ($\lambda = 220$ nm) (CC-31-953)

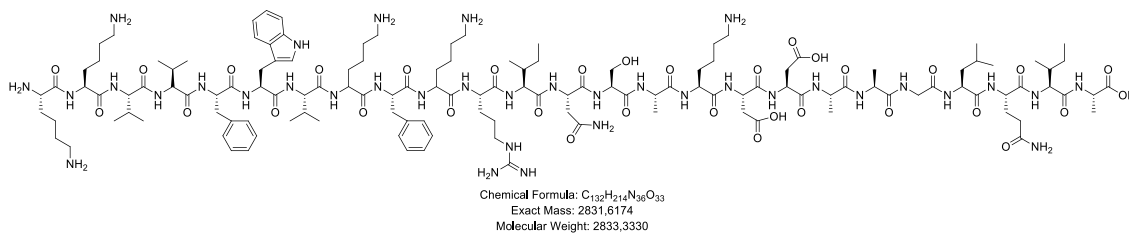
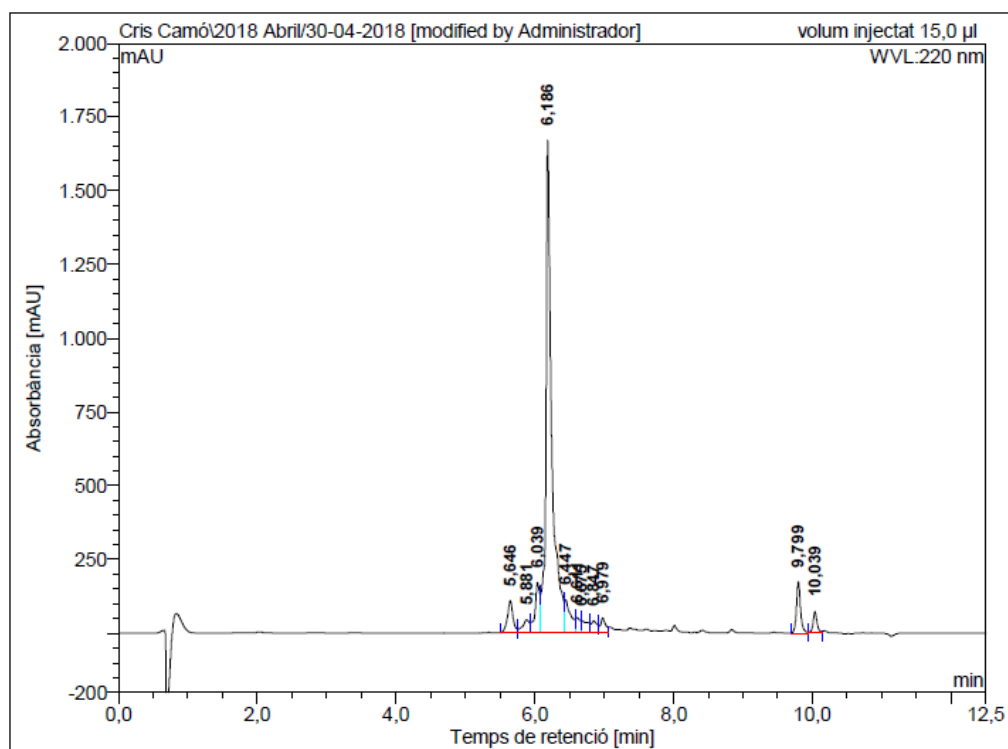


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,77 | 1149,854 | 133,459 | 81,73 |
| 2 | 7,02 | 171,408 | 26,285 | 16,10 |
| 3 | 7,36 | 28,546 | 3,558 | 2,18 |
| Total: | | 1349,808 | 163,301 | 100,00 |

ESI-MS (m/z) (CC-31-953)

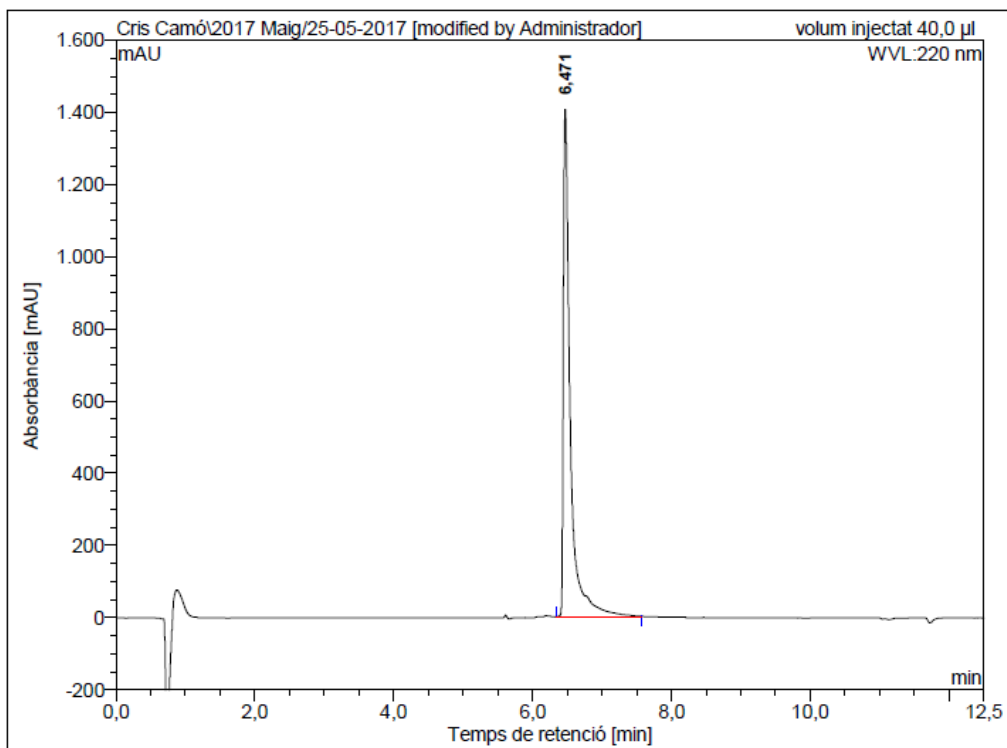
| |
|---------------------------|
| $[M+2H]^{2+} = 1528.3$ |
| $[M+H+Na]^{2+} = 1539.3$ |
| $[M+2Na]^{2+} = 1550.3$ |
| $[M+3H]^{3+} = 1019.2$ |
| $[M+2H+Na]^{3+} = 1026.5$ |
| $[M+4H]^{4+} = 764.9$ |

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-OH

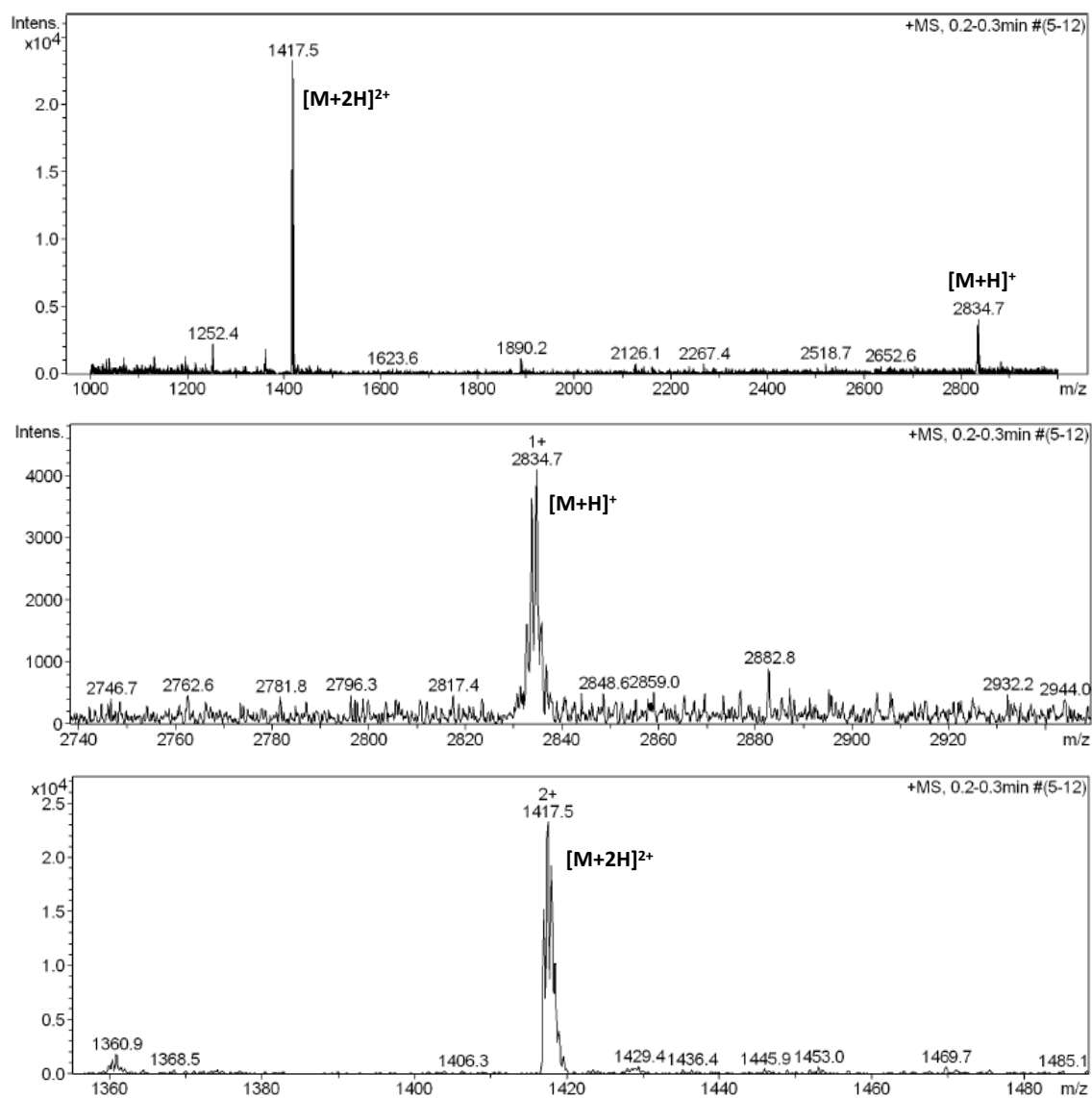
CC-31 (KSLW-flg15)**IMPURE PRODUCT****HPLC ($\lambda = 220$ nm) (CC-31 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,65 | 109,077 | 10,320 | 4,33 |
| 2 | 5,88 | 43,838 | 5,000 | 2,10 |
| 3 | 6,04 | 170,776 | 13,642 | 5,72 |
| 4 | 6,19 | 1669,639 | 164,814 | 69,16 |
| 5 | 6,45 | 110,522 | 11,717 | 4,92 |
| 6 | 6,61 | 51,100 | 3,217 | 1,35 |
| 7 | 6,67 | 41,244 | 4,842 | 2,03 |
| 8 | 6,85 | 40,350 | 3,929 | 1,65 |
| 9 | 6,98 | 50,593 | 4,572 | 1,92 |
| 10 | 9,80 | 174,446 | 11,727 | 4,92 |
| 11 | 10,04 | 70,625 | 4,526 | 1,90 |
| Total: | | 2532,211 | 238,305 | 100,00 |

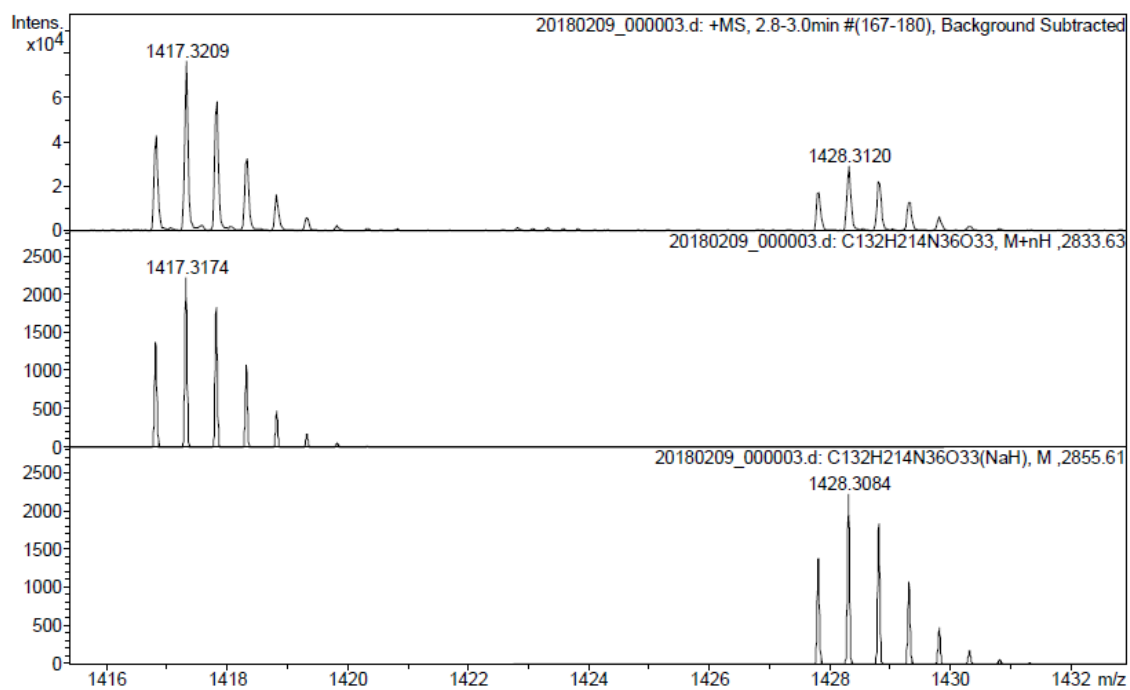
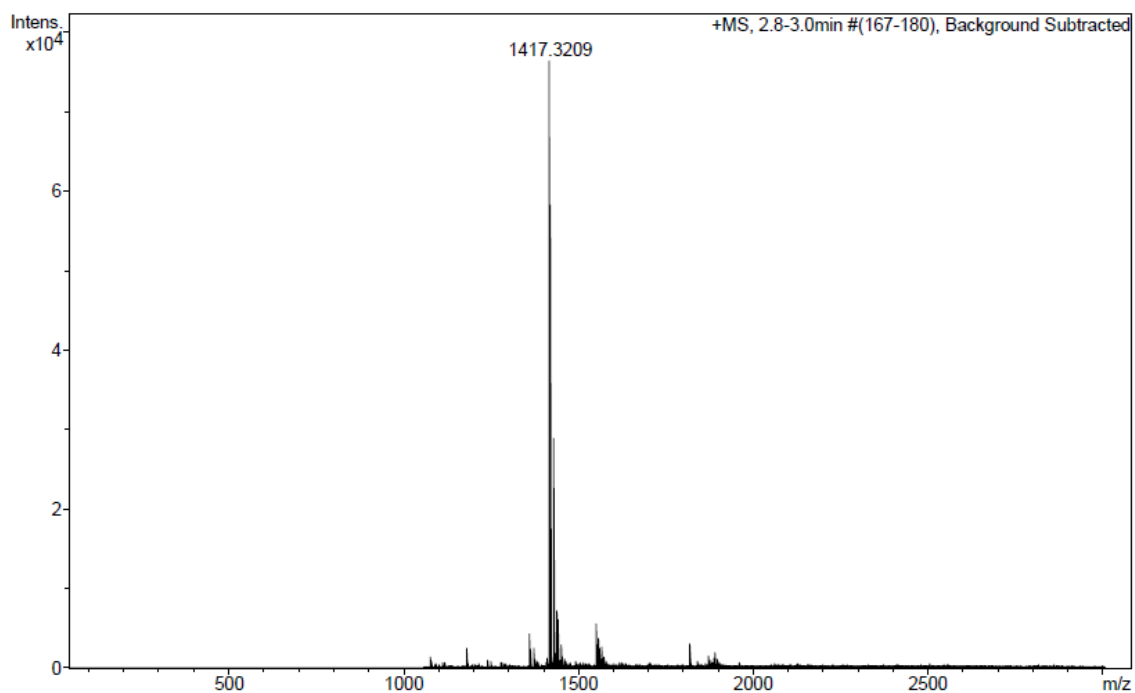
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-31-1.1 tub 47)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,47 | 1407,259 | 163,110 | 100,00 |
| Total: | | 1407,259 | 163,110 | 100,00 |

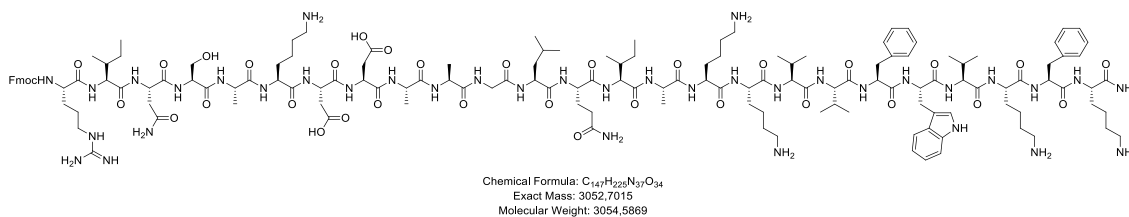
ESI-MS (m/z) (CC-31-1.1 tub 47) $[M+H]^+ = 2833.7$ $[M+2H]^{2+} = 1417.5$ $[M+H+Na]^{2+} = 1428.4$

HRMS (ESI) (m/z)

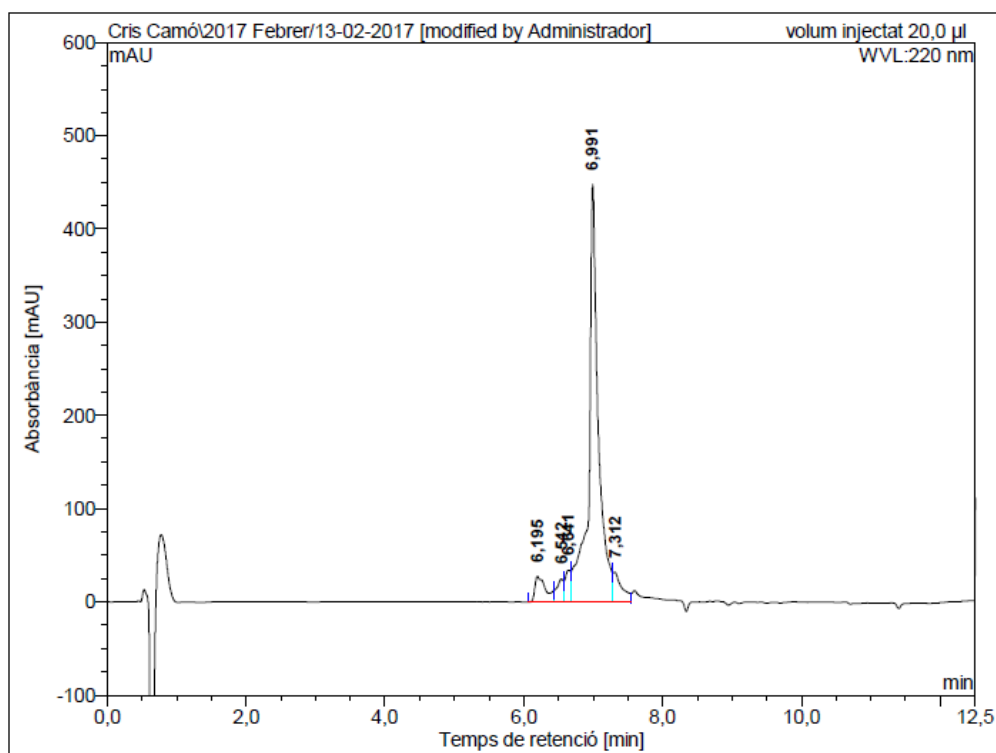


| | Molecular formula | Calculated | Found |
|-----------------|--|------------|-----------|
| $[M+2H]^{2+}$ | C ₁₃₂ H ₂₁₆ N ₃₆ O ₃₃ | 1417.3174 | 1417.3209 |
| $[M+H+Na]^{2+}$ | C ₁₃₂ H ₂₁₅ N ₃₆ O ₃₃ Na | 1428.3084 | 1428.3120 |

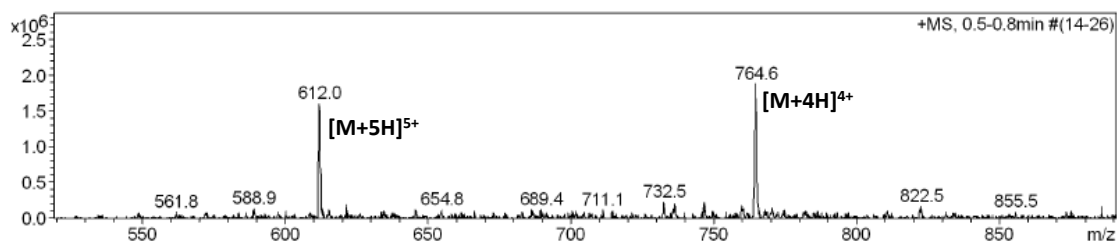
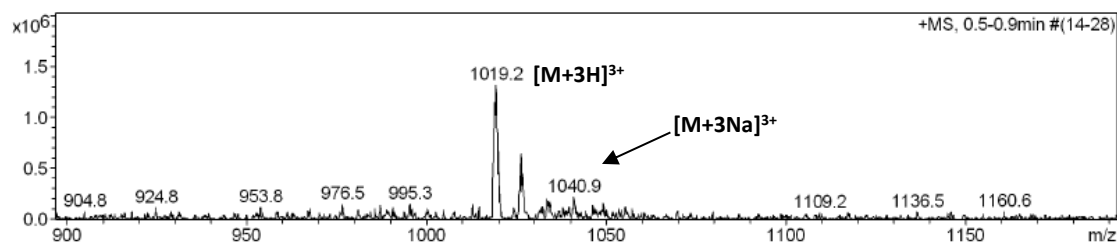
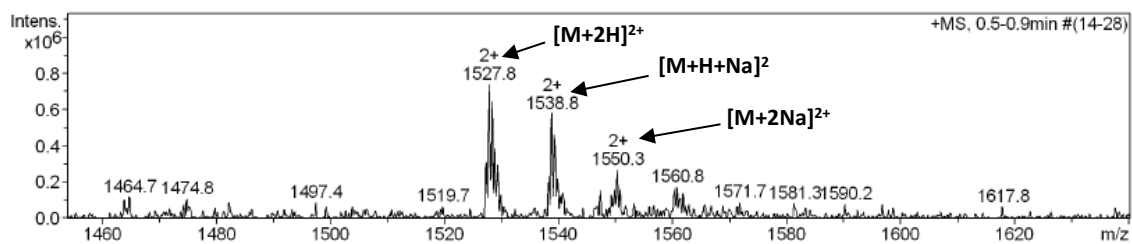
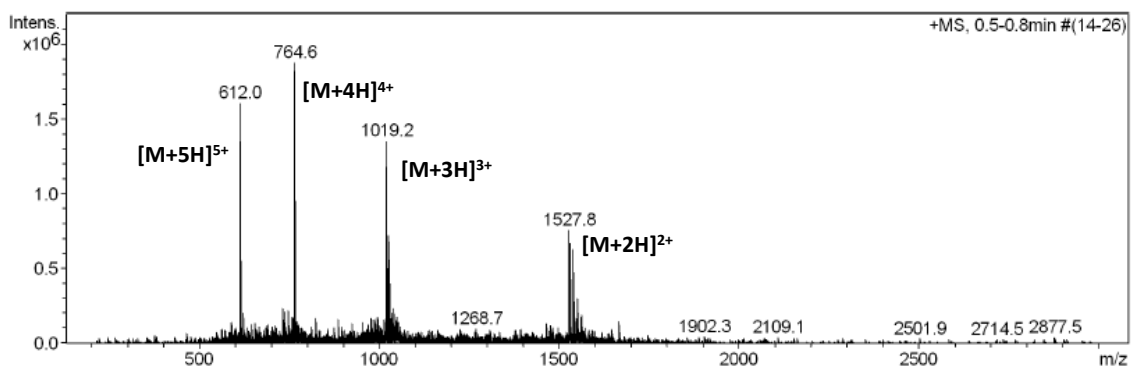
Fmoc-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-
Lys-NH₂ **CC-32 (flg15-KSLW)**



HPLC ($\lambda = 220$ nm) (CC-32-953)



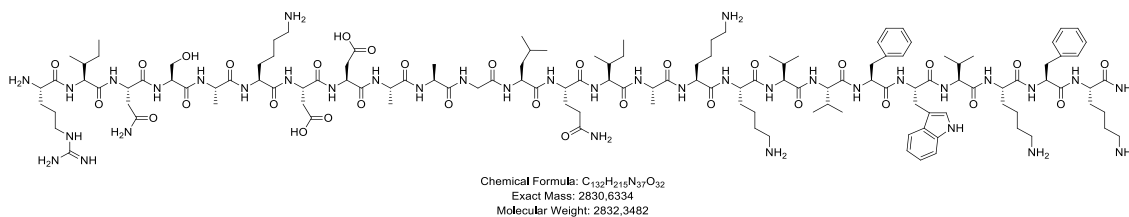
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,20 | 27,540 | 4,999 | 5,72 |
| 2 | 6,54 | 24,373 | 2,773 | 3,17 |
| 3 | 6,64 | 34,046 | 3,257 | 3,73 |
| 4 | 6,99 | 447,802 | 71,361 | 81,64 |
| 5 | 7,31 | 31,920 | 5,022 | 5,75 |
| Total: | | 565,681 | 87,412 | 100,00 |

ESI-MS (m/z) (CC-32-953)

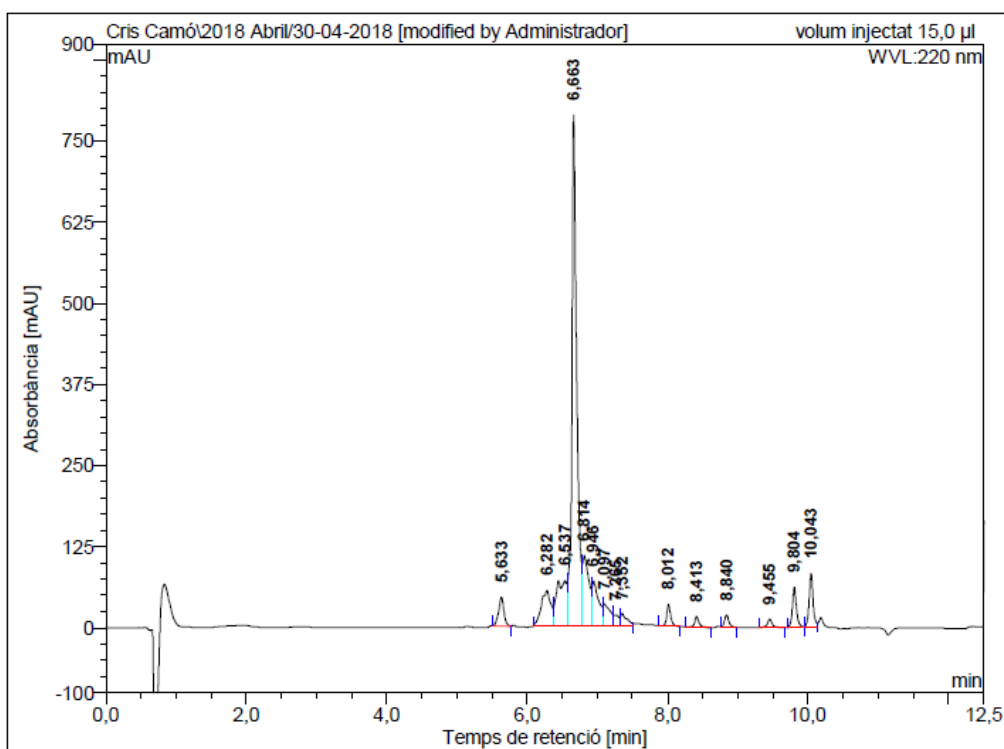
| |
|---------------------------------|
| [M+2H] ²⁺ = 1527.8 |
| [M+H+Na] ²⁺ = 1538.8 |
| [M+2Na] ²⁺ = 1550.3 |
| [M+3H] ³⁺ = 1019.2 |
| [M+3Na] ³⁺ = 1040.9 |
| [M+4H] ⁴⁺ = 764.6 |
| [M+5H] ⁵⁺ = 612.0 |

Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂

CC-32 (fig15-KSLW)

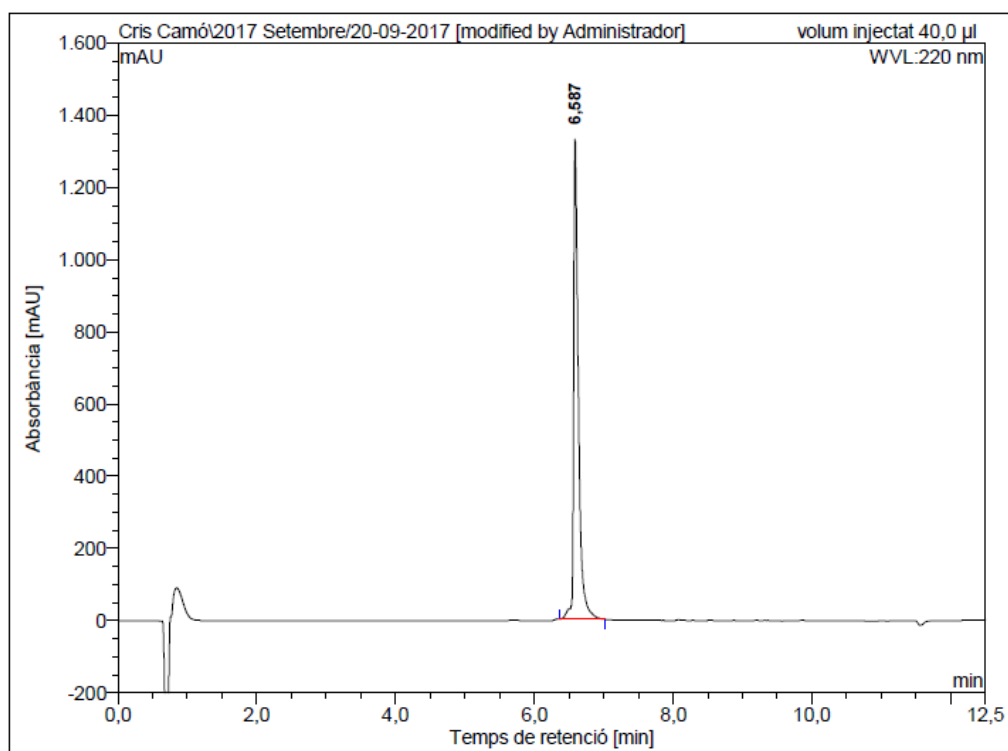


IMPURE PRODUCT

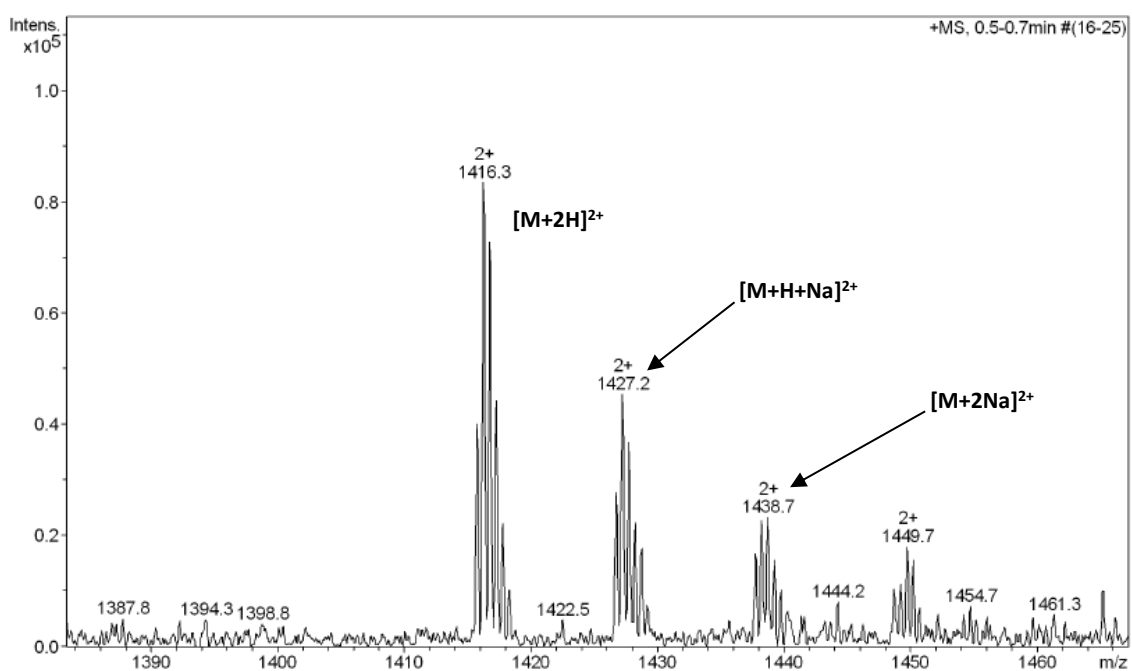
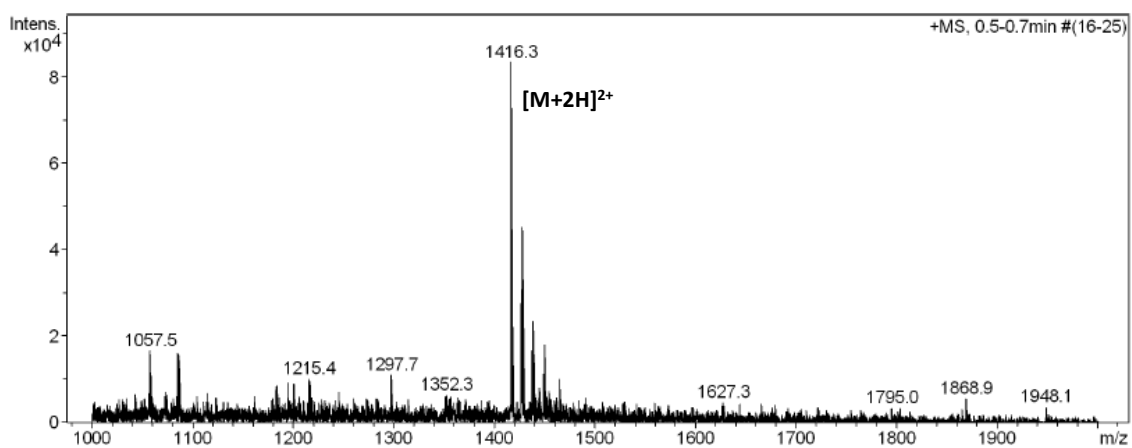
HPLC ($\lambda = 220 \text{ nm}$) (CC-32 impur)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,63 | 44,396 | 3,908 | 3,00 |
| 2 | 6,28 | 54,889 | 8,887 | 6,82 |
| 3 | 6,54 | 70,145 | 11,306 | 8,67 |
| 4 | 6,66 | 787,103 | 63,982 | 49,08 |
| 5 | 6,81 | 108,757 | 12,041 | 9,24 |
| 6 | 6,95 | 69,689 | 7,175 | 5,50 |
| 7 | 7,10 | 34,631 | 4,036 | 3,10 |
| 8 | 7,27 | 17,568 | 1,641 | 1,26 |
| 9 | 7,35 | 19,746 | 2,129 | 1,63 |
| 10 | 8,01 | 33,742 | 2,351 | 1,80 |
| 11 | 8,41 | 15,910 | 0,952 | 0,73 |
| 12 | 8,84 | 19,544 | 1,397 | 1,07 |
| 13 | 9,45 | 13,249 | 1,078 | 0,83 |
| 14 | 9,80 | 61,494 | 4,143 | 3,18 |
| 15 | 10,04 | 82,279 | 5,346 | 4,10 |
| Total: | | 1433,143 | 130,372 | 100,00 |

PURE PRODUCT

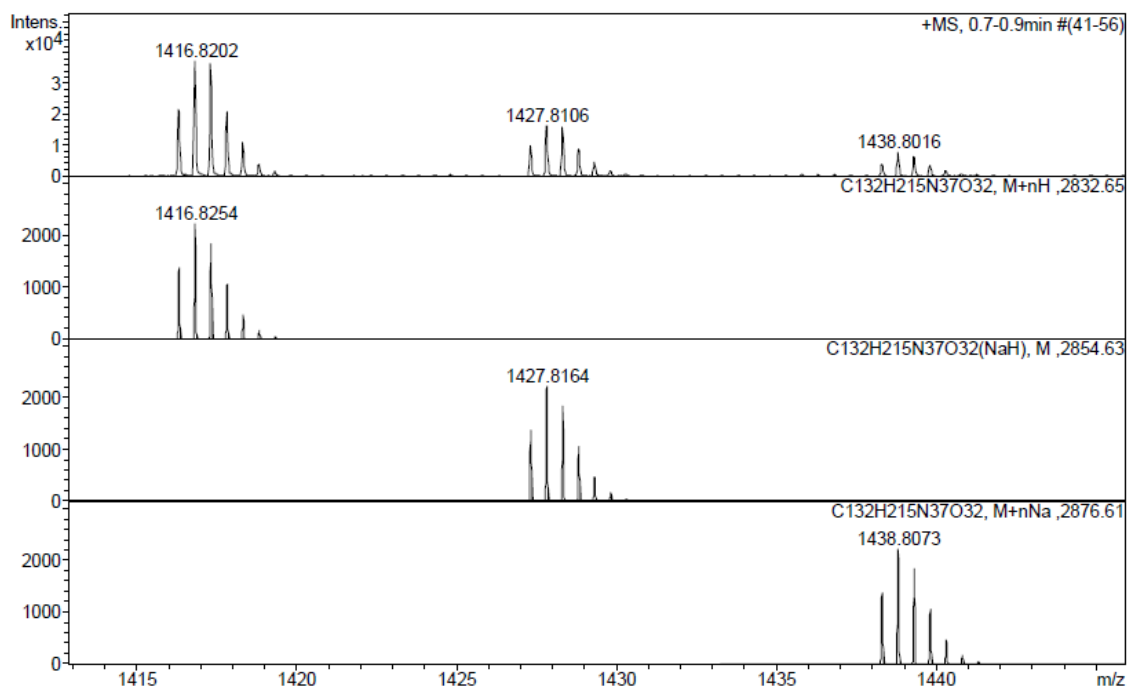
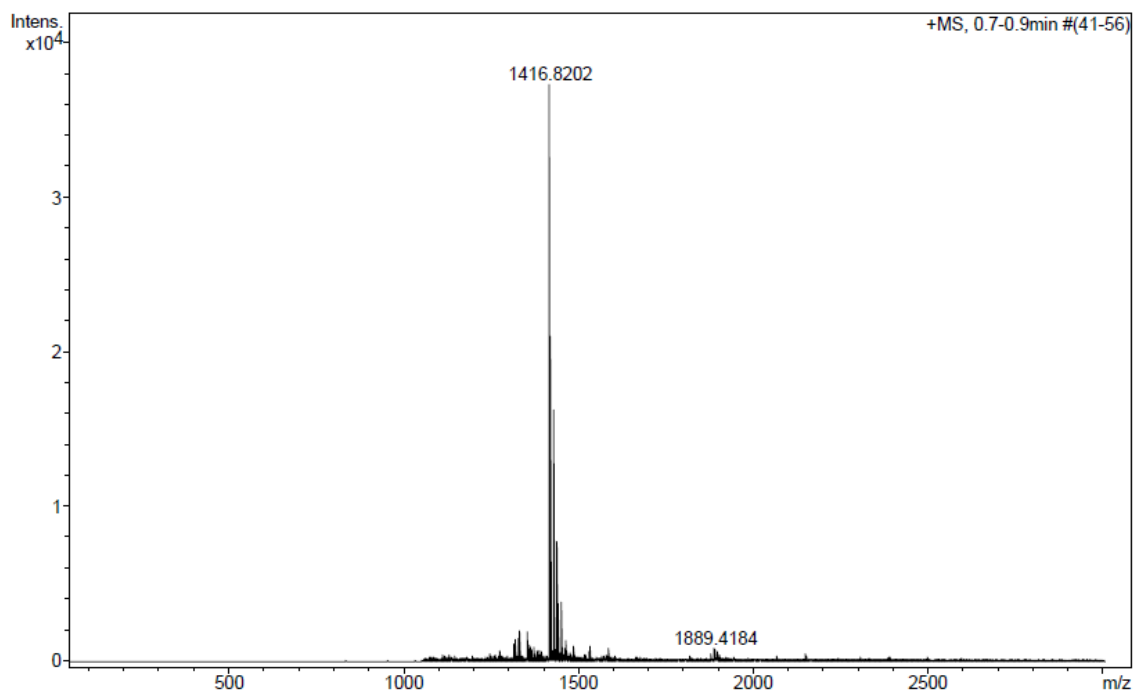
HPLC ($\lambda = 220 \text{ nm}$) (CC-32-1.2 tub 52)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,59 | 1331,652 | 106,809 | 100,00 |
| Total: | | 1331,652 | 106,809 | 100,00 |

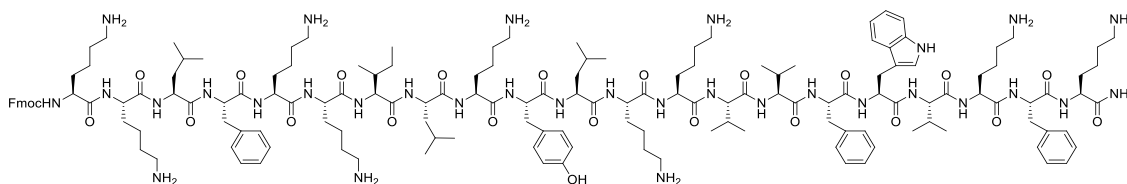
ESI-MS (m/z) (CC-32-1.2 tub 52)

| |
|--------------------------|
| $[M+2H]^{2+} = 1416.3$ |
| $[M+H+Na]^{2+} = 1427.2$ |
| $[M+2Na]^{2+} = 1438.7$ |

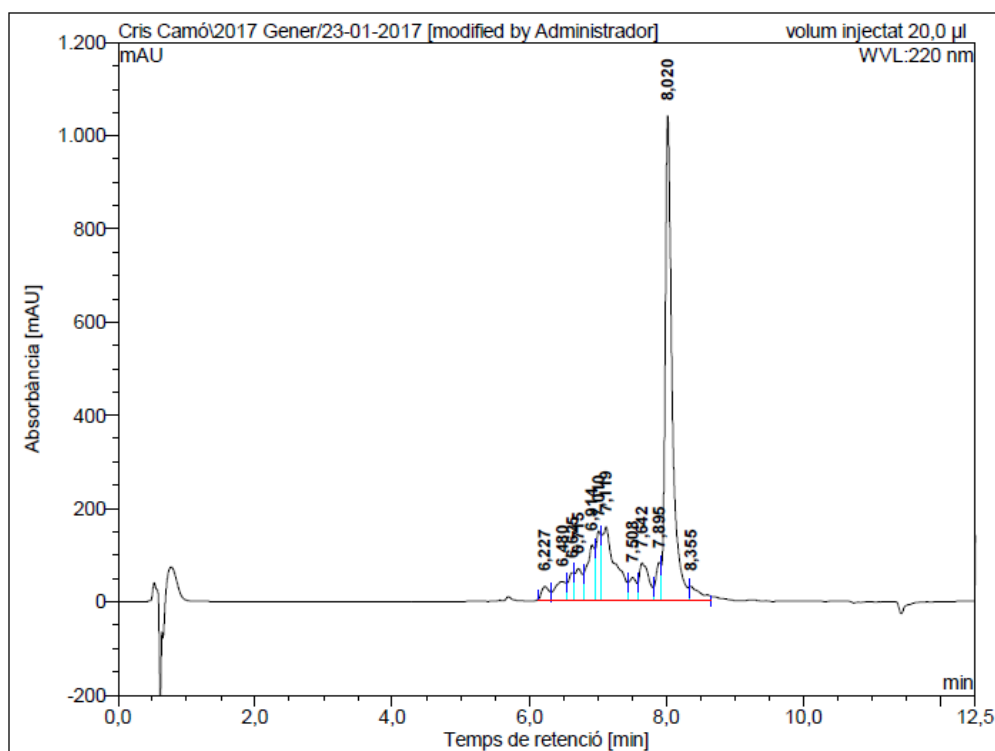
HRMS (ESI) (m/z)



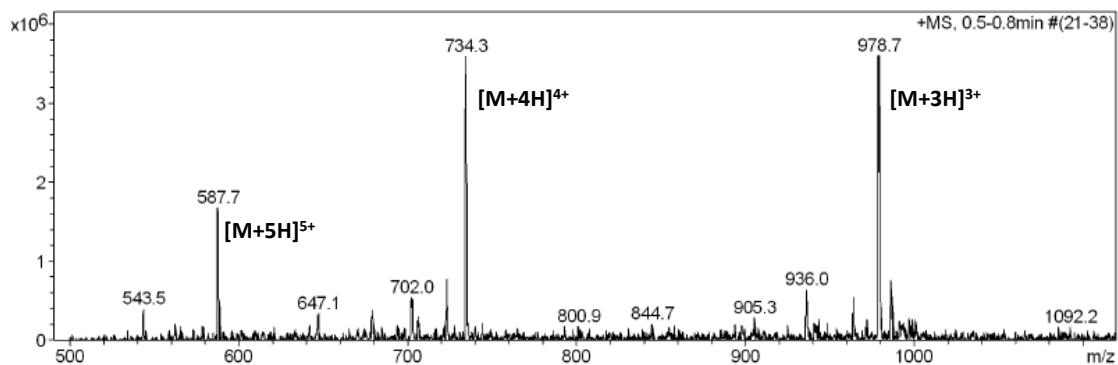
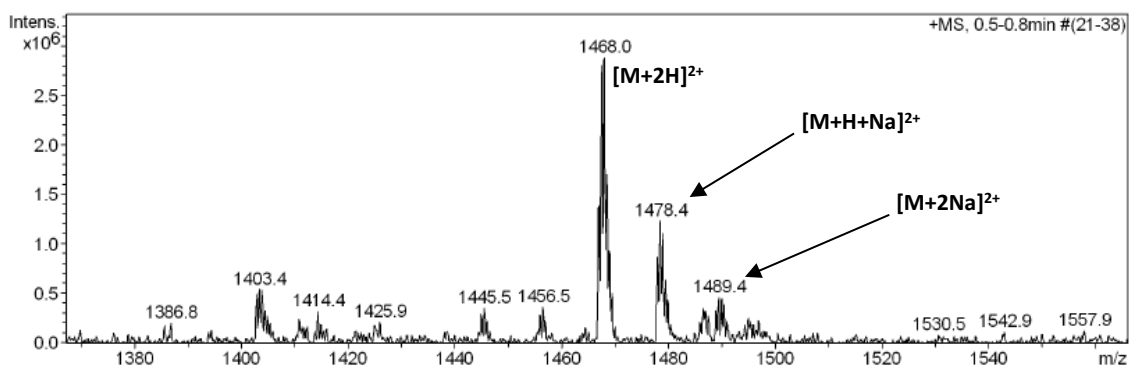
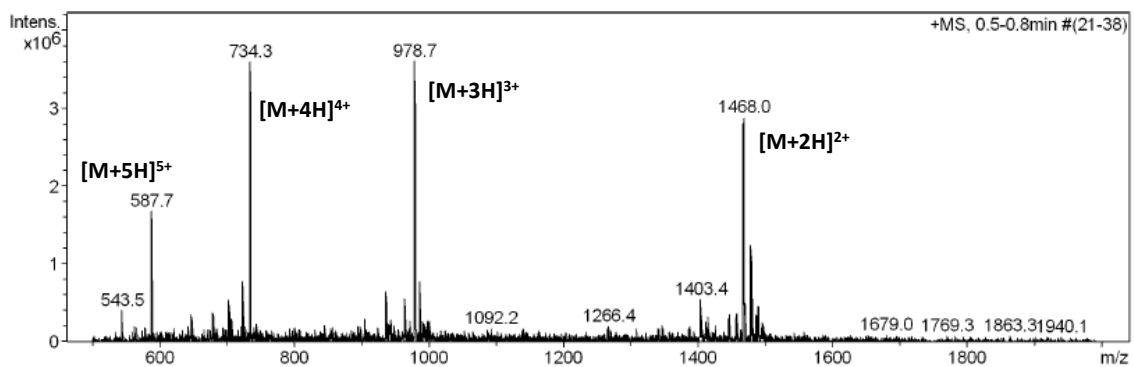
| | Molecular formula | Calculated | Found |
|-----------------|----------------------------------|------------|-----------|
| $[M+2H]^{2+}$ | $C_{132}H_{217}N_{37}O_{32}$ | 1416.8254 | 1416.8202 |
| $[M+H+Na]^{2+}$ | $C_{132}H_{216}N_{37}O_{32}Na$ | 1427.8164 | 1427.8106 |
| $[M+2Na]^{2+}$ | $C_{132}H_{215}N_{37}O_{32}Na_2$ | 1438.8073 | 1438.8016 |

Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-33****(BP100-KSLW)**

Chemical Formula: C₁₅₅H₂₃₈N₃₂O₂₄
 Exact Mass: 2931,8387
 Molecular Weight: 2933,7482

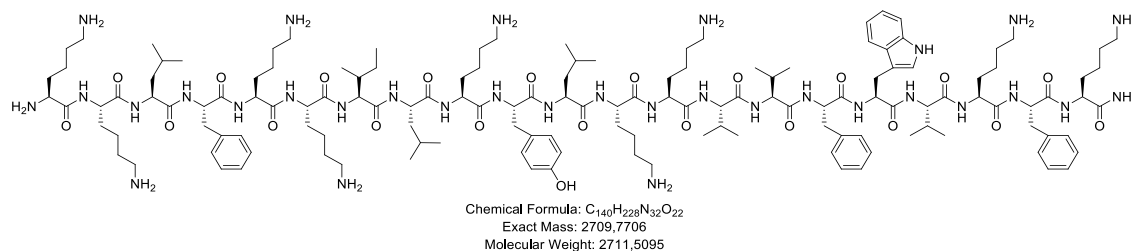
HPLC (λ = 220 nm) (CC-33-937)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|---------------|--------------------|-----------------|----------------|-----------------|
| 1 | 6,23 | 28,612 | 3,767 | 1,57 |
| 2 | 6,48 | 39,500 | 6,855 | 2,85 |
| 3 | 6,63 | 58,588 | 5,051 | 2,10 |
| 4 | 6,71 | 66,818 | 9,010 | 3,75 |
| 5 | 6,91 | 117,851 | 15,049 | 6,26 |
| 6 | 7,01 | 147,735 | 12,469 | 5,19 |
| 7 | 7,12 | 156,607 | 35,332 | 14,69 |
| 8 | 7,51 | 47,536 | 5,926 | 2,46 |
| 9 | 7,64 | 78,815 | 12,718 | 5,29 |
| 10 | 7,89 | 80,987 | 6,731 | 2,80 |
| 11 | 8,02 | 1038,683 | 122,023 | 50,74 |
| 12 | 8,36 | 29,399 | 5,543 | 2,31 |
| Total: | | 1891,130 | 240,474 | 100,00 |

ESI-MS (m/z) (CC-33-937)

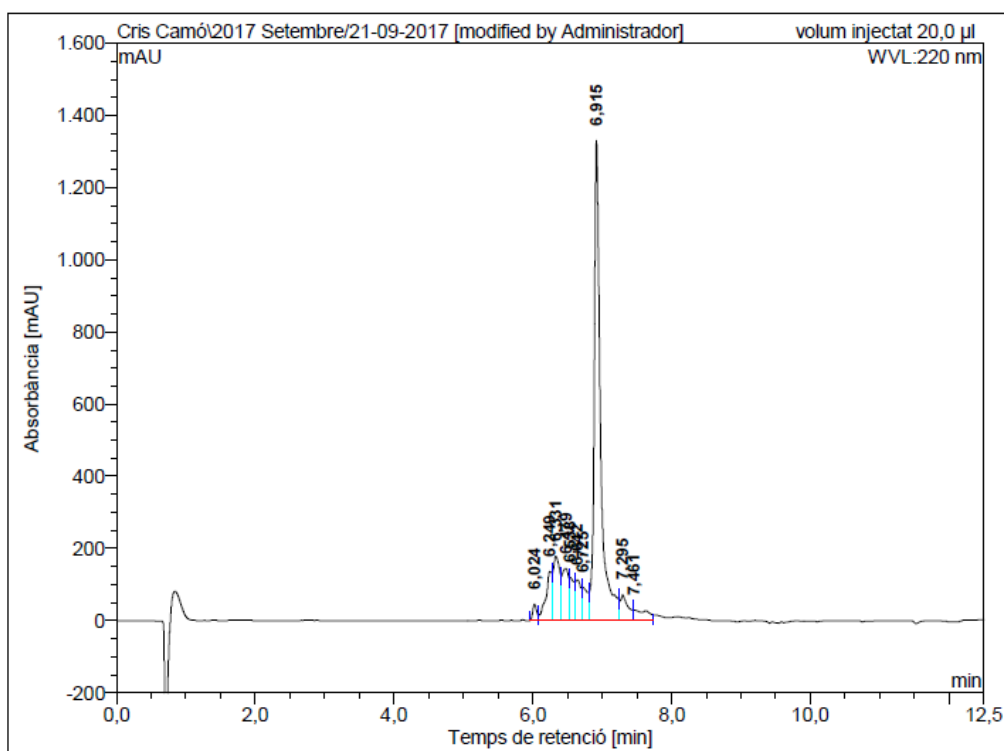
| |
|--------------------------|
| $[M+2H]^{2+} = 1467.0$ |
| $[M+H+Na]^{2+} = 1477.5$ |
| $[M+2Na]^{2+} = 1488.4$ |
| $[M+3H]^{3+} = 978.7$ |
| $[M+4H]^{4+} = 734.3$ |
| $[M+5H]^{5+} = 587.7$ |

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-33 (BP100-KSLW)**



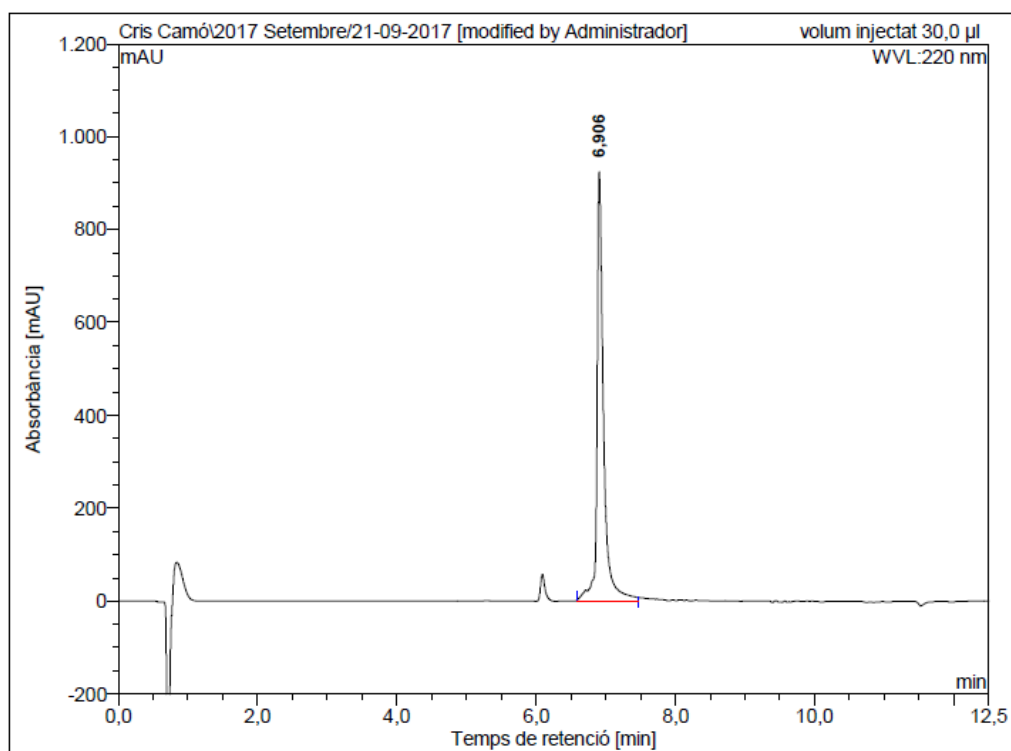
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-33-1.1 impur)

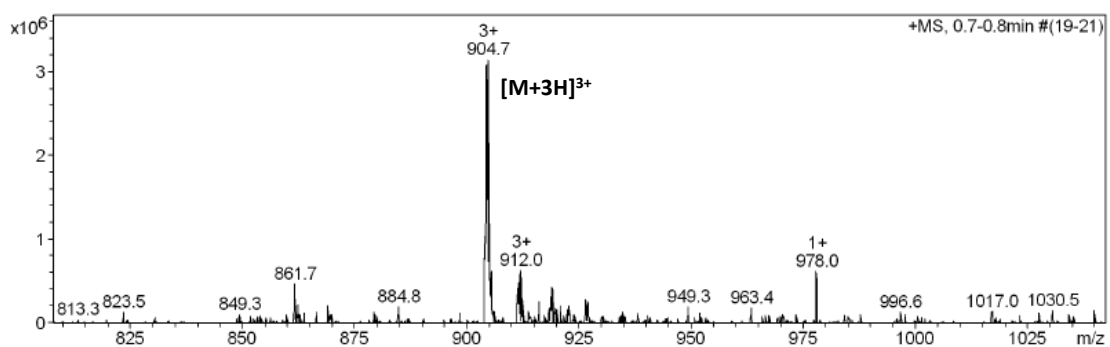
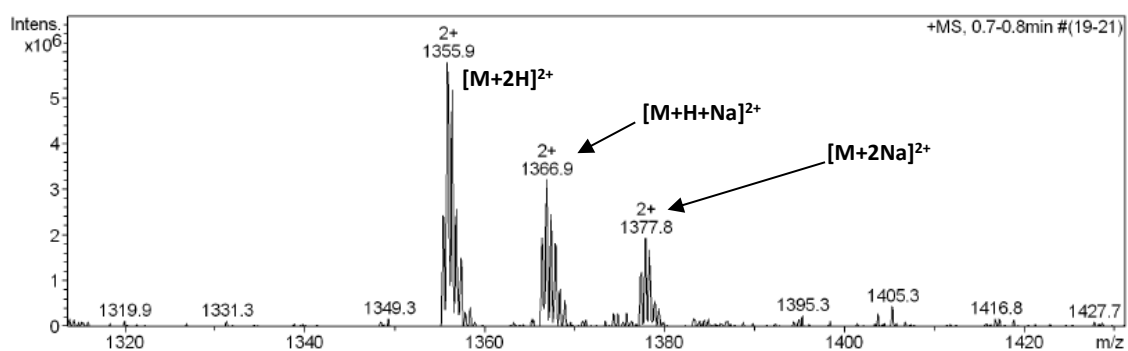
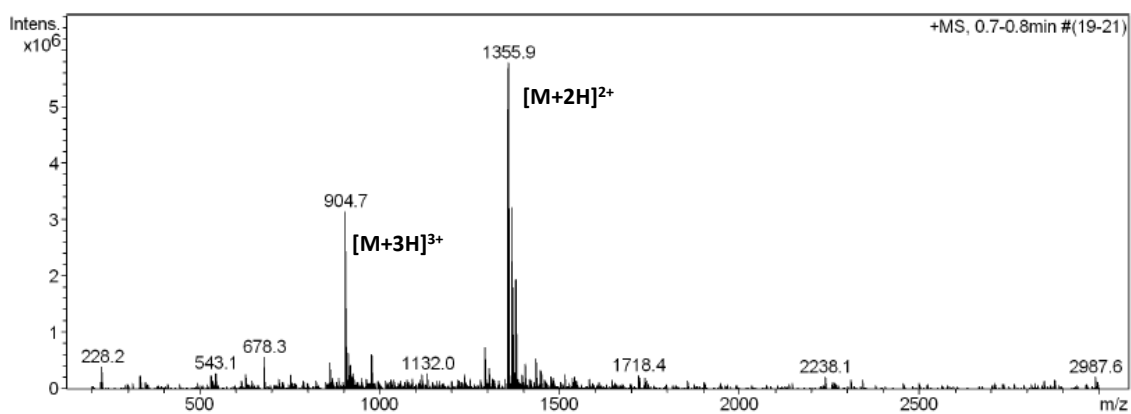


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,02 | 45,319 | 3,040 | 1,27 |
| 2 | 6,25 | 136,177 | 13,669 | 5,70 |
| 3 | 6,33 | 178,909 | 20,642 | 8,60 |
| 4 | 6,48 | 144,731 | 15,097 | 6,29 |
| 5 | 6,54 | 118,993 | 8,947 | 3,73 |
| 6 | 6,64 | 112,949 | 11,233 | 4,68 |
| 7 | 6,72 | 91,969 | 8,074 | 3,37 |
| 8 | 6,92 | 1331,009 | 142,266 | 59,30 |
| 9 | 7,29 | 71,295 | 10,316 | 4,30 |
| 10 | 7,46 | 28,913 | 6,644 | 2,77 |
| Total: | | 2260,264 | 239,928 | 100,00 |

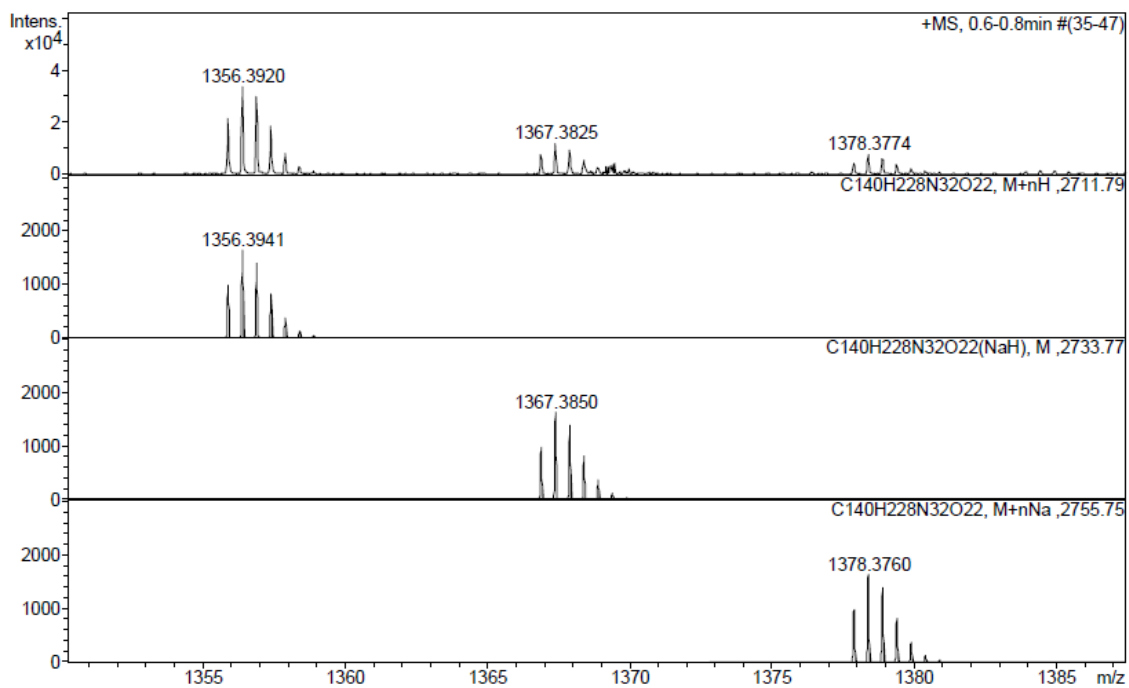
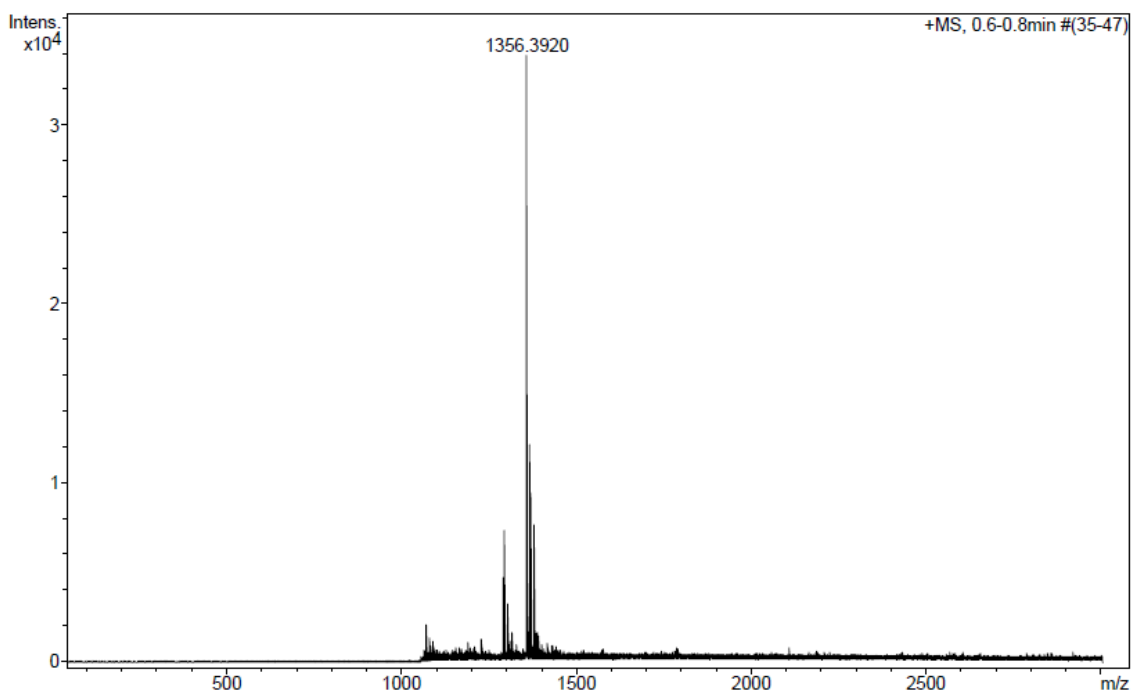
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-33-1.1 tub 82)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,91 | 923,606 | 100,500 | 100,00 |
| Total: | | 923,606 | 100,500 | 100,00 |

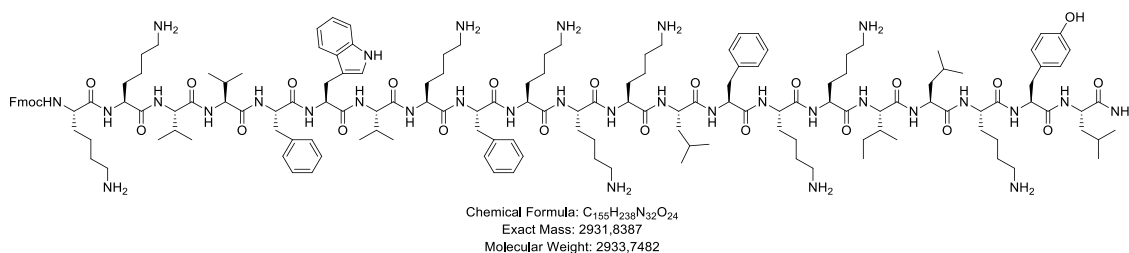
ESI-MS (m/z) (CC-33-1.1 tub 82)

| |
|--------------------------|
| $[M+2H]^{2+} = 1355.9$ |
| $[M+H+Na]^{2+} = 1366.9$ |
| $[M+2Na]^{2+} = 1377.9$ |
| $[M+3H]^{3+} = 904.7$ |

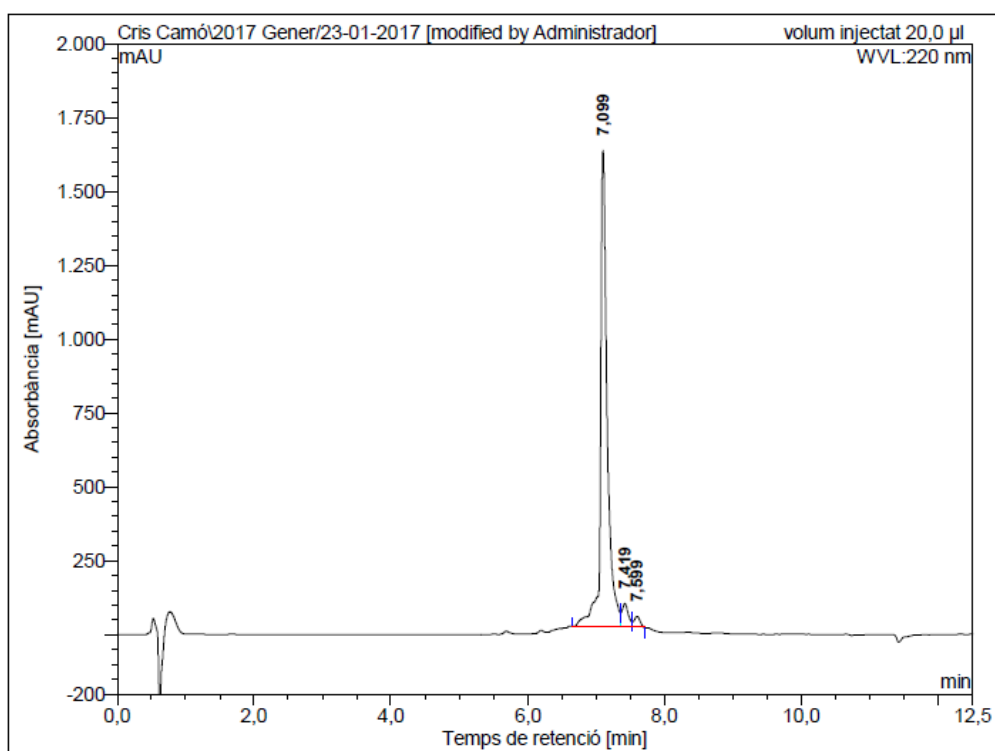
HRMS (ESI) (m/z)

| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+2H] ²⁺ | C ₁₄₀ H ₂₃₀ N ₃₂ O ₂₂ | 1356.3941 | 1356.3920 |
| [M+H+Na] ²⁺ | C ₁₄₀ H ₂₂₉ N ₃₂ O ₂₂ Na | 1367.3850 | 1367.3825 |
| [M+2Na] ²⁺ | C ₁₄₀ H ₂₂₈ N ₃₂ O ₂₂ Na ₂ | 1378.3760 | 1378.3774 |

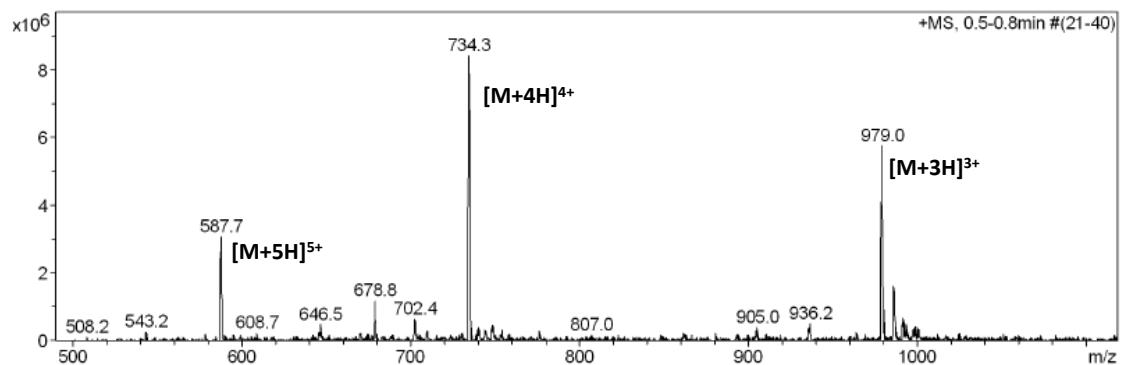
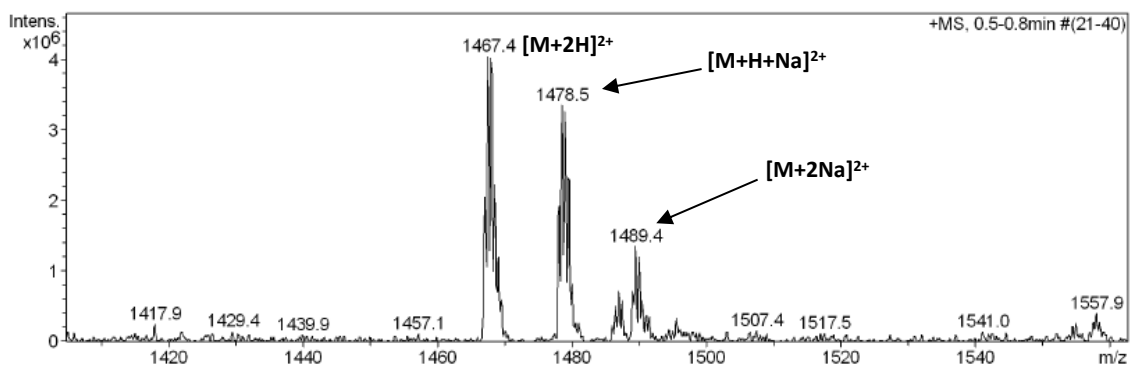
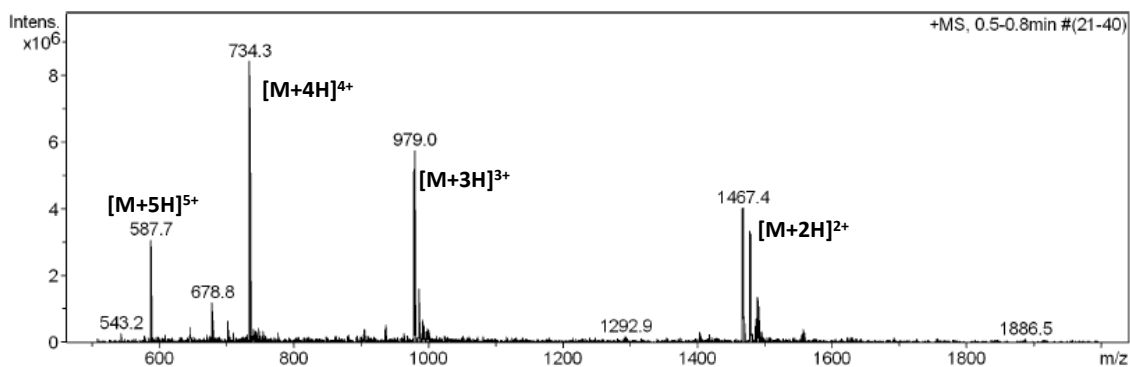
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ **CC-34**
(KSLW-BP100)



HPLC ($\lambda = 220$ nm) (CC-34-937)

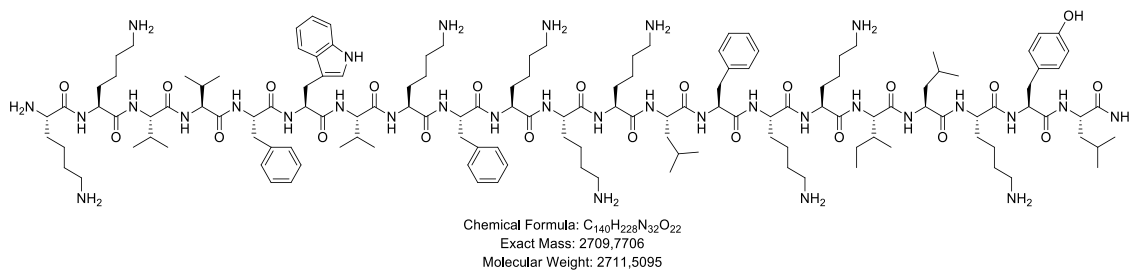


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,10 | 1611,900 | 183,170 | 94,00 |
| 2 | 7,42 | 77,547 | 8,431 | 4,33 |
| 3 | 7,60 | 34,634 | 3,262 | 1,67 |
| Total: | | 1724,081 | 194,864 | 100,00 |

ESI-MS (m/z) (CC-34-937)

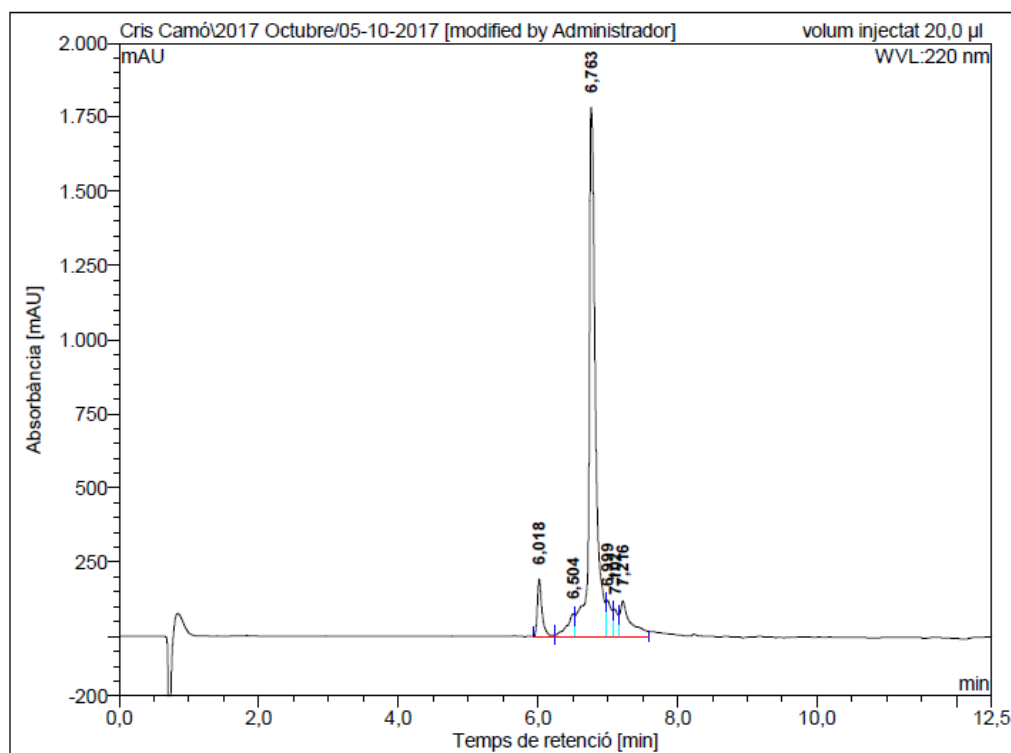
| |
|--------------------------|
| $[M+2H]^{2+} = 1467.4$ |
| $[M+H+Na]^{2+} = 1478.5$ |
| $[M+2Na]^{2+} = 1489.4$ |
| $[M+3H]^{3+} = 979.0$ |
| $[M+4H]^{4+} = 734.3$ |
| $[M+5H]^{5+} = 587.7$ |

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ **CC-34 (KSLW-BP100)**



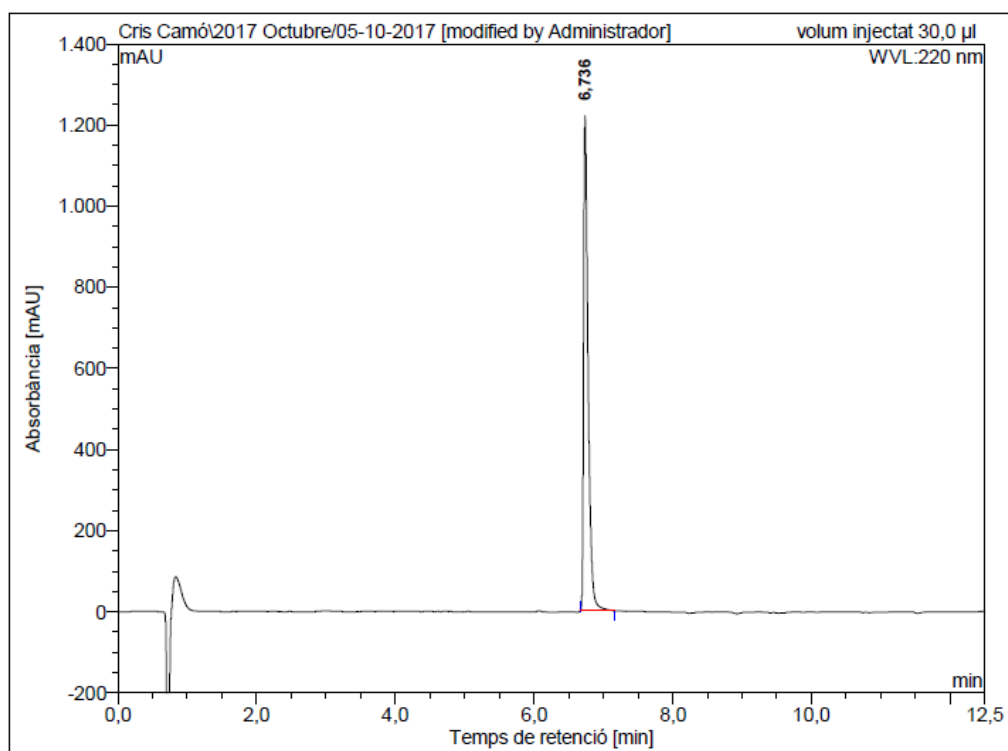
IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-34 impur)

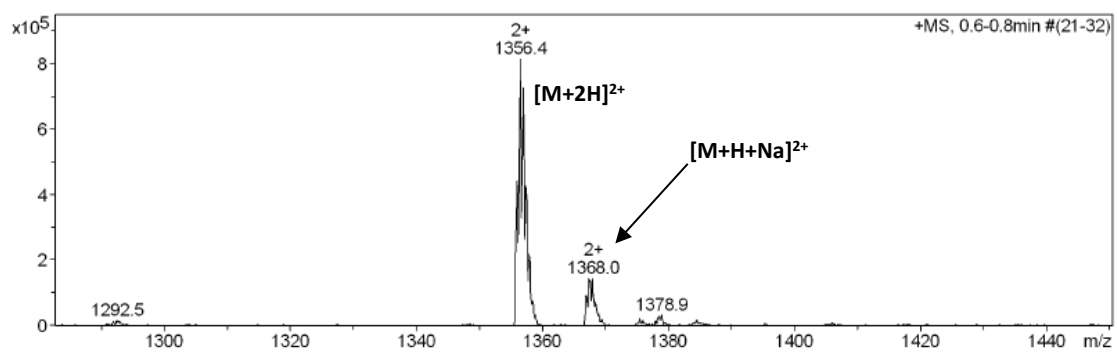
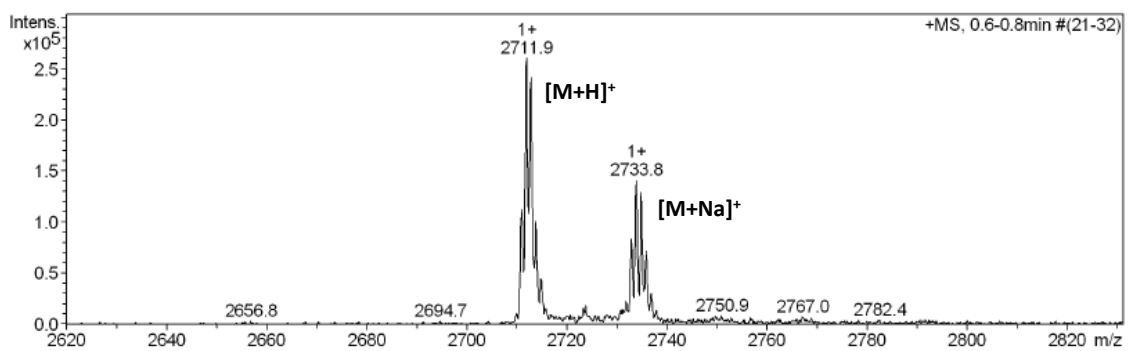
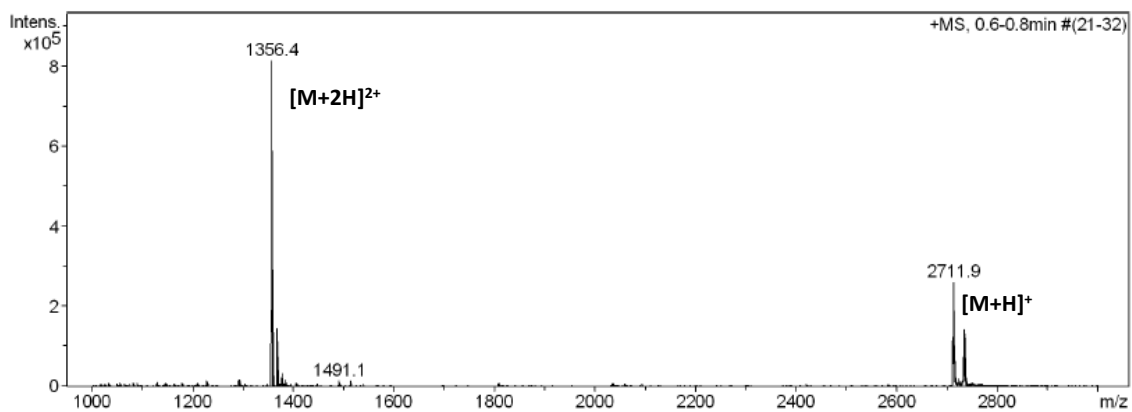


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,02 | 193,827 | 15,095 | 5,80 |
| 2 | 6,50 | 75,832 | 10,207 | 3,92 |
| 3 | 6,76 | 1782,497 | 194,893 | 74,93 |
| 4 | 7,00 | 121,742 | 11,055 | 4,25 |
| 5 | 7,10 | 92,160 | 7,838 | 3,01 |
| 6 | 7,22 | 120,182 | 21,020 | 8,08 |
| Total: | | 2386,239 | 260,109 | 100,00 |

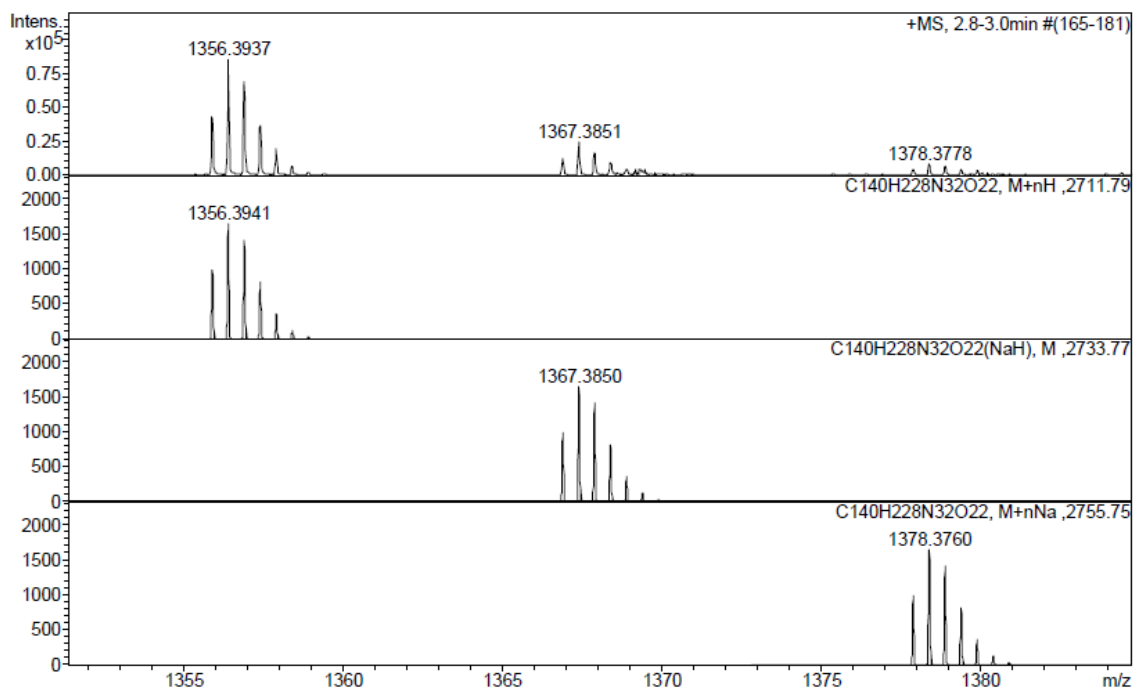
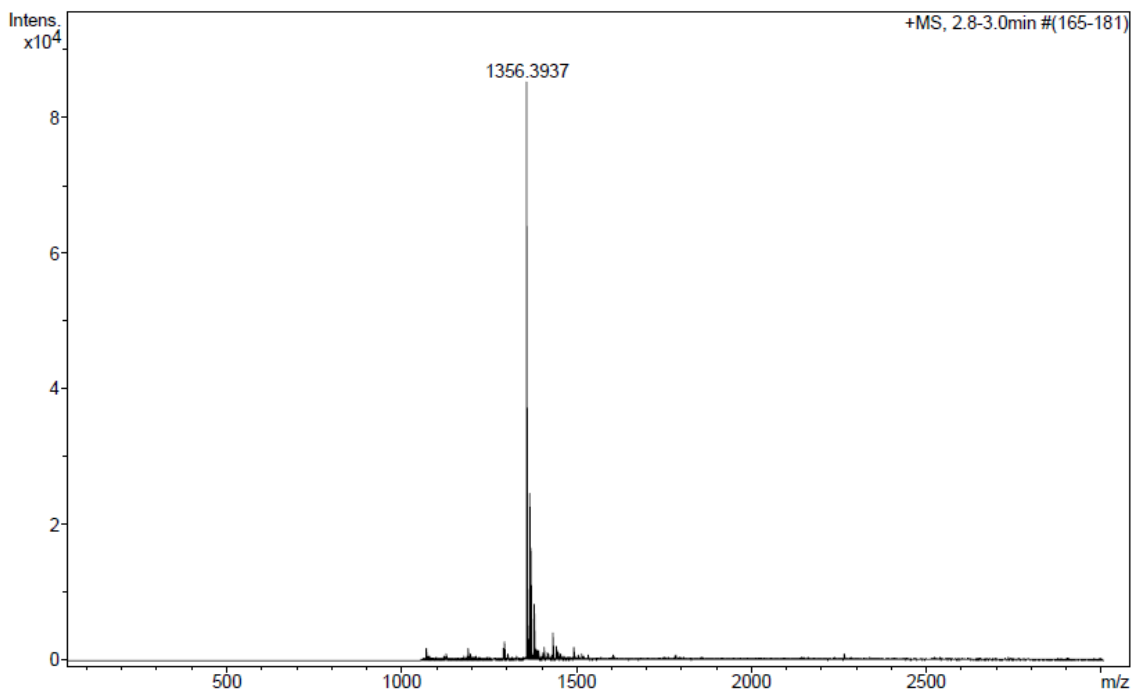
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-34 tub 72)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,74 | 1220,226 | 91,092 | 100,00 |
| Total: | | 1220,226 | 91,092 | 100,00 |

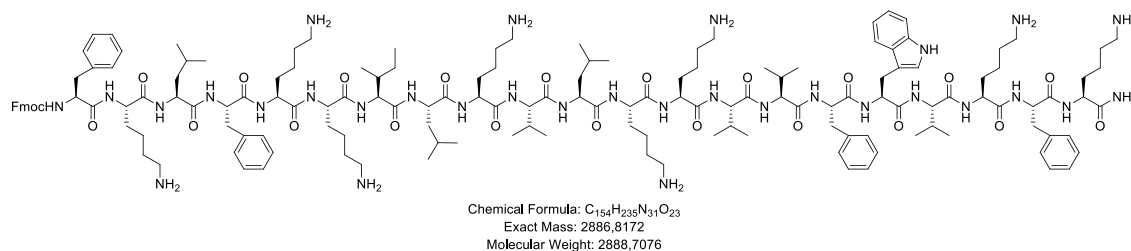
ESI-MS (m/z) (CC-34 tub 72)

| |
|--------------------------|
| $[M+H]^+ = 2711.9$ |
| $[M+Na]^+ = 2733.8$ |
| $[M+2H]^{2+} = 1356.4$ |
| $[M+H+Na]^{2+} = 1368.0$ |

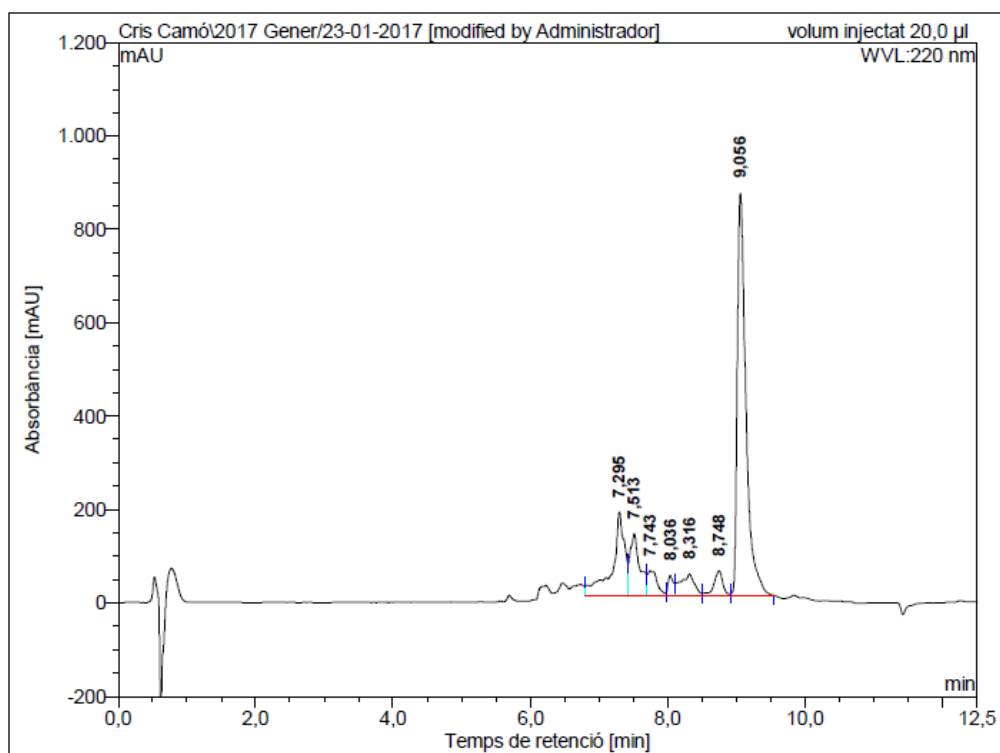
HRMS (ESI) (m/z)

| | Molecular formula | Calculated | Found |
|-----------------|----------------------------------|------------|-----------|
| $[M+2H]^{2+}$ | $C_{140}H_{230}N_{32}O_{22}$ | 1356.3941 | 1356.3937 |
| $[M+H+Na]^{2+}$ | $C_{140}H_{229}N_{32}O_{22}Na$ | 1367.3850 | 1367.3851 |
| $[M+2Na]^{2+}$ | $C_{140}H_{228}N_{32}O_{22}Na_2$ | 1378.3760 | 1378.3778 |

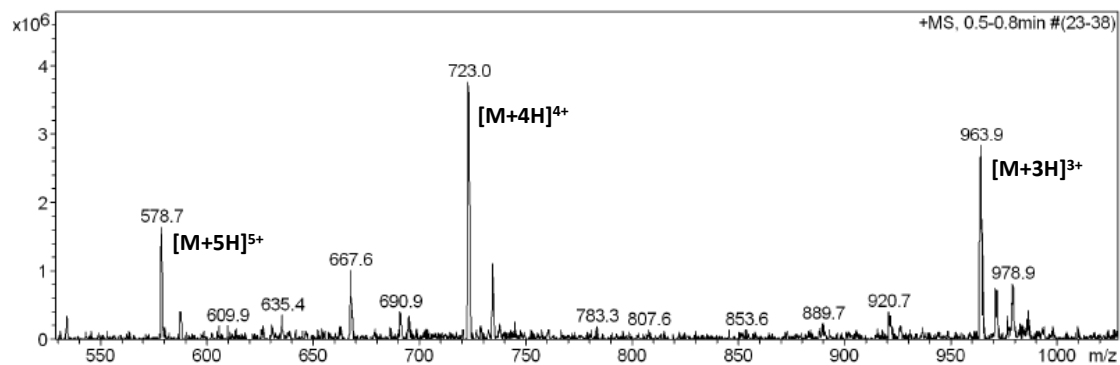
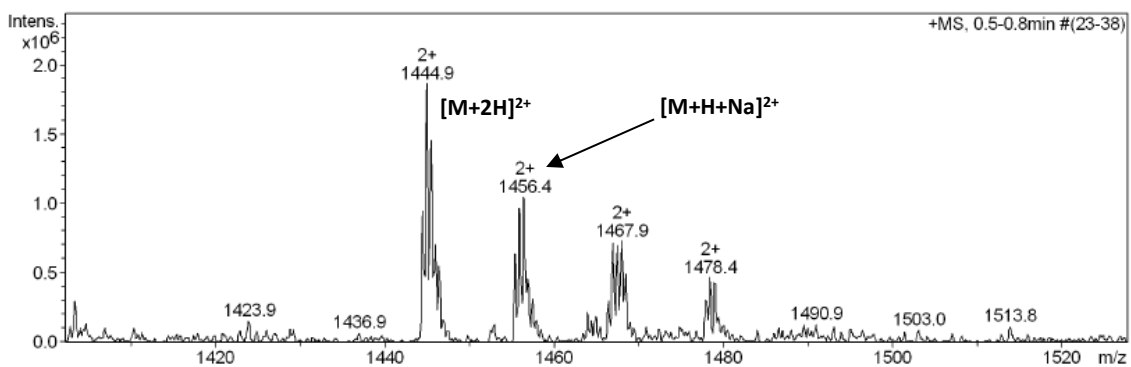
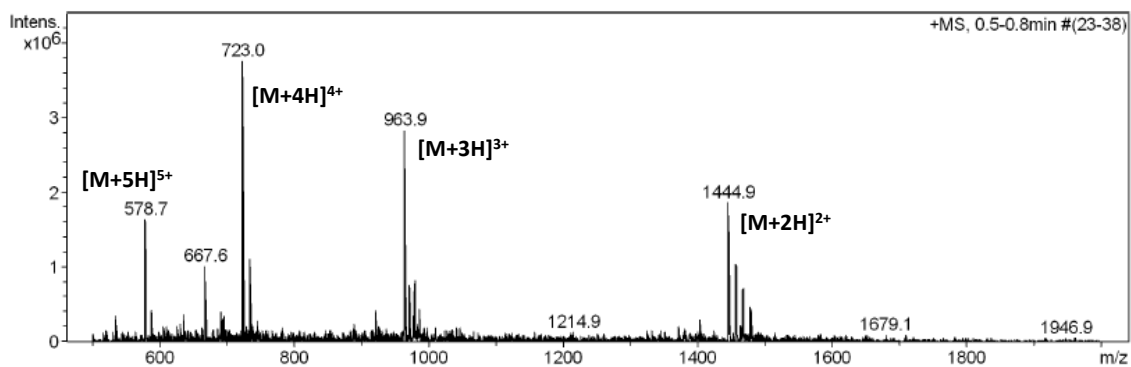
Fmoc-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-35**
(BP13-KSLW)



HPLC ($\lambda = 220$ nm) (CC-35-937)

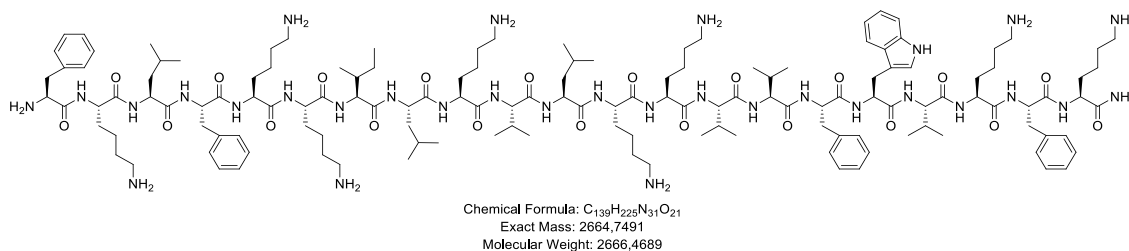


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,30 | 178,636 | 37,531 | 17,33 |
| 2 | 7,51 | 132,350 | 21,763 | 10,05 |
| 3 | 7,74 | 53,355 | 8,635 | 3,99 |
| 4 | 8,04 | 42,518 | 3,913 | 1,81 |
| 5 | 8,32 | 45,576 | 10,721 | 4,95 |
| 6 | 8,75 | 52,649 | 7,825 | 3,61 |
| 7 | 9,06 | 861,157 | 126,127 | 58,25 |
| Total: | | 1366,242 | 216,515 | 100,00 |

ESI-MS (m/z) (CC-35-937)

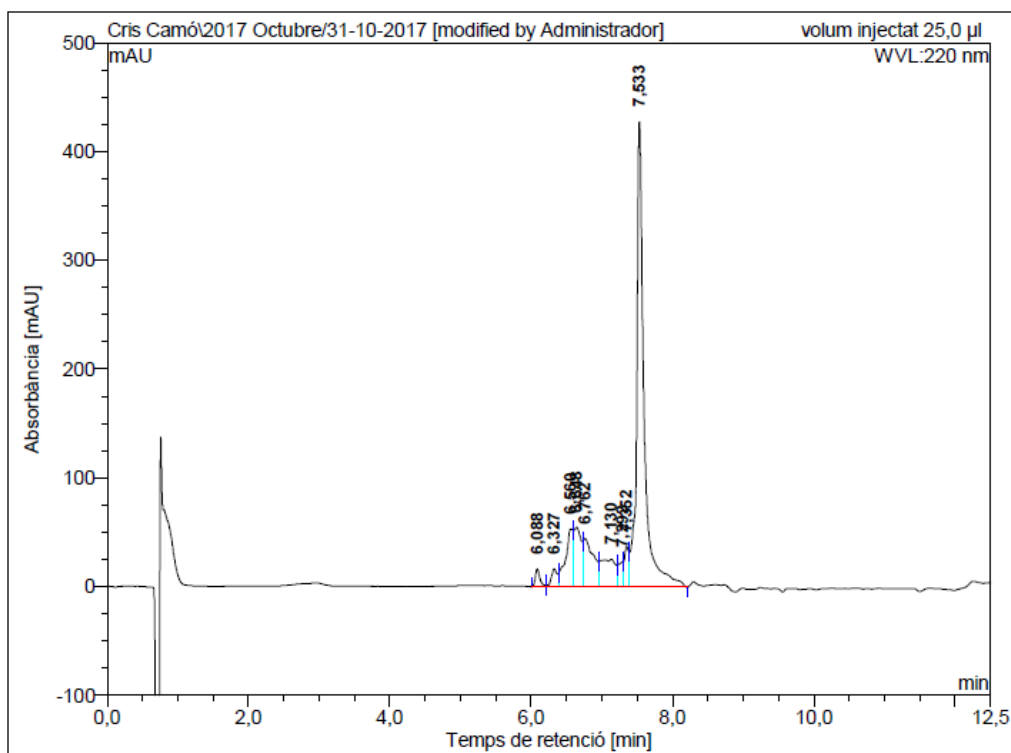
| |
|--------------------------|
| $[M+2H]^{2+} = 1444.9$ |
| $[M+H+Na]^{2+} = 1456.4$ |
| $[M+3H]^{3+} = 963.9$ |
| $[M+4H]^{4+} = 723.0$ |
| $[M+5H]^{5+} = 578.7$ |

Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-35 (BP13-KSLW)**



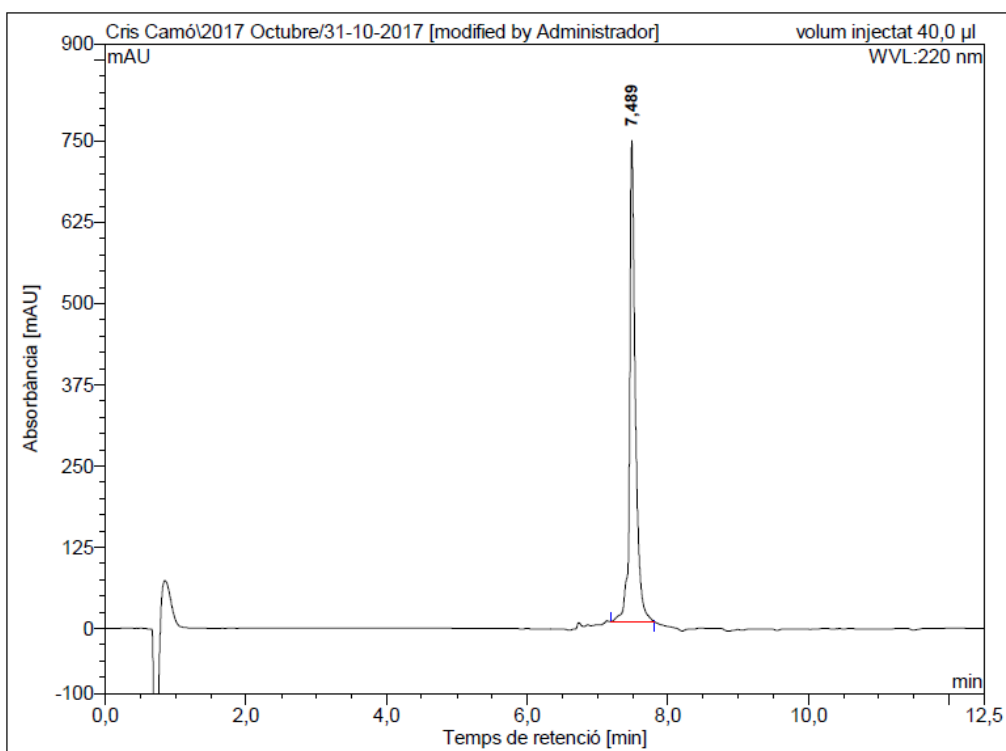
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-35-1.2 impur)

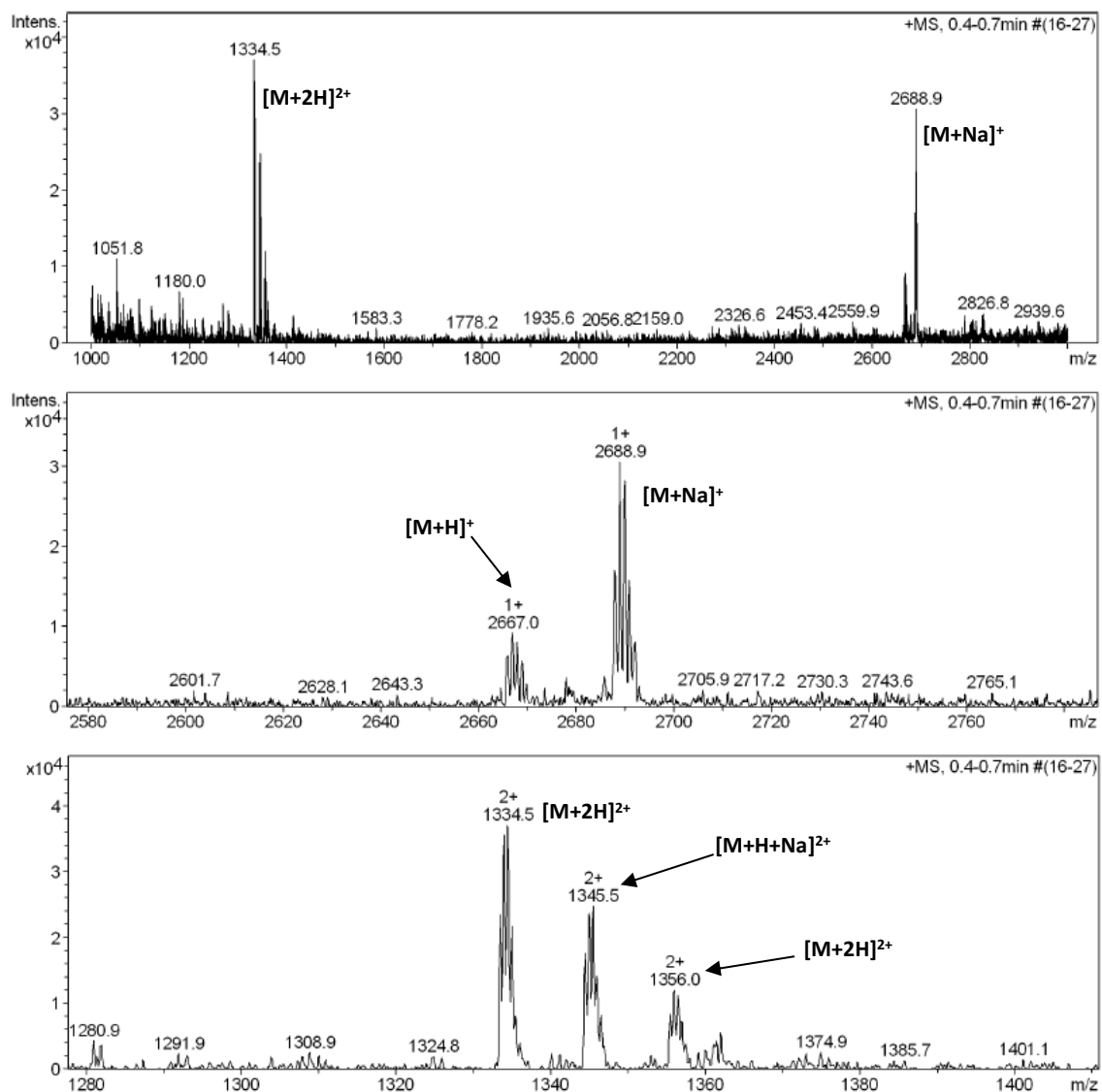


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|---------------|-----------------------|----------------|-----------------|--------------------|
| 1 | 6,09 | 16,695 | 1,305 | 1,51 |
| 2 | 6,33 | 16,728 | 1,680 | 1,95 |
| 3 | 6,56 | 53,061 | 6,883 | 7,99 |
| 4 | 6,65 | 54,890 | 6,297 | 7,31 |
| 5 | 6,76 | 44,512 | 7,819 | 9,07 |
| 6 | 7,13 | 25,354 | 5,942 | 6,90 |
| 7 | 7,29 | 22,807 | 1,952 | 2,27 |
| 8 | 7,35 | 37,146 | 2,618 | 3,04 |
| 9 | 7,53 | 427,605 | 51,663 | 59,96 |
| Total: | | 698,798 | 86,159 | 100,00 |

PURE PRODUCT

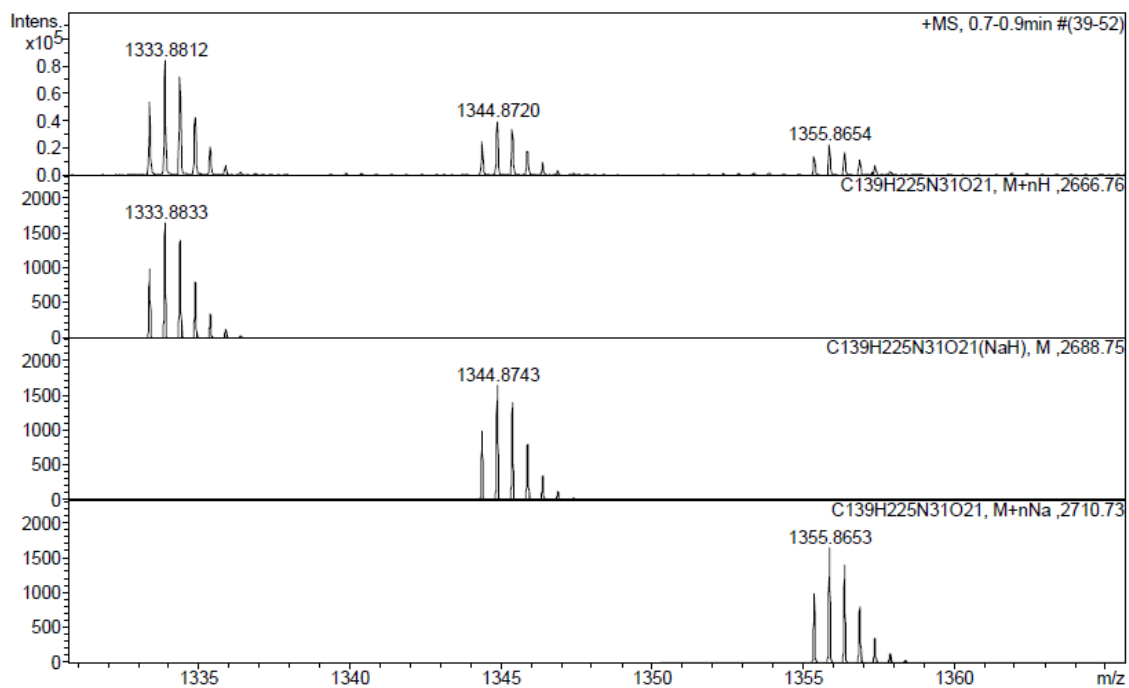
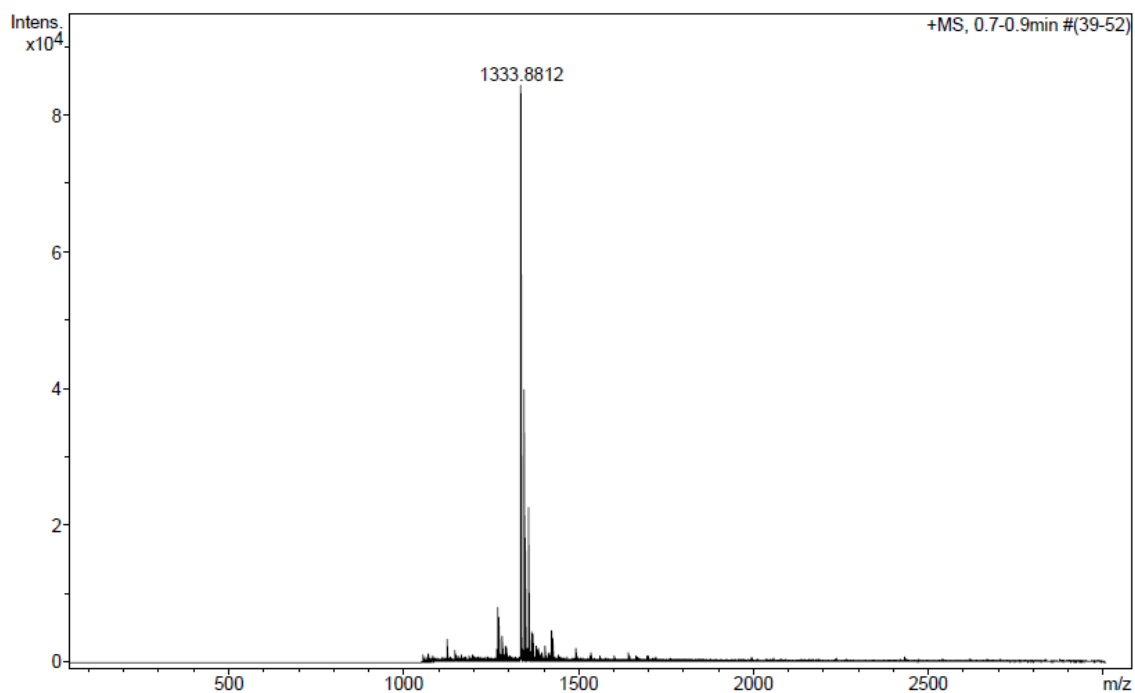
HPLC ($\lambda = 220 \text{ nm}$) (CC-35-1.2 tub 66)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,49 | 740,412 | 71,122 | 100,00 |
| Total: | | 740,412 | 71,122 | 100,00 |

ESI-MS (m/z) (CC-35-1.2 tub 66)

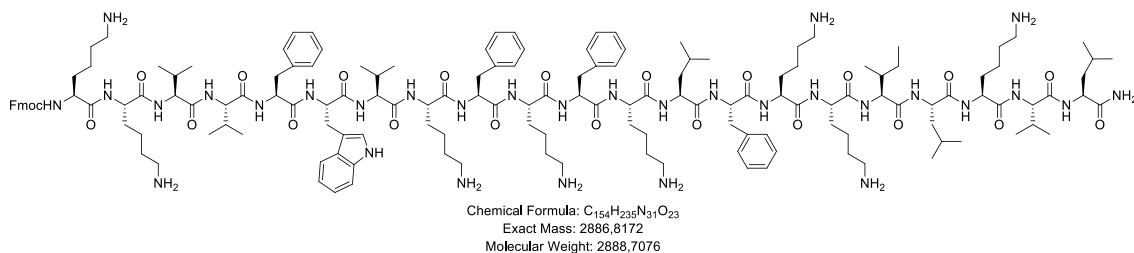
| |
|--------------------------|
| $[M+H]^+ = 2667.0$ |
| $[M+Na]^+ = 2688.9$ |
| $[M+2H]^{2+} = 1334.5$ |
| $[M+H+Na]^{2+} = 1345.5$ |
| $[M+2Na]^{2+} = 1356.0$ |

HRMS (ESI) (m/z)

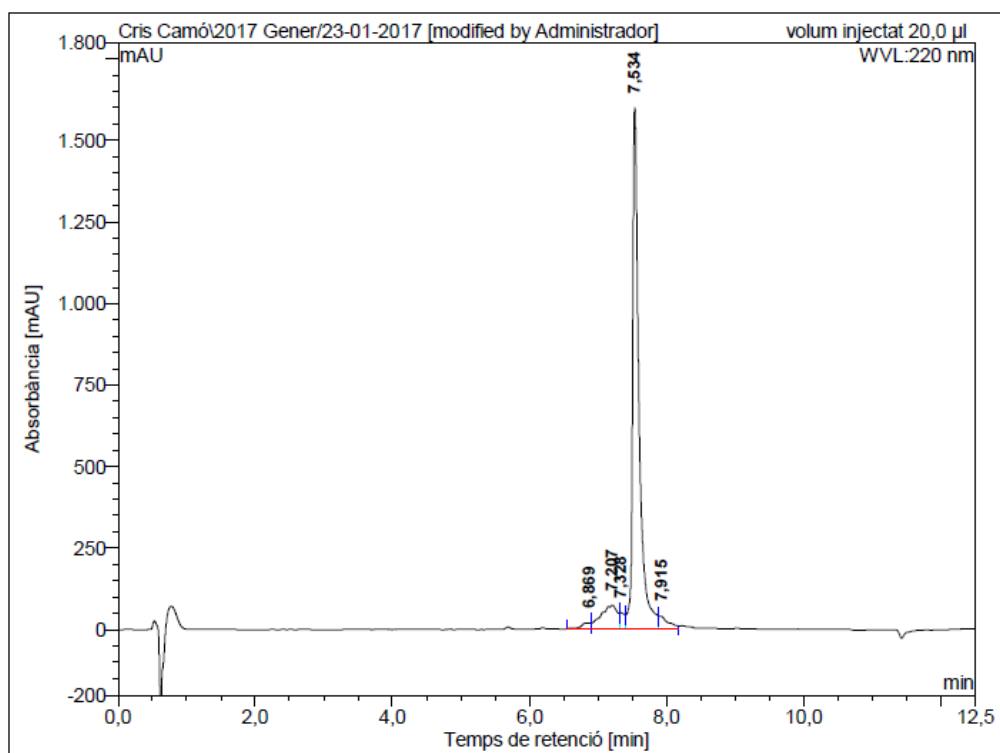


| | Molecular formula | Calculated | Found |
|------------------------|---|------------|-----------|
| [M+2H] ²⁺ | C ₁₃₉ H ₂₂₇ N ₃₁ O ₂₁ | 1333.8833 | 1333.8812 |
| [M+H+Na] ²⁺ | C ₁₃₉ H ₂₂₆ N ₃₁ O ₂₁ Na | 1344.8743 | 1344.8720 |
| [M+2Na] ²⁺ | C ₁₃₉ H ₂₂₅ N ₃₁ O ₂₁ Na ₂ | 1355.8653 | 1355.8654 |

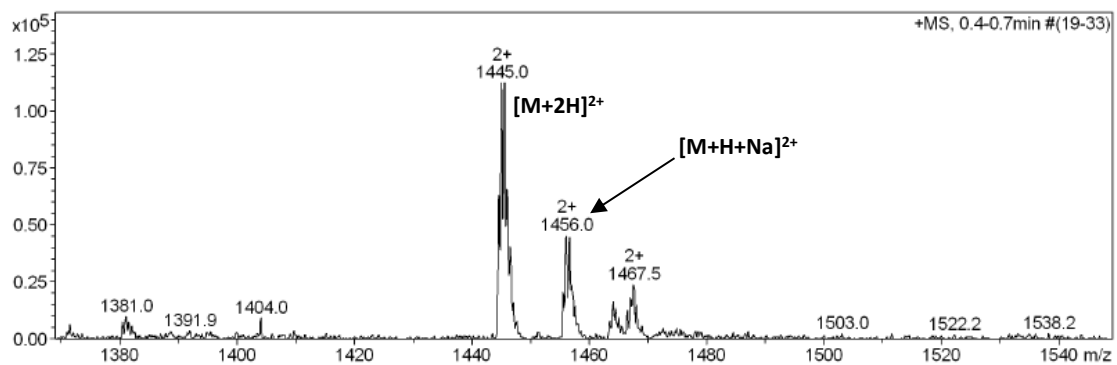
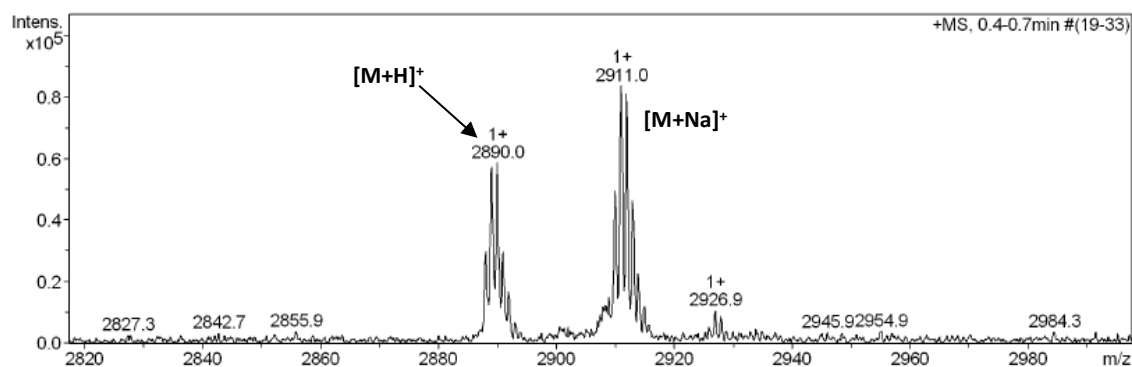
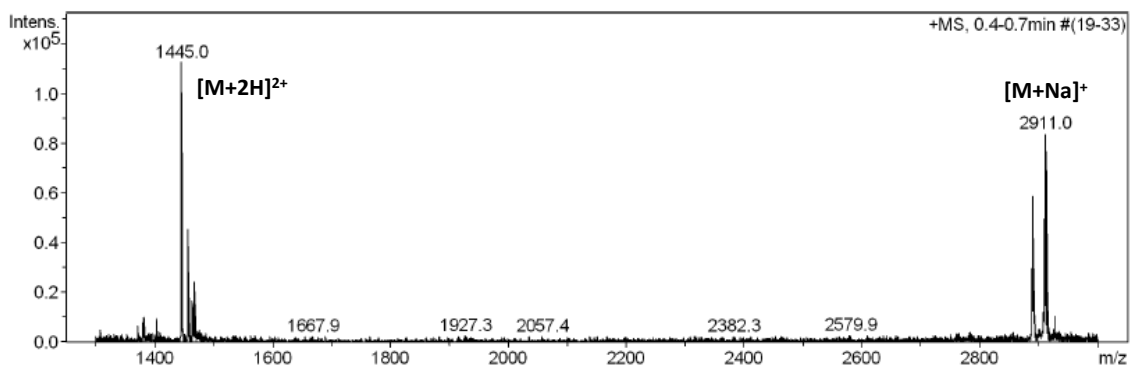
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ **CC-36**
(KSLW-BP13)



HPLC ($\lambda = 220$ nm) (CC-36-937)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,87 | 18,143 | 3,223 | 1,55 |
| 2 | 7,21 | 72,810 | 19,511 | 9,37 |
| 3 | 7,33 | 49,643 | 4,781 | 2,29 |
| 4 | 7,53 | 1597,453 | 174,720 | 83,87 |
| 5 | 7,92 | 39,552 | 6,084 | 2,92 |
| Total: | | 1777,601 | 208,318 | 100,00 |

ESI-MS (m/z) (CC-36-937)

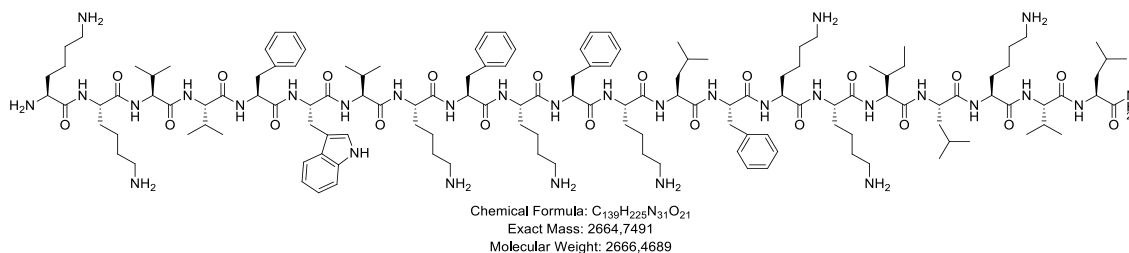
$$[M+H]^+ = 2888.0$$

$$[M+Na]^+ = 2909.0$$

$$[M+2H]^{2+} = 1444.5$$

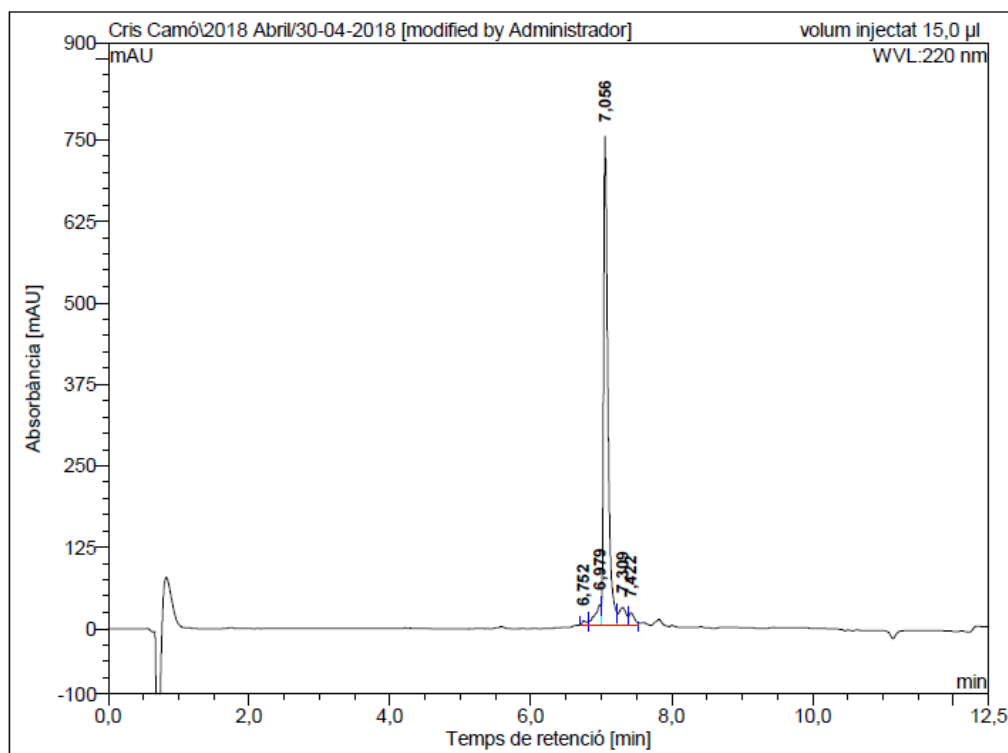
$$[M+H+Na]^{2+} = 1455.0$$

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ **CC-36 (KSLW-BP13)**



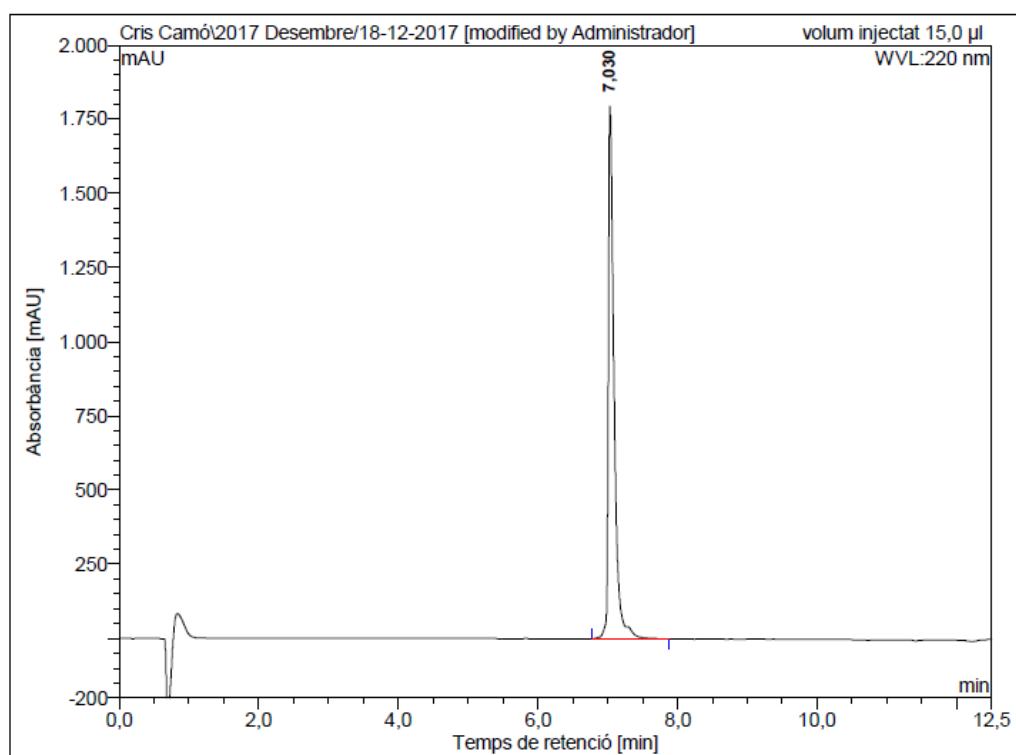
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-36 impur)

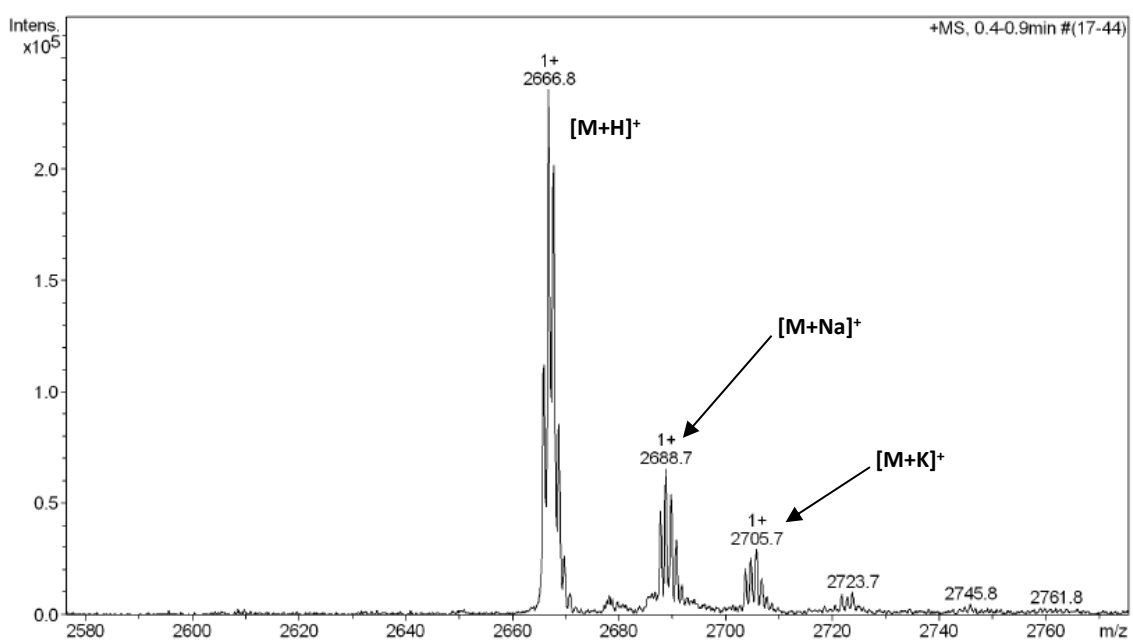
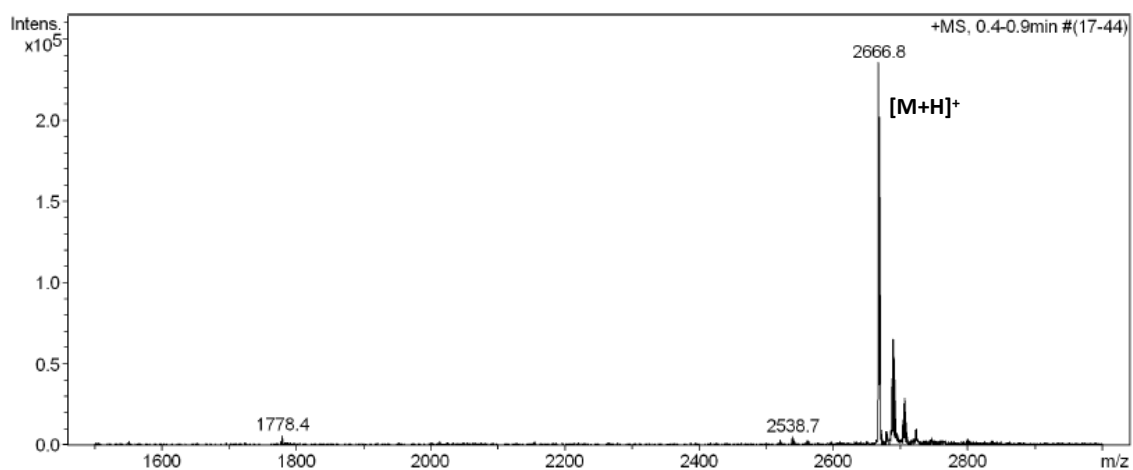


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,75 | 6,970 | 0,570 | 0,93 |
| 2 | 6,98 | 31,191 | 3,124 | 5,07 |
| 3 | 7,06 | 749,993 | 52,771 | 85,73 |
| 4 | 7,31 | 27,354 | 3,473 | 5,64 |
| 5 | 7,42 | 19,498 | 1,615 | 2,62 |
| Total: | | 835,006 | 61,553 | 100,00 |

PURE PRODUCT

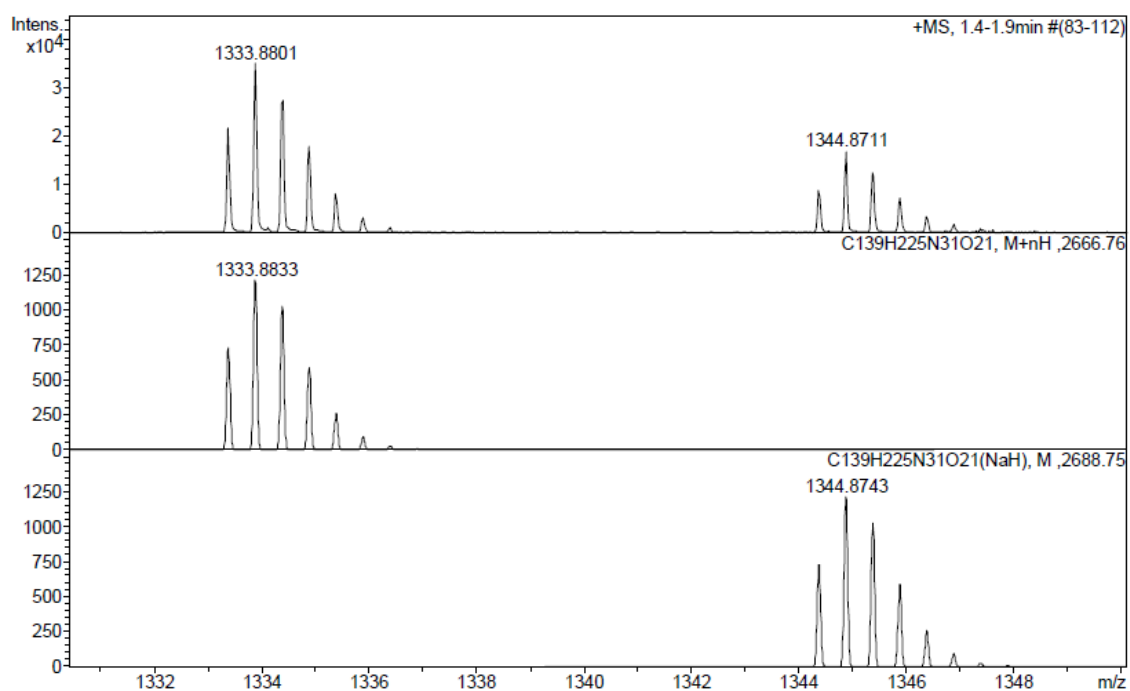
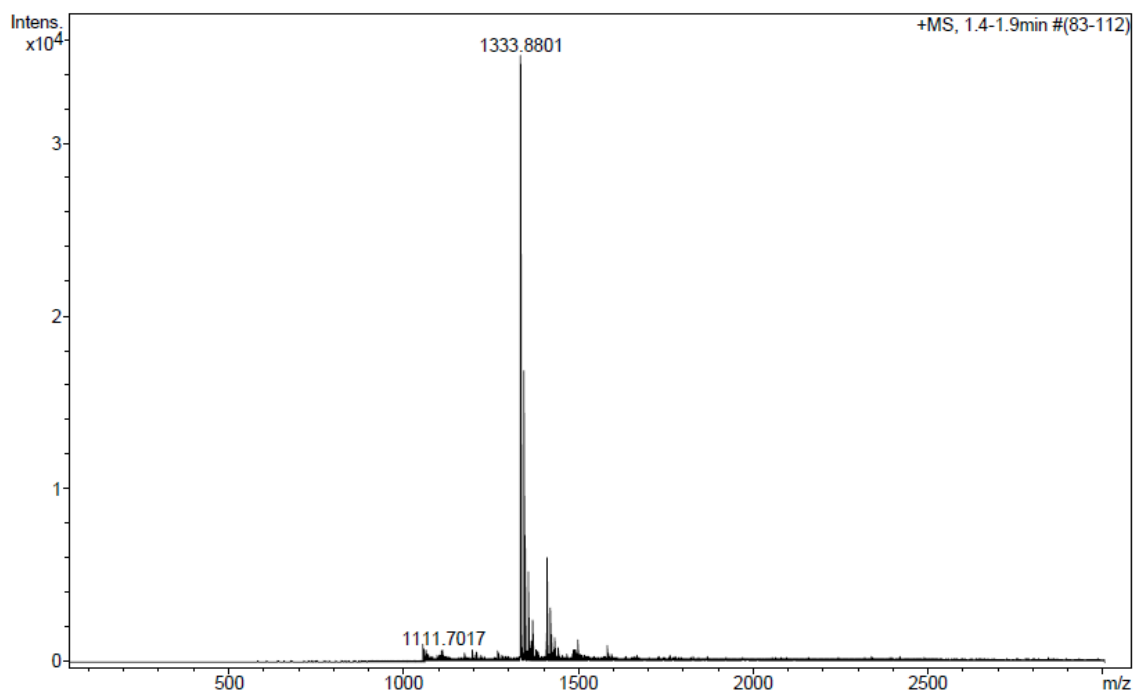
HPLC ($\lambda = 220 \text{ nm}$) (CC-36-1.1 tub 60)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,03 | 1794,460 | 173,647 | 100,00 |
| Total: | | 1794,460 | 173,647 | 100,00 |

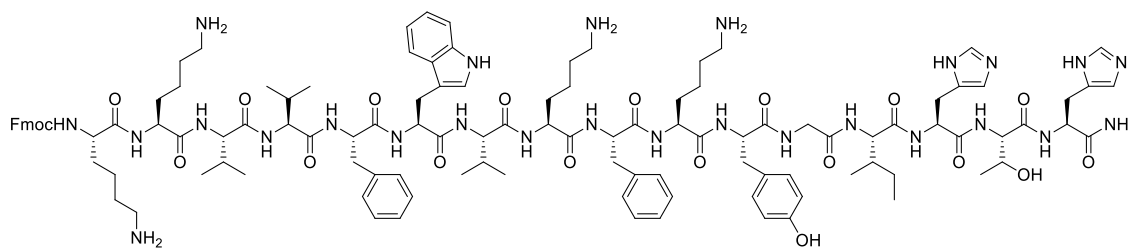
ESI-MS (m/z) (CC-36-1.1 tub 60)

| |
|------------------------------|
| [M+H] ⁺ = 2666.8 |
| [M+Na] ⁺ = 2688.7 |
| [M+K] ⁺ = 2705.7 |

HRMS (ESI) (m/z)

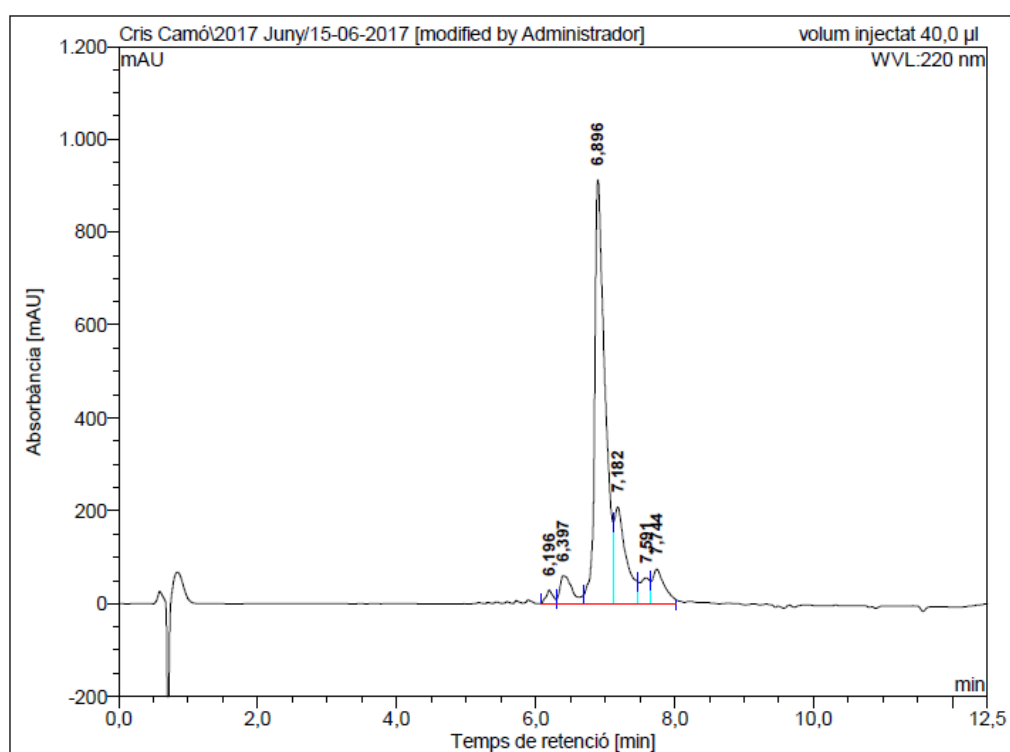


| | Molecular formula | Calculated | Found |
|-----------------|--------------------------------|------------|-----------|
| $[M+2H]^{2+}$ | $C_{139}H_{227}N_{31}O_{21}$ | 1333.8833 | 1333.8801 |
| $[M+H+Na]^{2+}$ | $C_{139}H_{226}N_{31}O_{21}Na$ | 1344.8743 | 1344.8711 |

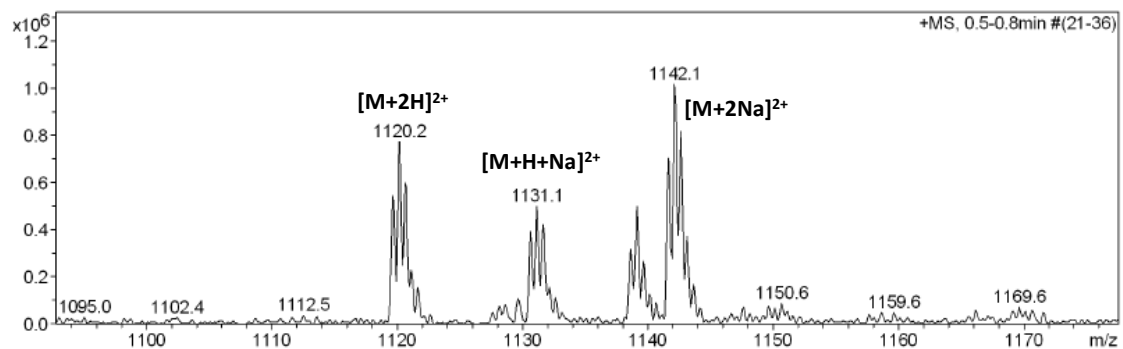
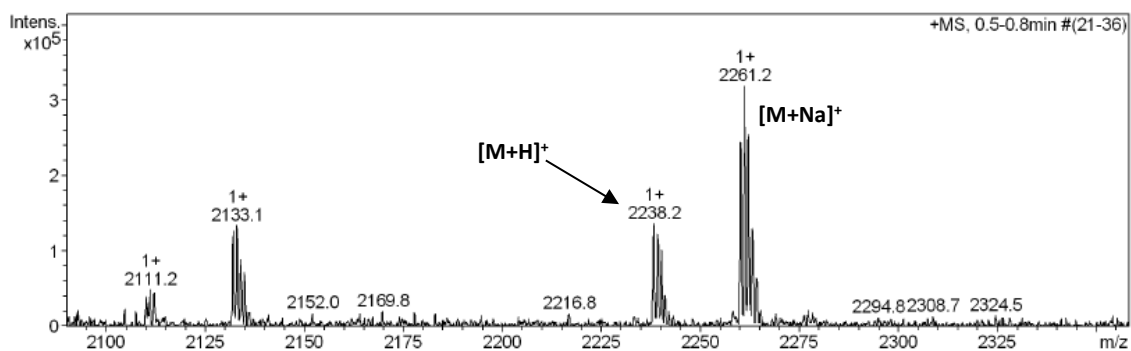
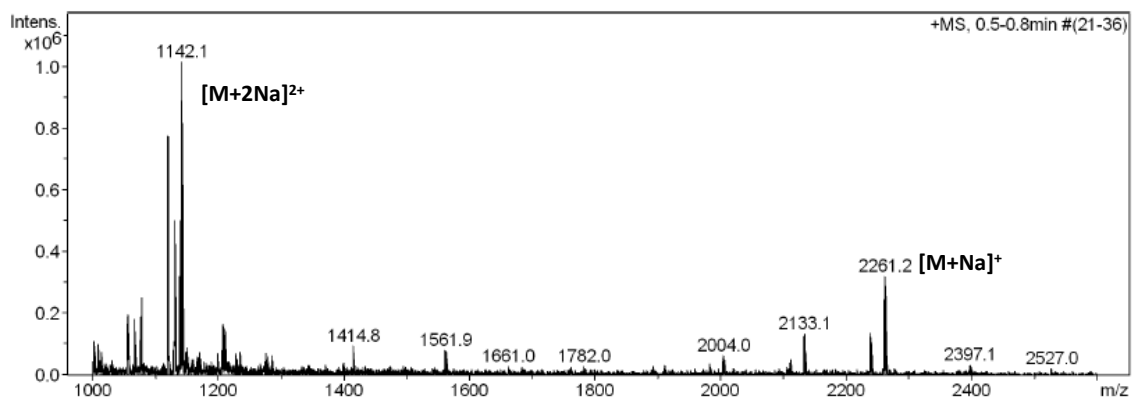
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Tyr-Gly-Ile-His-Thr-His-NH₂ **CC-37 (KSLW-Pip1)**Chemical Formula: C₁₁₆H₁₆₀N₂₆O₂₀

Exact Mass: 2237,2302

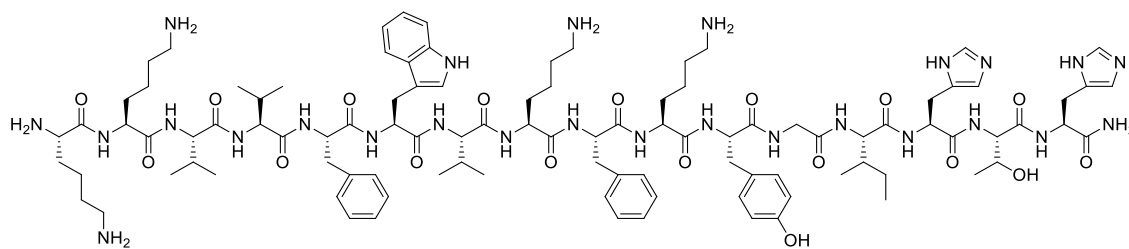
Molecular Weight: 2238,6738

HPLC (λ = 220 nm) (CC-37-1100)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|---------------|-----------------------|-----------------|-----------------|--------------------|
| 1 | 6,20 | 29,494 | 3,359 | 1,40 |
| 2 | 6,40 | 60,018 | 12,711 | 5,31 |
| 3 | 6,90 | 912,350 | 155,560 | 65,04 |
| 4 | 7,18 | 207,967 | 42,748 | 17,87 |
| 5 | 7,59 | 55,255 | 9,287 | 3,88 |
| 6 | 7,74 | 73,945 | 15,502 | 6,48 |
| Total: | | 1339,028 | 239,167 | 100,00 |

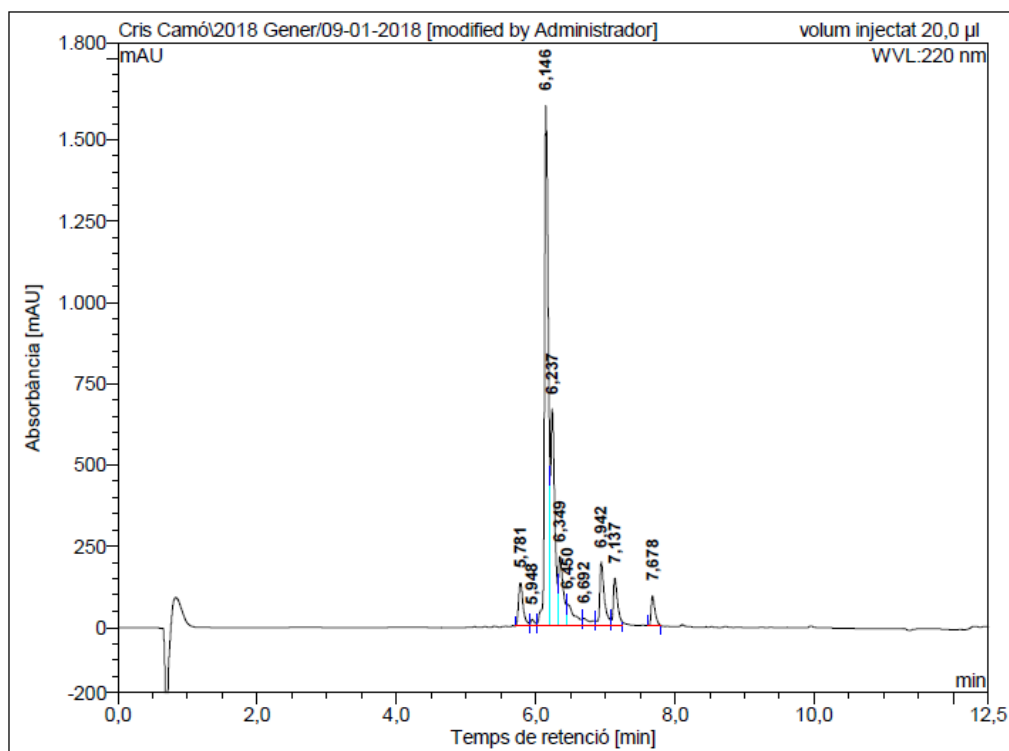
ESI-MS (m/z) (CC-37-1100)

| |
|--------------------------|
| $[M+H]^+ = 2238.2$ |
| $[M+Na]^+ = 2260.2$ |
| $[M+2H]^{2+} = 1120.2$ |
| $[M+H+Na]^{2+} = 1130.1$ |
| $[M+2Na]^{2+} = 1141.5$ |

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Tyr-Gly-Ile-His-Thr-His-NH₂ **CC-37 (KSLW-Pip1)**Chemical Formula: C₁₀₁H₁₅₀N₂₆O₁₈

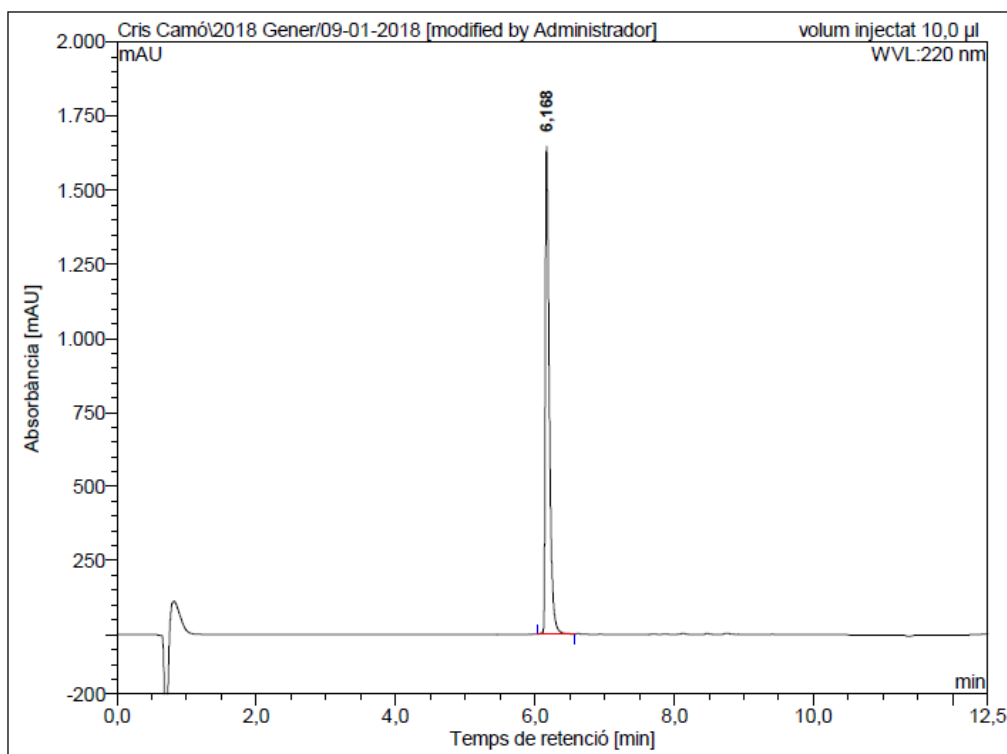
Exact Mass: 2015,1621

Molecular Weight: 2016,4351

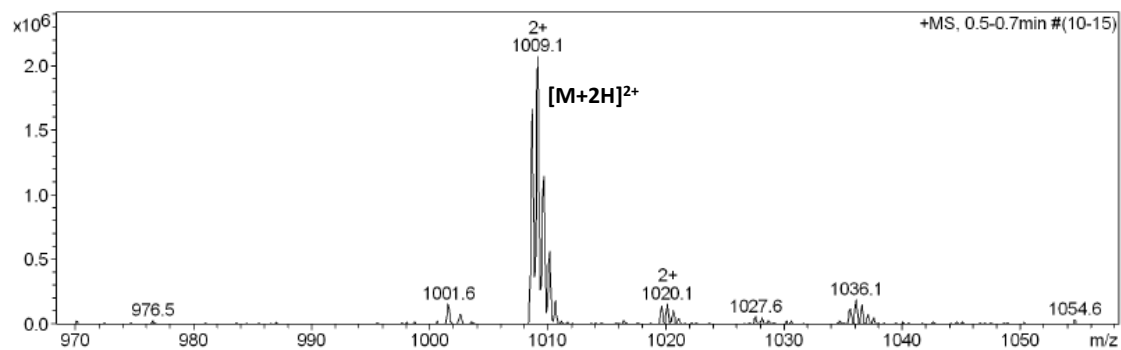
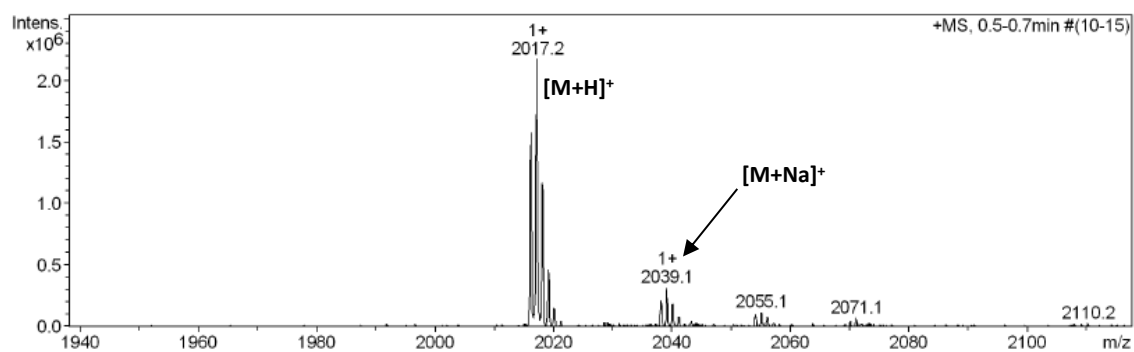
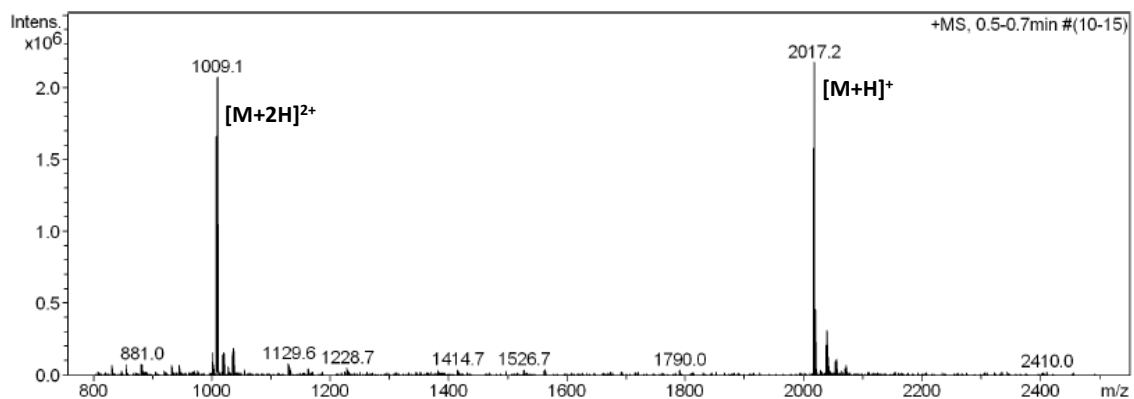
IMPURE PRODUCT**HPLC (λ = 220 nm) (CC-37-1.1 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,78 | 132,960 | 10,128 | 4,63 |
| 2 | 5,95 | 20,186 | 1,428 | 0,65 |
| 3 | 6,15 | 1600,068 | 102,079 | 46,66 |
| 4 | 6,24 | 668,186 | 43,234 | 19,76 |
| 5 | 6,35 | 213,471 | 17,944 | 8,20 |
| 6 | 6,45 | 66,568 | 8,211 | 3,75 |
| 7 | 6,69 | 24,091 | 3,307 | 1,51 |
| 8 | 6,94 | 196,844 | 15,763 | 7,21 |
| 9 | 7,14 | 146,961 | 10,762 | 4,92 |
| 10 | 7,68 | 91,181 | 5,904 | 2,70 |
| Total: | | 3160,515 | 218,758 | 100,00 |

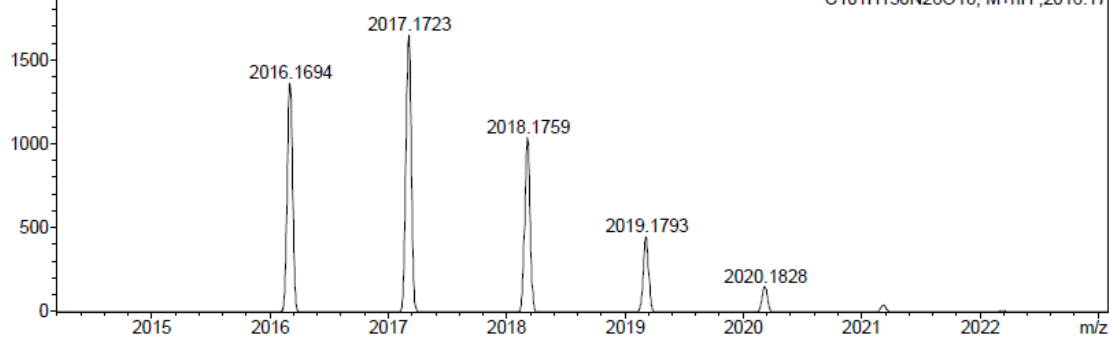
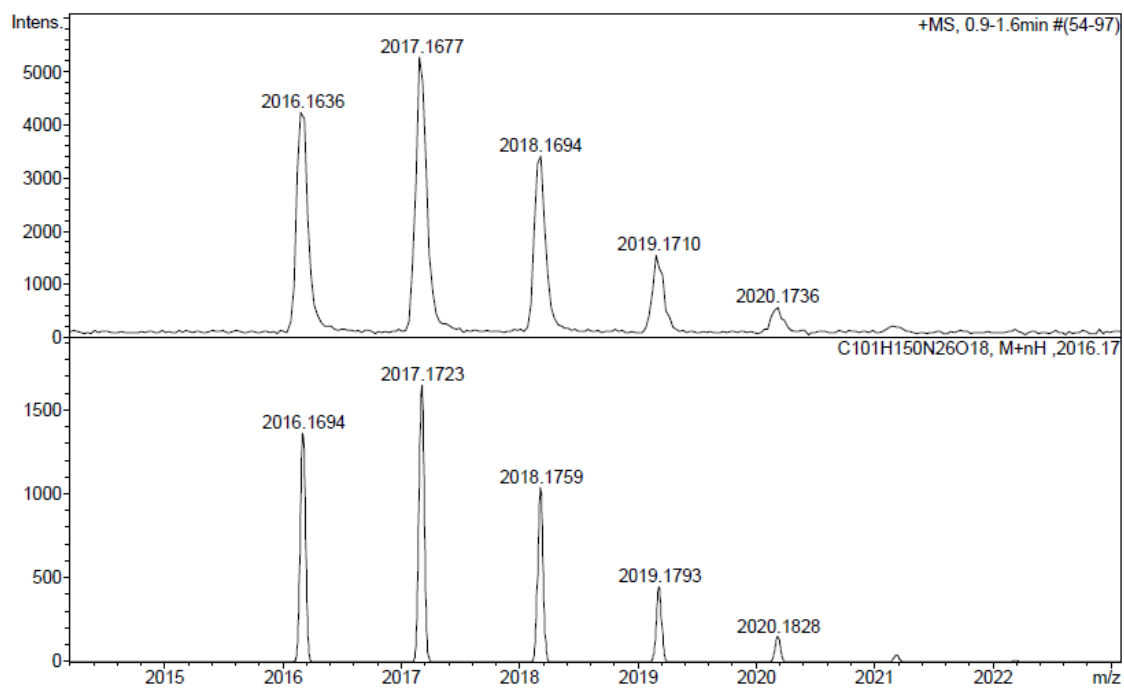
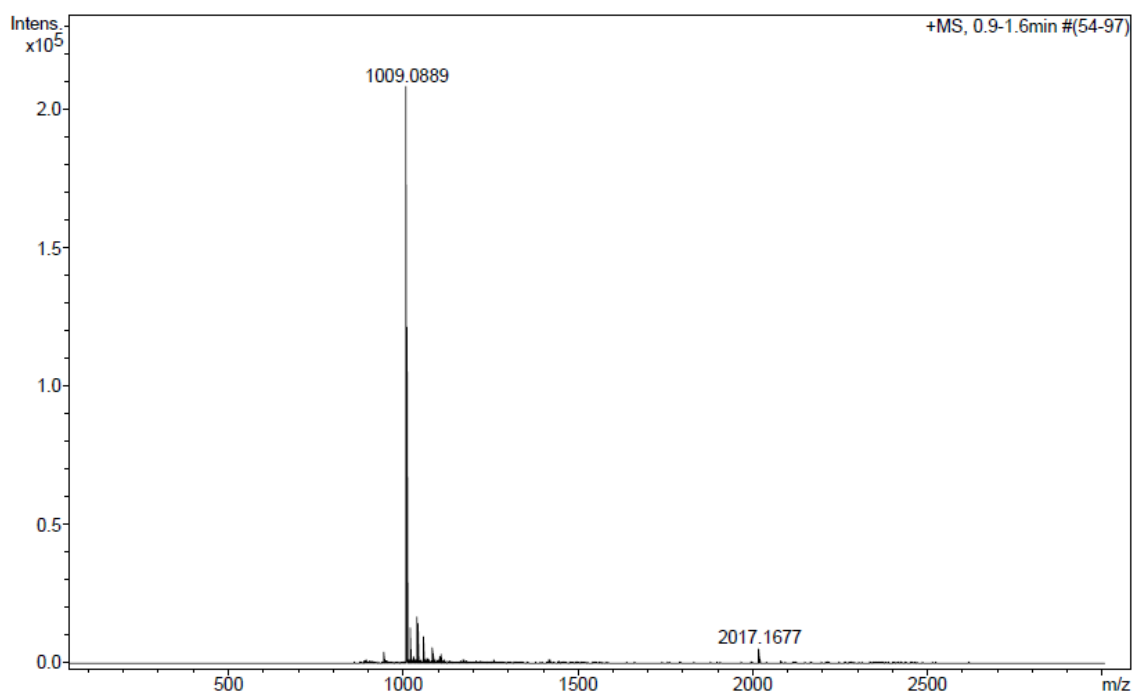
PURE PRODUCT

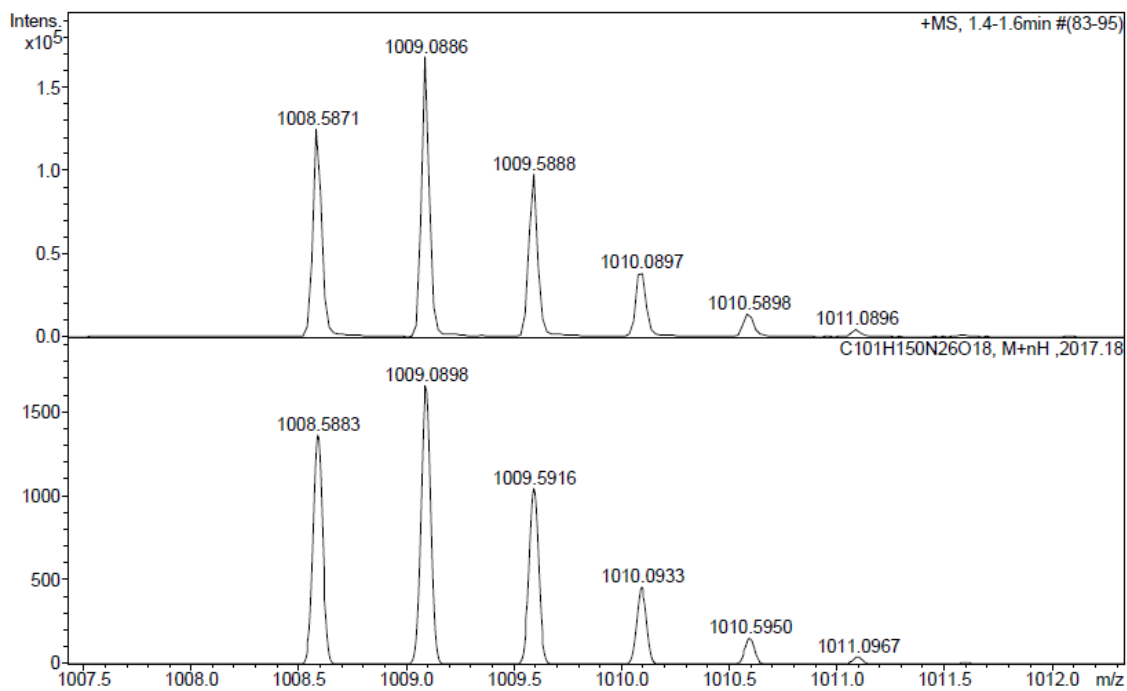
HPLC ($\lambda = 220 \text{ nm}$) (CC-37-1.1 tub 40)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,17 | 1646,510 | 108,977 | 100,00 |
| Total: | | 1646,510 | 108,977 | 100,00 |

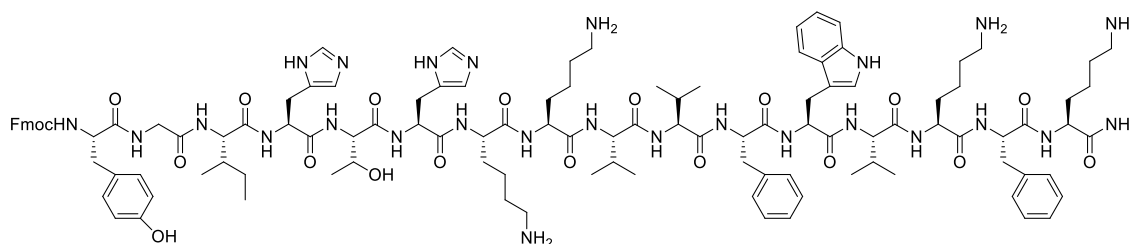
ESI-MS (m/z) (CC-37-1.1 tub 40)

| |
|--------------------------|
| $[M+H]^+ = 2017.2$ |
| $[M+Na]^+ = 2039.1$ |
| $[M+K]^+ = 2055.1$ |
| $[M+2H]^{2+} = 1009.1$ |
| $[M+H+Na]^{2+} = 1020.1$ |

HRMS (ESI) (m/z)



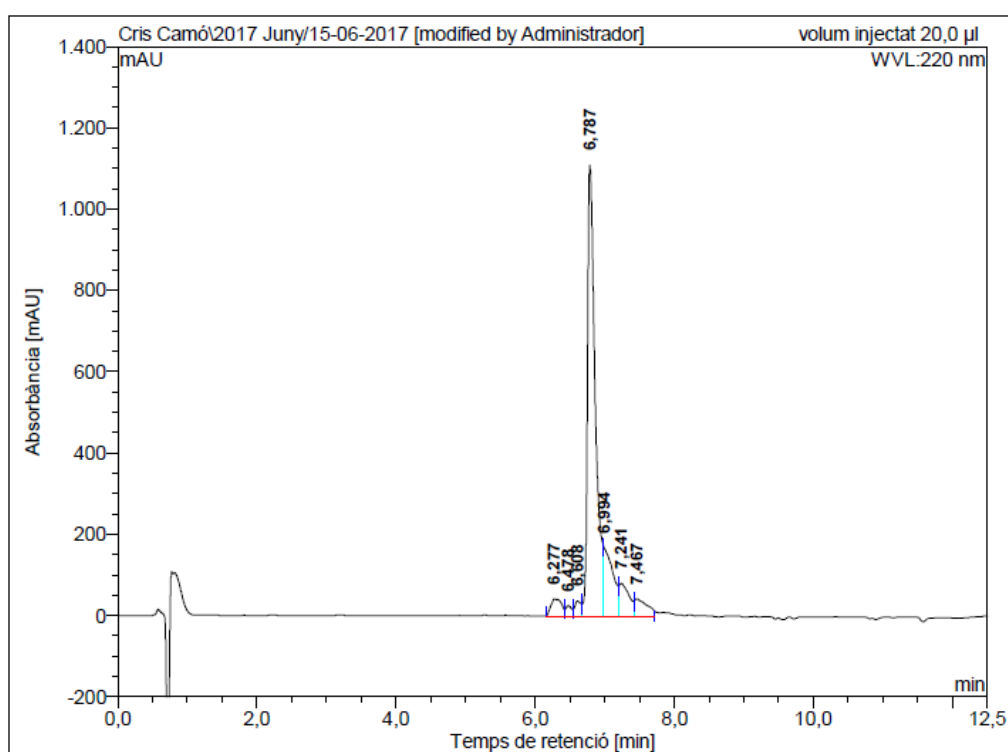
| | Molecular formula | Calculated | Found |
|----------------------|---|------------|-----------|
| [M+H] ⁺ | C ₁₀₁ H ₁₅₁ N ₂₆ O ₁₈ | 2016.1694 | 2016.1636 |
| [M+2H] ²⁺ | C ₁₀₁ H ₁₅₂ N ₂₆ O ₁₈ | 1008.5883 | 1008.5871 |

Fmoc-Tyr-Gly-Ile-His-Thr-His-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ CC-38 (Pip1-KSLW)Chemical Formula: C₁₁₆H₁₆₀N₂₆O₂₀

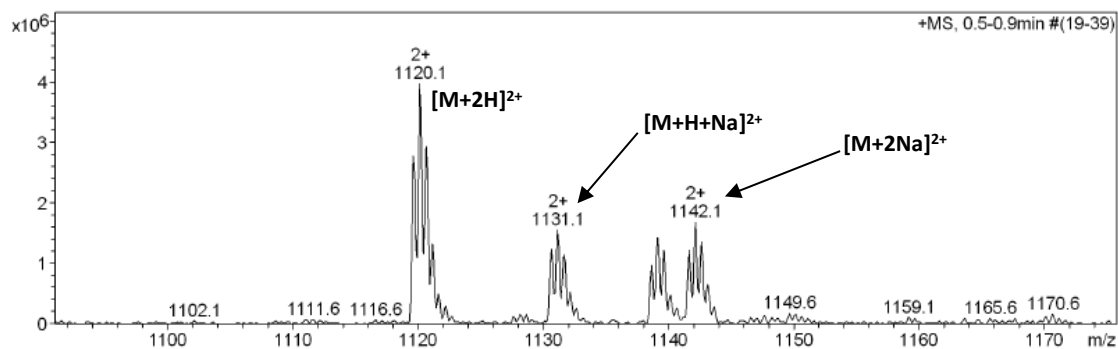
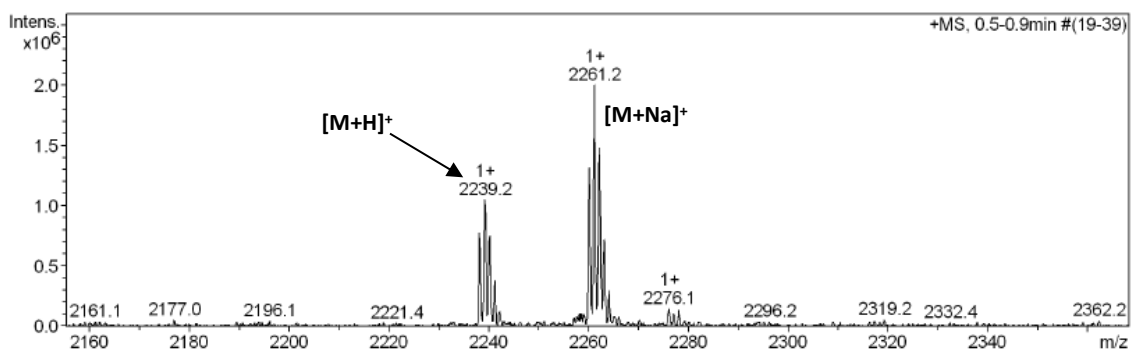
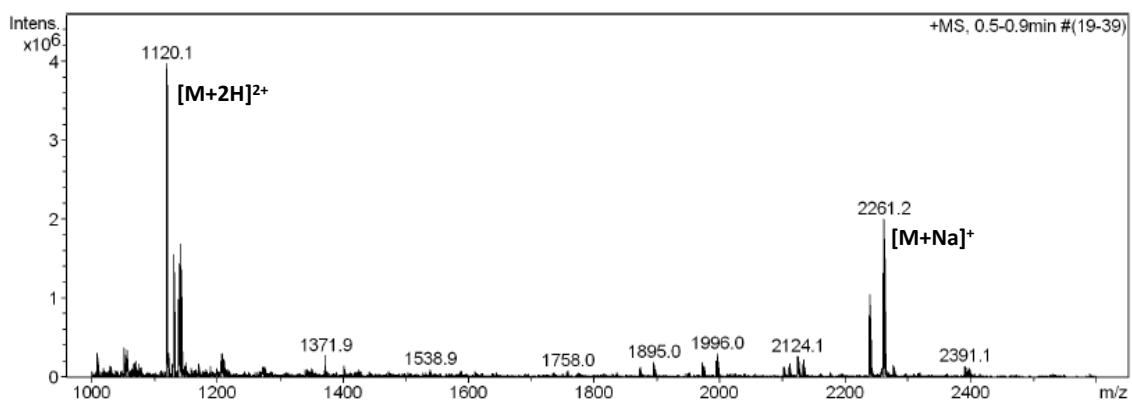
Exact Mass: 2237,2302

Molecular Weight: 2238,6738

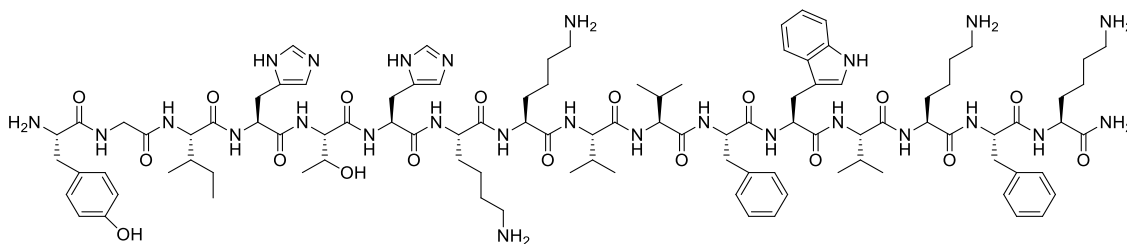
HPLC (λ = 220 nm) (CC-38-1100)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,28 | 42,135 | 7,439 | 3,59 |
| 2 | 6,48 | 25,155 | 2,531 | 1,22 |
| 3 | 6,61 | 37,448 | 3,896 | 1,88 |
| 4 | 6,79 | 1109,257 | 145,416 | 70,22 |
| 5 | 6,99 | 167,666 | 25,468 | 12,30 |
| 6 | 7,24 | 80,722 | 13,263 | 6,41 |
| 7 | 7,47 | 42,413 | 9,060 | 4,38 |
| Total: | | 1504,796 | 207,073 | 100,00 |

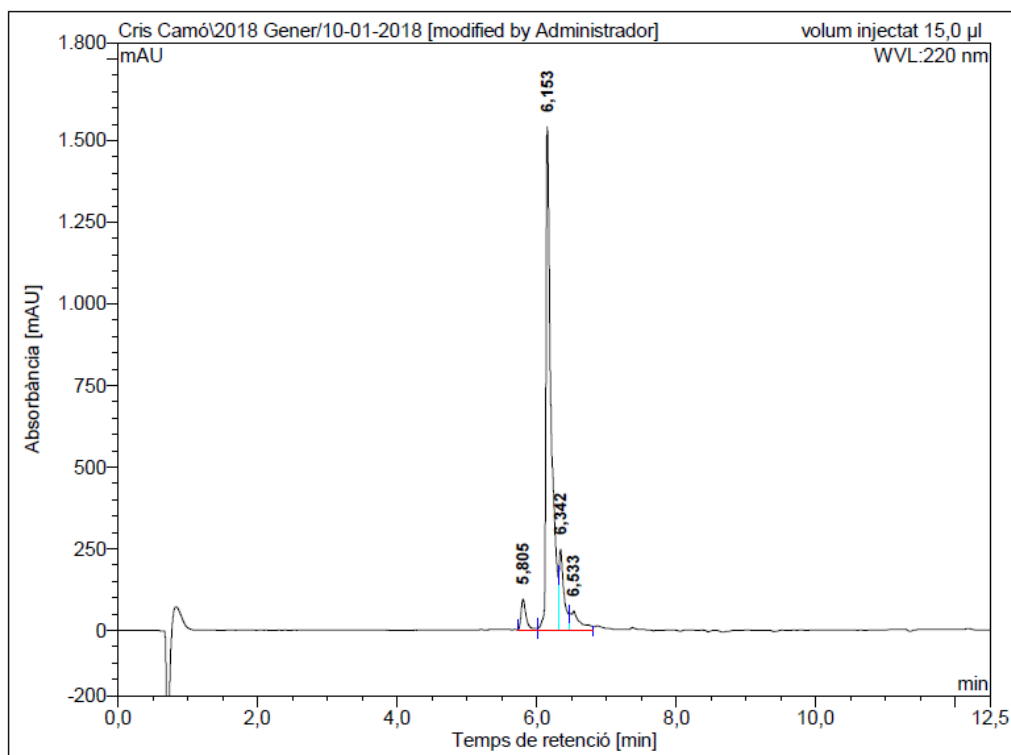
ESI-MS (m/z) (CC-38-1100)

| |
|--------------------------|
| $[M+H]^+ = 2238.2$ |
| $[M+Na]^+ = 2260.2$ |
| $[M+2H]^{2+} = 1120.1$ |
| $[M+H+Na]^{2+} = 1130.1$ |
| $[M+2Na]^{2+} = 1141.1$ |

Tyr-Gly-Ile-His-Thr-His-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-38 (Pip1-KSLW)**Chemical Formula: C₁₀₁H₁₅₀N₂₆O₁₈

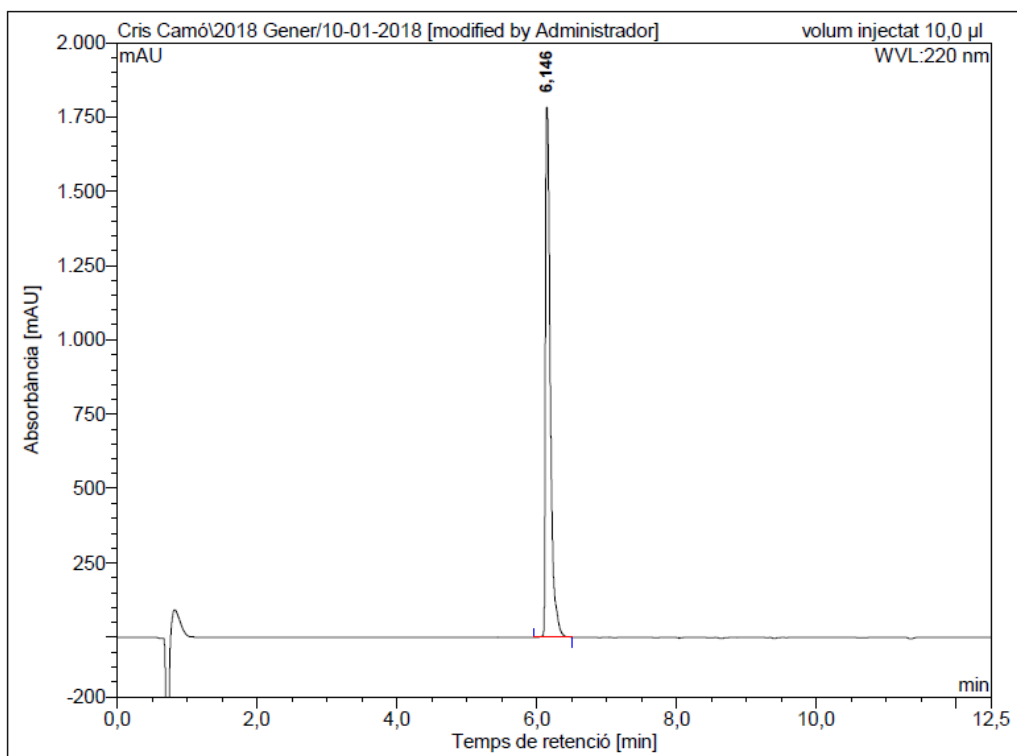
Exact Mass: 2015,1621

Molecular Weight: 2016,4351

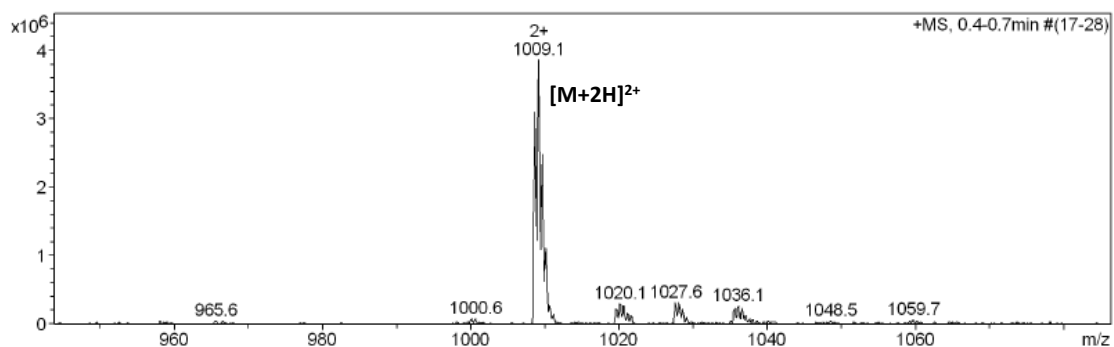
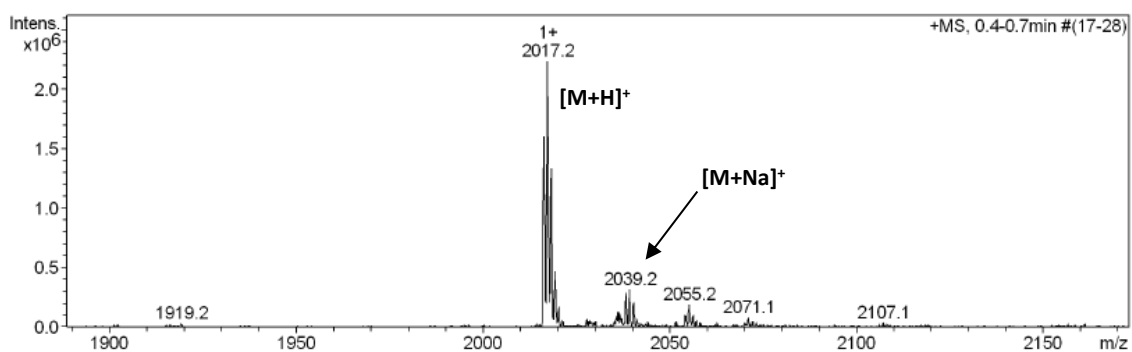
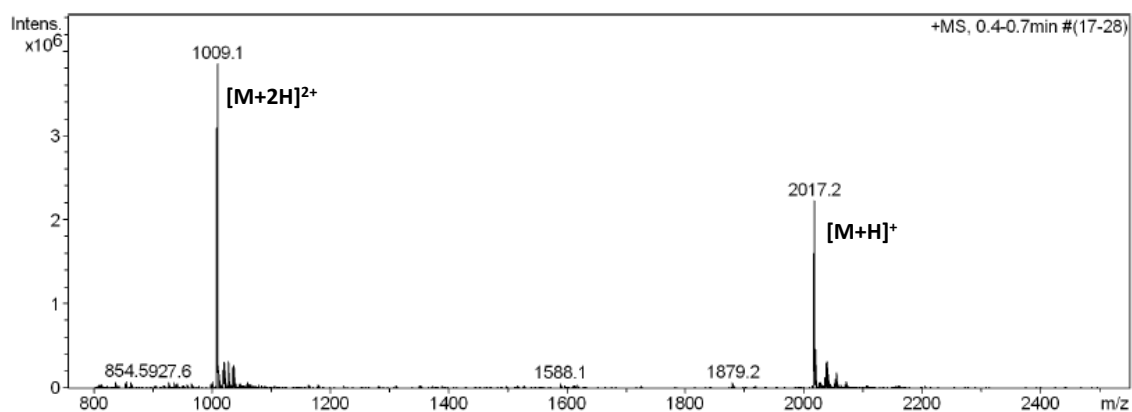
IMPURE PRODUCT**HPLC (λ = 220 nm) (CC-38-1.1 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,80 | 93,747 | 7,716 | 4,60 |
| 2 | 6,15 | 1539,899 | 131,352 | 78,27 |
| 3 | 6,34 | 245,350 | 19,563 | 11,66 |
| 4 | 6,53 | 57,425 | 9,193 | 5,48 |
| Total: | | 1936,421 | 167,824 | 100,00 |

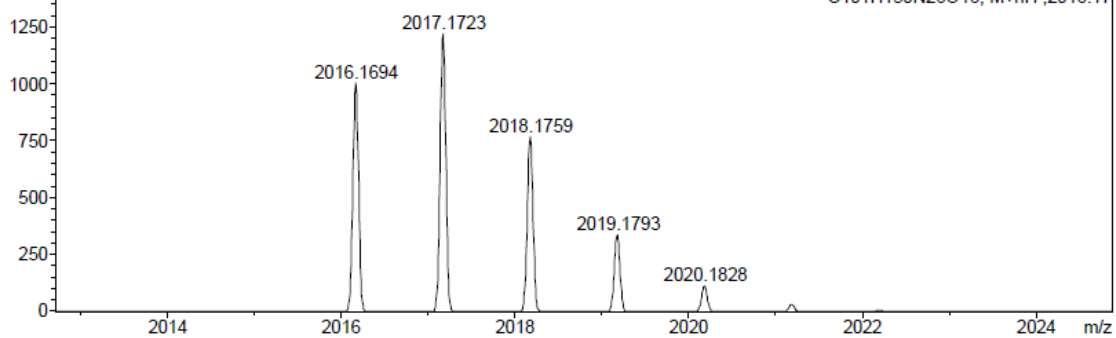
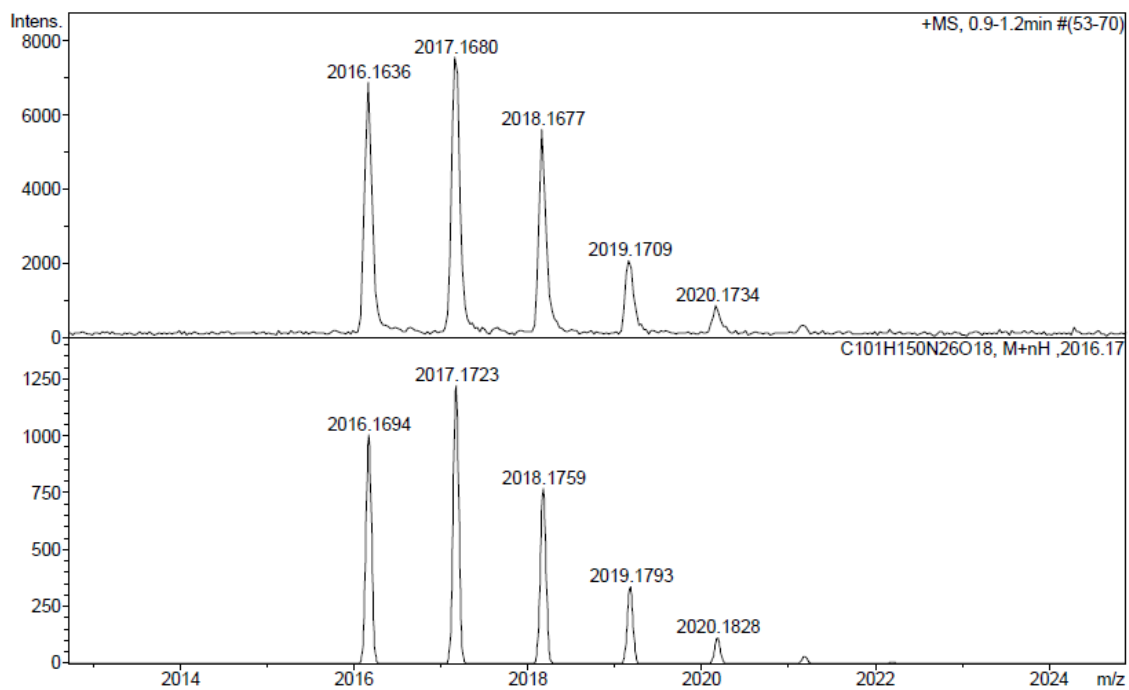
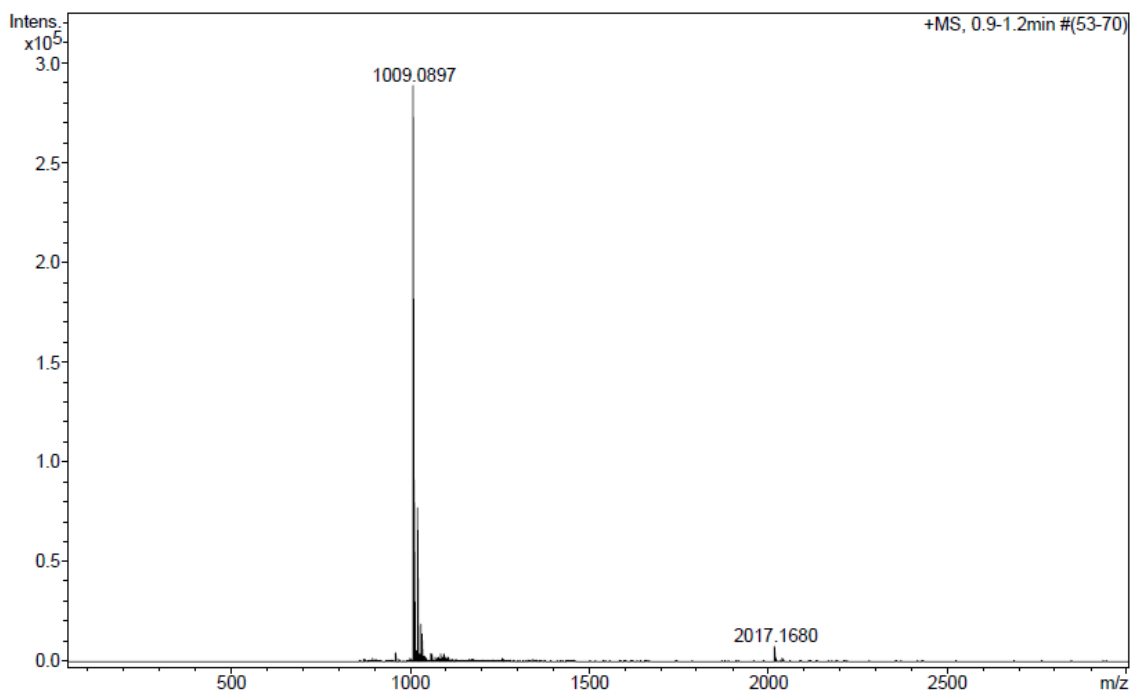
PURE PRODUCT

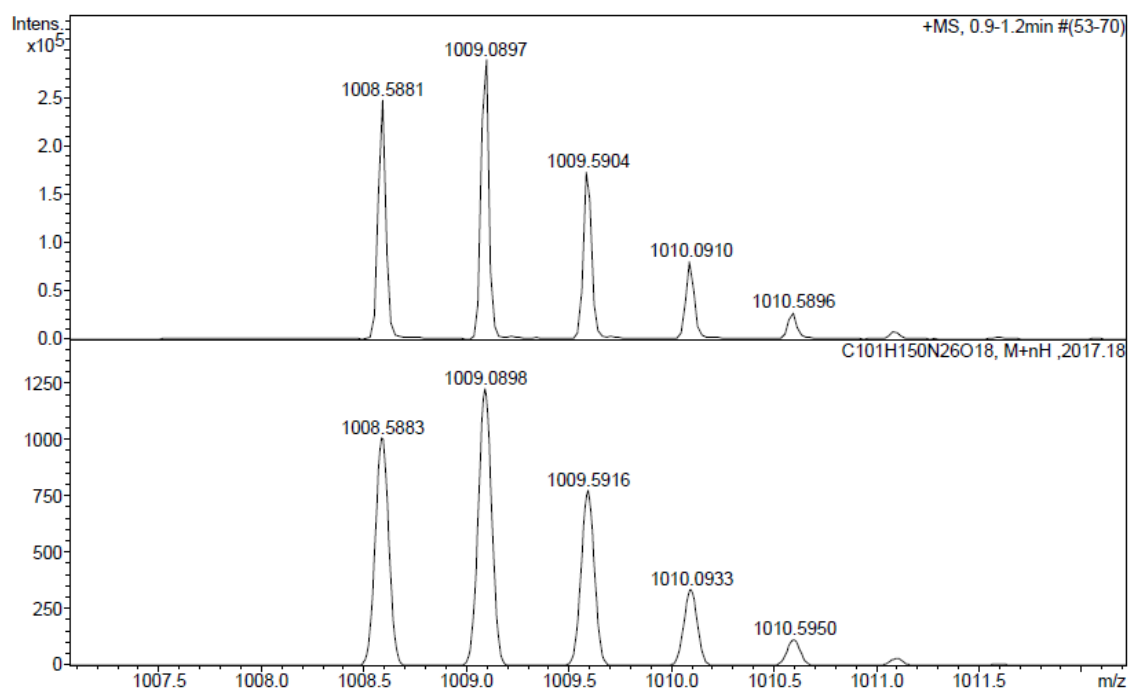
HPLC ($\lambda = 220 \text{ nm}$) (CC-38-1.1 tub 43)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,15 | 1783,581 | 144,389 | 100,00 |
| Total: | | 1783,581 | 144,389 | 100,00 |

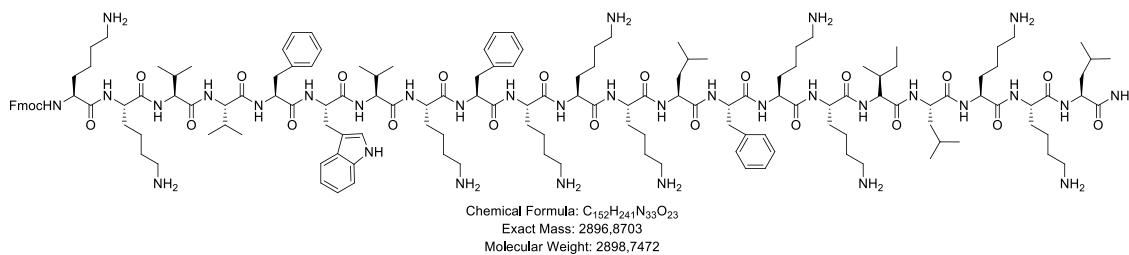
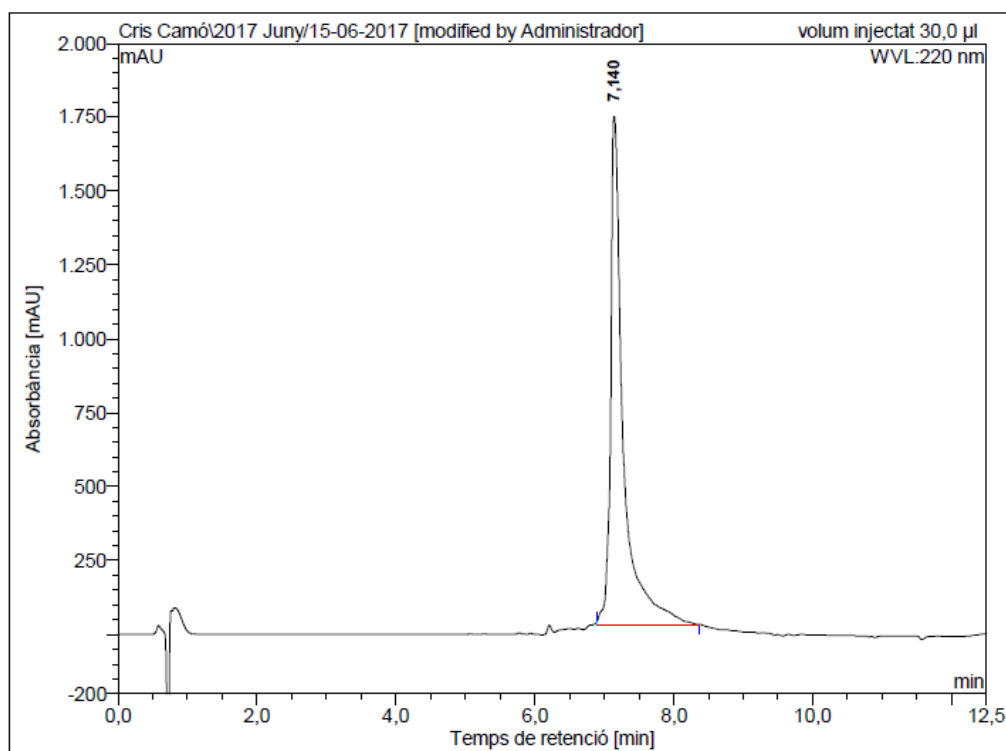
ESI-MS (m/z) (CC-38-1.1 tub 43)

| |
|------------------------|
| $[M+H]^+ = 2017.2$ |
| $[M+Na]^+ = 2039.2$ |
| $[M+2H]^{2+} = 1009.1$ |

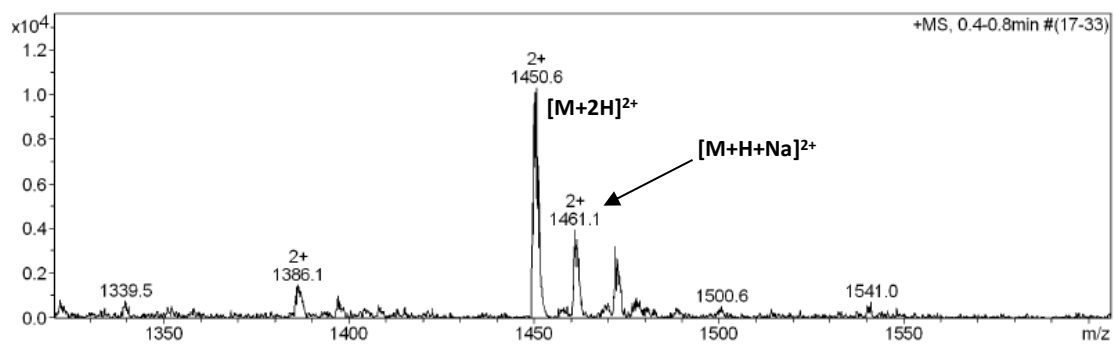
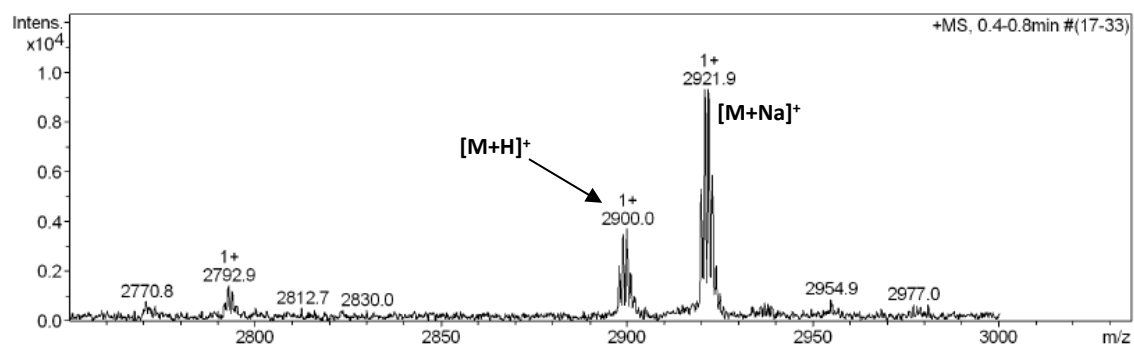
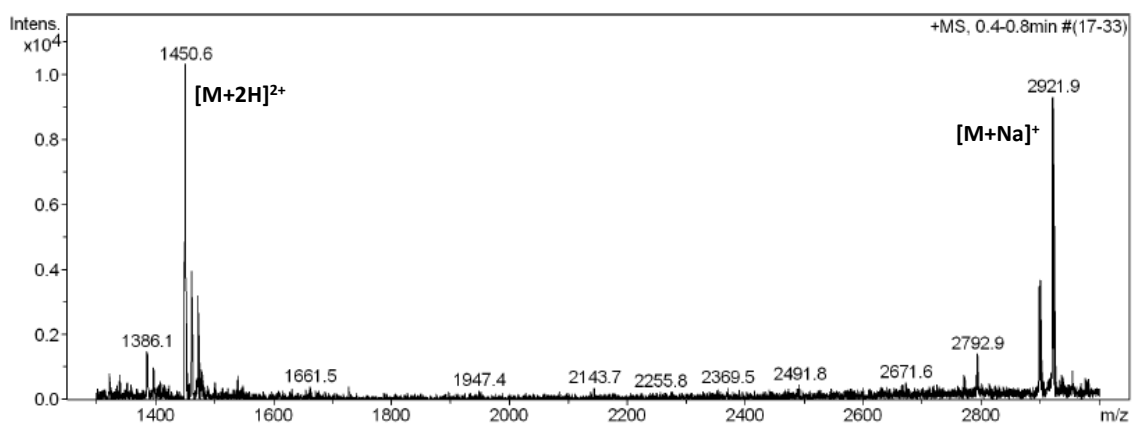
HRMS (ESI) (m/z)



| | Molecular formula | Calculated | Found |
|----------------------------|---|-------------------|--------------|
| [M+H]⁺ | C ₁₀₁ H ₁₅₁ N ₂₆ O ₁₈ | 2016.1694 | 2016.1636 |
| [M+2H]²⁺ | C ₁₀₁ H ₁₅₂ N ₂₆ O ₁₈ | 1008.5883 | 1008.5881 |

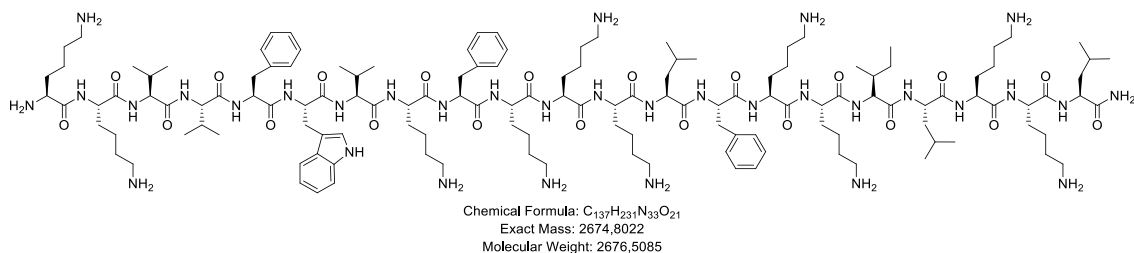
Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂ **CC-39****(KSLW-BP16)****HPLC (λ = 220 nm) (CC-39-1100)**

| No. | Tempes retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|------------------------|---------------|-----------------|--------------------|
| 1 | 7,14 | 1718,312 | 362,984 | 100,00 |
| Total: | | 1718,312 | 362,984 | 100,00 |

ESI-MS (m/z) (CC-39-1100_1)

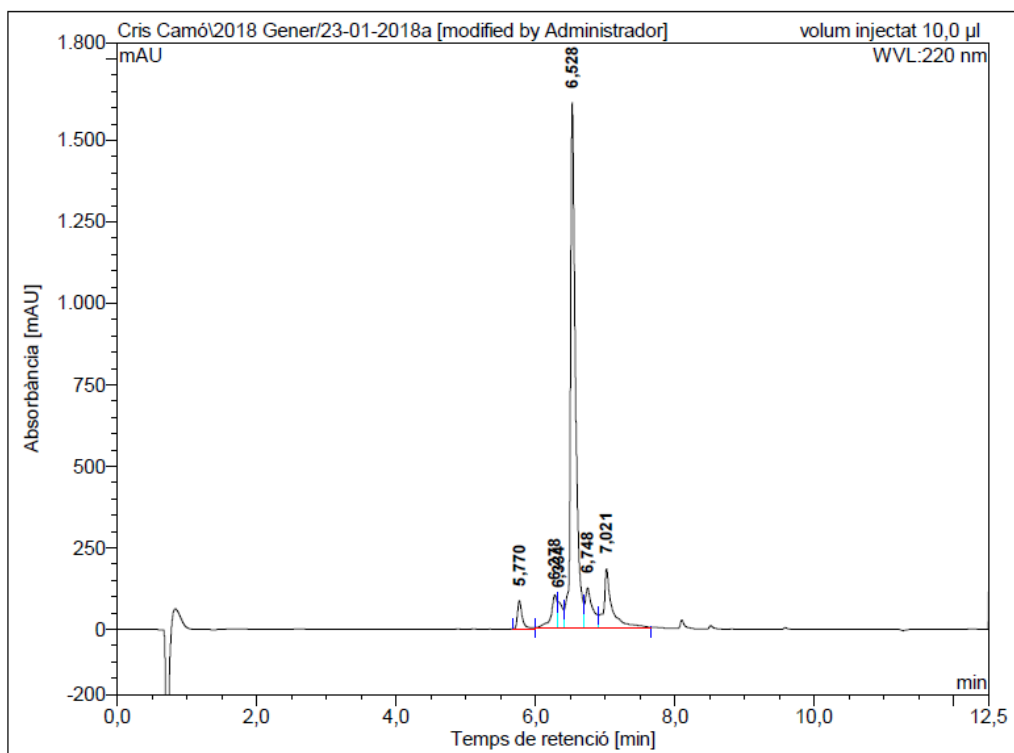
| |
|--------------------------|
| $[M+H]^+ = 2898.0$ |
| $[M+Na]^+ = 2919.9$ |
| $[M+2H]^{2+} = 1449.5$ |
| $[M+H+Na]^{2+} = 1460.1$ |

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂ **CC-39 (KSLW-BP16)**



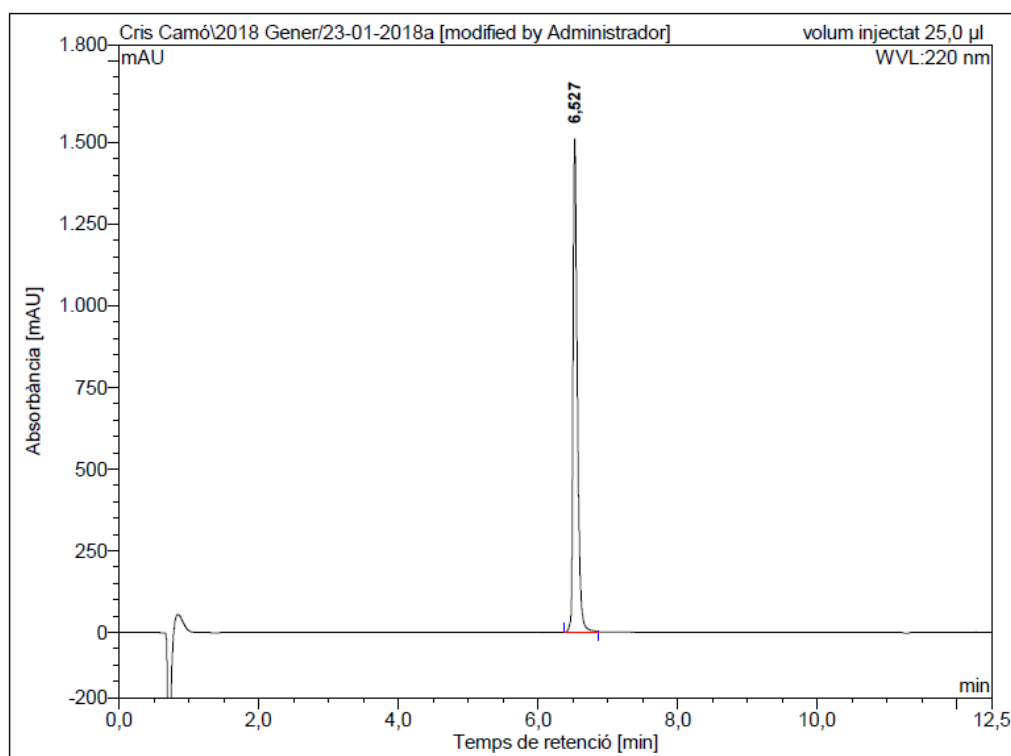
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-39-cleav 1 impur)

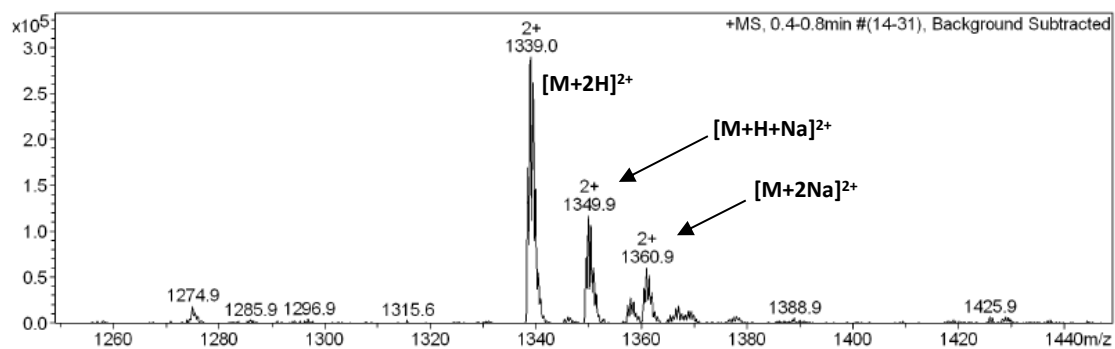
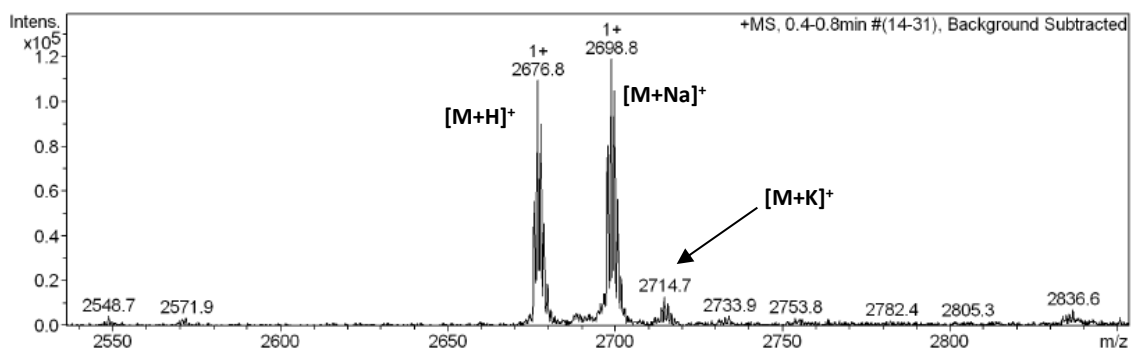
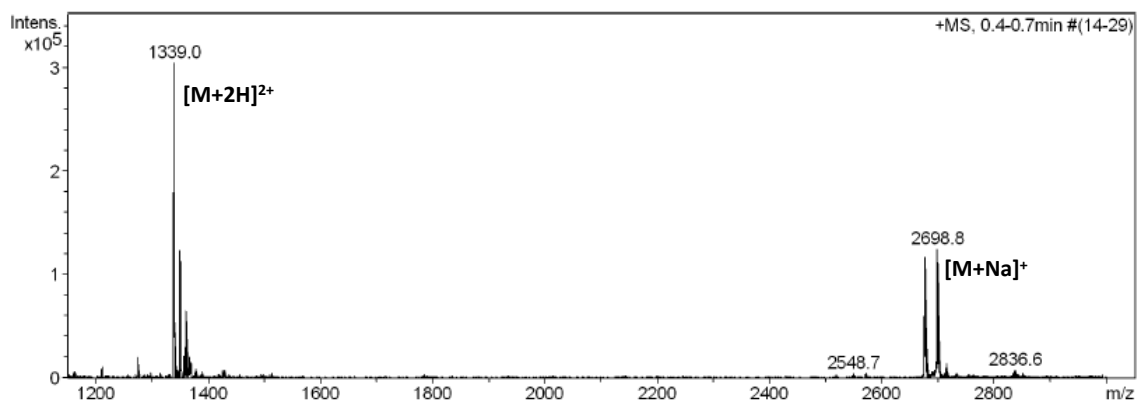


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 5,77 | 86,221 | 6,862 | 3,45 |
| 2 | 6,28 | 100,669 | 9,830 | 4,95 |
| 3 | 6,33 | 79,077 | 6,793 | 3,42 |
| 4 | 6,53 | 1610,360 | 135,205 | 68,03 |
| 5 | 6,75 | 121,974 | 15,241 | 7,67 |
| 6 | 7,02 | 181,180 | 24,816 | 12,49 |
| Total: | | 2179,481 | 198,748 | 100,00 |

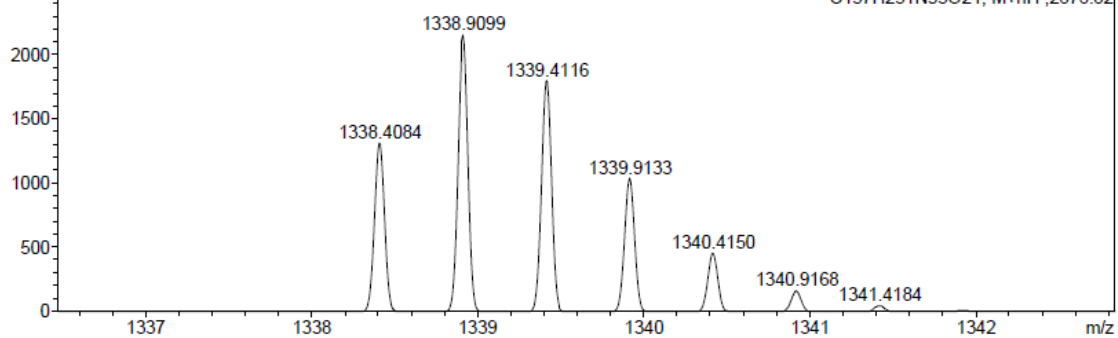
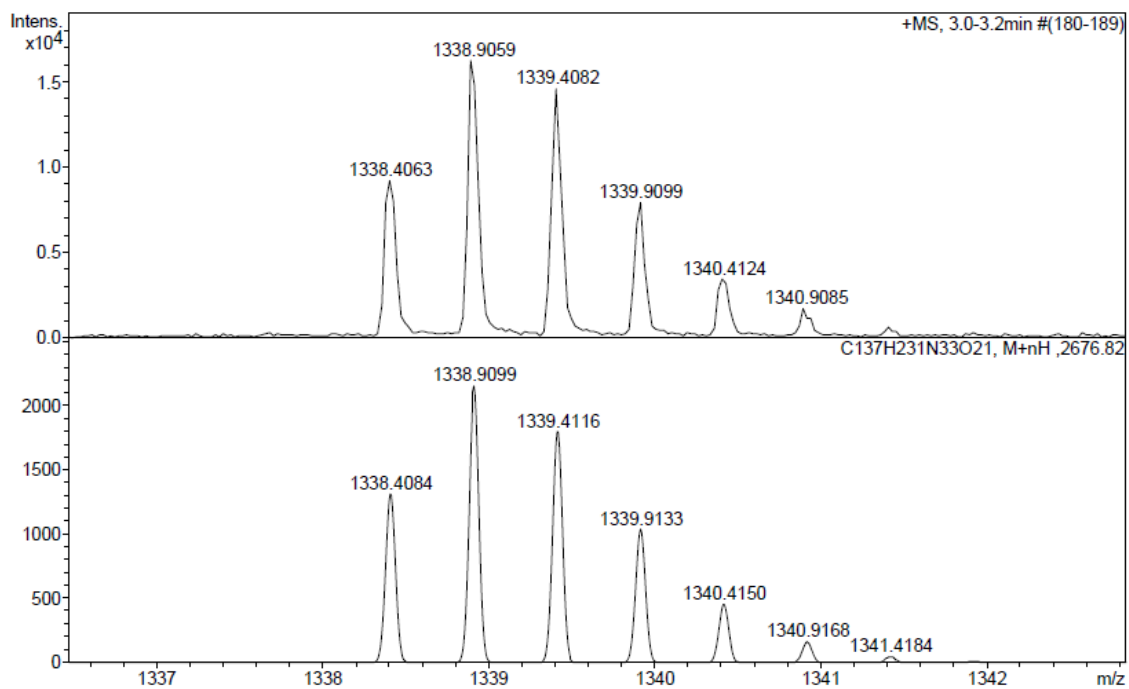
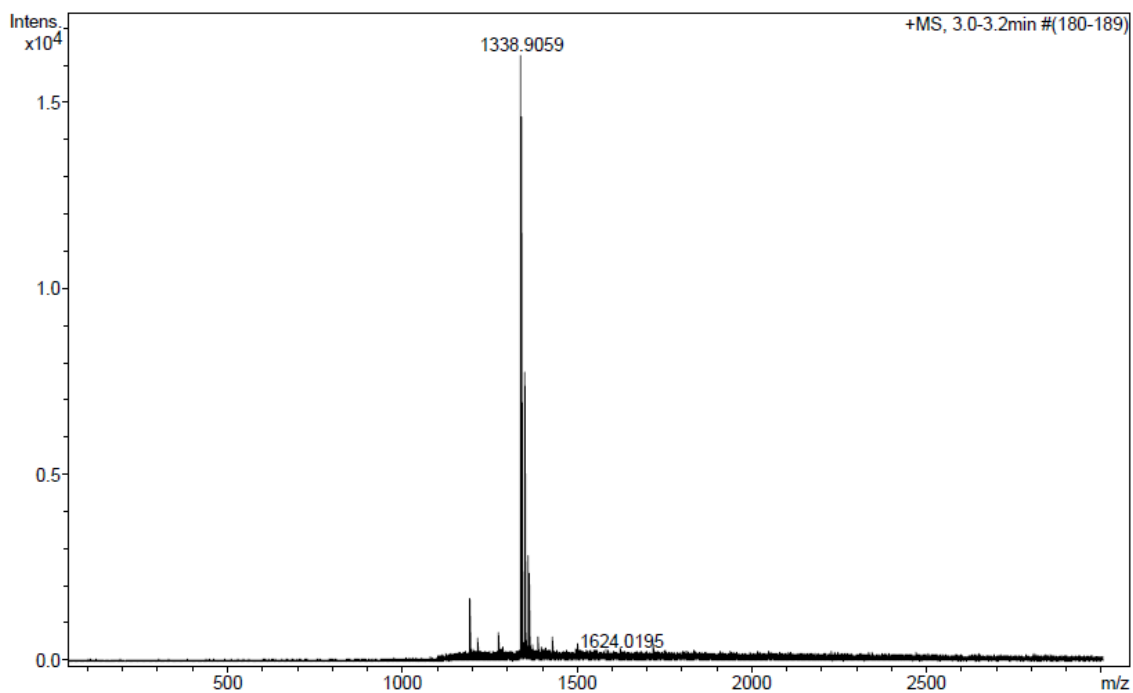
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-39-cleav1 tub 62)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,53 | 1510,654 | 108,631 | 100,00 |
| Total: | | 1510,654 | 108,631 | 100,00 |

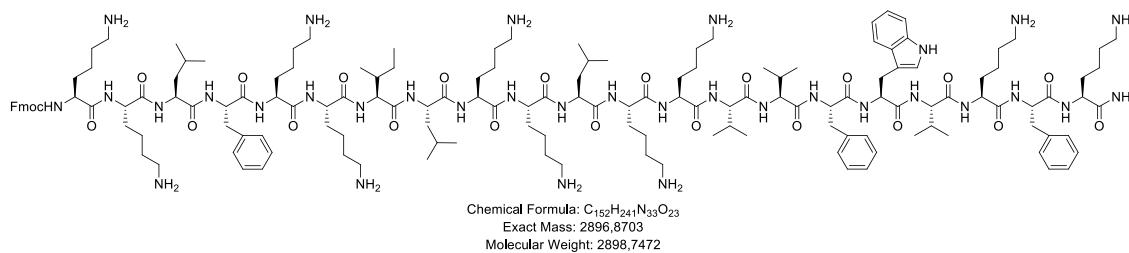
ESI-MS (m/z) (CC-39-cleav1 tub 62)

| |
|--------------------------|
| $[M+H]^+ = 2676.8$ |
| $[M+Na]^+ = 2698.8$ |
| $[M+K]^+ = 2714.7$ |
| $[M+2H]^{2+} = 1339.0$ |
| $[M+H+Na]^{2+} = 1349.9$ |
| $[M+2Na]^{2+} = 1360.9$ |

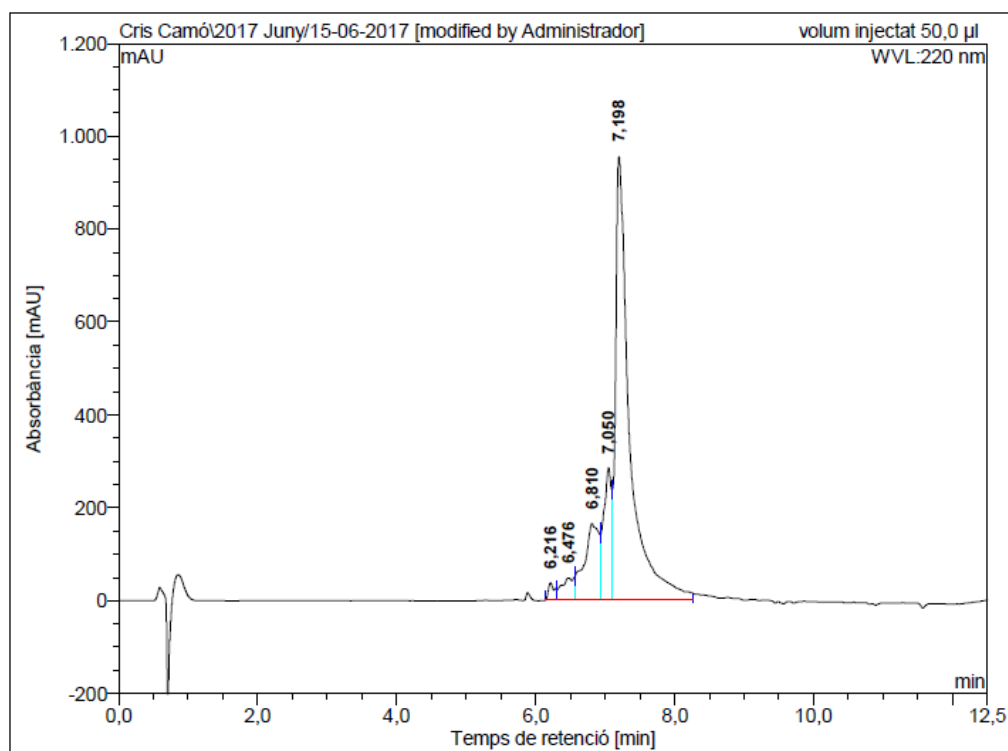
HRMS (ESI) (m/z) (CC-39)

| | Molecular formula | Calculated | Found |
|---------------|---|------------|-----------|
| $[M+2H]^{2+}$ | C ₁₃₇ H ₂₃₃ N ₃₃ O ₂₁ | 1338.4084 | 1338.4063 |

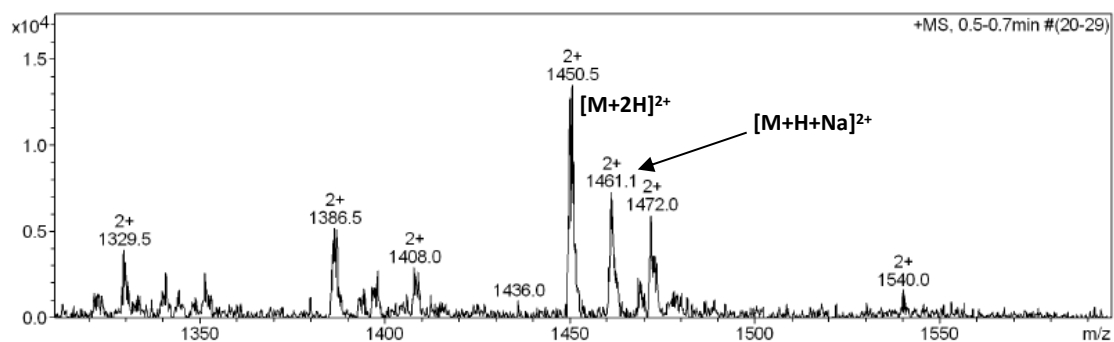
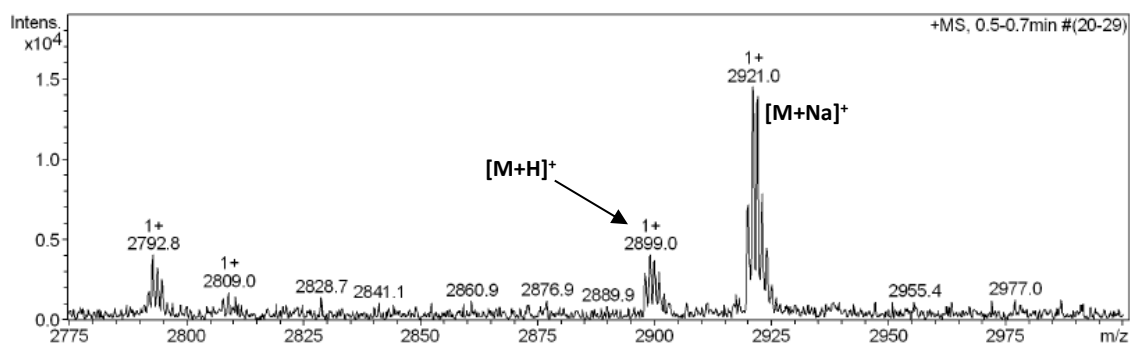
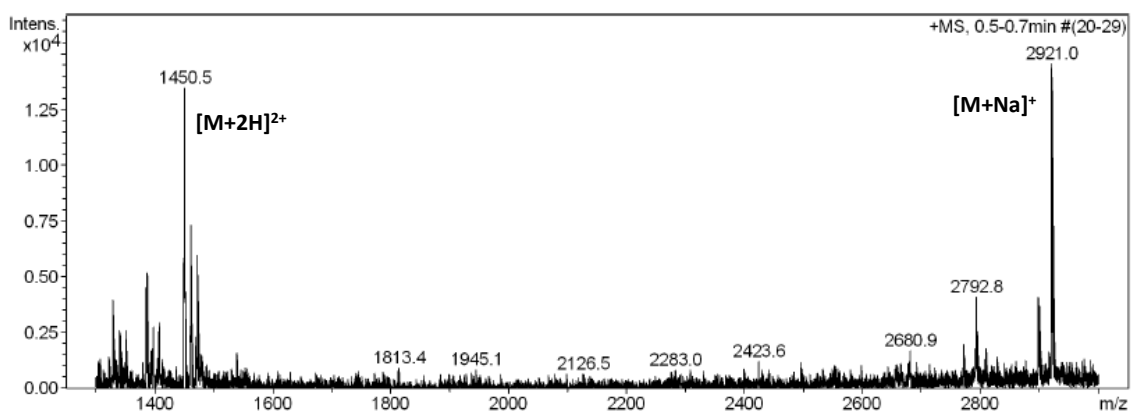
Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-40**
(BP16-KSLW)



HPLC ($\lambda = 220$ nm) (CC-40-1100)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,22 | 36,513 | 3,849 | 1,21 |
| 2 | 6,48 | 47,239 | 9,864 | 3,11 |
| 3 | 6,81 | 164,459 | 41,636 | 13,12 |
| 4 | 7,05 | 284,432 | 36,806 | 11,60 |
| 5 | 7,20 | 954,325 | 225,197 | 70,96 |
| Total: | | 1486,969 | 317,353 | 100,00 |

ESI-MS (m/z) (CC-40-1100_1)

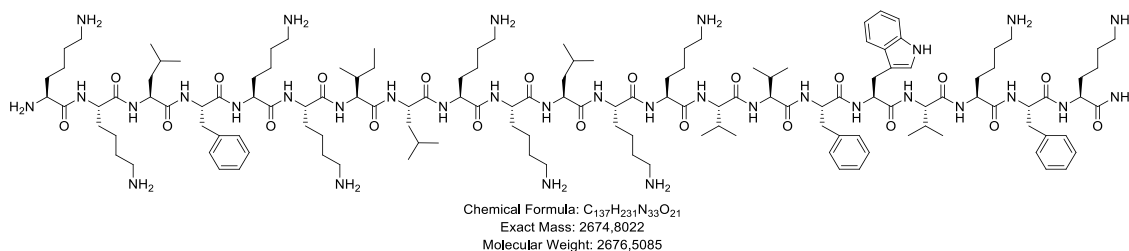
| |
|--------------------|
| $[M+H]^+ = 2898.0$ |
|--------------------|

| |
|---------------------|
| $[M+Na]^+ = 2919.0$ |
|---------------------|

| |
|------------------------|
| $[M+2H]^{2+} = 1449.5$ |
|------------------------|

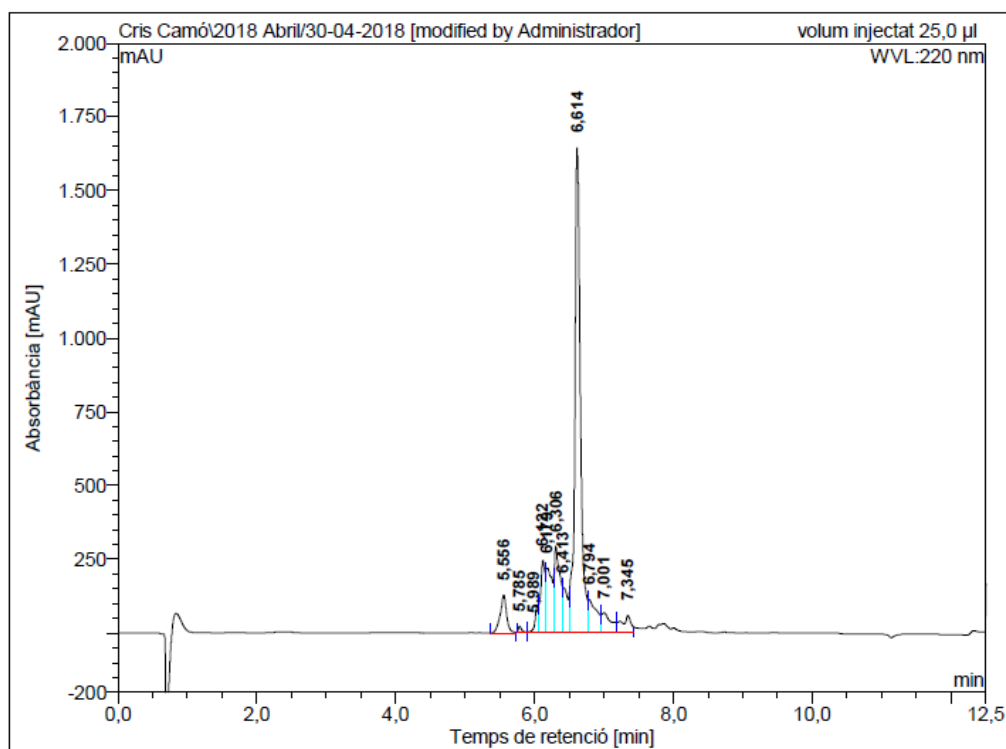
| |
|--------------------------|
| $[M+H+Na]^{2+} = 1460.1$ |
|--------------------------|

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **CC-40 (BP16-KSLW)**



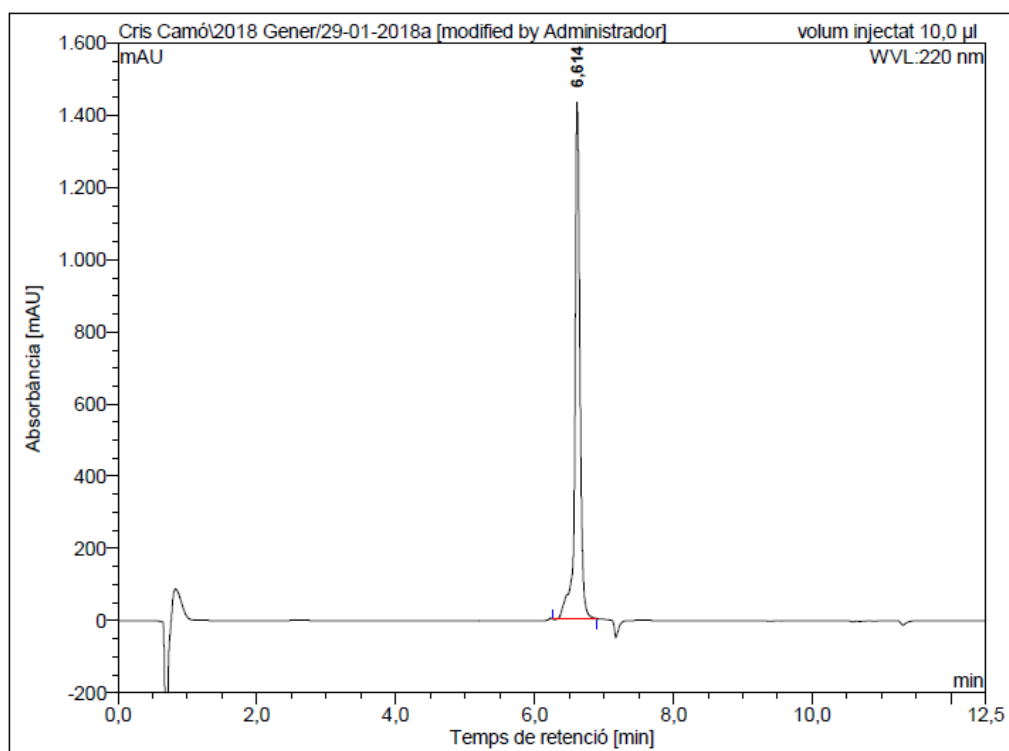
IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-40 impur)

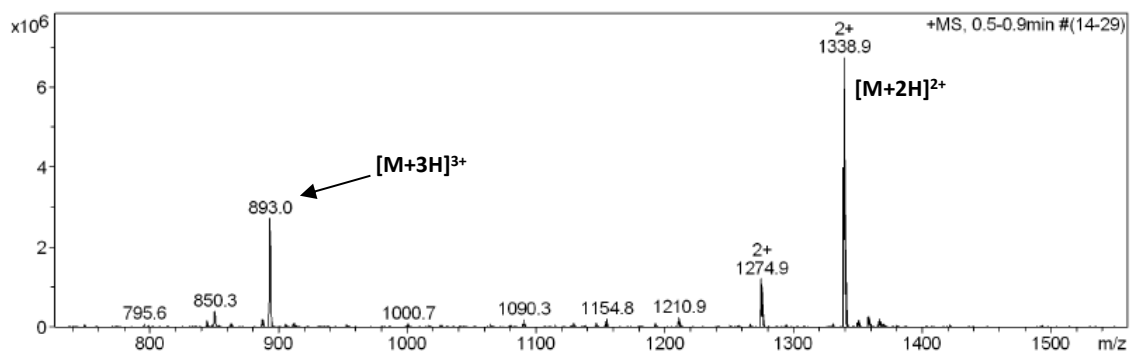
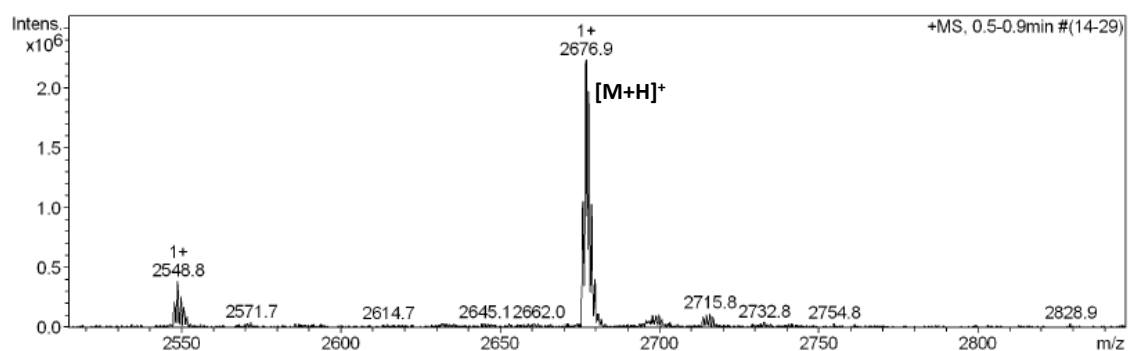
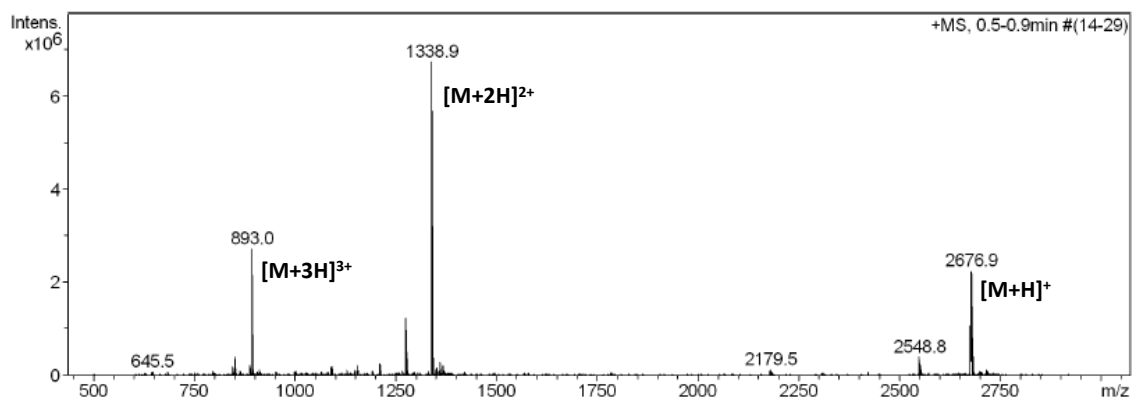


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 5,56 | 128,509 | 13,787 | 4,72 |
| 2 | 5,78 | 20,336 | 1,141 | 0,39 |
| 3 | 5,99 | 14,787 | 5,052 | 1,73 |
| 4 | 6,12 | 242,579 | 16,556 | 5,67 |
| 5 | 6,18 | 216,782 | 24,732 | 8,48 |
| 6 | 6,31 | 290,245 | 28,846 | 9,89 |
| 7 | 6,41 | 150,225 | 11,157 | 3,82 |
| 8 | 6,61 | 1640,141 | 156,790 | 53,73 |
| 9 | 6,79 | 108,870 | 14,882 | 5,10 |
| 10 | 7,00 | 64,728 | 10,179 | 3,49 |
| 11 | 7,35 | 56,761 | 8,676 | 2,97 |
| Total: | | 2933,960 | 291,799 | 100,00 |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-40-cleav1 tub 46)

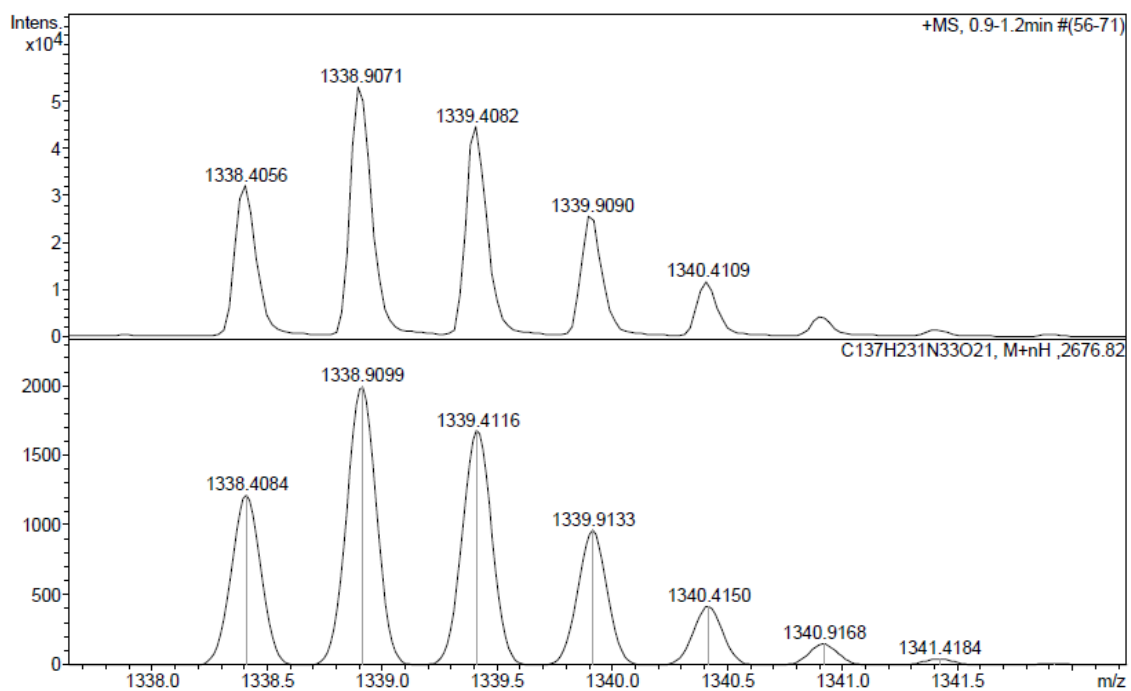
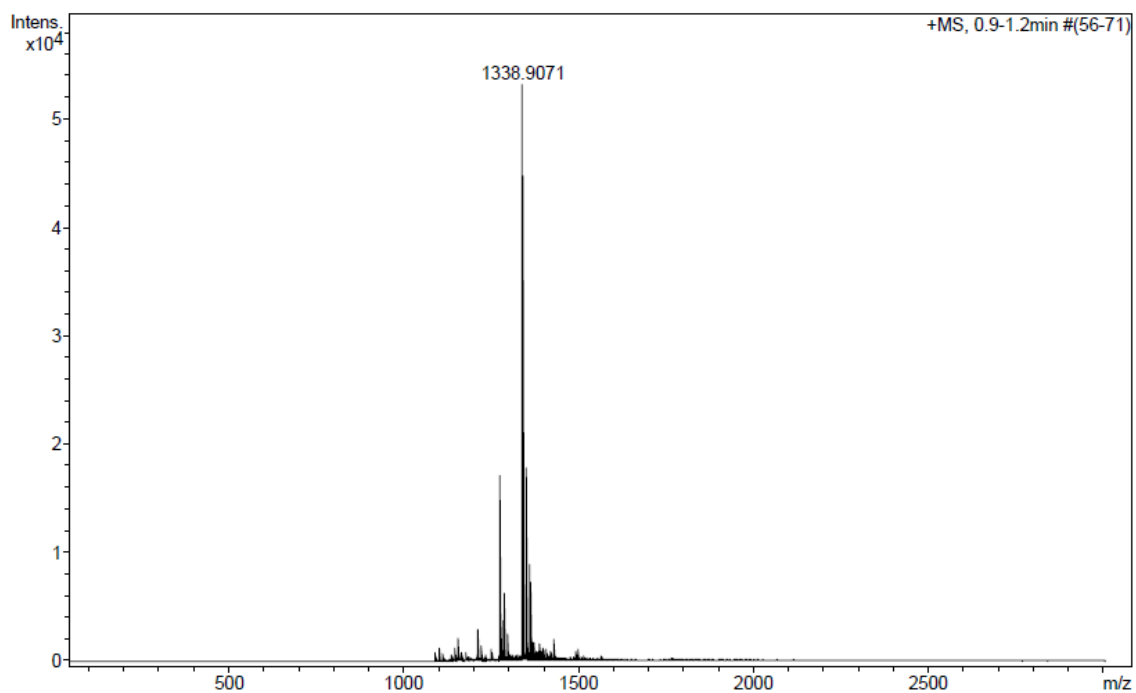
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,61 | 1434,860 | 123,169 | 100,00 |
| Total: | | 1434,860 | 123,169 | 100,00 |

ESI-MS (m/z) (CC-40-cleav1 tub 46)

$$[M+H]^+ = 2676.9$$

$$[M+2H]^{2+} = 1338.9$$

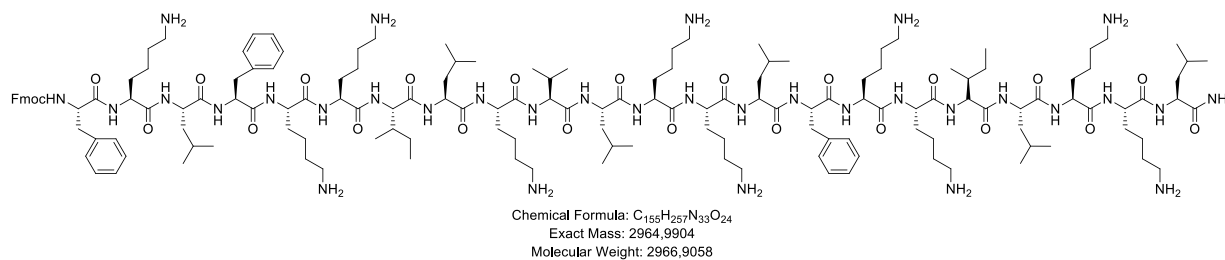
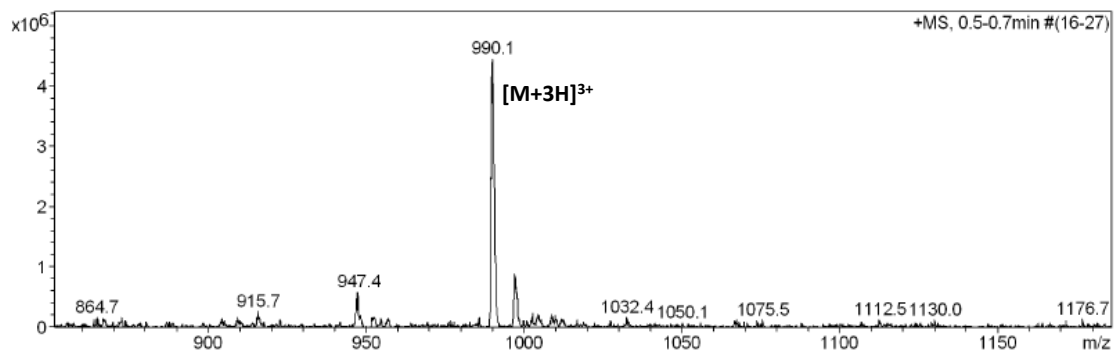
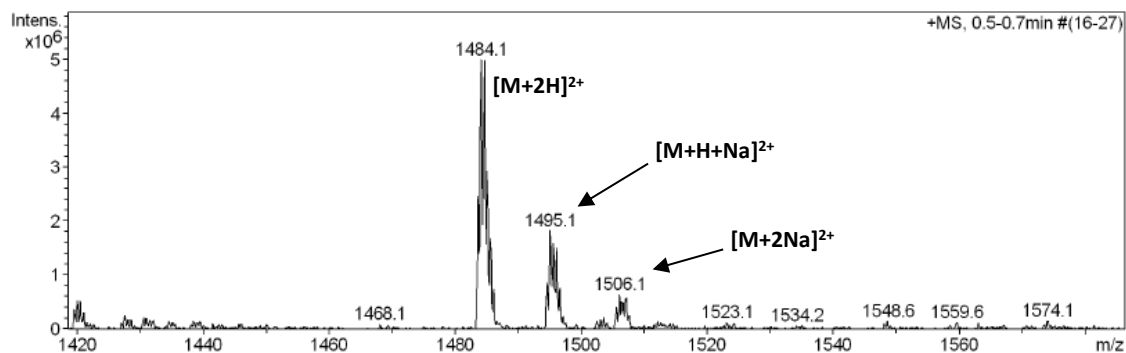
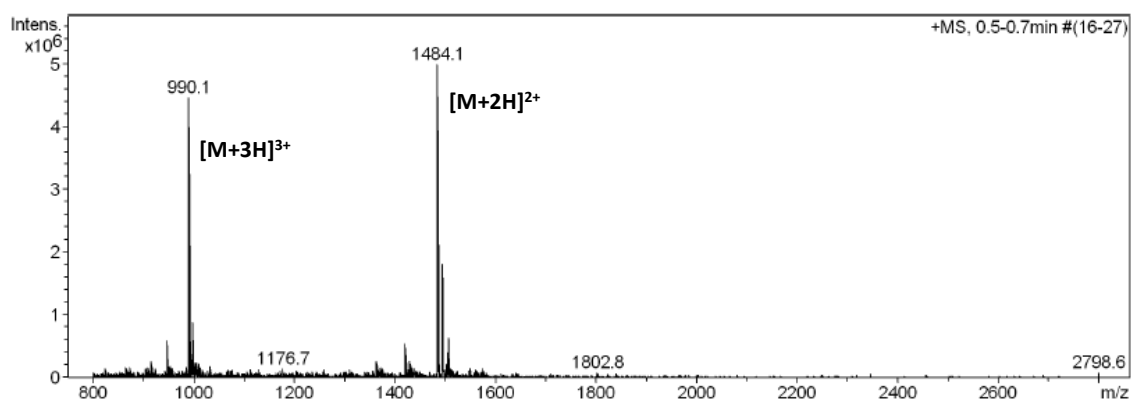
$$[M+3H]^{3+} = 893.0$$

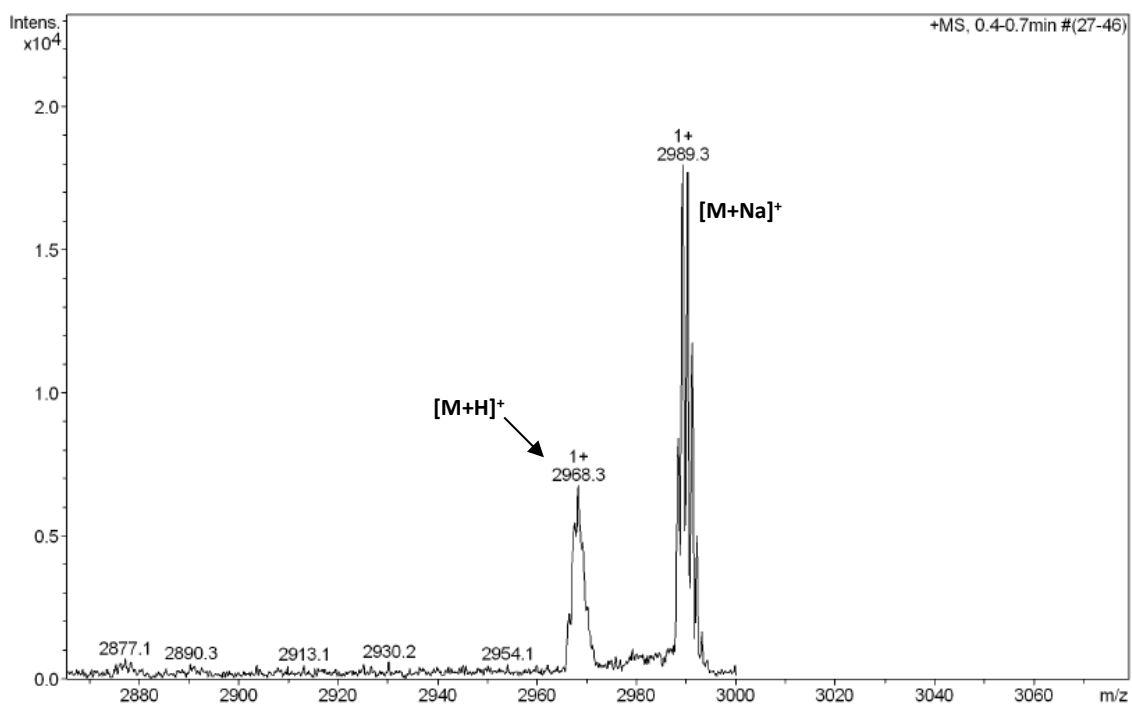
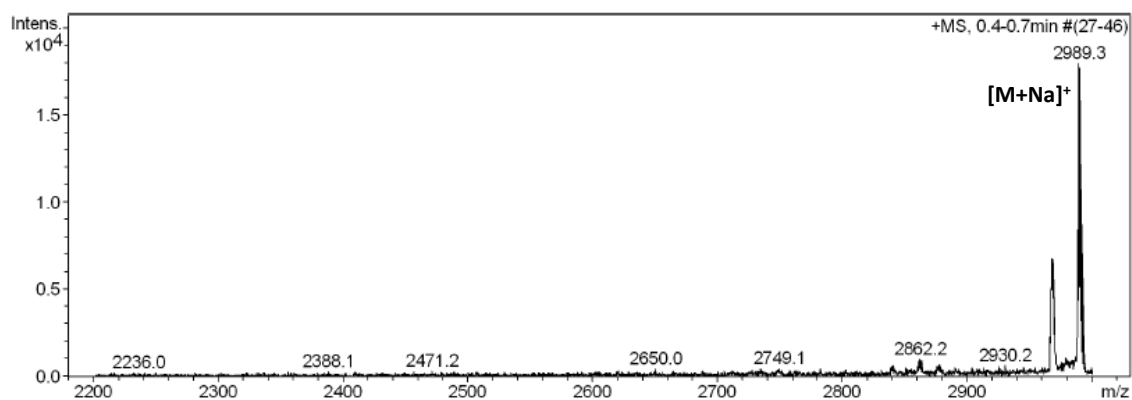
HRMS (ESI) (*m/z*) (CC-40)

| | Molecular formula | Calculated | Found |
|----------------------|---|------------|-----------|
| [M+2H] ²⁺ | C ₁₃₇ H ₂₃₃ N ₃₃ O ₂₁ | 1338.4084 | 1338.4056 |

Fmoc-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂

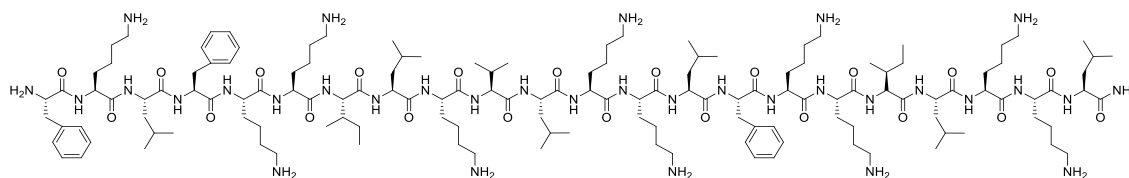
CC-41 (BP13-BP16)

ESI-MS (*m/z*) (CC-41 amb Fmoc)



| |
|--------------------------|
| $[M+H]^+ = 2968.3$ |
| $[M+Na]^+ = 2989.3$ |
| $[M+2H]^{2+} = 1484.1$ |
| $[M+H+Na]^{2+} = 1495.1$ |
| $[M+2Na]^{2+} = 1506.1$ |
| $[M+3H]^{3+} = 990.1$ |

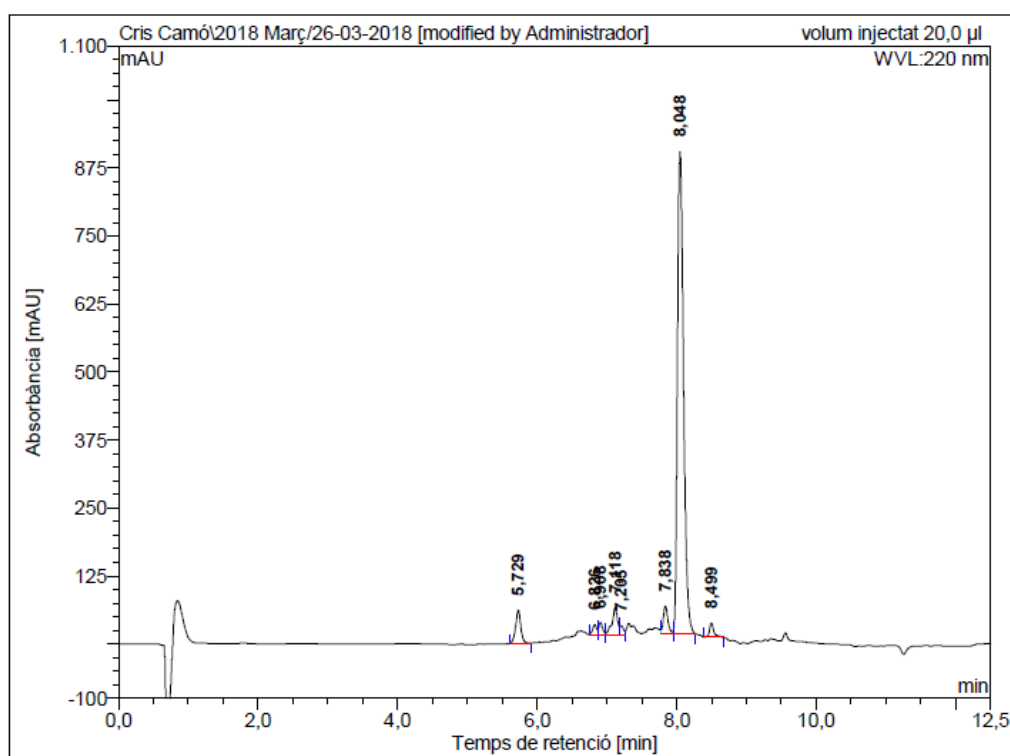
Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂ **CC-41**
(BP13-BP16)



Chemical Formula: C₁₄₀H₂₄₇N₃₃O₂₂
 Exact Mass: 2742,9223
 Molecular Weight: 2744,6671

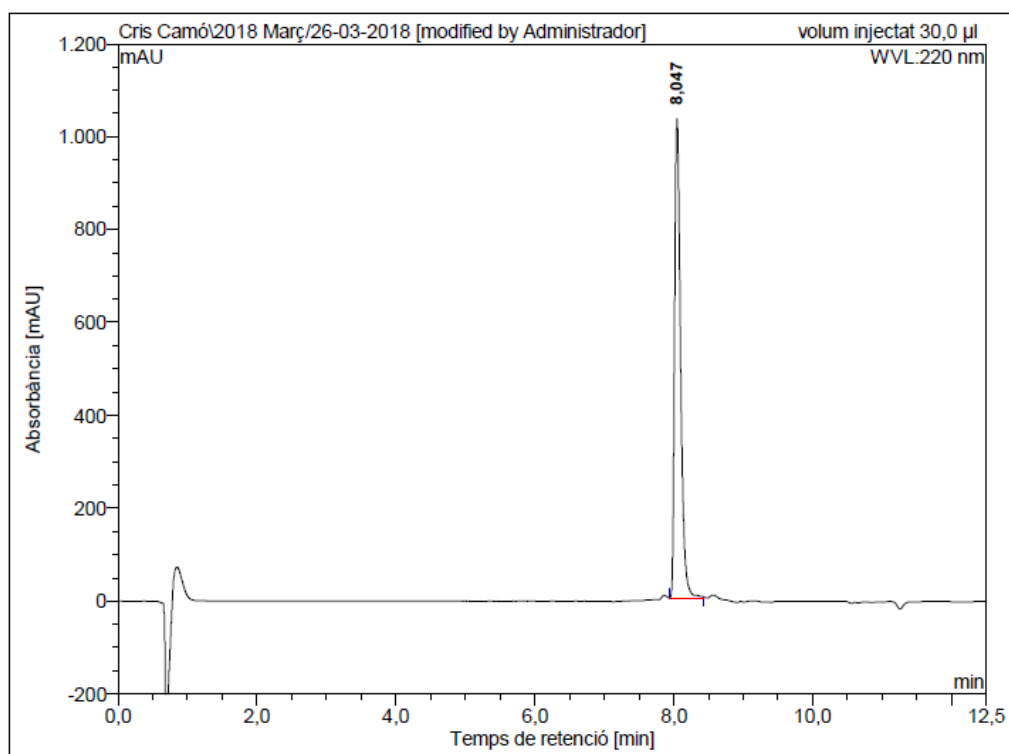
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-41 impur)

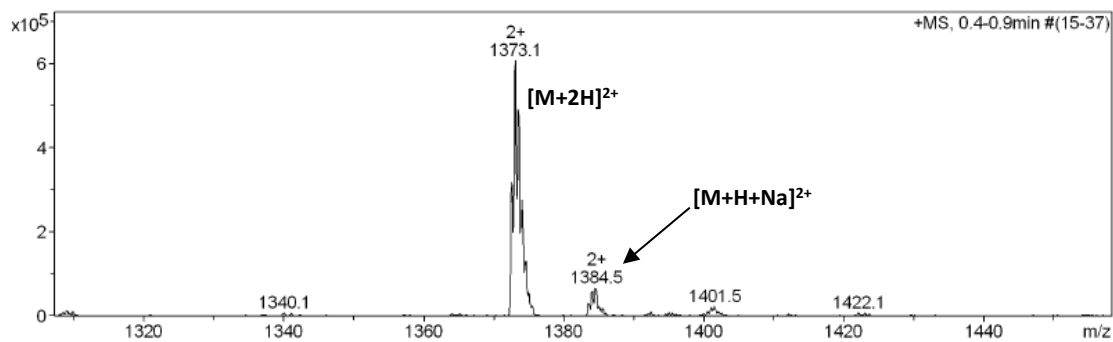
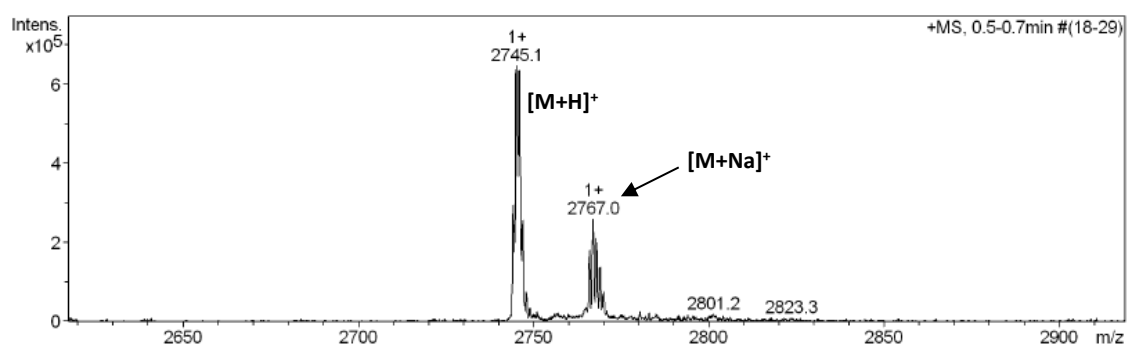
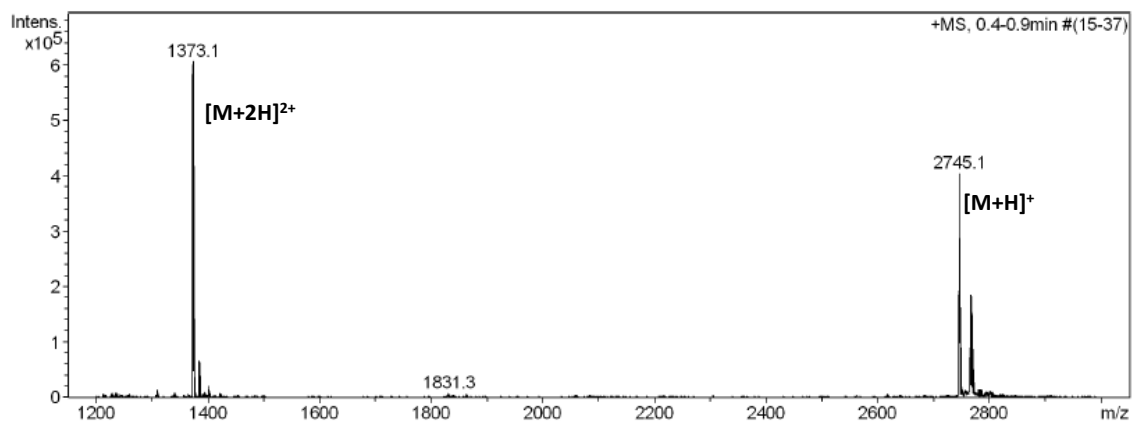


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|---------------|-----------------------|-----------------|-----------------|--------------------|
| 1 | 5,73 | 61,946 | 5,515 | 5,06 |
| 2 | 6,83 | 18,508 | 1,214 | 1,11 |
| 3 | 6,91 | 22,155 | 1,474 | 1,35 |
| 4 | 7,12 | 49,502 | 4,520 | 4,15 |
| 5 | 7,21 | 16,337 | 0,944 | 0,87 |
| 6 | 7,84 | 50,959 | 3,899 | 3,58 |
| 7 | 8,05 | 886,288 | 89,636 | 82,22 |
| 8 | 8,50 | 26,112 | 1,821 | 1,67 |
| Total: | | 1131,807 | 109,023 | 100,00 |

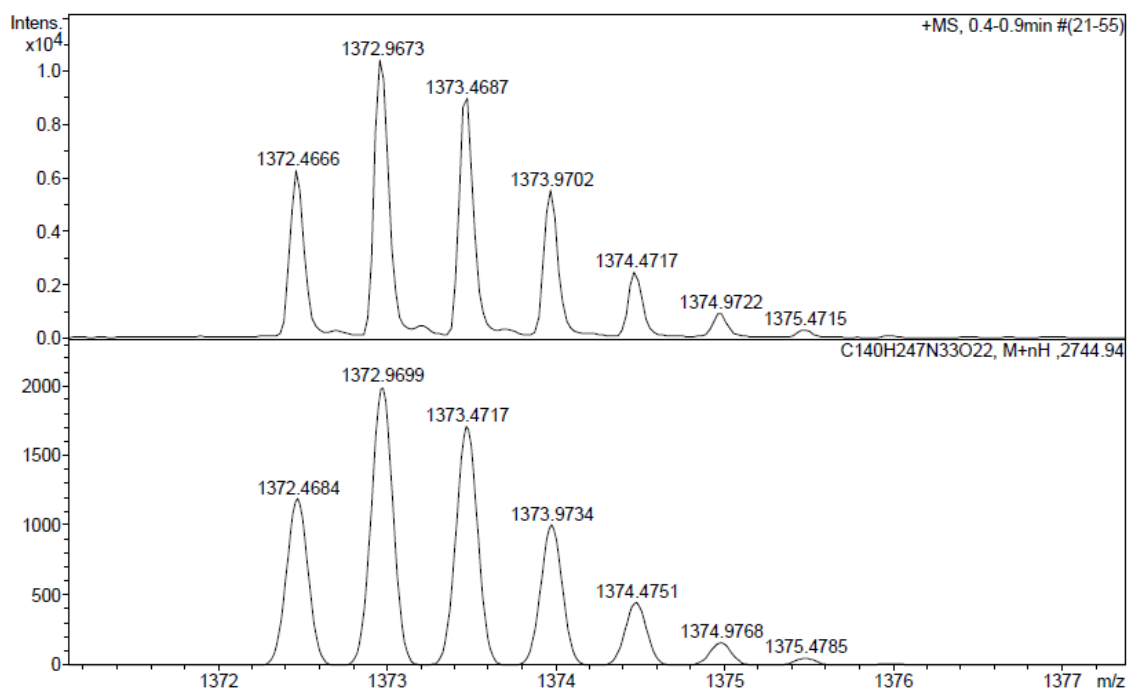
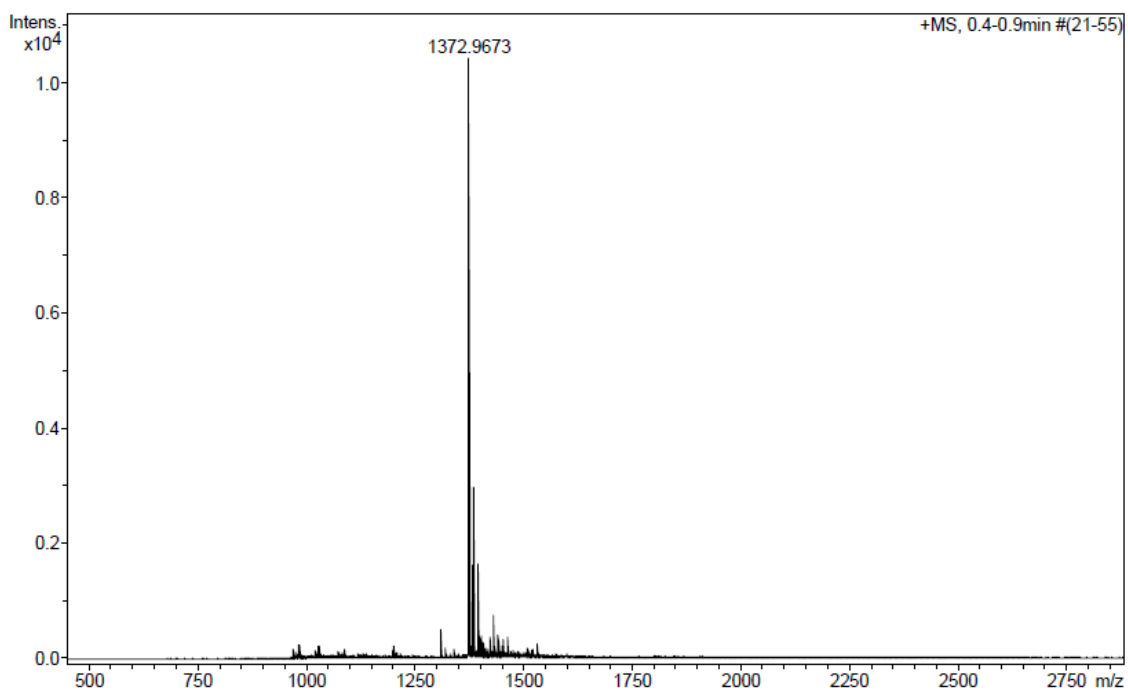
PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-41 tub 95)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,05 | 1030,543 | 102,971 | 100,00 |
| Total: | | 1030,543 | 102,971 | 100,00 |

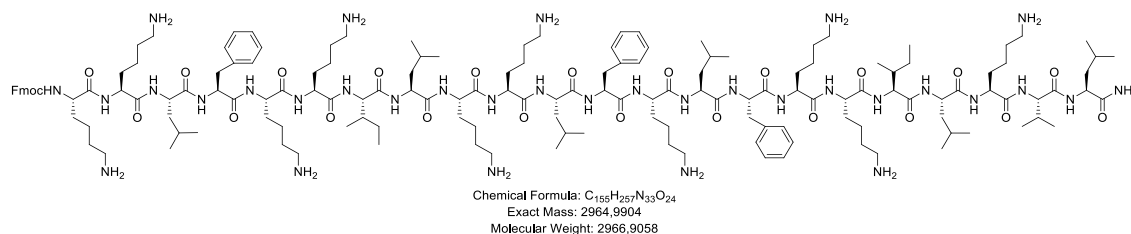
ESI-MS (m/z) (CC-41 tub 95)

| |
|--------------------------|
| $[M+H]^+ = 2745.1$ |
| $[M+Na]^+ = 2767.0$ |
| $[M+2H]^{2+} = 1373.1$ |
| $[M+H+Na]^{2+} = 1384.5$ |

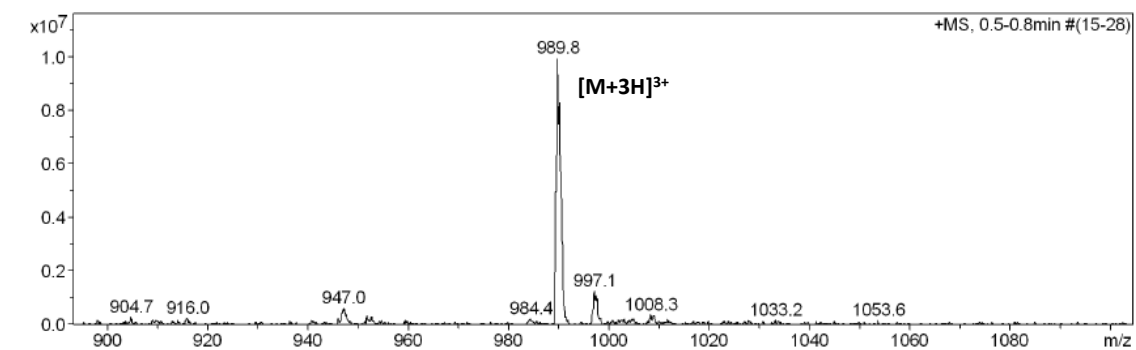
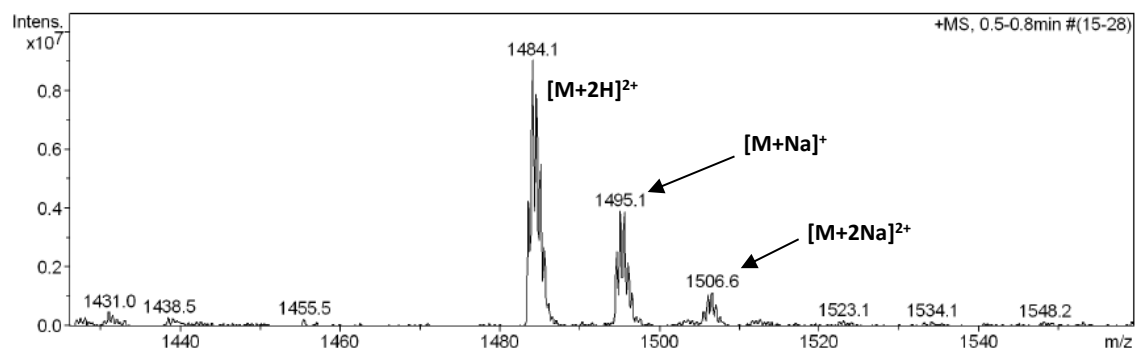
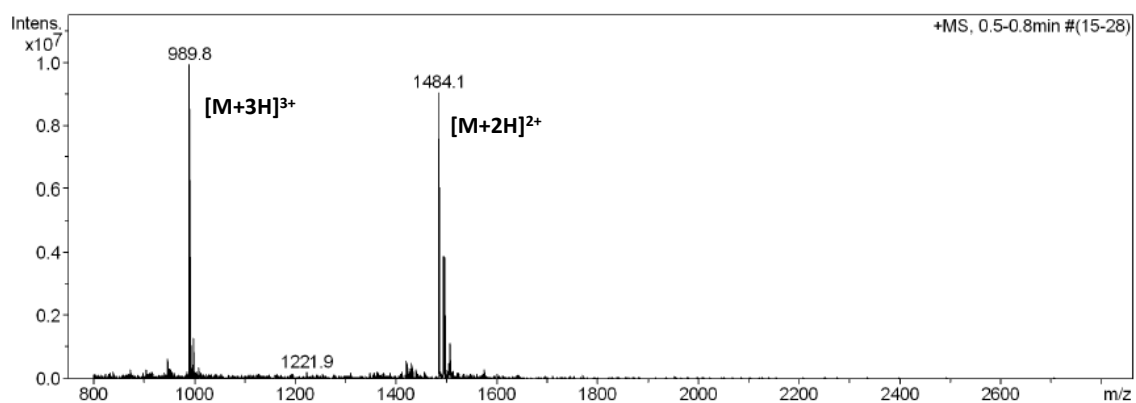
HRMS (ESI) (m/z) (CC-41)

| | Molecular formula | Calculated | Found |
|---------------|---|------------|-----------|
| $[M+2H]^{2+}$ | C ₁₄₀ H ₂₄₉ N ₃₃ O ₂₂ | 1372.4684 | 1372.4666 |

Fmoc-Lys-Lys-Leu-Phe-LysLys-Ile-Leu-Lys-Lys-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ **CC-42**
(BP16-BP13)

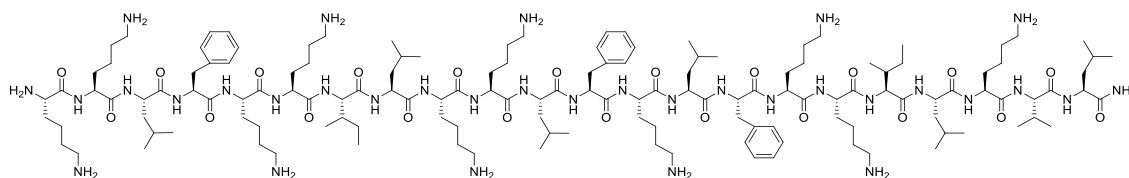


ESI-MS (*m/z*) (CC-42 amb Fmoc)



| |
|---------------------------------|
| [M+2H] ²⁺ = 1484.1 |
| [M+H+Na] ²⁺ = 1495.1 |
| [M+2Na] ²⁺ = 1506.6 |
| [M+3H] ³⁺ = 989.8 |

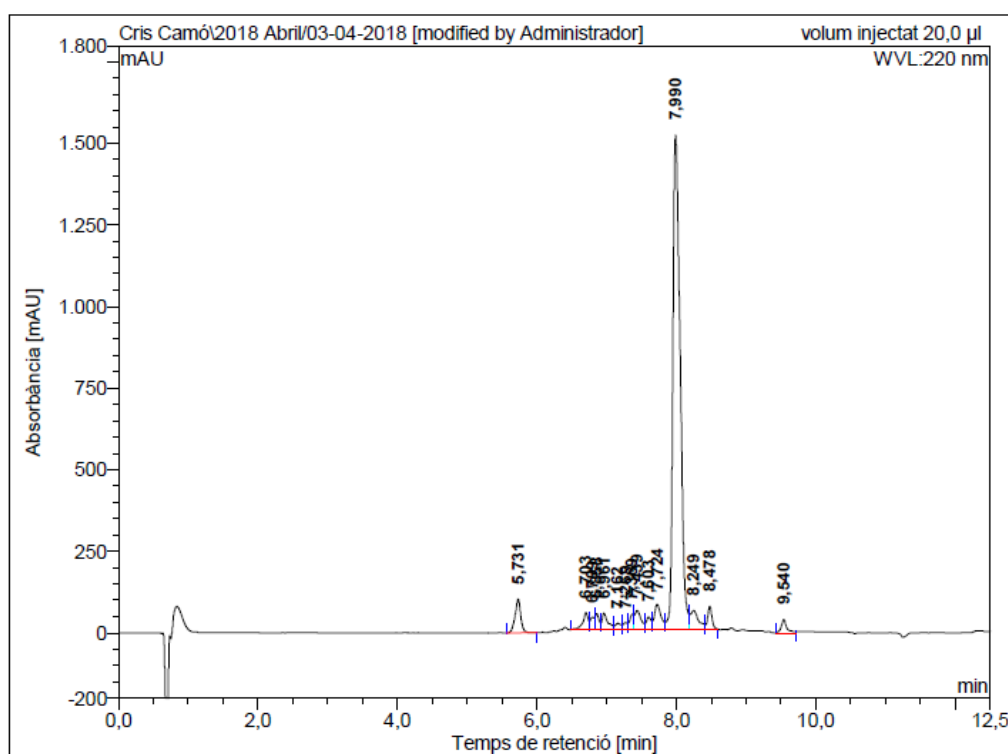
Lys-Lys-Leu-Phe-LysLys-Ile-Leu-Lys-Lys-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ **CC-42**
(BP16-BP13)



Chemical Formula: C₁₄₀H₂₄₇N₃₃O₂₂
 Exact Mass: 2742,9223
 Molecular Weight: 2744,6671

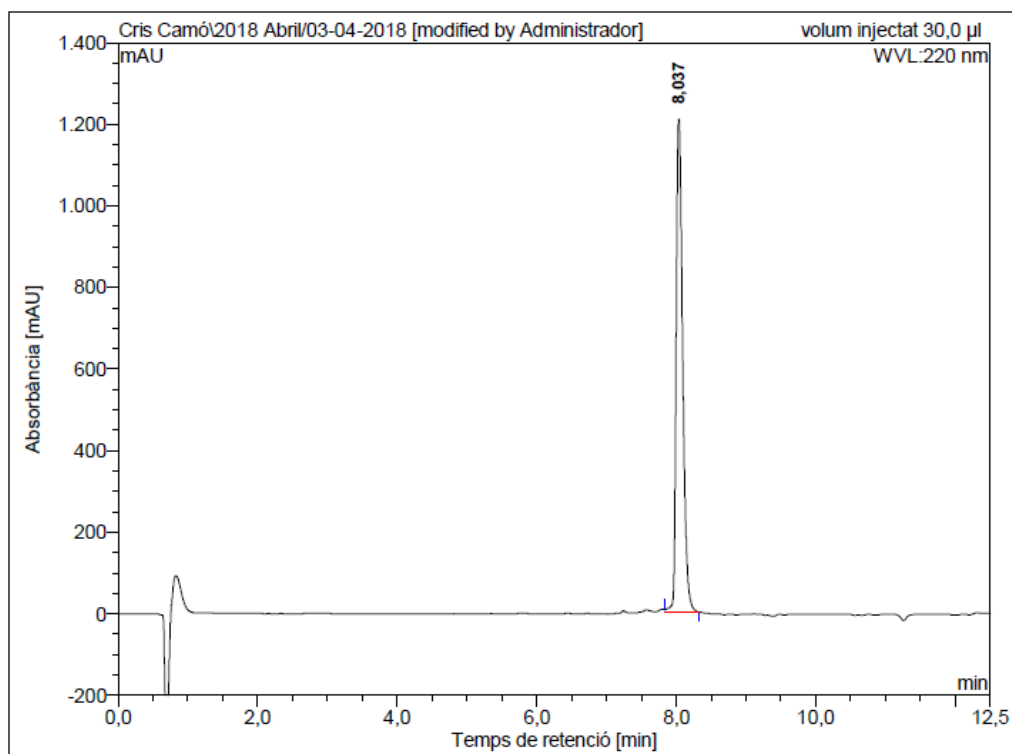
IMPURE PRODUCT

HPLC (λ = 220 nm) (CC-42 impur)

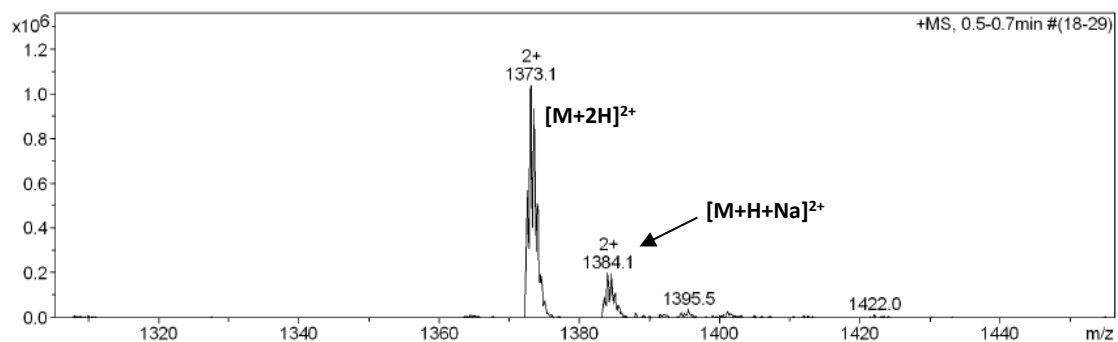
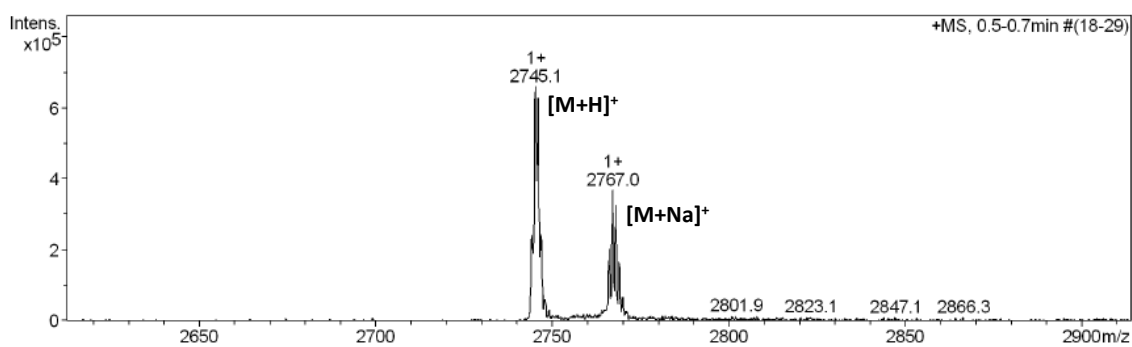
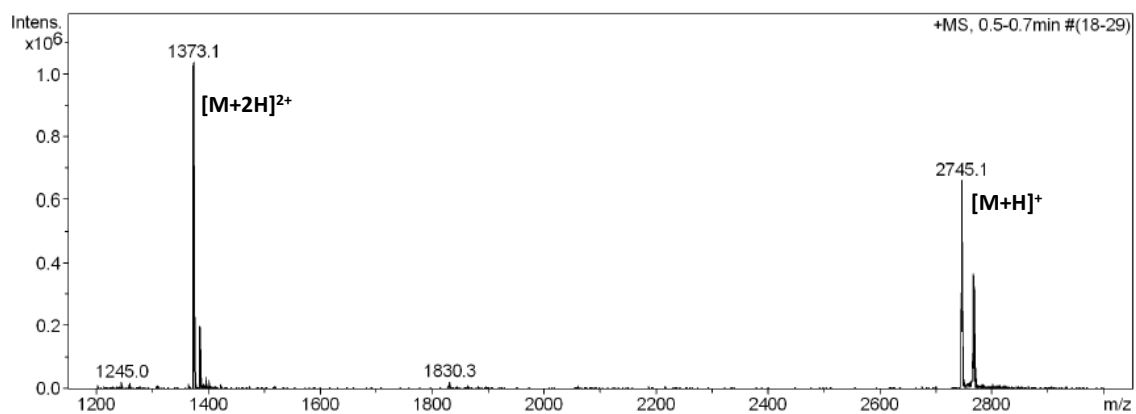


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,73 | 102,866 | 9,752 | 3,86 |
| 2 | 6,70 | 52,362 | 4,852 | 1,92 |
| 3 | 6,80 | 37,902 | 2,413 | 0,96 |
| 4 | 6,86 | 49,603 | 3,520 | 1,39 |
| 5 | 6,96 | 50,924 | 4,819 | 1,91 |
| 6 | 7,16 | 19,520 | 1,974 | 0,78 |
| 7 | 7,27 | 21,717 | 1,492 | 0,59 |
| 8 | 7,37 | 47,584 | 2,970 | 1,18 |
| 9 | 7,44 | 59,265 | 6,695 | 2,65 |
| 10 | 7,60 | 38,739 | 3,130 | 1,24 |
| 11 | 7,72 | 77,814 | 8,664 | 3,43 |
| 12 | 7,99 | 1514,931 | 185,530 | 73,44 |
| 13 | 8,25 | 59,160 | 7,807 | 3,09 |
| 14 | 8,48 | 71,755 | 5,269 | 2,09 |
| 15 | 9,54 | 40,796 | 3,745 | 1,48 |
| Total: | | 2244,936 | 252,631 | 100,00 |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-42 tub 67)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,04 | 1208,599 | 130,156 | 100,00 |
| Total: | | 1208,599 | 130,156 | 100,00 |

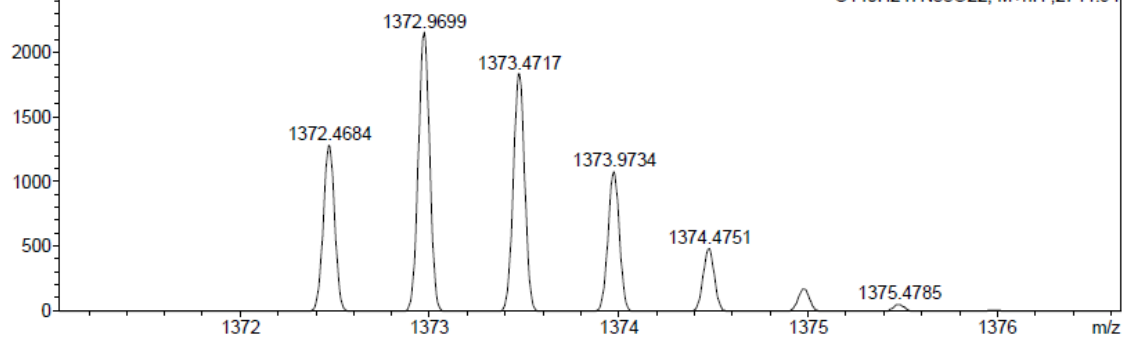
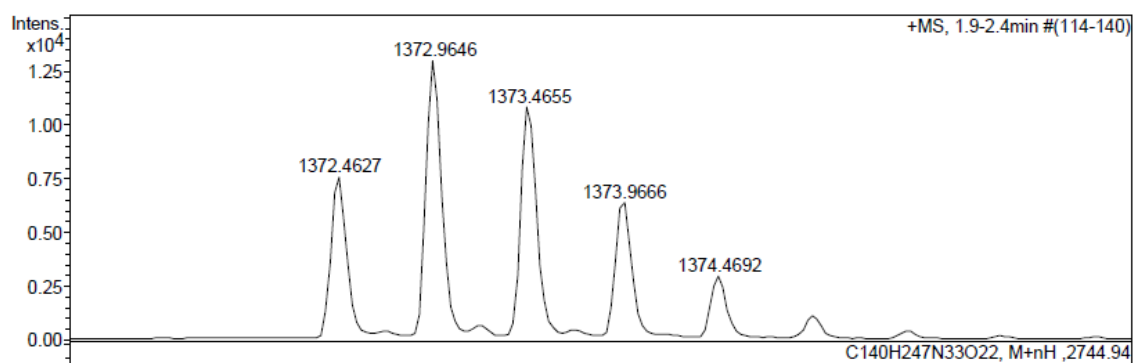
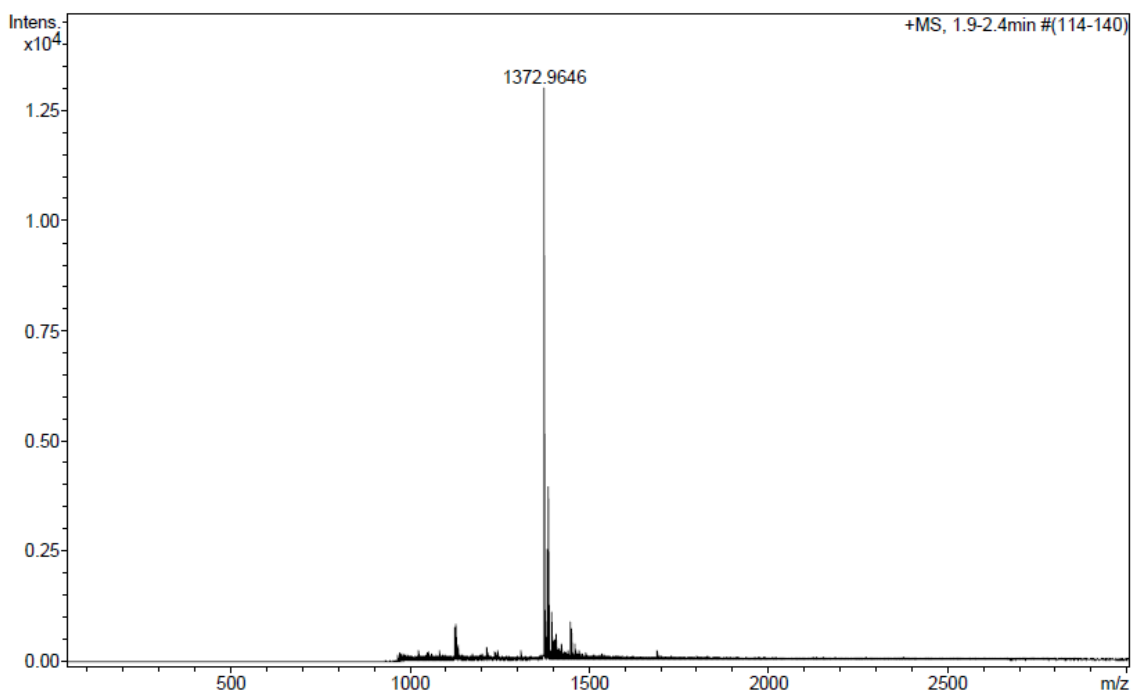
ESI-MS (m/z) (CC-42 tub 67)

$$[M+H]^+ = 2745.1$$

$$[M+Na]^+ = 2767.0$$

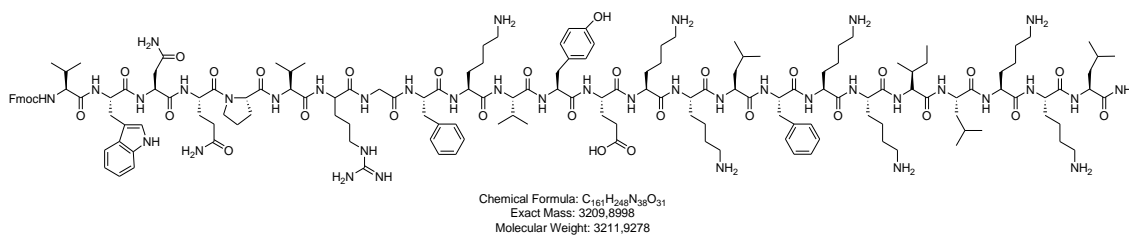
$$[M+2H]^{2+} = 1373.1$$

$$[M+H+Na]^{2+} = 1384.1$$

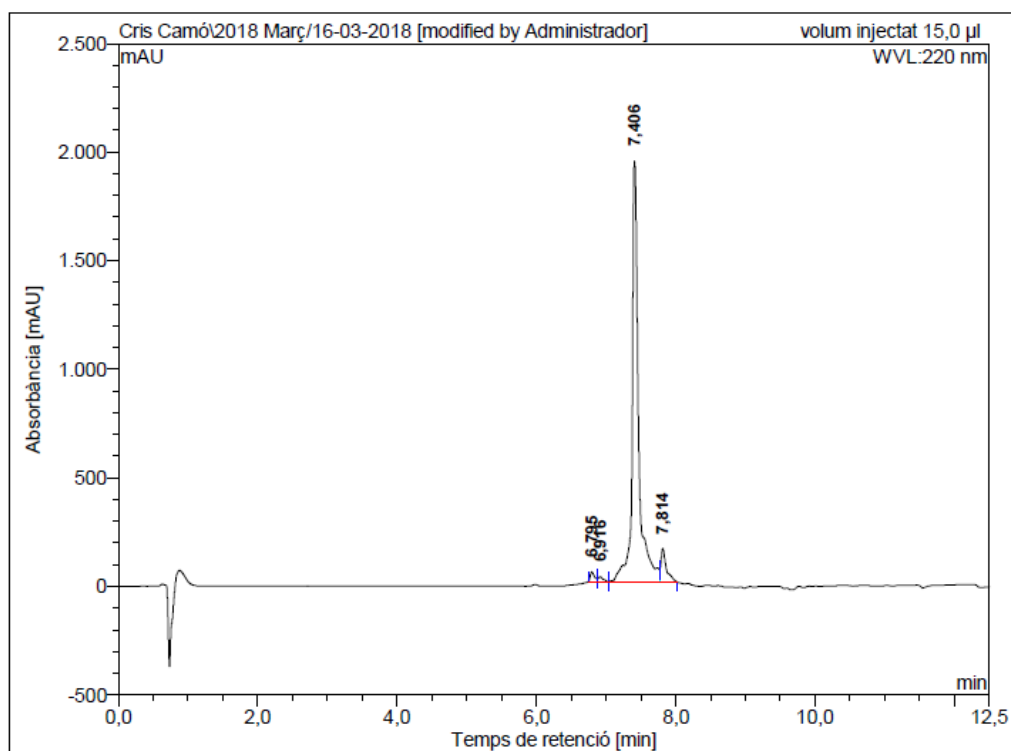
HRMS (ESI) (m/z) (CC-42)

| | Molecular formula | Calculated | Found |
|----------------------|---|------------|-----------|
| [M+2H] ²⁺ | C ₁₄₀ H ₂₄₉ N ₃₃ O ₂₂ | 1372.4684 | 1372.4627 |

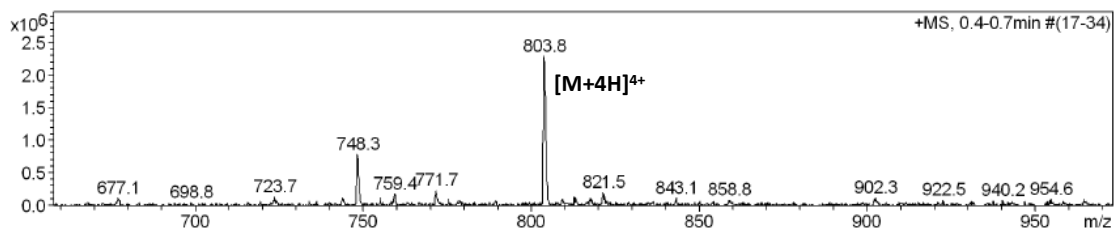
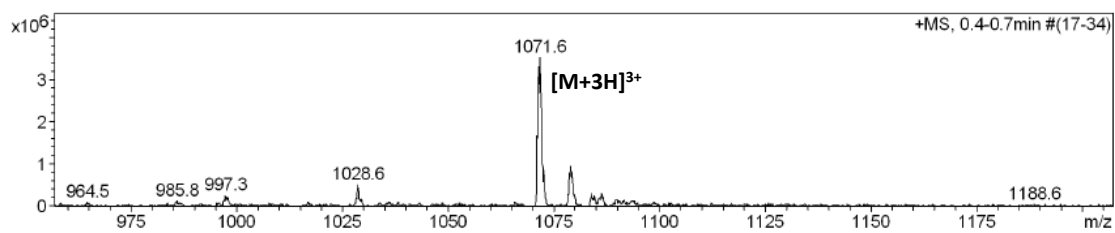
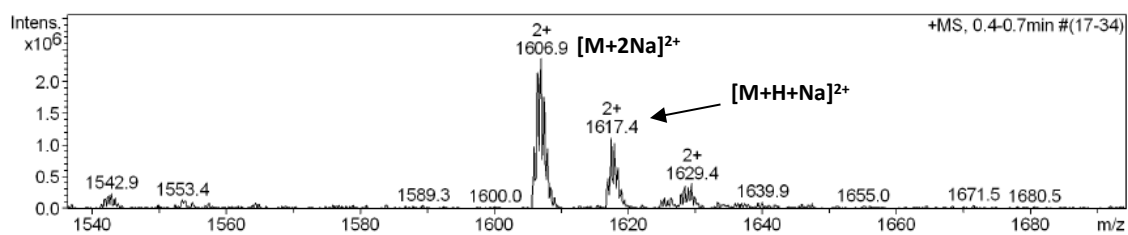
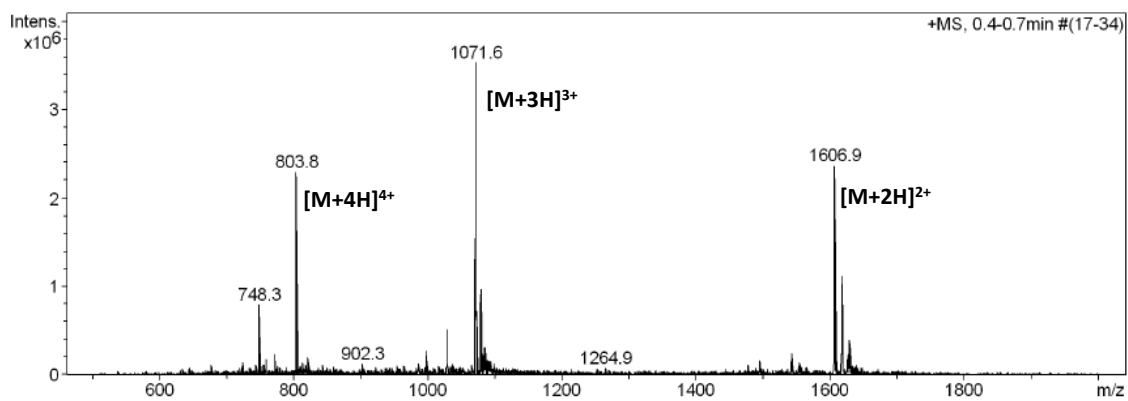
Fmoc-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂ **C-43 (Pep13-BP16)**



HPLC ($\lambda = 220$ nm) (CC-43 amb Fmoc)

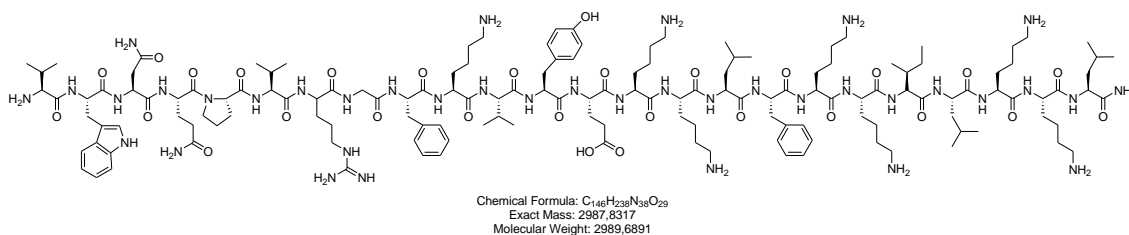


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,79 | 44,068 | 3,127 | 1,37 |
| 2 | 6,92 | 22,475 | 1,770 | 0,77 |
| 3 | 7,41 | 1937,454 | 209,984 | 91,80 |
| 4 | 7,81 | 153,005 | 13,858 | 6,06 |
| Total: | | 2157,003 | 228,740 | 100,00 |

ESI-MS (m/z) (CC-43 amb Fmoc)

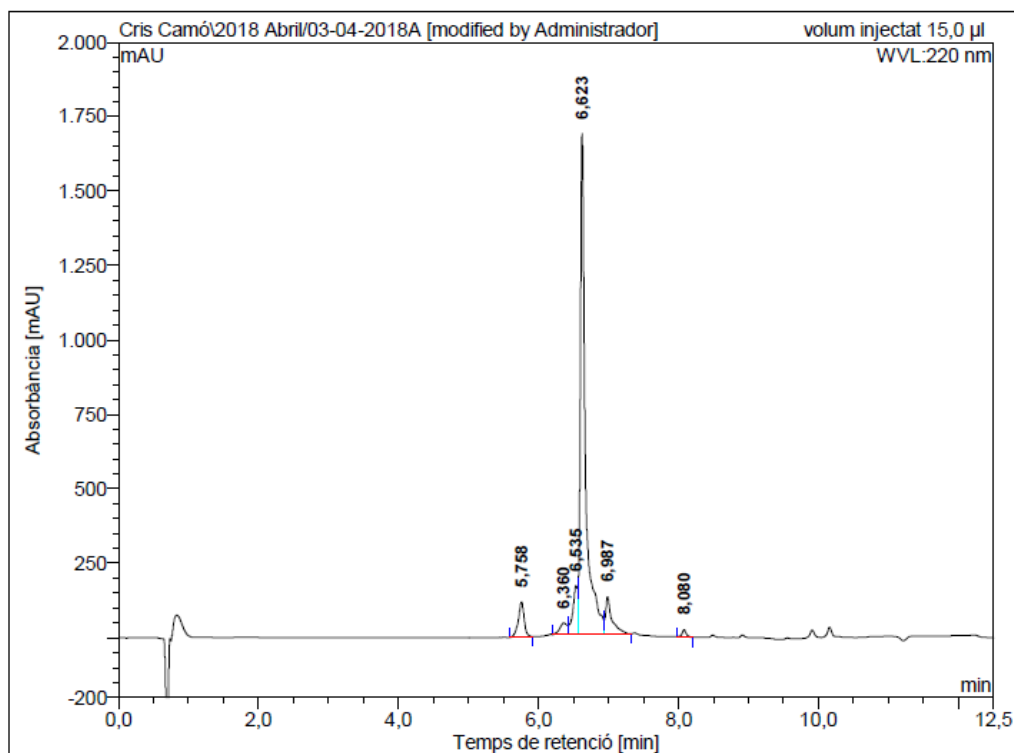
| |
|--------------------------|
| $[M+2H]^{2+} = 1606.9$ |
| $[M+H+Na]^{2+} = 1617.4$ |
| $[M+3H]^{3+} = 1071.6$ |
| $[M+4H]^{4+} = 803.8$ |

Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-NH₂
C-43 (Pep13-BP16)



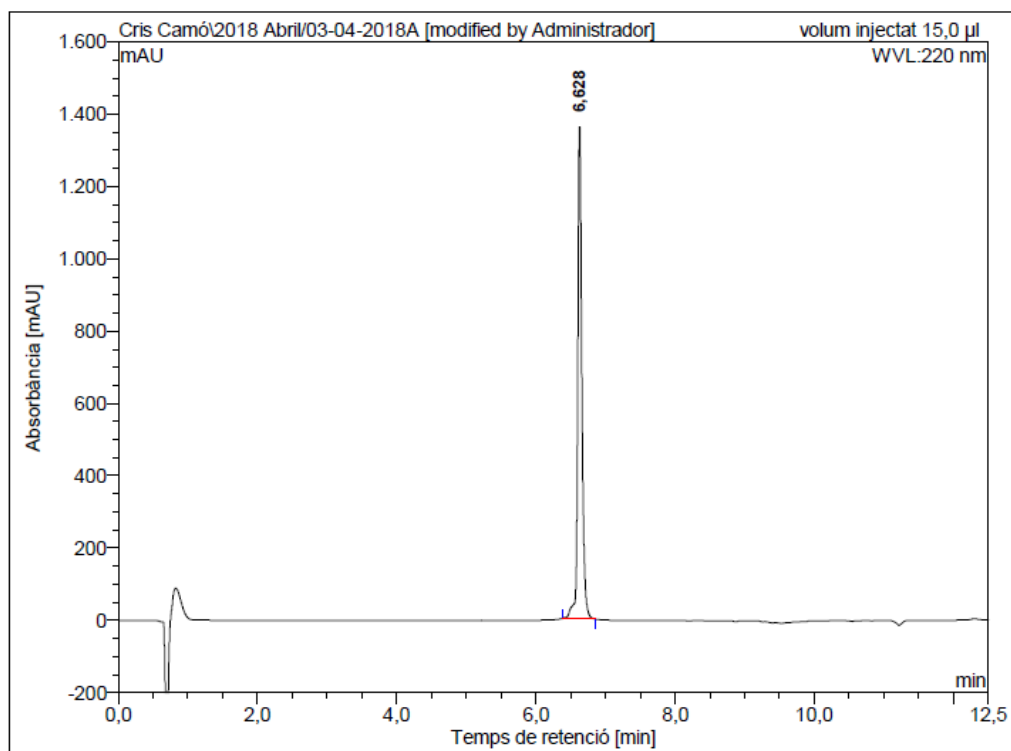
IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (CC-43 impur)

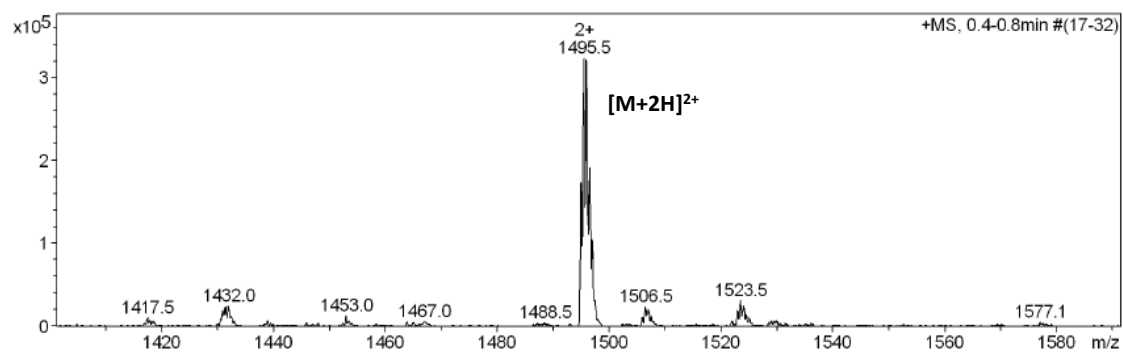
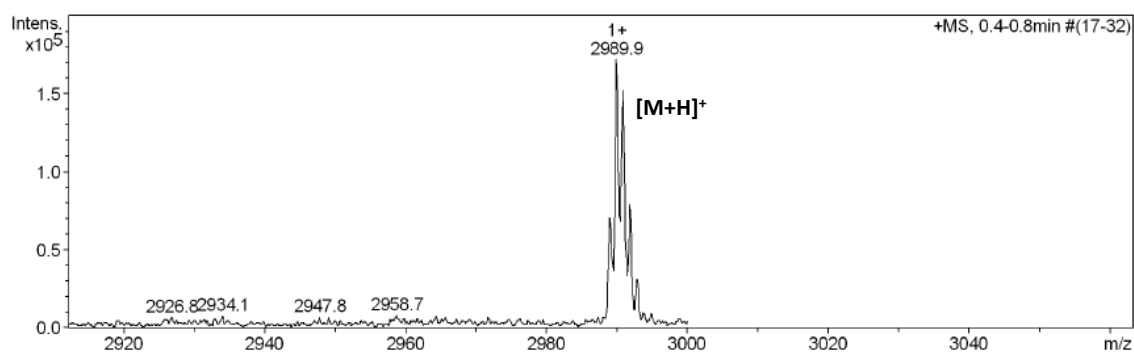
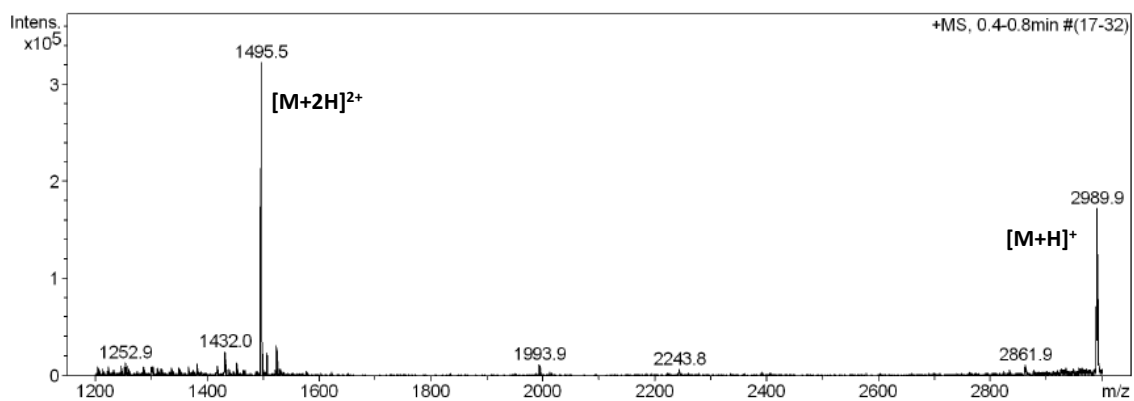


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,76 | 119,834 | 11,843 | 6,25 |
| 2 | 6,36 | 38,578 | 4,626 | 2,44 |
| 3 | 6,54 | 163,509 | 12,335 | 6,51 |
| 4 | 6,62 | 1680,948 | 145,135 | 76,59 |
| 5 | 6,99 | 126,907 | 13,990 | 7,38 |
| 6 | 8,08 | 23,820 | 1,566 | 0,83 |
| Total: | | 2153,596 | 189,496 | 100,00 |

PURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (CC-43 tub 48)

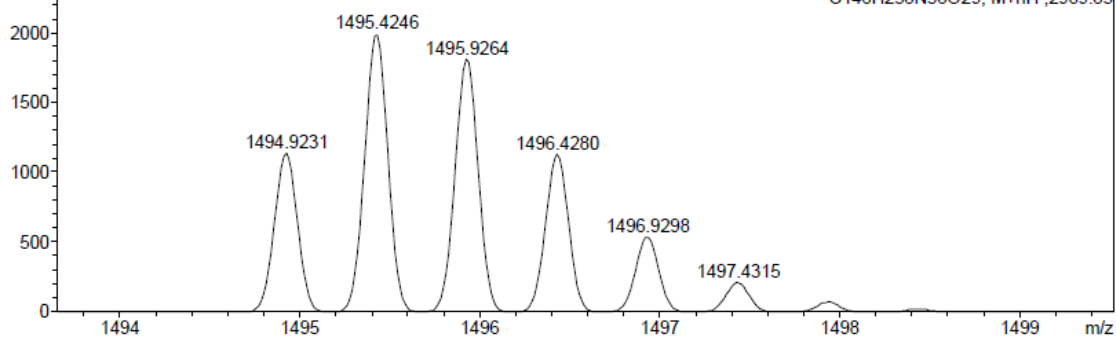
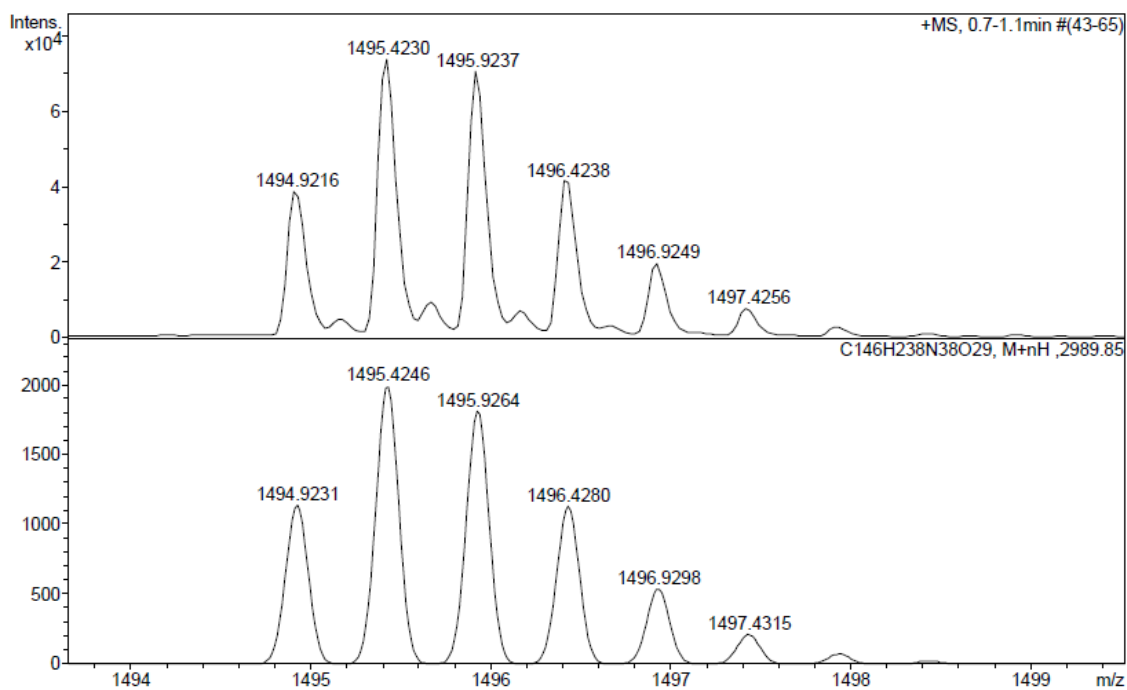
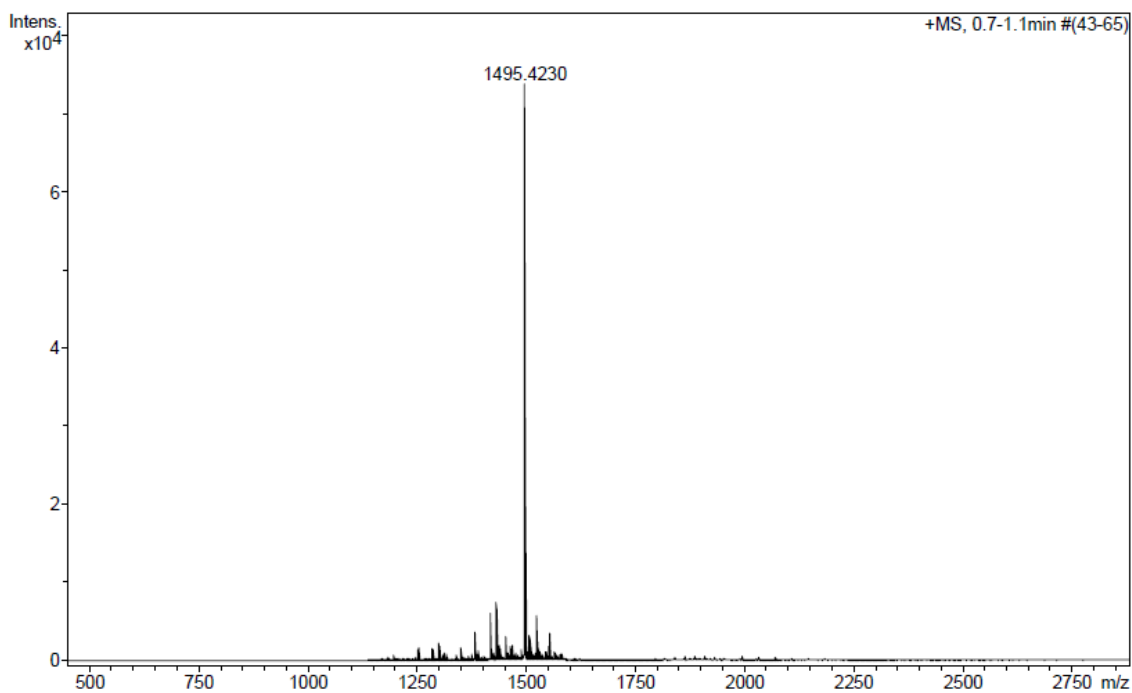
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,63 | 1361,436 | 93,334 | 100,00 |
| Total: | | 1361,436 | 93,334 | 100,00 |

ESI-MS (m/z) (CC-43 tub 54)

$$[M+H]^+ = 2989.9$$

$$[M+2H]^{2+} = 1495.5$$

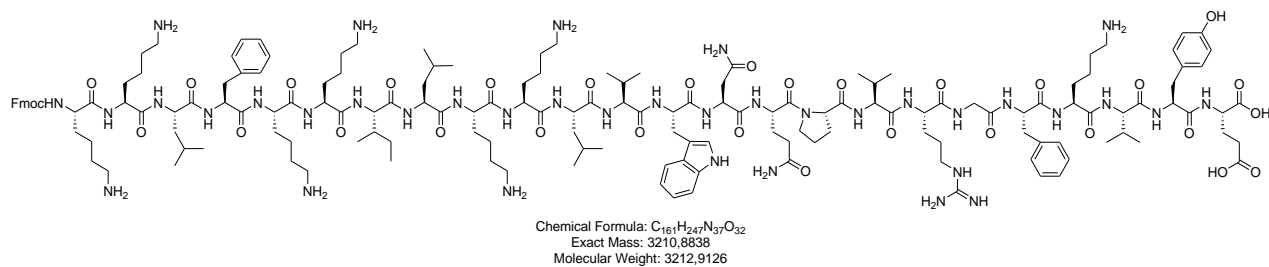
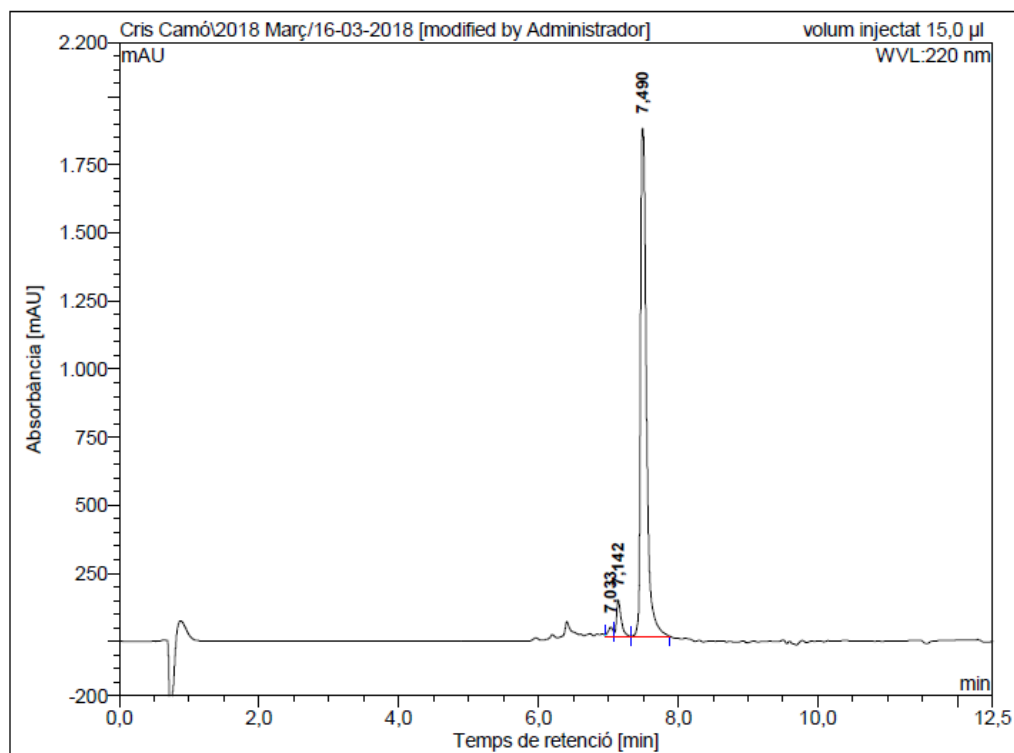
$$[M+H+Na]^{2+} = 1506.5$$

HRMS (ESI) (m/z) (CC-43)

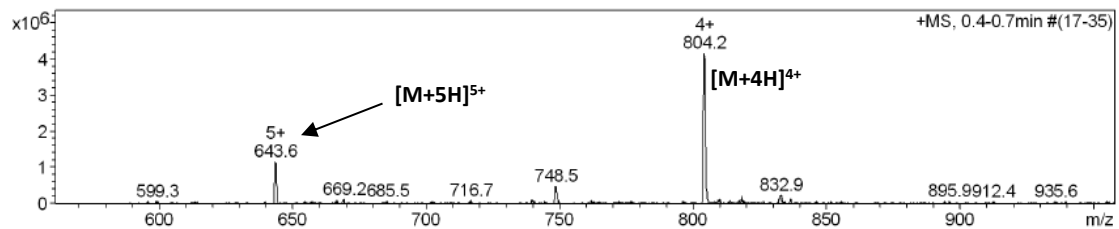
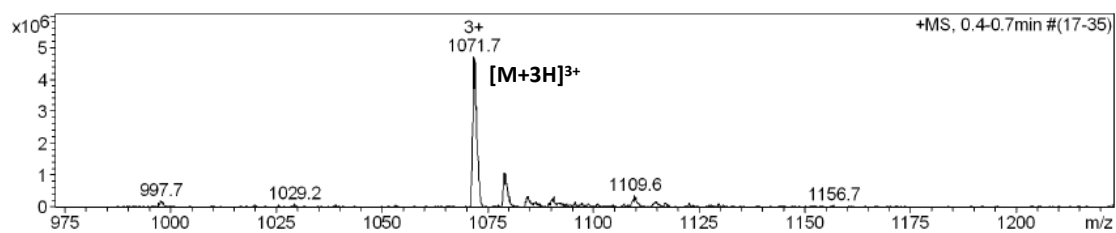
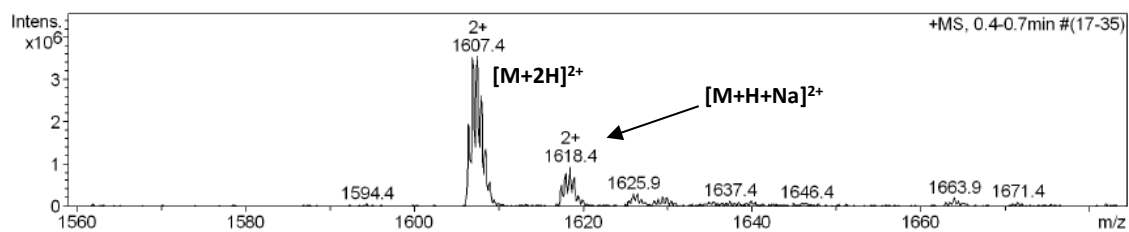
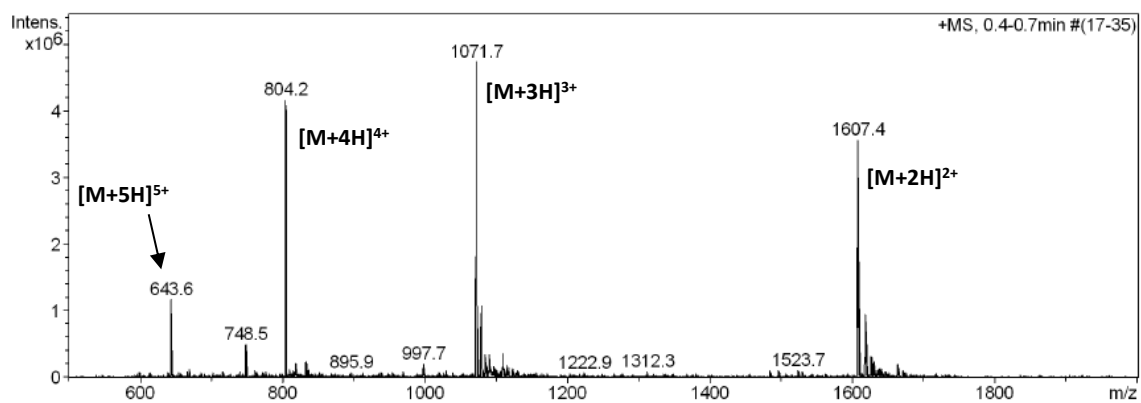
| | Molecular formula | Calculated | Found |
|---------------|---|------------|-----------|
| $[M+2H]^{2+}$ | C ₁₄₆ H ₂₄₀ N ₃₈ O ₂₉ | 1494.9231 | 1494.9216 |

Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-

OH CC-44 (BP16-Pep13)

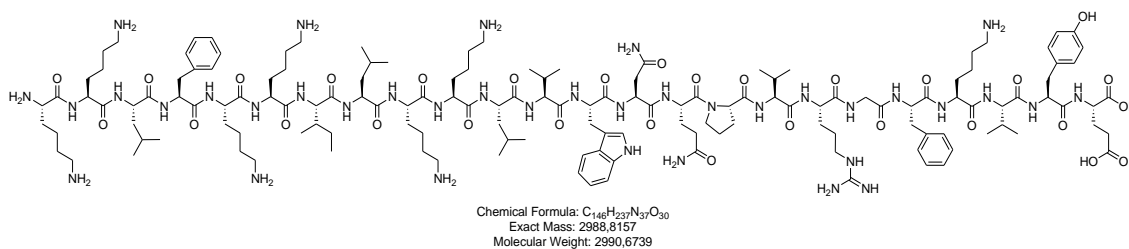
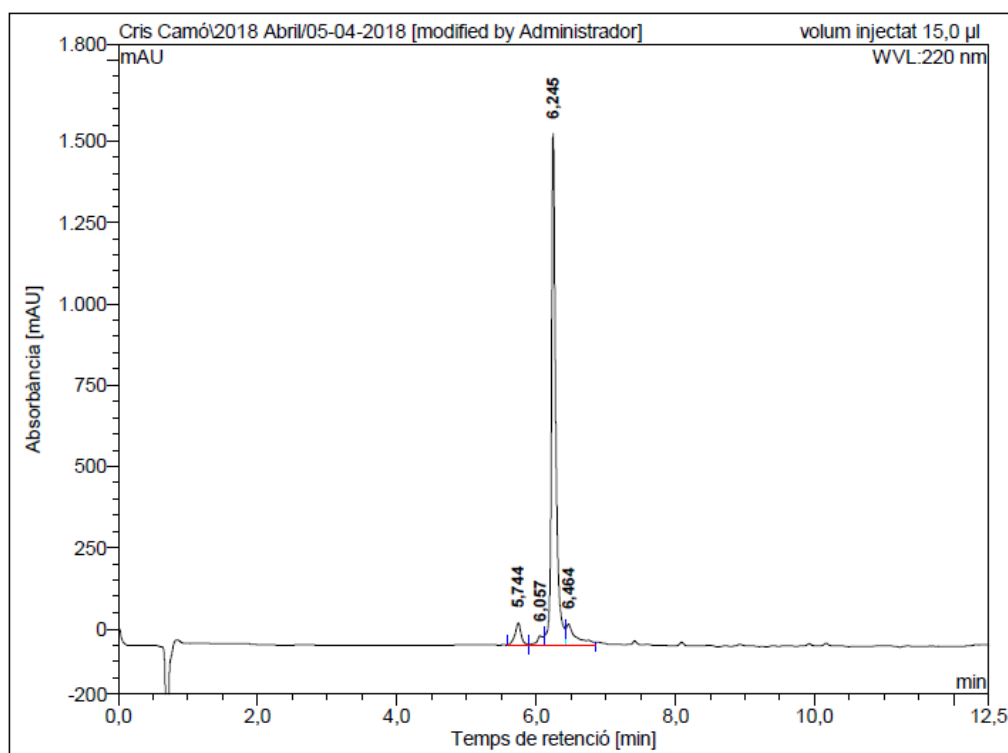
HPLC ($\lambda = 220$ nm) (CC-44 amb Fmoc)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,03 | 33,813 | 2,838 | 1,44 |
| 2 | 7,14 | 134,468 | 10,399 | 5,28 |
| 3 | 7,49 | 1865,617 | 183,811 | 93,28 |
| Total: | | 2033,897 | 197,048 | 100,00 |

ESI-MS (m/z) (CC-44 amb Fmoc)

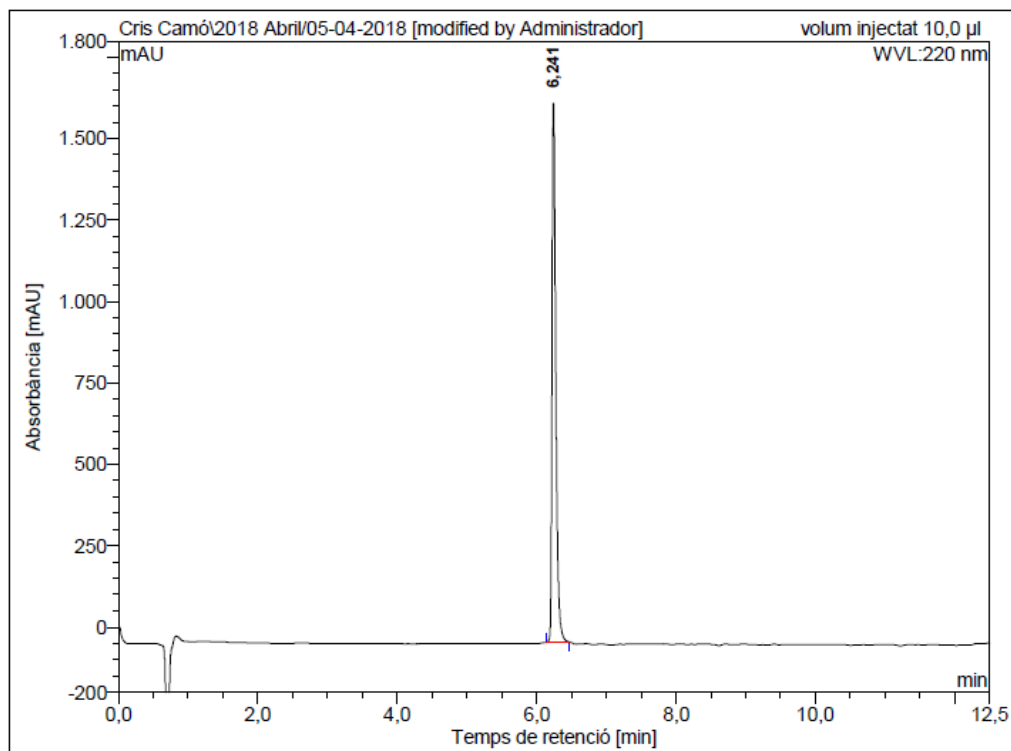
| |
|--------------------------|
| $[M+2H]^{2+} = 1607.4$ |
| $[M+H+Na]^{2+} = 1618.4$ |
| $[M+3H]^{3+} = 1071.7$ |
| $[M+4H]^{4+} = 804.2$ |
| $[M+5H]^{5+} = 643.6$ |

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Lys-Leu-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH

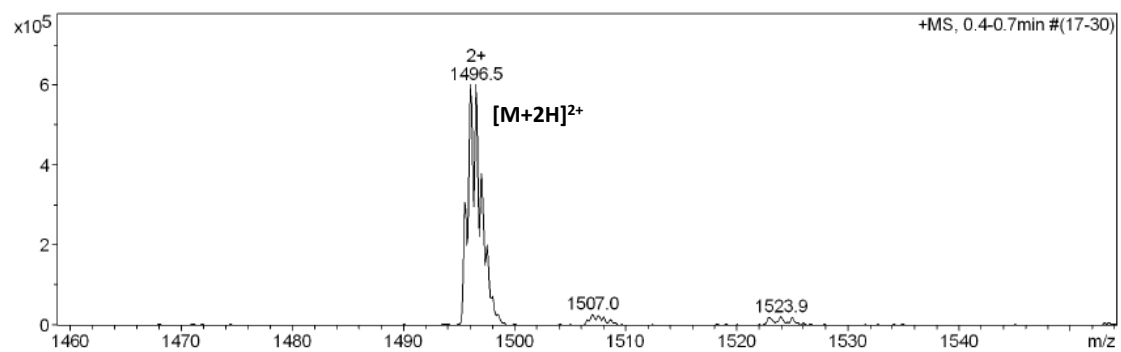
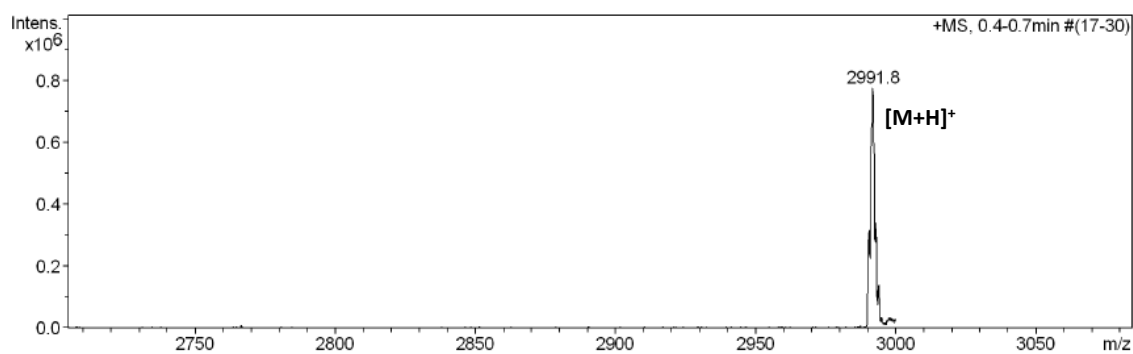
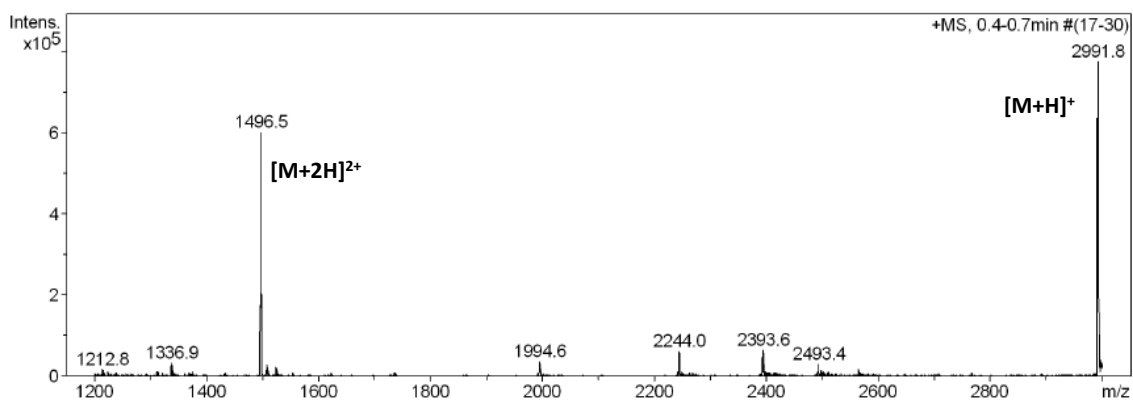
CC-44 (BP16-Pep13)**IMPURE PRODUCT**HPLC ($\lambda = 220$ nm) (CC-44 impur)

| No. | Temps retenció min | alçada mAU | Area mAU \cdot min | Area relativa % |
|--------|-----------------------|---------------|-------------------------|--------------------|
| 1 | 5,74 | 68,742 | 6,969 | 5,20 |
| 2 | 6,06 | 28,060 | 2,925 | 2,18 |
| 3 | 6,24 | 1572,550 | 113,038 | 84,39 |
| 4 | 6,46 | 65,274 | 11,012 | 8,22 |
| Total: | | 1734,626 | 133,945 | 100,00 |

PURE PRODUCT

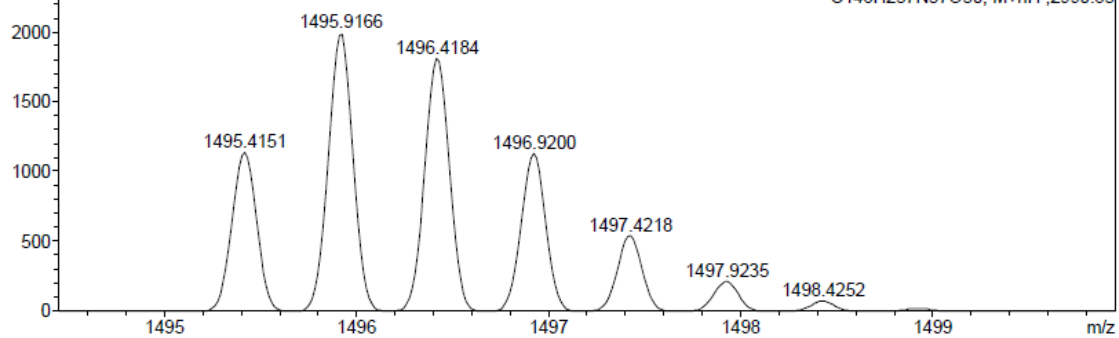
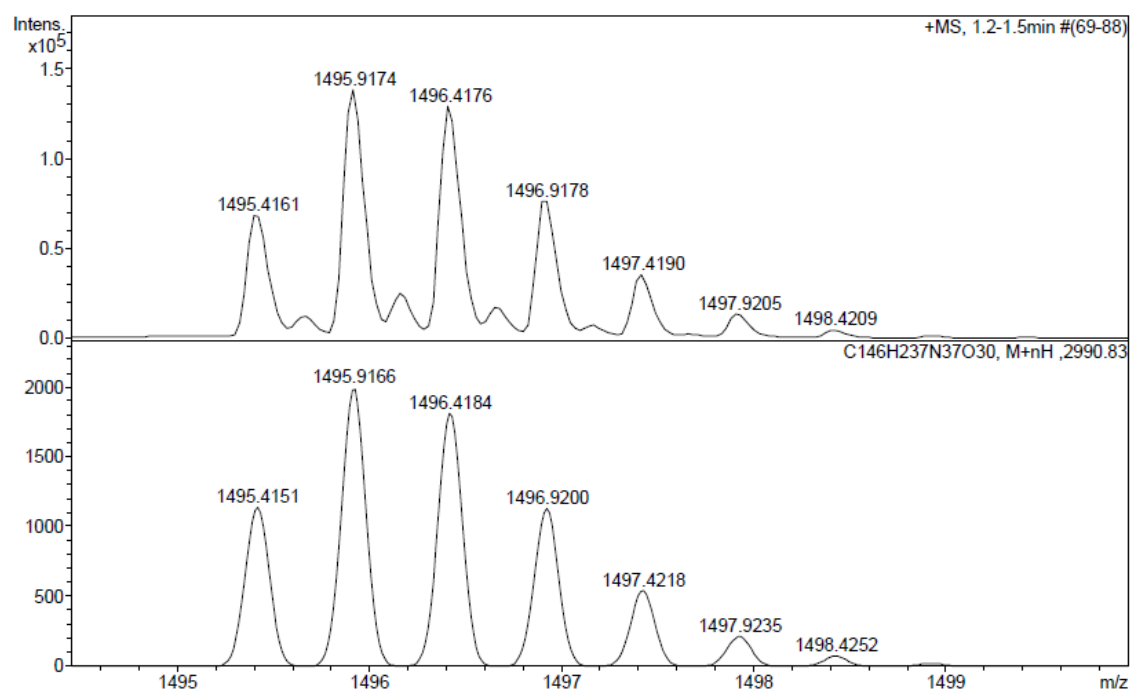
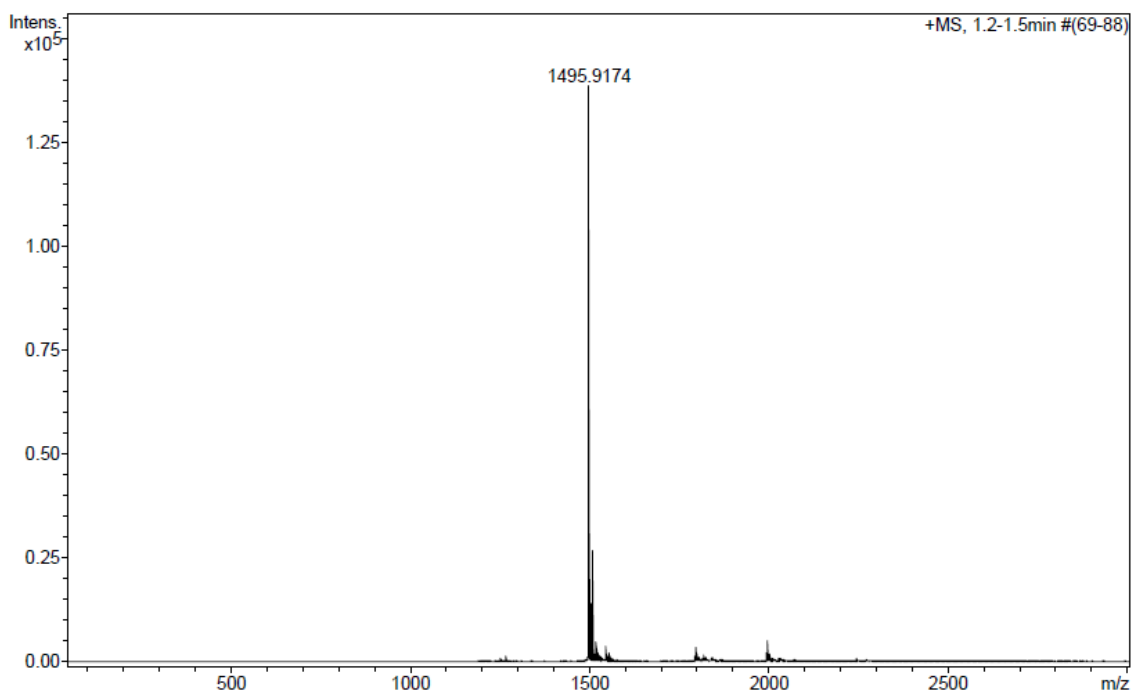
HPLC ($\lambda = 220 \text{ nm}$) (CC-44 tub 53)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 1656,133 | 103,122 | 100,00 |
| Total: | | 1656,133 | 103,122 | 100,00 |

ESI-MS (m/z) (CC-44 tub 53)

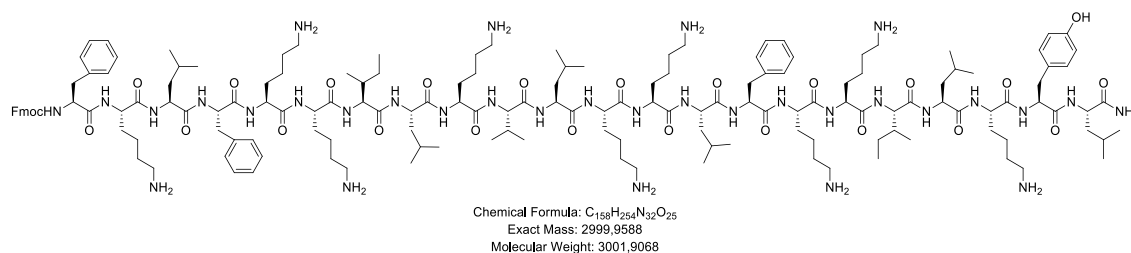
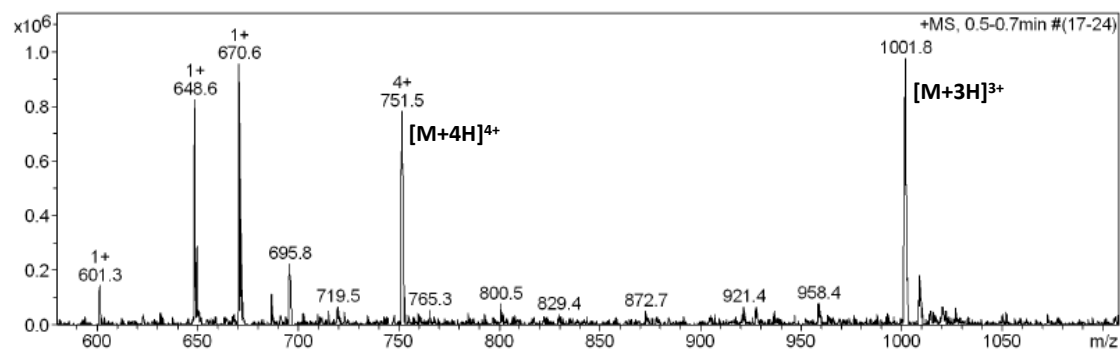
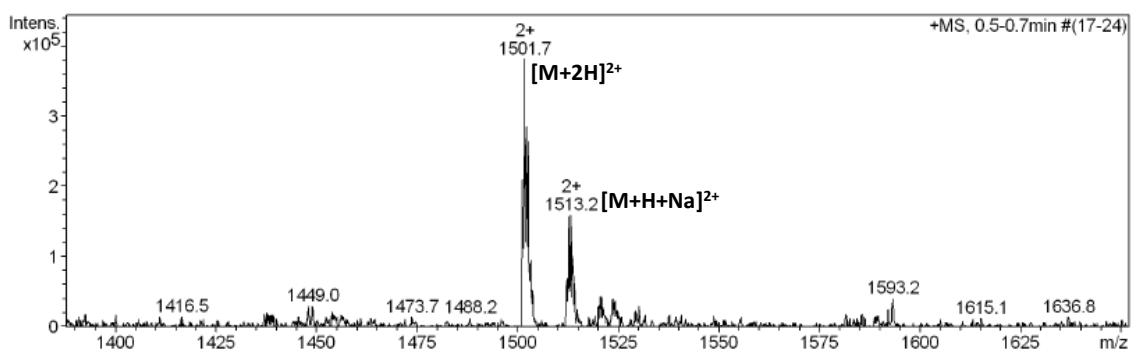
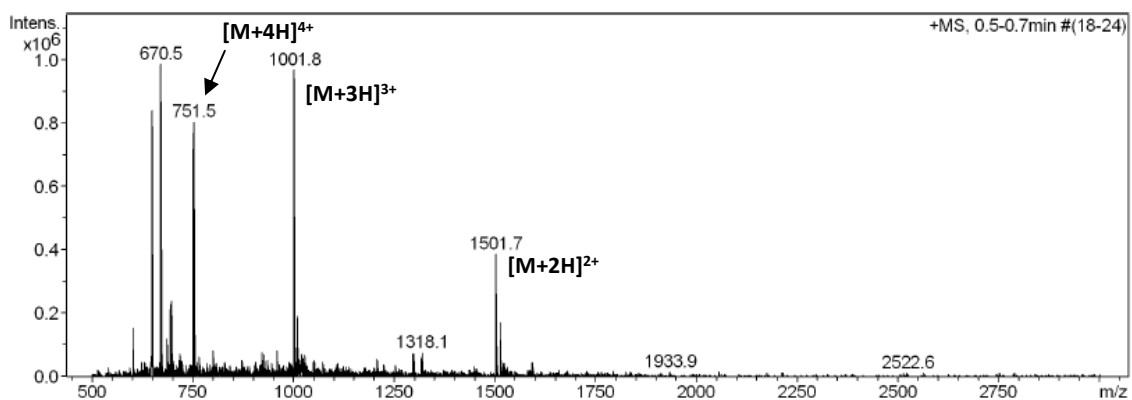
| |
|--------------------|
| $[M+H]^+ = 2991.8$ |
|--------------------|

| |
|------------------------|
| $[M+2H]^{2+} = 1496.5$ |
|------------------------|

HRMS (ESI) (m/z) (CC-44)

| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+2H]^{2+}$ | <chem>C146H239N37O30</chem> | 1495.4151 | 1495.4161 |

Fmoc-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ LP-1
(BP13-BP100)

ESI-MS (*m/z*) (LP1-26F)

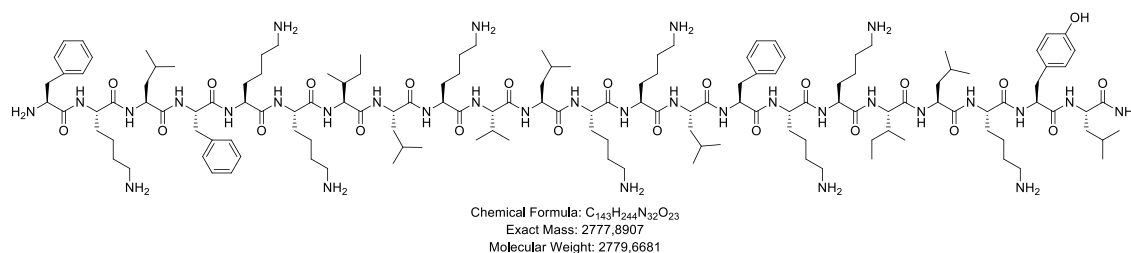
| |
|-------------------------------|
| [M+2H] ²⁺ = 1501.7 |
|-------------------------------|

| |
|---------------------------------|
| [M+H+Na] ²⁺ = 1513.2 |
|---------------------------------|

| |
|-------------------------------|
| [M+3H] ³⁺ = 1001.8 |
|-------------------------------|

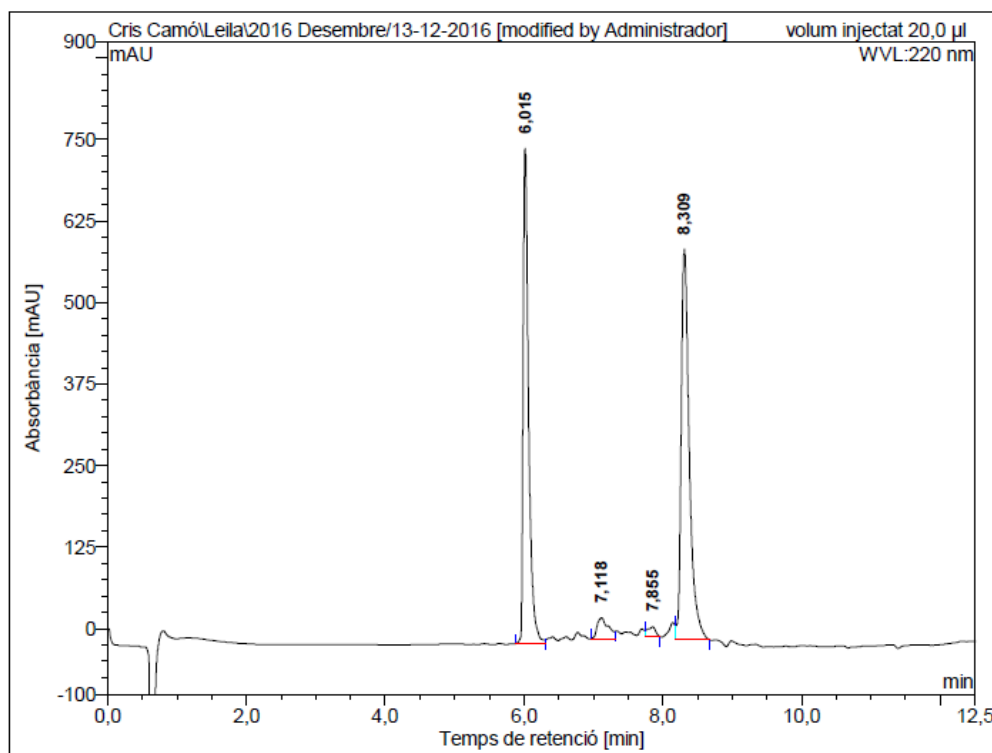
| |
|------------------------------|
| [M+4H] ⁴⁺ = 751.5 |
|------------------------------|

Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ **LP-1 (BP13-BP100)**

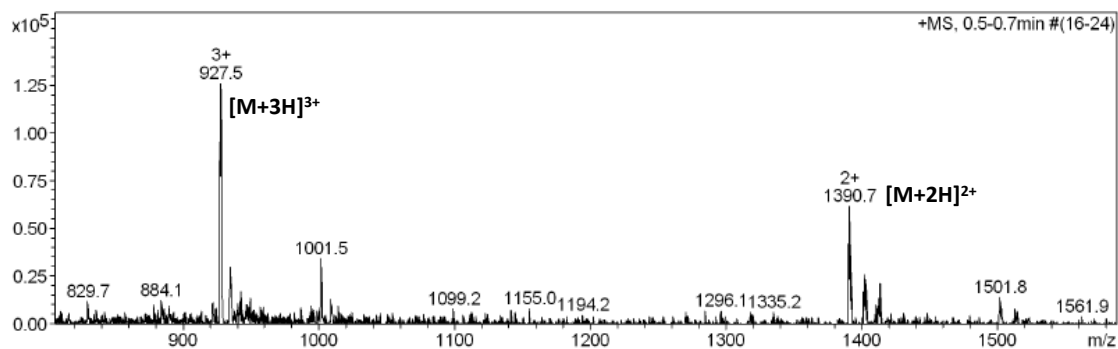
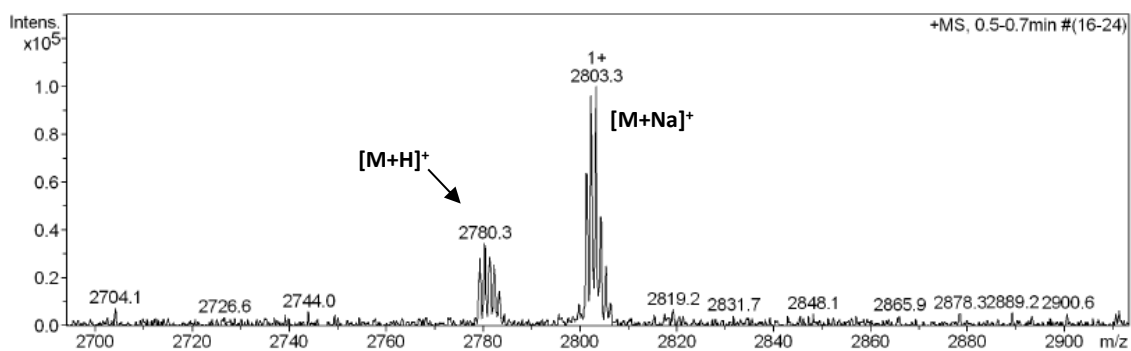
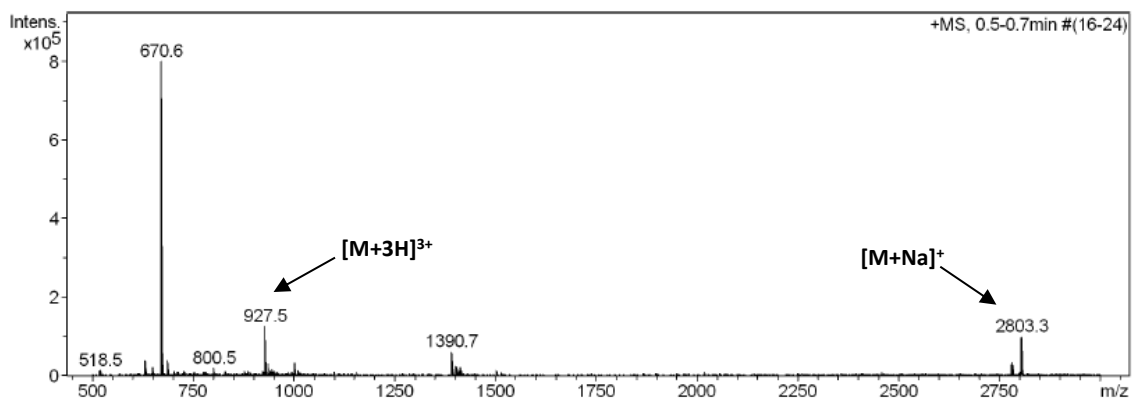


IMPURE PRODUCT

HPLC (λ = 220 nm) (LP1-1.1(27) impur)

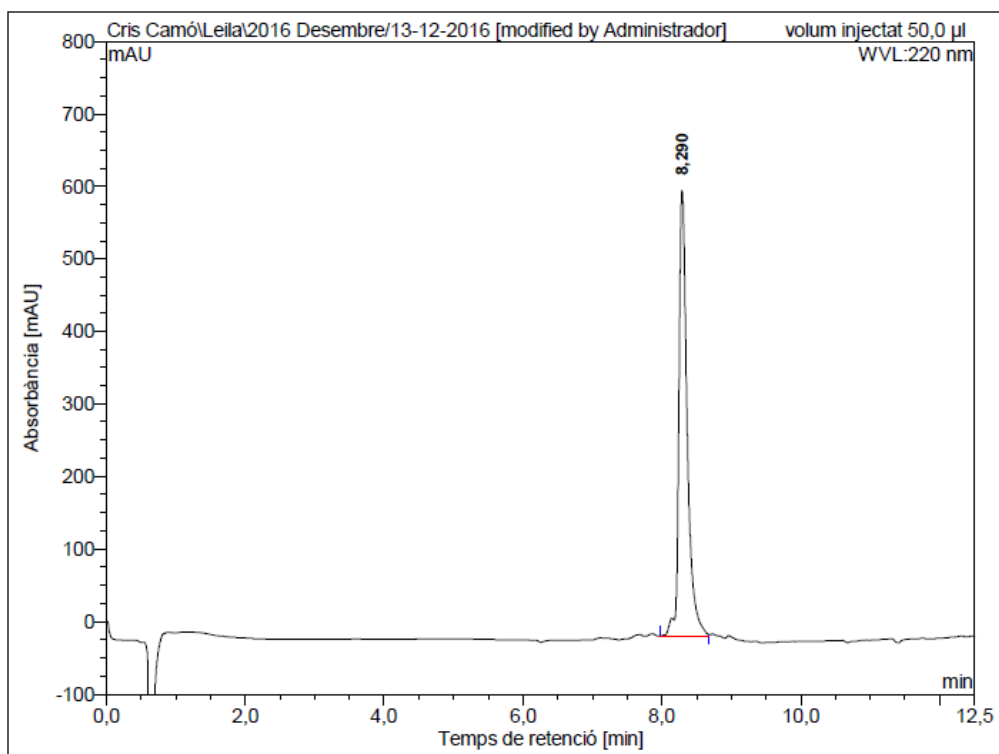


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,01 | 759,450 | 68,841 | 43,59 |
| 2 | 7,12 | 32,359 | 6,044 | 3,83 |
| 3 | 7,86 | 14,863 | 2,101 | 1,33 |
| 4 | 8,31 | 598,846 | 80,940 | 51,25 |
| Total: | | 1405,517 | 157,926 | 100,00 |

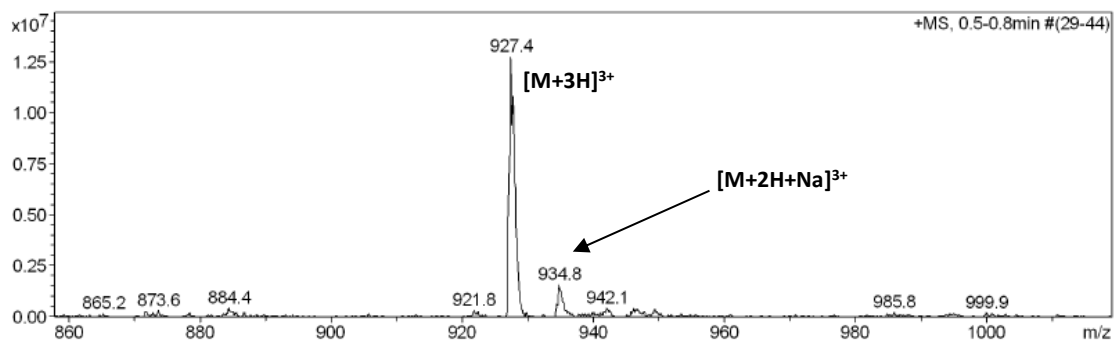
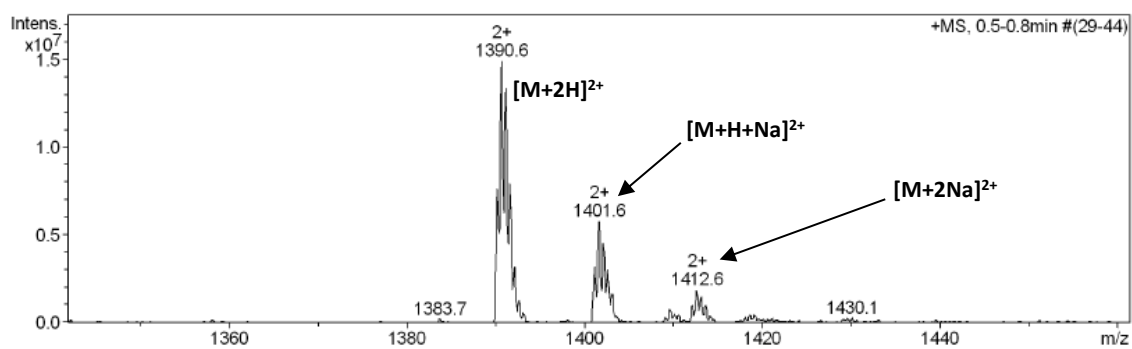
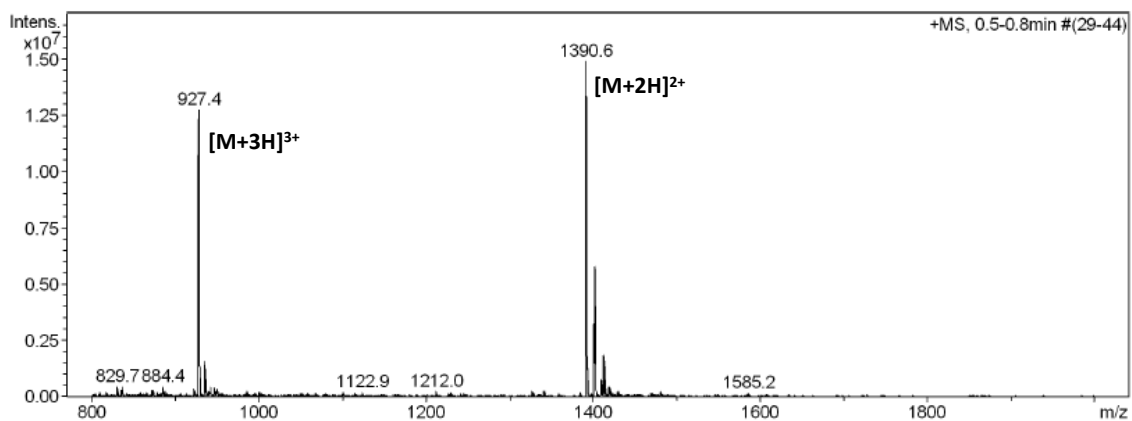
ESI-MS (m/z) (LP1-26)

| |
|------------------------|
| $[M+H]^+ = 2780.3$ |
| $[M+Na]^+ = 2803.3$ |
| $[M+2H]^{2+} = 1390.7$ |
| $[M+3H]^{3+} = 927.5$ |

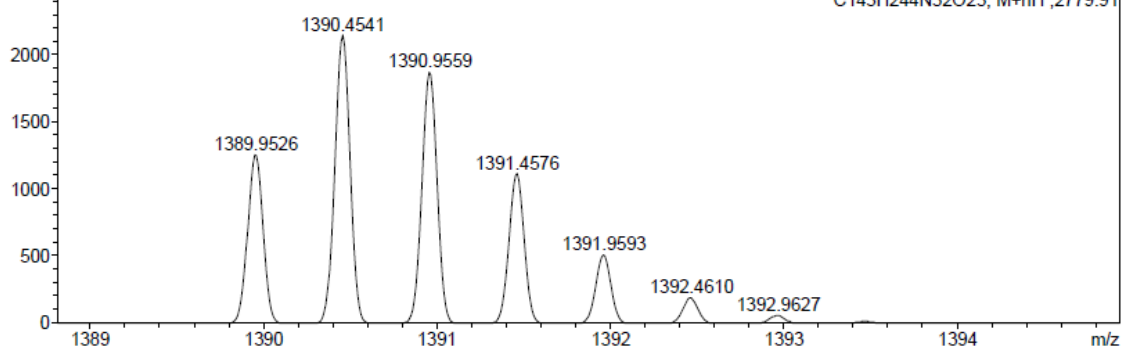
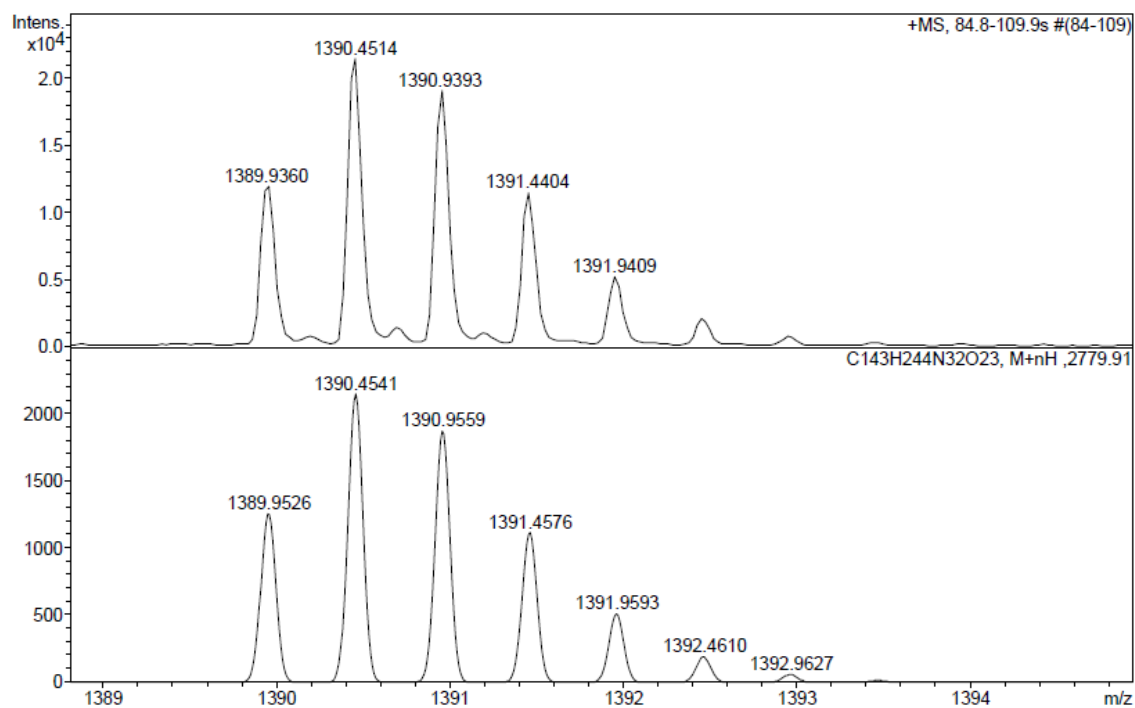
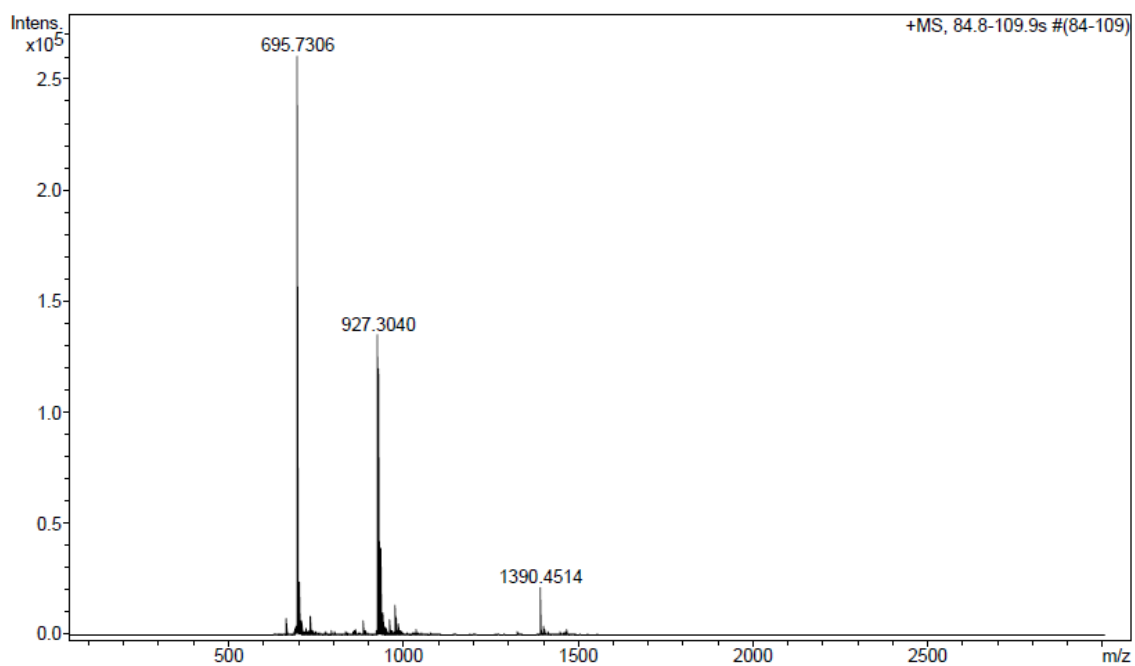
PURE PRODUCT

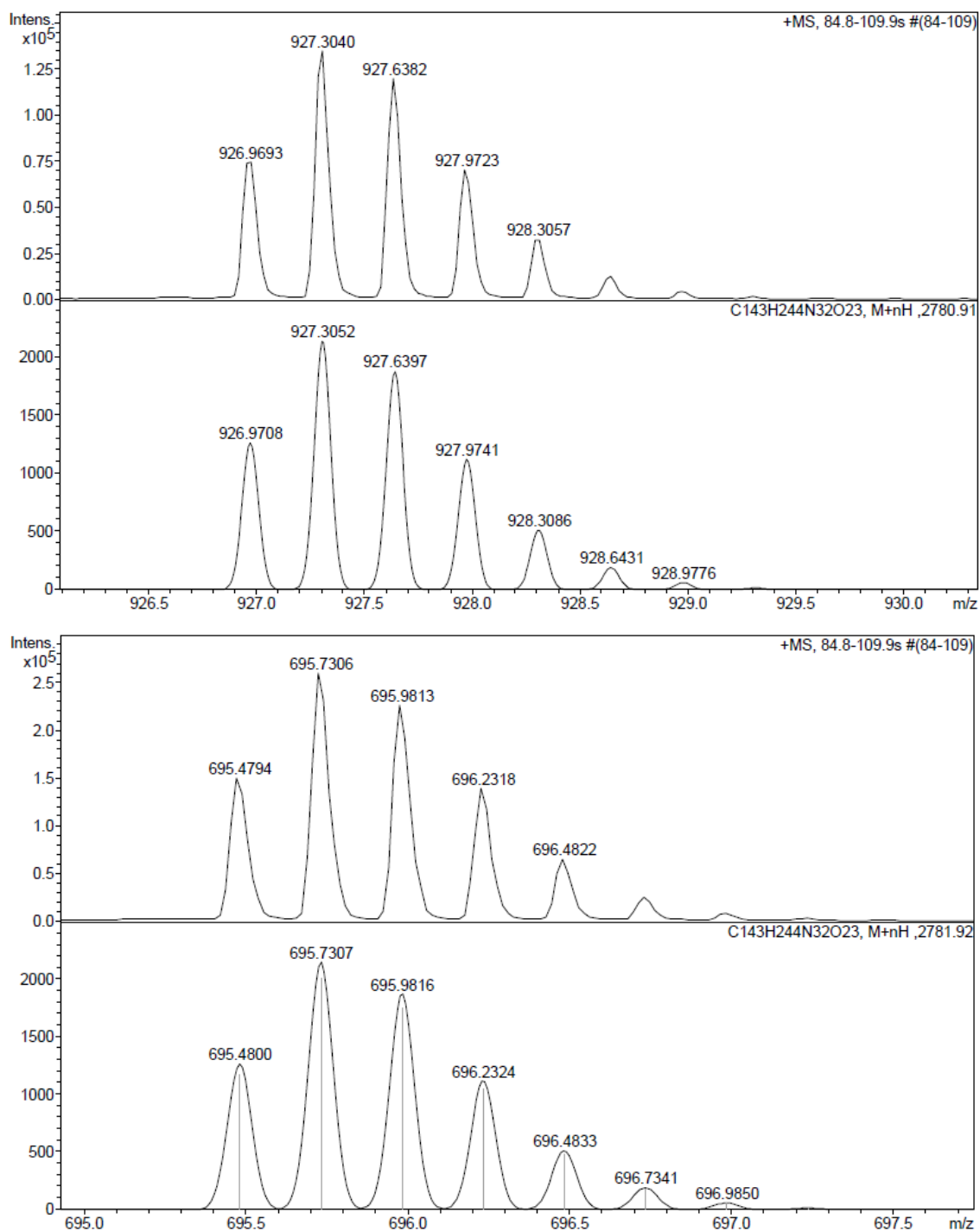
HPLC ($\lambda = 220 \text{ nm}$) (LP1.1-27 tub 33)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,29 | 615,017 | 85,815 | 100,00 |
| Total: | | 615,017 | 85,815 | 100,00 |

ESI-MS (m/z) (LP1.1-27 tub 33)

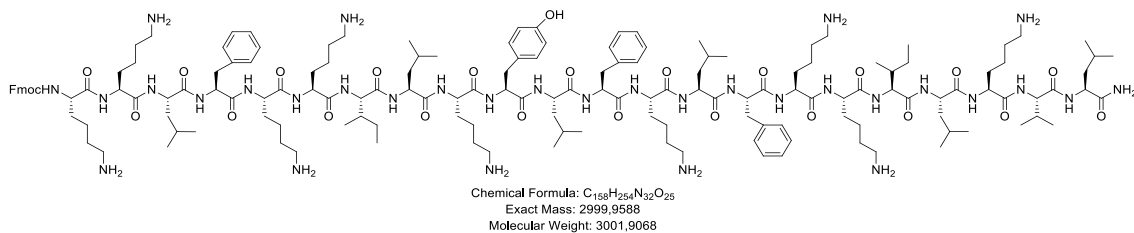
| |
|--------------------------|
| $[M+2H]^{2+} = 1390.6$ |
| $[M+H+Na]^{2+} = 1401.6$ |
| $[M+2Na]^{2+} = 1412.6$ |
| $[M+3H]^{3+} = 927.4$ |
| $[M+2H+Na]^{3+} = 934.8$ |

HRMS (ESI) (m/z) (LP1.1)

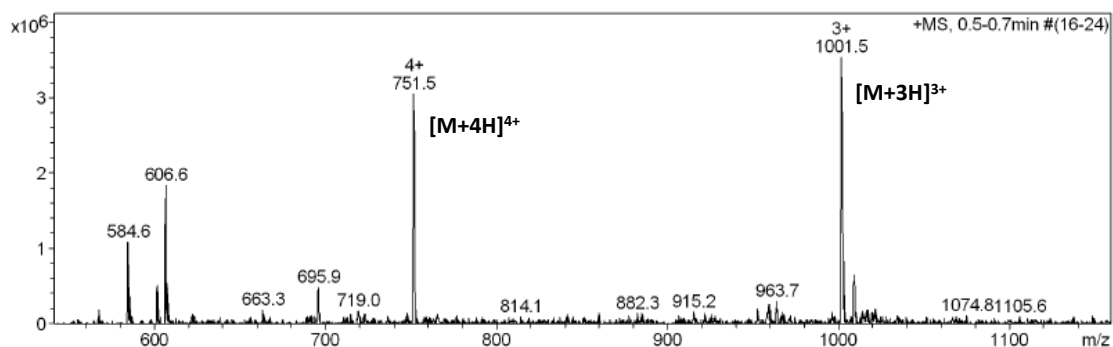
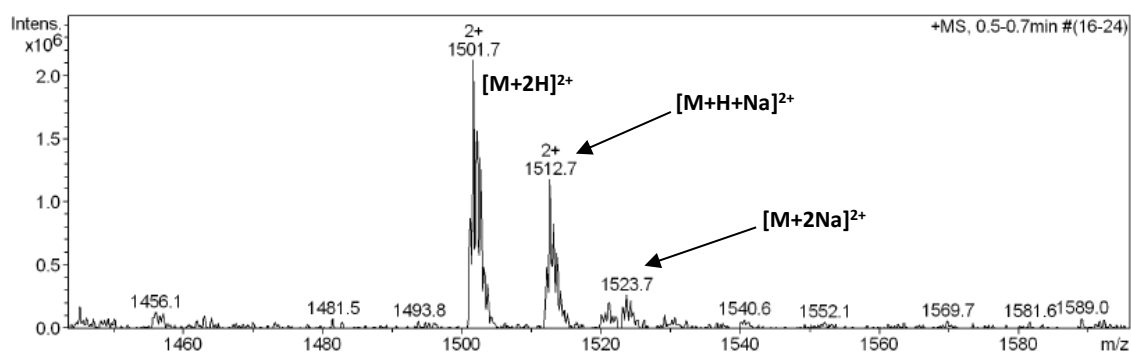
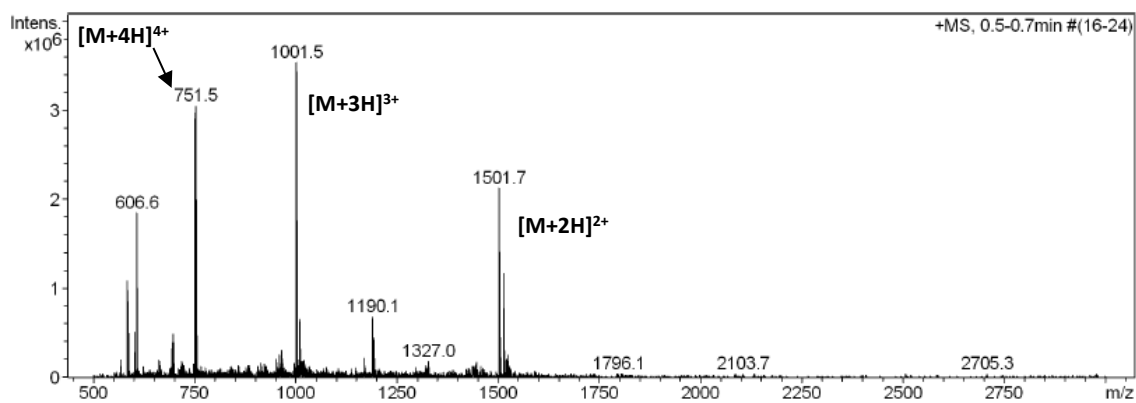


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₃ H ₂₄₆ N ₃₂ O ₂₃ | 1389.9526 | 1389.9360 |
| [M+3H]³⁺ | C ₁₄₃ H ₂₄₇ N ₃₂ O ₂₃ | 926.9708 | 926.9693 |
| [M+4H]⁴⁺ | C ₁₄₃ H ₂₄₈ N ₃₂ O ₂₃ | 695.4800 | 695.4794 |

Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ **LP-2**
(BP100-BP13)

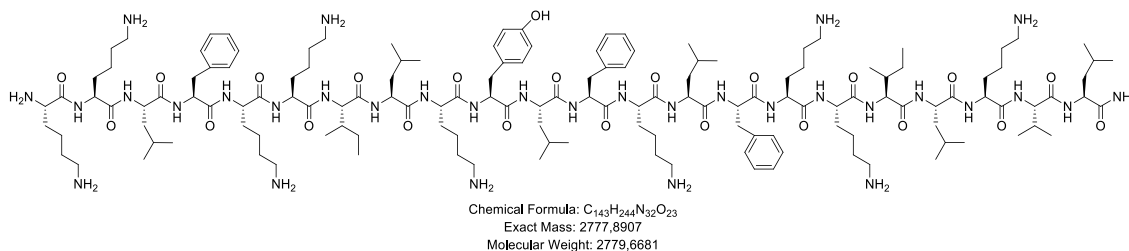


ESI-MS (*m/z*) (LP2-26F)



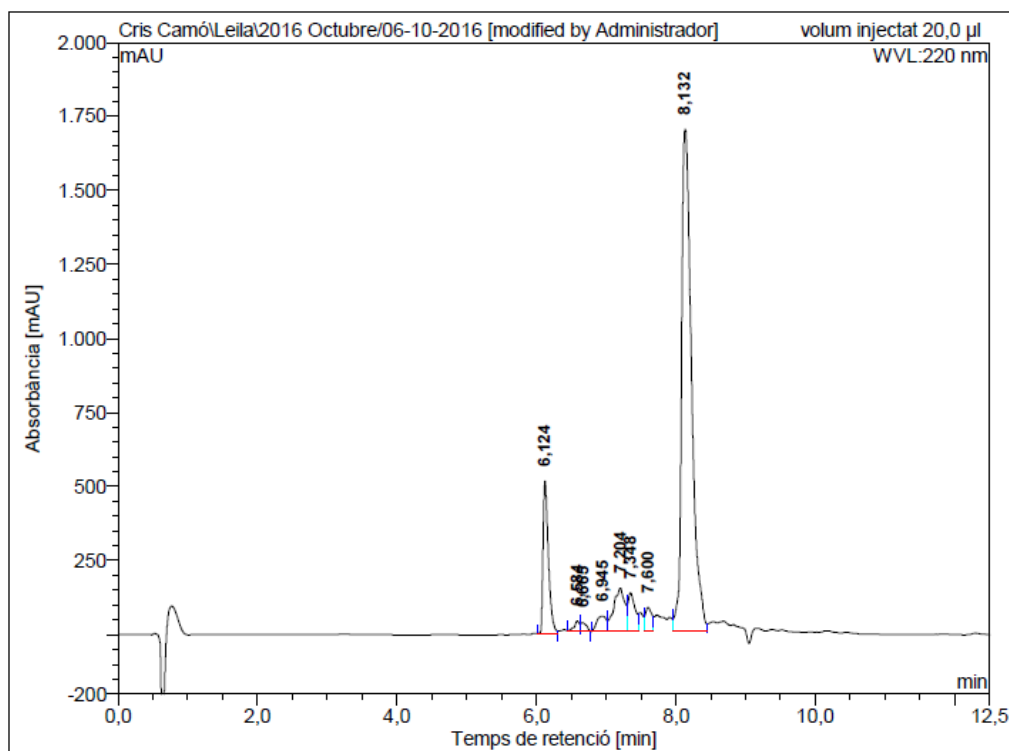
| |
|--------------------------|
| $[M+2H]^{2+} = 1501.7$ |
| $[M+H+Na]^{2+} = 1512.7$ |
| $[M+2Na]^{2+} = 1523.7$ |
| $[M+3H]^{3+} = 1001.5$ |
| $[M+4H]^{4+} = 751.5$ |

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Phe-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Val-Leu-NH₂ LP-2
(BP100-BP13)



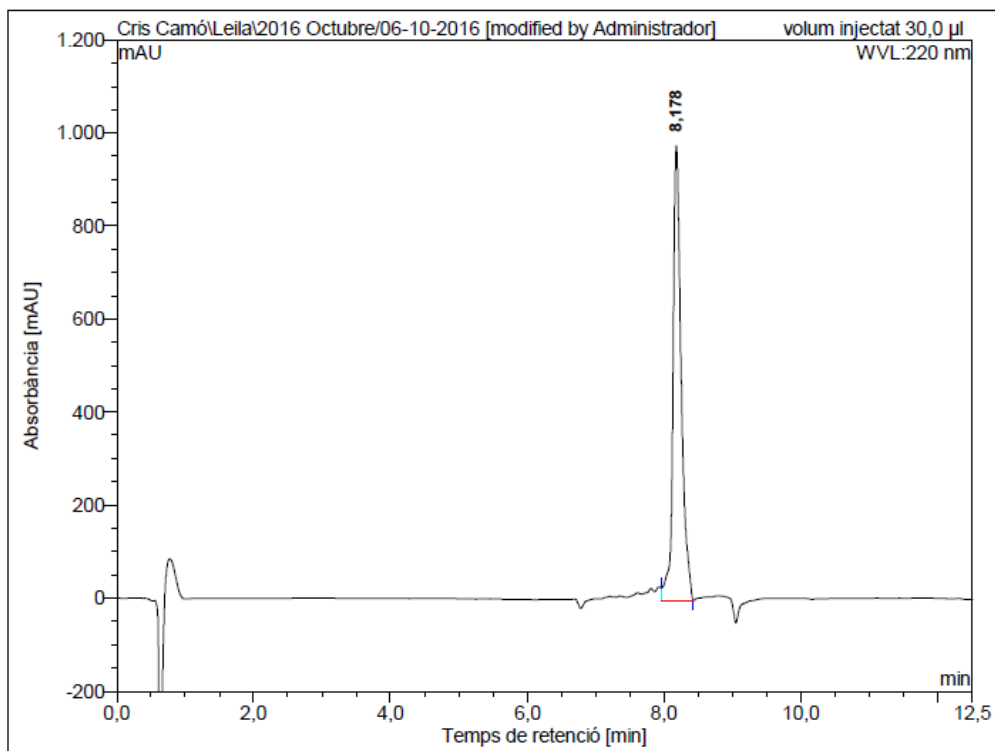
IMPURE PRODUCT

HPLC ($\lambda = 220$ nm) (LP-2 impur)

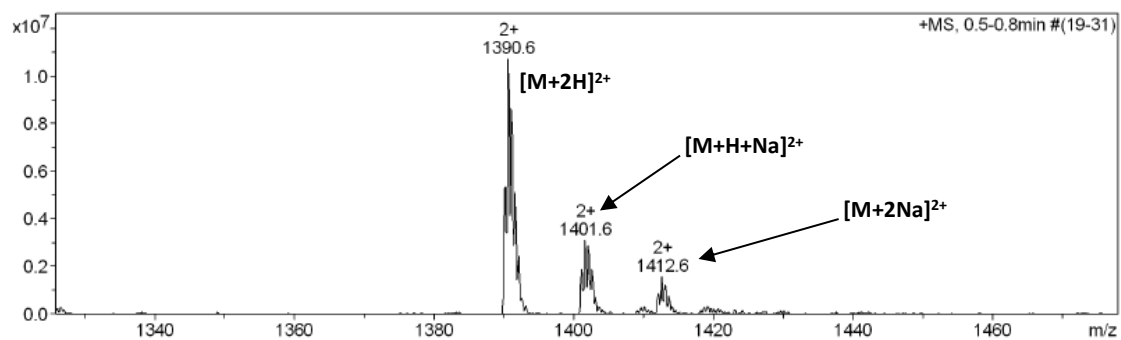
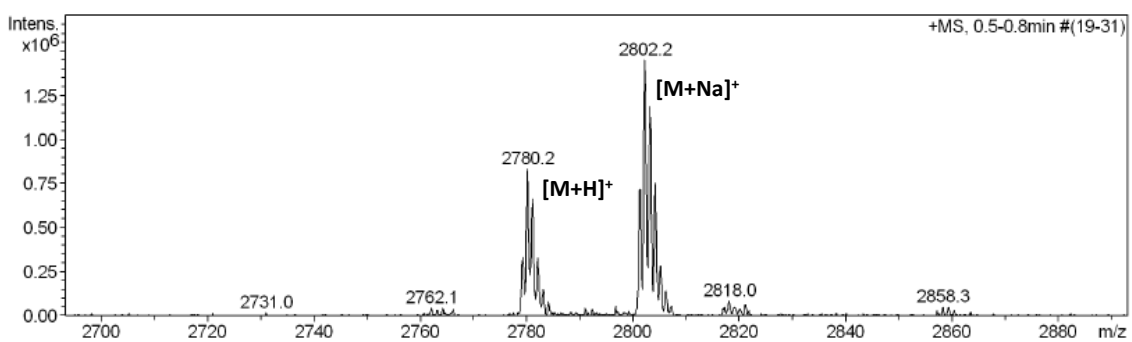
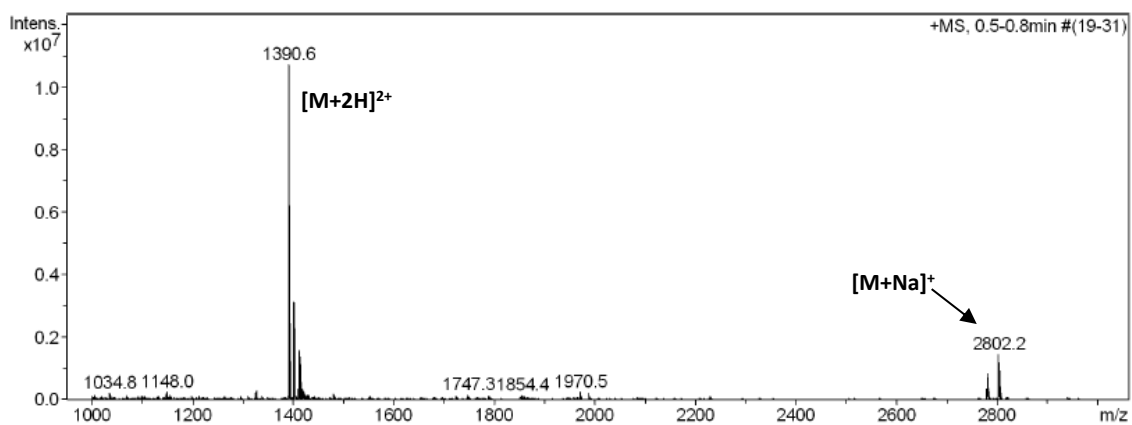


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,12 | 515,343 | 46,346 | 11,84 |
| 2 | 6,58 | 34,661 | 3,061 | 0,78 |
| 3 | 6,66 | 29,921 | 2,859 | 0,73 |
| 4 | 6,95 | 50,714 | 7,961 | 2,03 |
| 5 | 7,20 | 145,269 | 26,038 | 6,65 |
| 6 | 7,35 | 129,576 | 15,619 | 3,99 |
| 7 | 7,60 | 81,251 | 9,182 | 2,35 |
| 8 | 8,13 | 1694,017 | 280,288 | 71,62 |
| Total: | | 2680,754 | 391,354 | 100,00 |

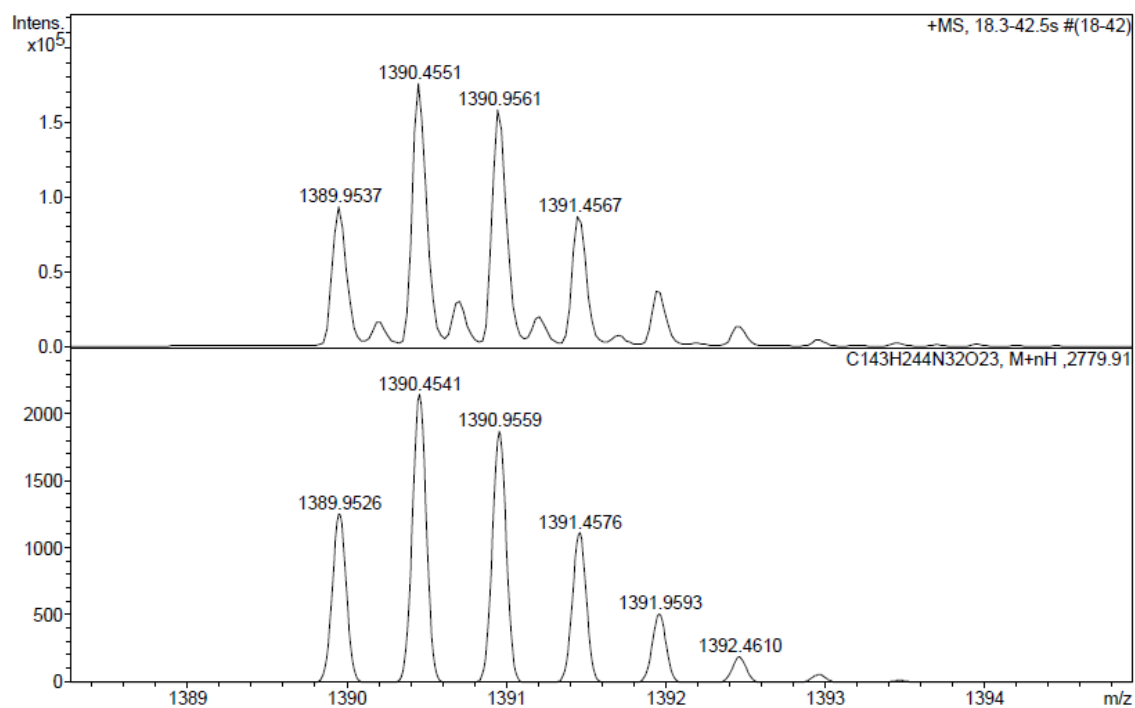
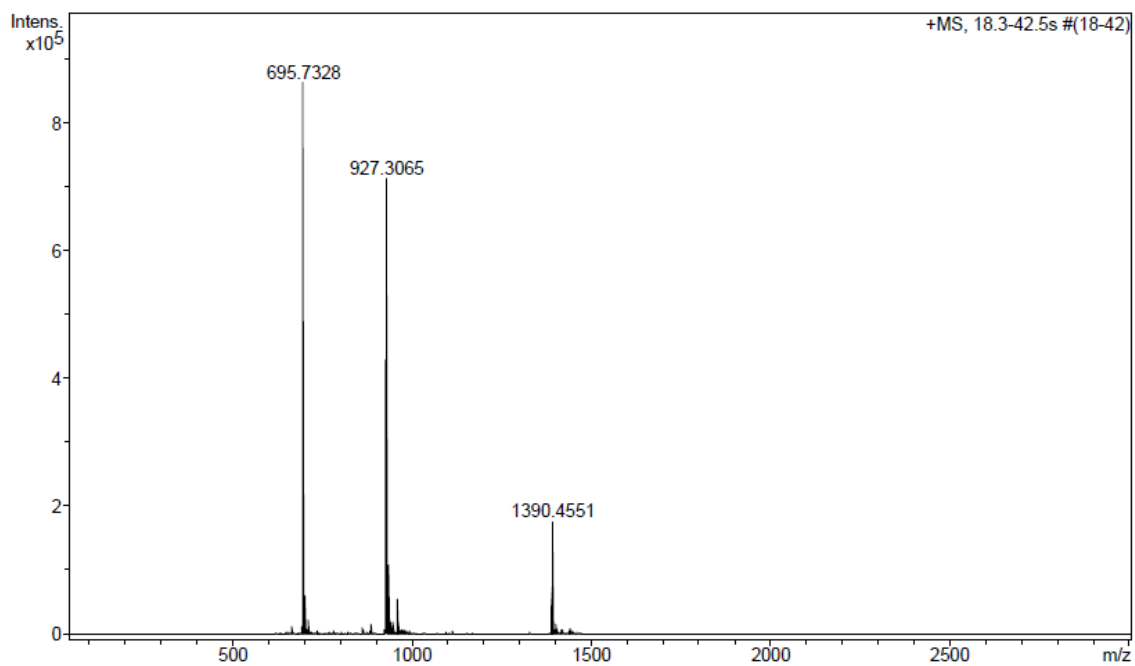
PURE PRODUCT

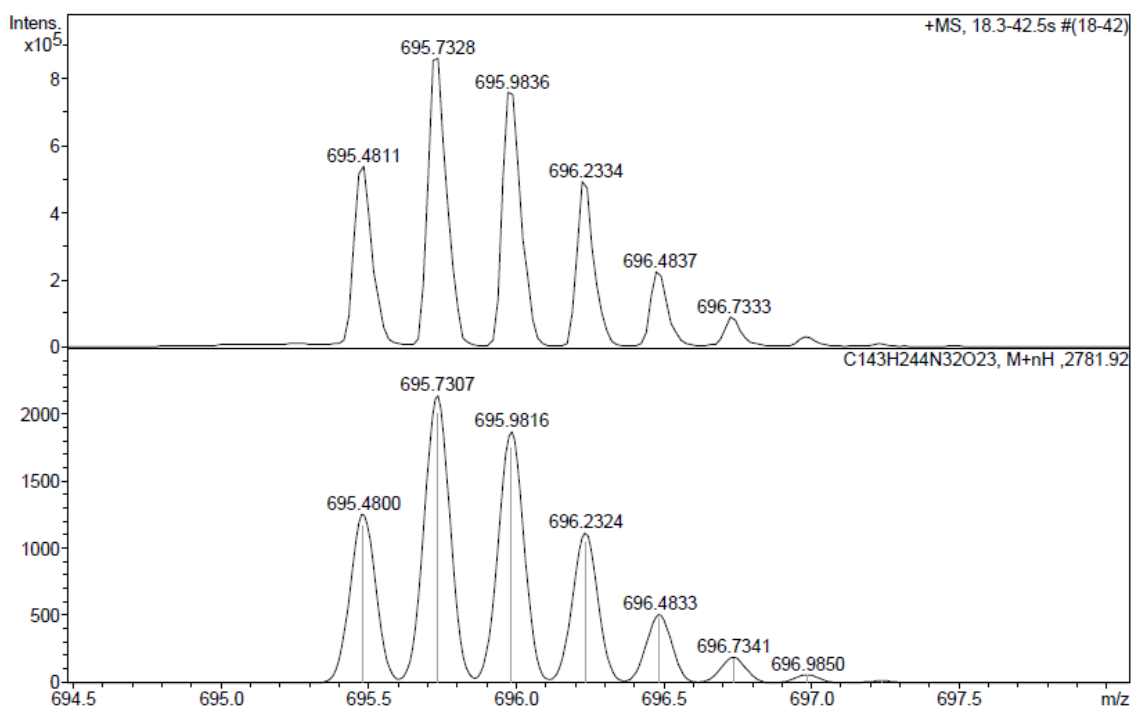
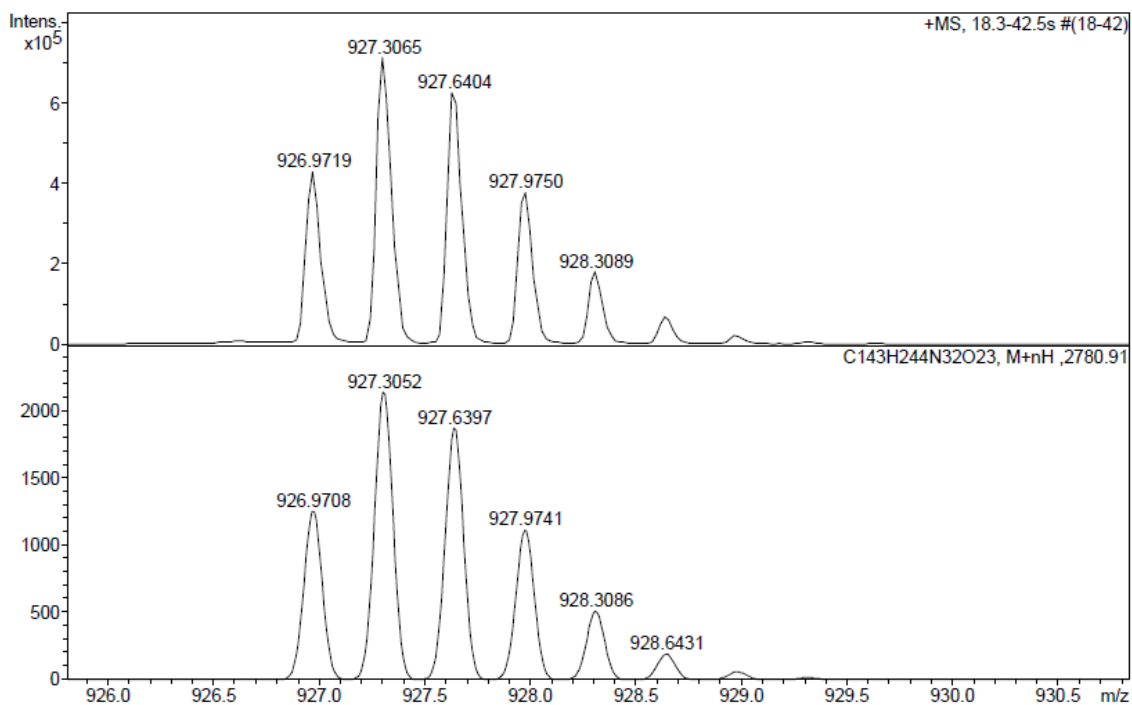
HPLC ($\lambda = 220 \text{ nm}$) (LP-2 tub 40)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 8,18 | 976,959 | 135,414 | 100,00 |
| Total: | | 976,959 | 135,414 | 100,00 |

ESI-MS (m/z) (LP2 tub 40)

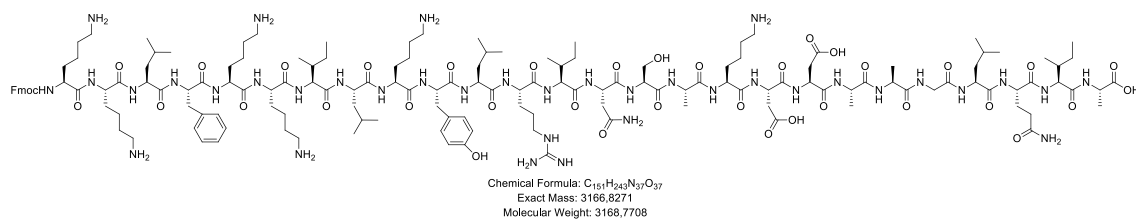
| |
|--------------------------|
| $[M+H]^+ = 2780.2$ |
| $[M+Na]^+ = 2802.2$ |
| $[M+2H]^{2+} = 1390.6$ |
| $[M+H+Na]^{2+} = 1401.6$ |
| $[M+2Na]^{2+} = 1412.6$ |

HRMS (ESI) (m/z) (LP2)

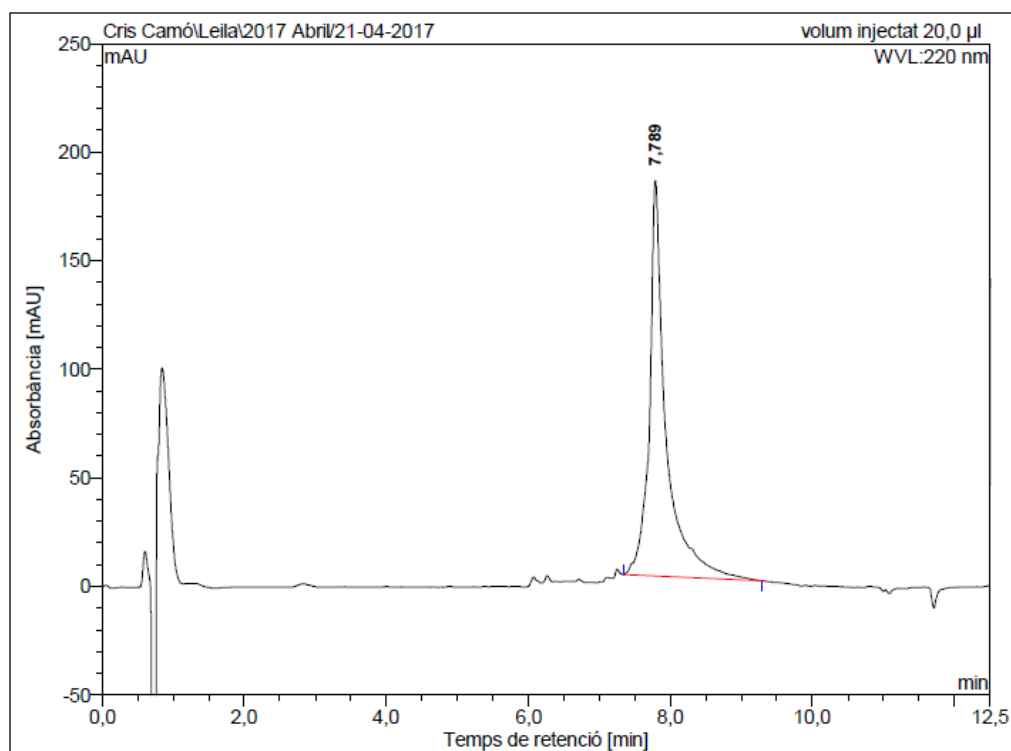


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₃ H ₂₄₆ N ₃₂ O ₂₃ | 1389.9526 | 1389.9537 |
| [M+3H]³⁺ | C ₁₄₃ H ₂₄₇ N ₃₂ O ₂₃ | 926.9708 | 926.9719 |
| [M+4H]⁴⁺ | C ₁₄₃ H ₂₄₈ N ₃₂ O ₂₃ | 695.4800 | 695.4811 |

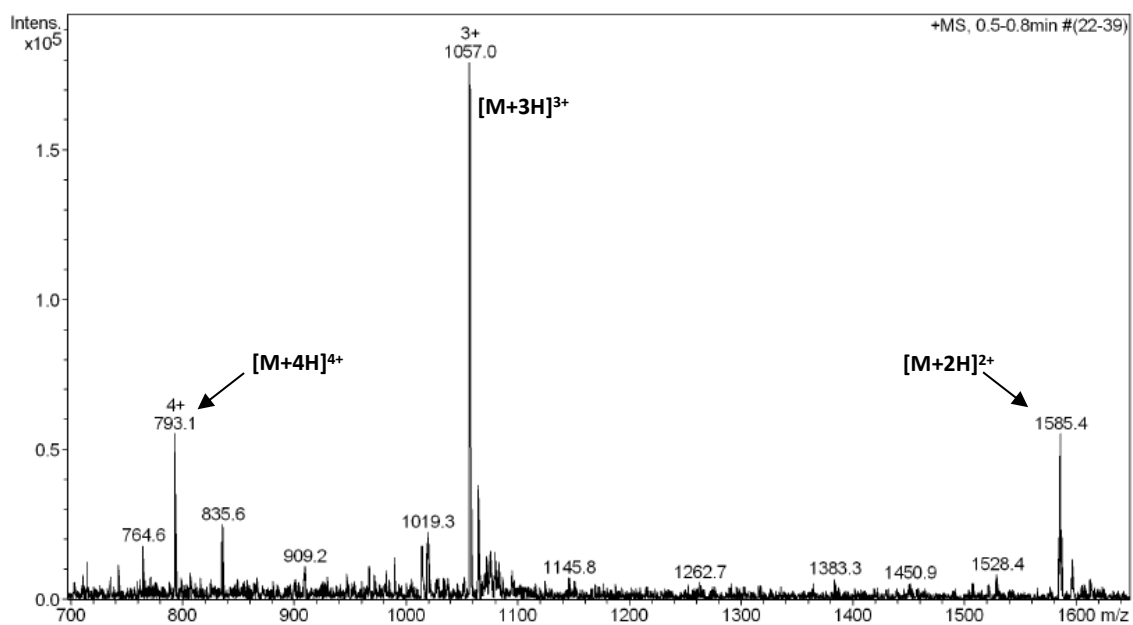
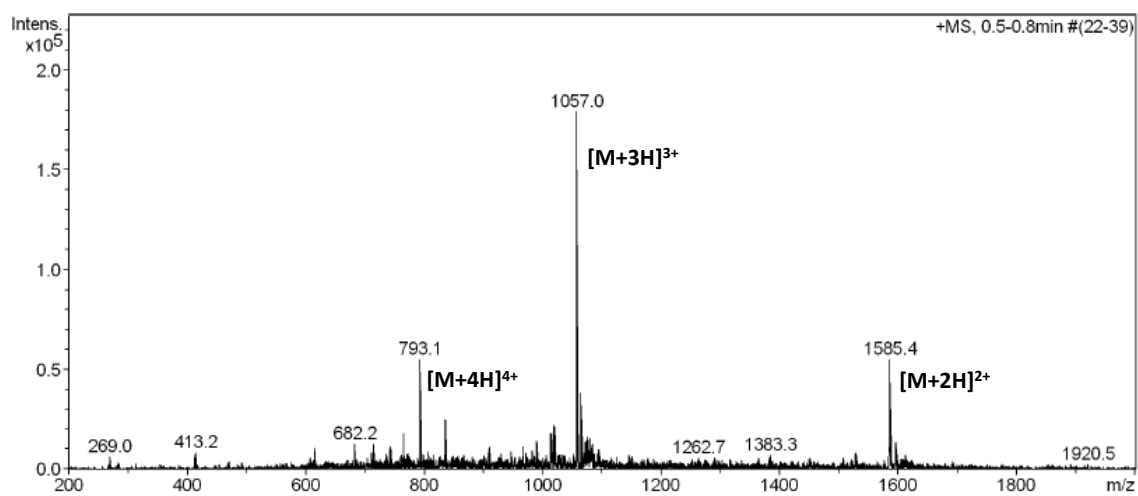
Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-OH LP-3 (BP100-flg15)



HPLC ($\lambda = 220 \text{ nm}$) (LP3 pag 75)



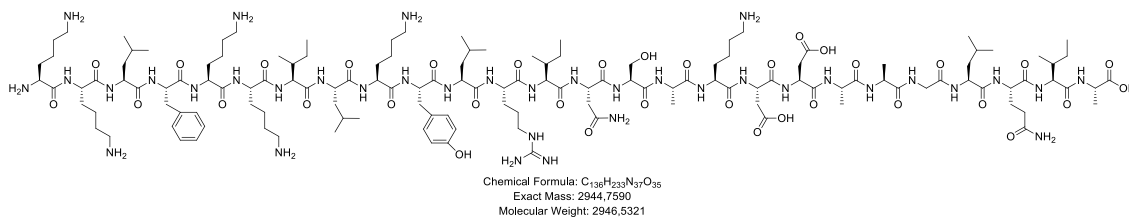
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,79 | 182,153 | 49,441 | 100,00 |
| Total: | | 182,153 | 49,441 | 100,00 |

ESI-MS (m/z) (LP3 pag 75)

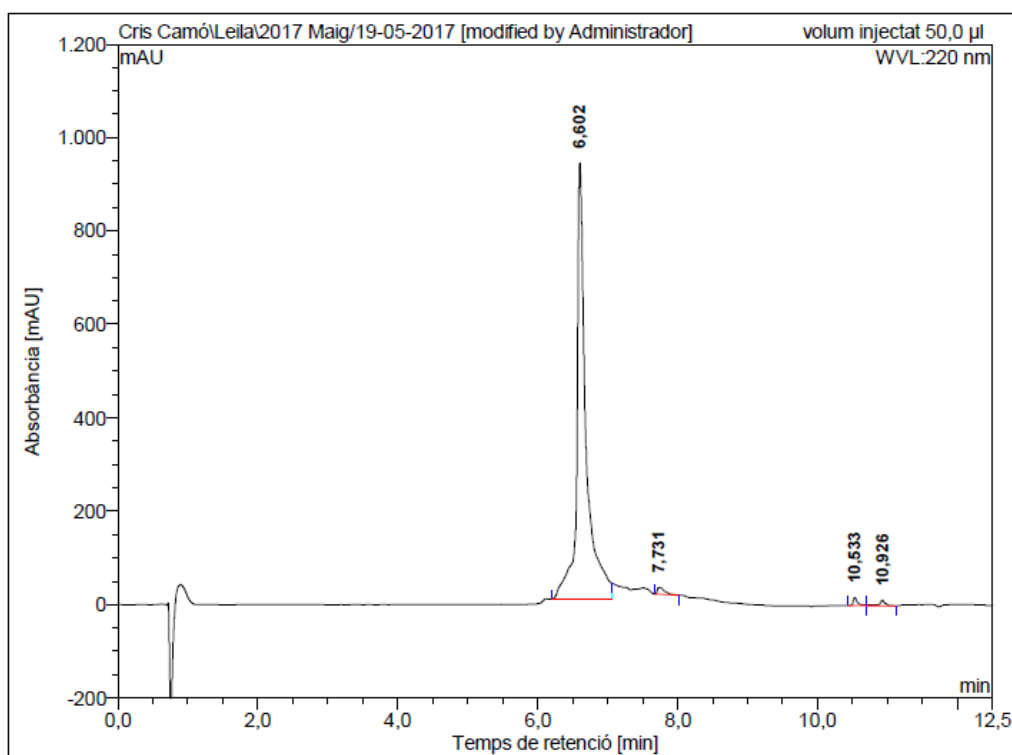
| |
|------------------------|
| $[M+2H]^{2+} = 1585.4$ |
| $[M+3H]^{3+} = 1057.0$ |
| $[M+4H]^{4+} = 793.1$ |

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-

OH LP-3 (BP100-flg15)

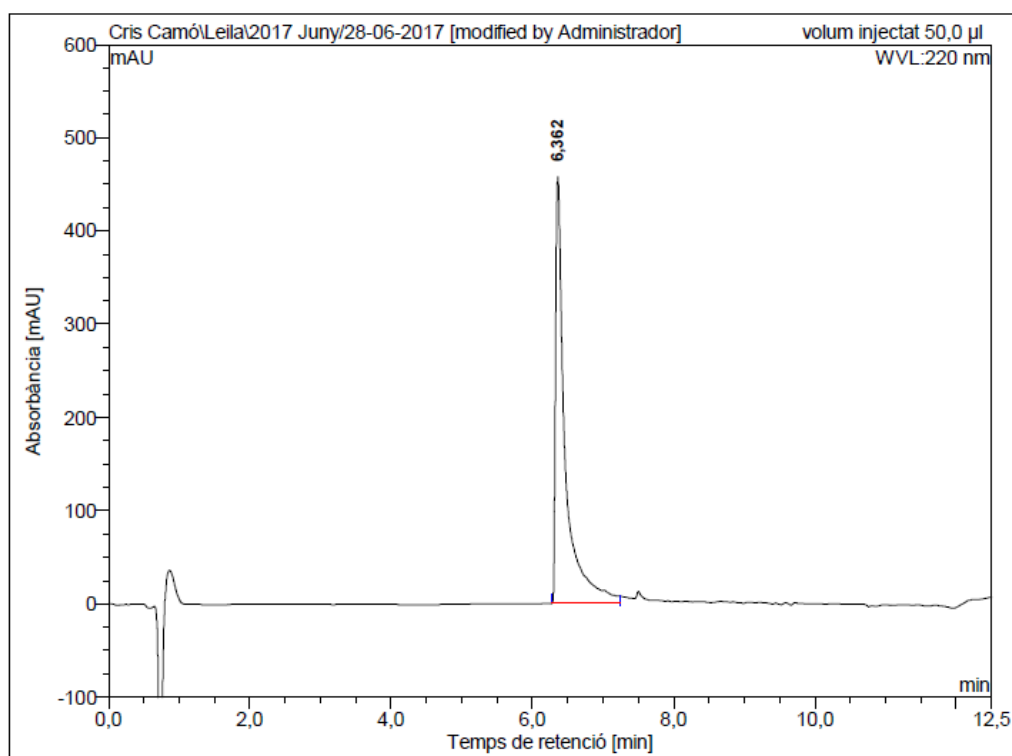


IMPURE PRODUCT

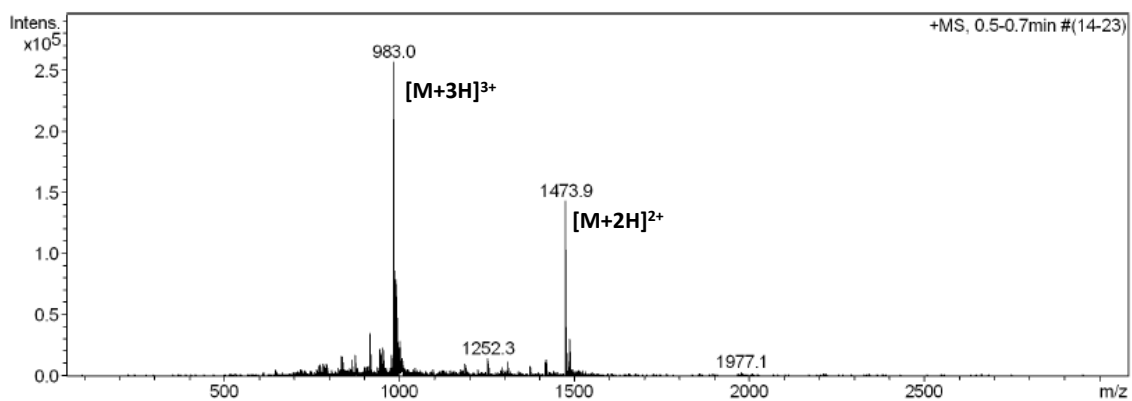
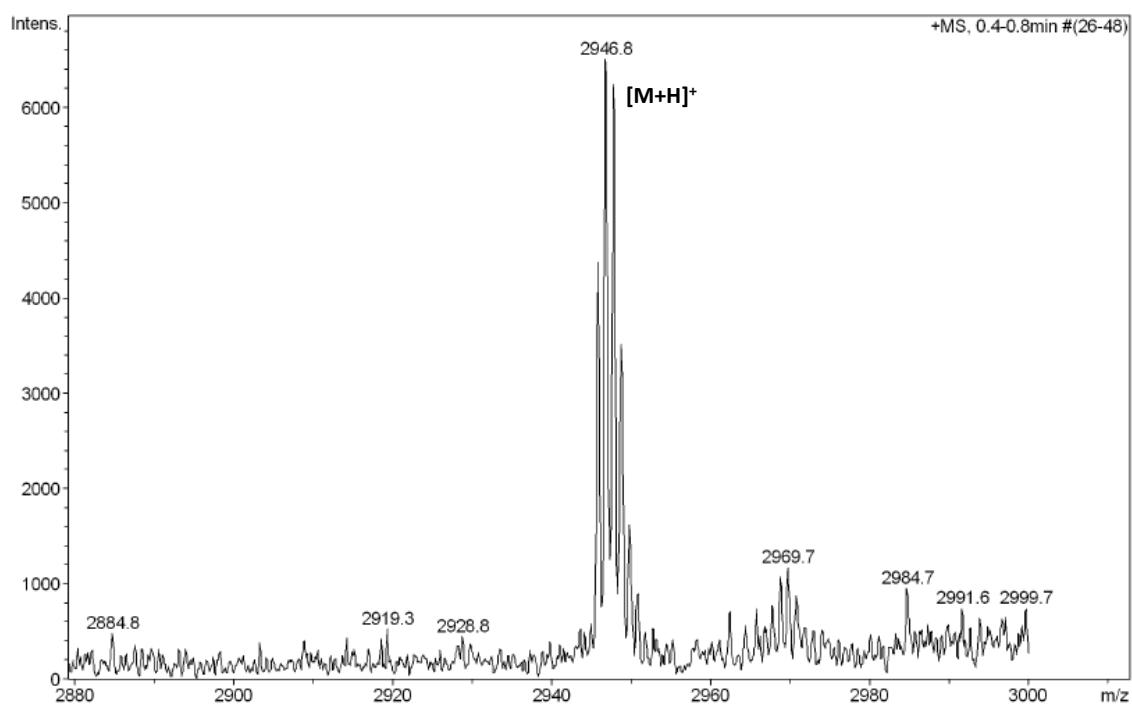
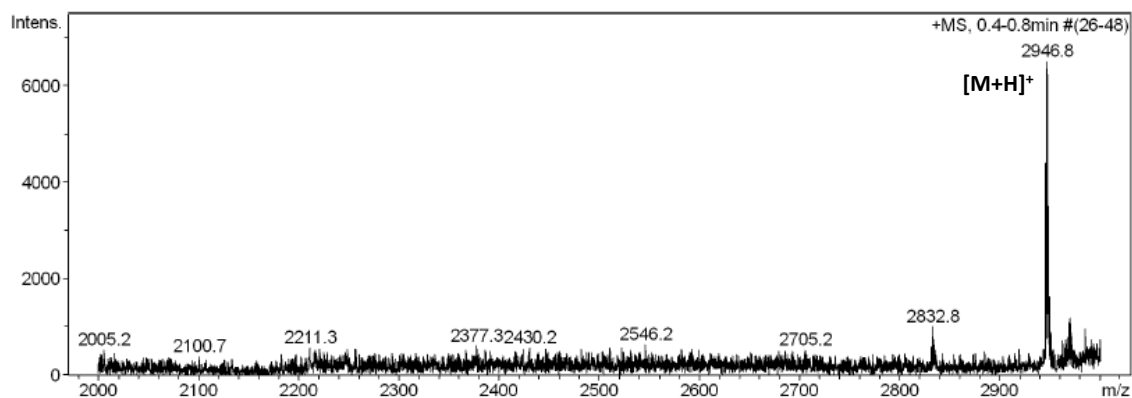
HPLC ($\lambda = 220$ nm) (LP3-impur)

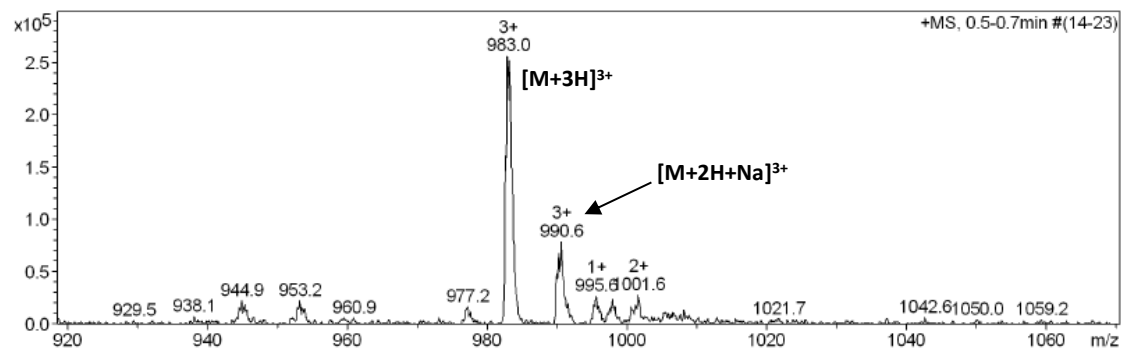
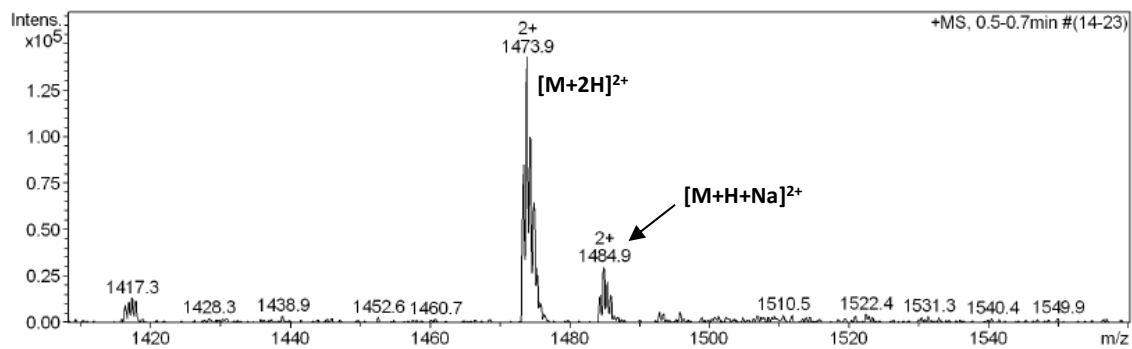
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,60 | 935,141 | 144,693 | 96,98 |
| 2 | 7,73 | 14,715 | 1,791 | 1,20 |
| 3 | 10,53 | 17,581 | 1,310 | 0,88 |
| 4 | 10,93 | 12,565 | 1,404 | 0,94 |
| Total: | | 980,003 | 149,197 | 100,00 |

PURE PRODUCT

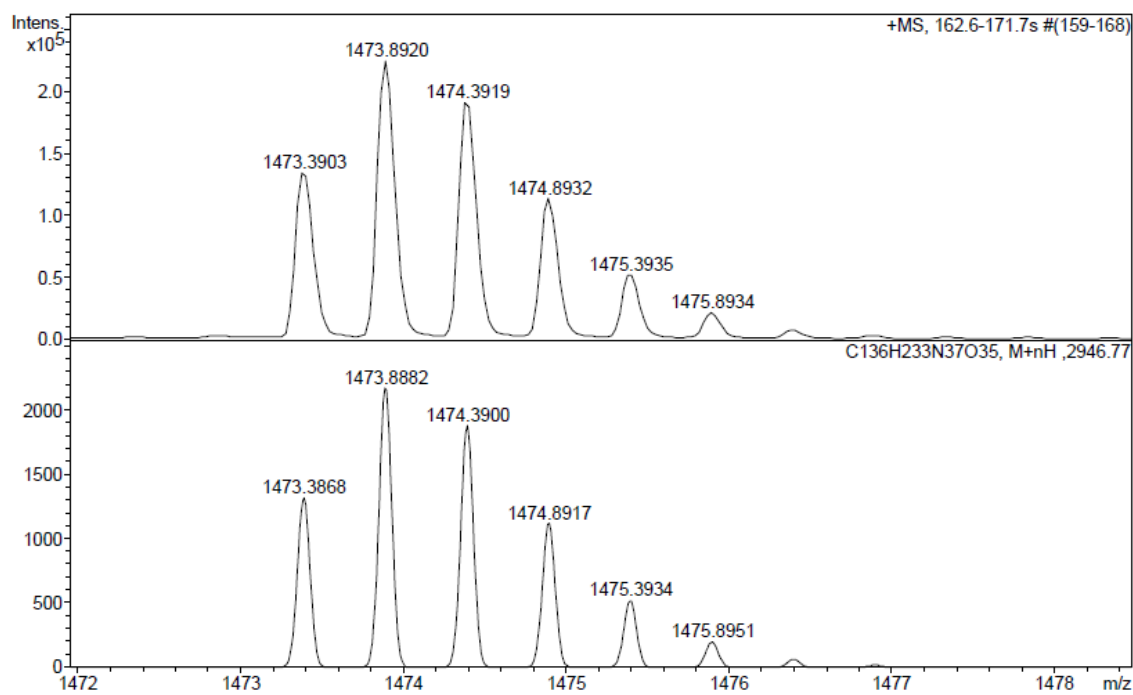
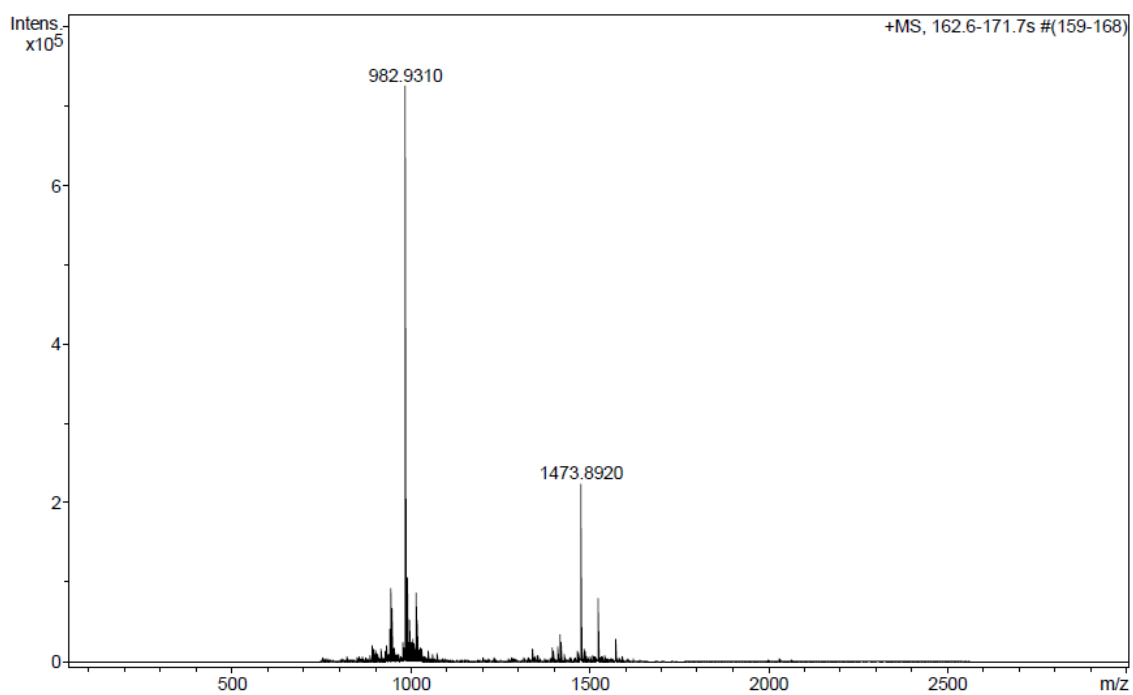
HPLC ($\lambda = 220 \text{ nm}$) (LP3-T59)

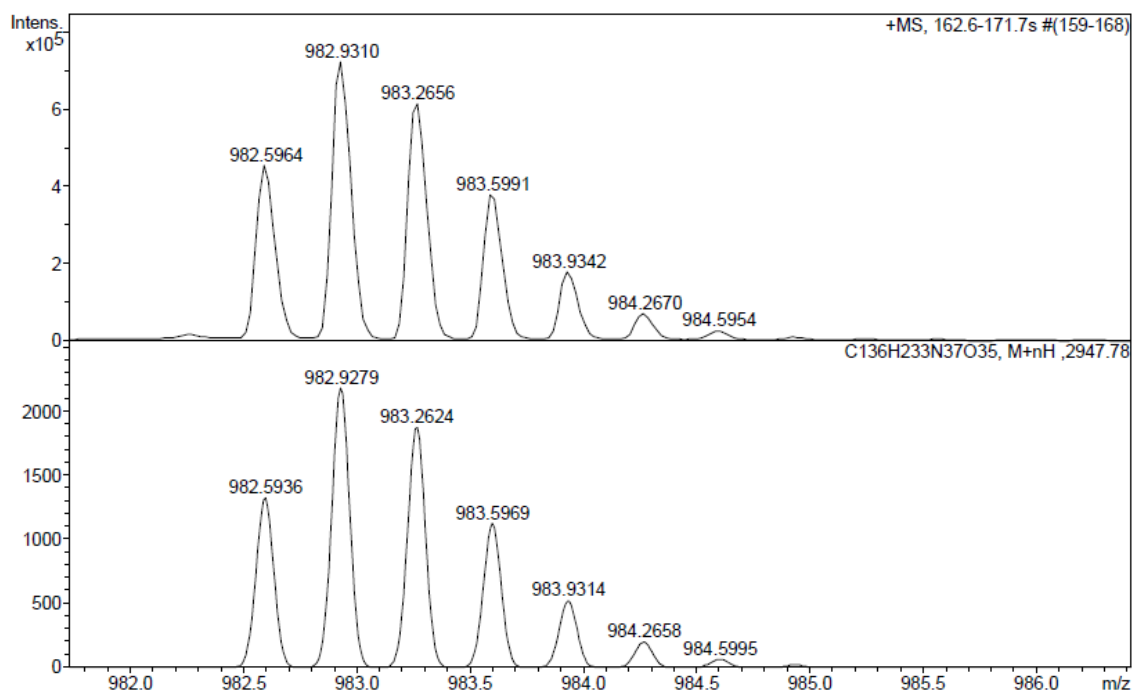
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,36 | 457,267 | 73,103 | 100,00 |
| Total: | | 457,267 | 73,103 | 100,00 |

ESI-MS (m/z) (LP3-T59)



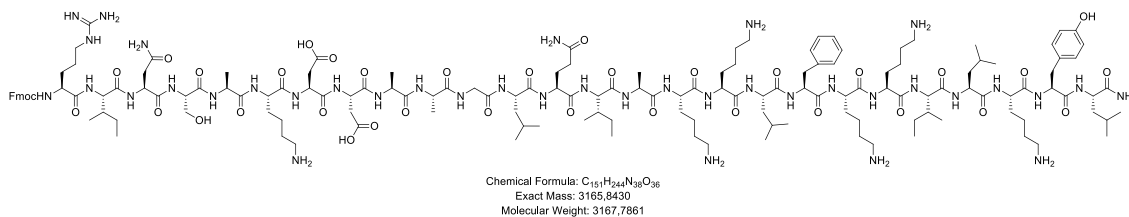
| |
|--------------------------|
| $[M+H]^+ = 2945.8$ |
| $[M+2H]^{2+} = 1473.9$ |
| $[M+H+Na]^{2+} = 1484.9$ |
| $[M+3H]^{3+} = 983.0$ |
| $[M+2H+Na]^{3+} = 990.6$ |

HRMS (ESI) (m/z)

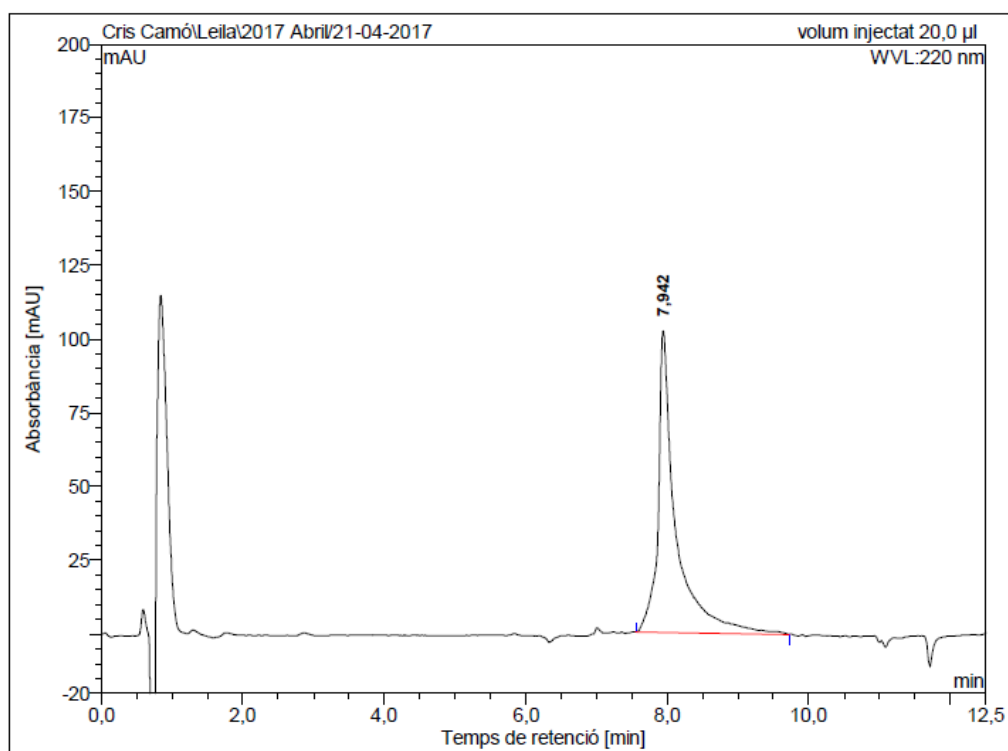


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₃₆ H ₂₃₅ N ₃₇ O ₃₅ | 1473.3868 | 1473.3903 |
| [M+3H]³⁺ | C ₁₃₆ H ₂₃₆ N ₃₇ O ₃₅ | 982.5936 | 982.5964 |

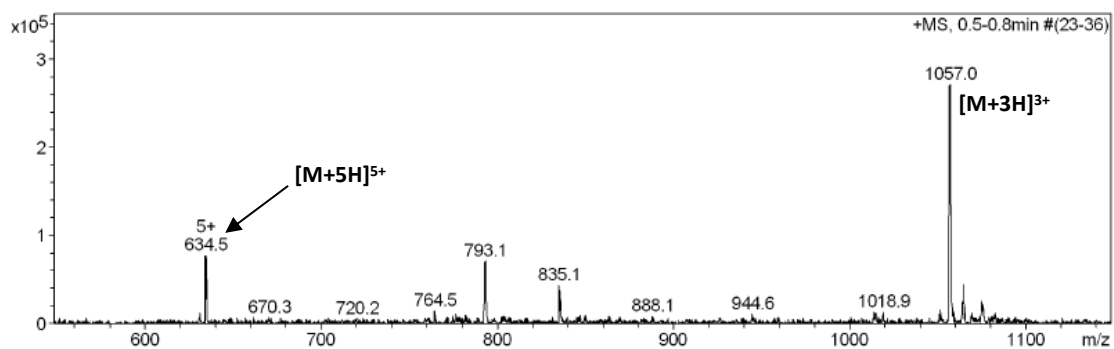
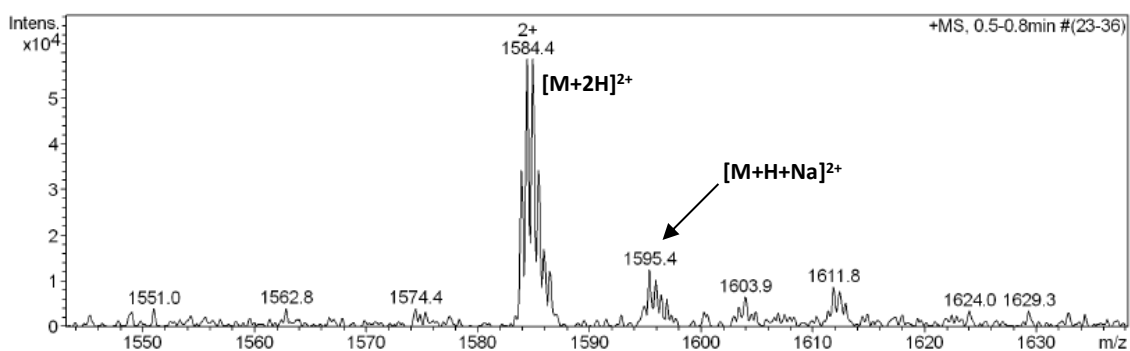
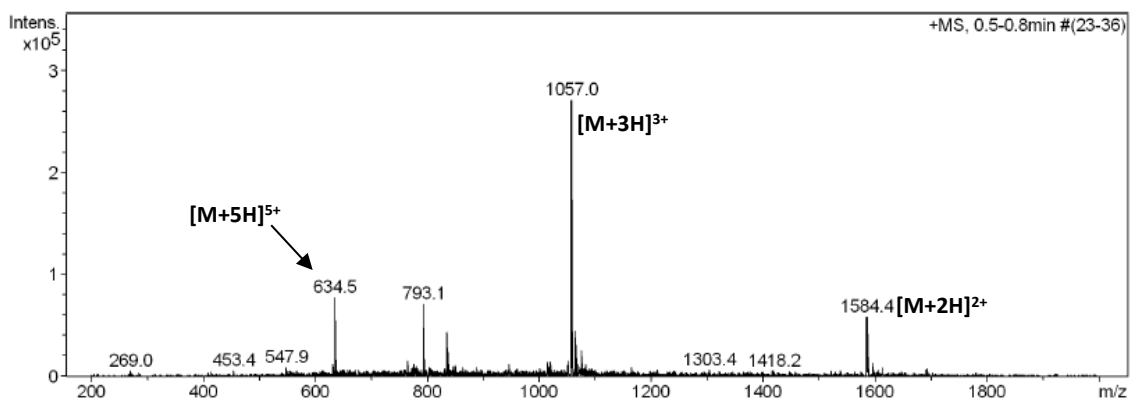
Fmoc-Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂ LP-4 (flg15-BP100)



HPLC ($\lambda = 220$ nm) (LP-4 pag 75)

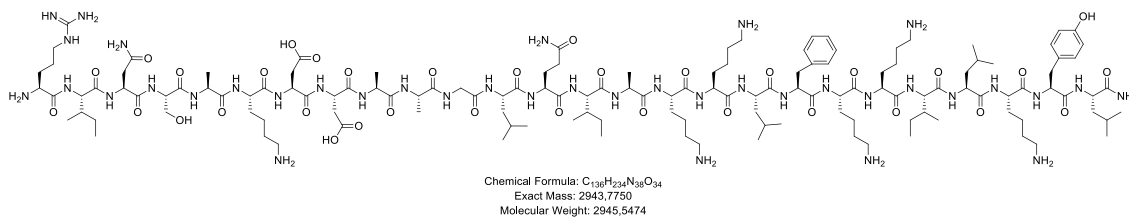
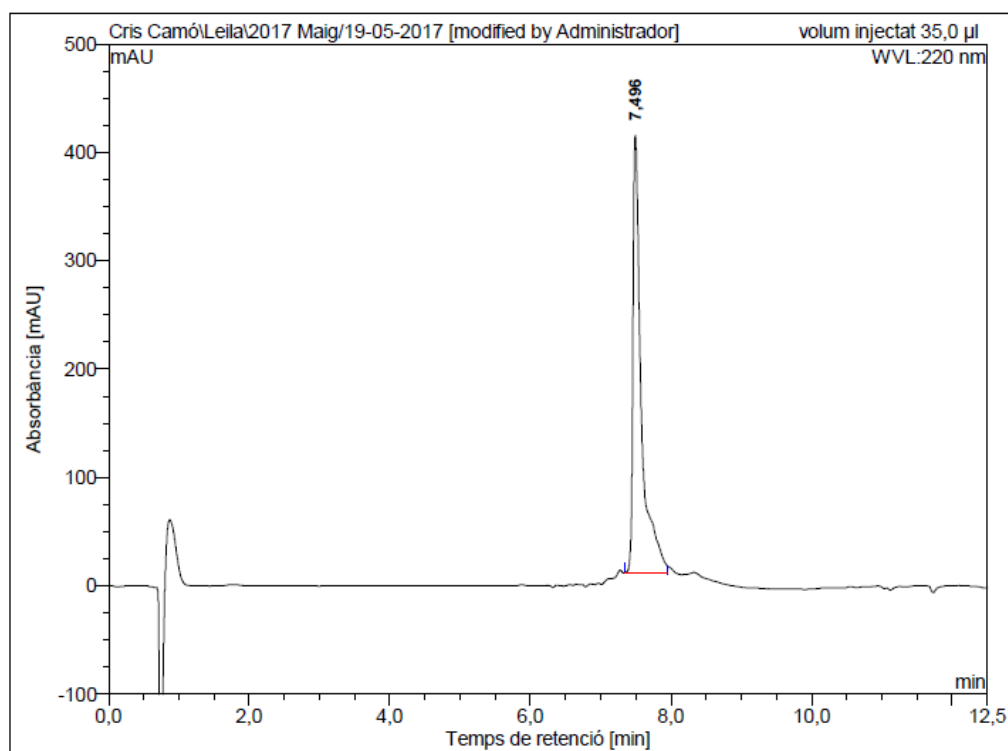


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,94 | 102,177 | 29,698 | 100,00 |
| Total: | | 102,177 | 29,698 | 100,00 |

ESI-MS (m/z) (LP-4 pag 75)

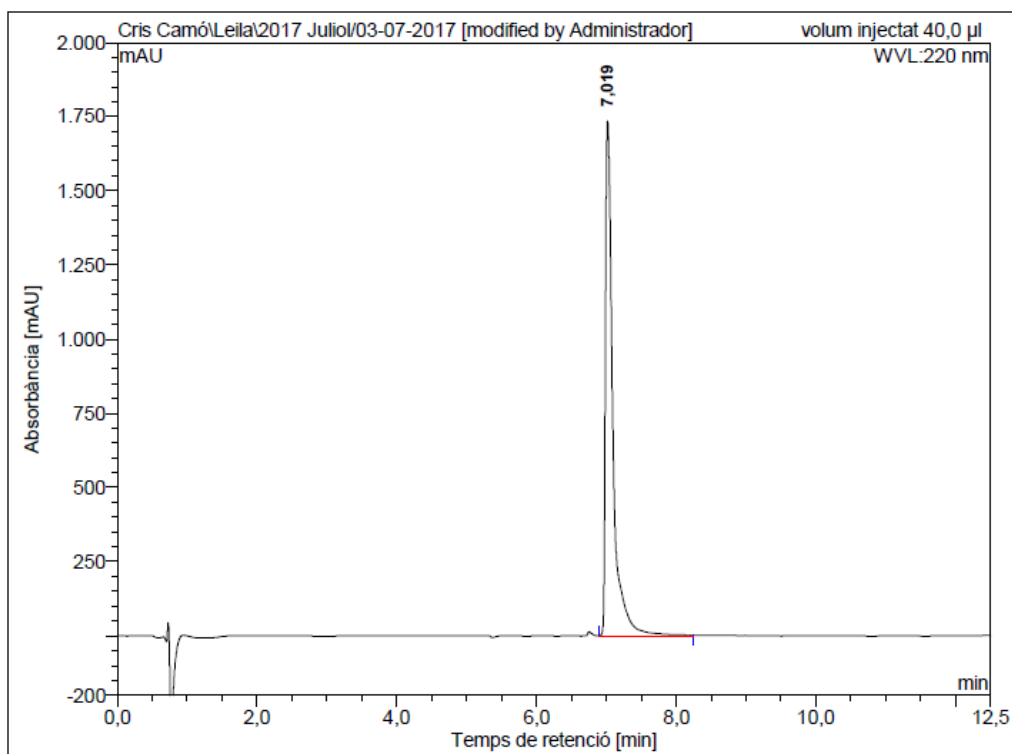
| |
|------------------------|
| $[M+2H]^{2+} = 1583.4$ |
| $[M+2H]^{2+} = 1595.4$ |
| $[M+3H]^{3+} = 1057.0$ |
| $[M+5H]^{5+} = 634.5$ |

Arg-Ile-Asn-Ser-Ala-Lys-Asp-Asp-Ala-Ala-Gly-Leu-Gln-Ile-Ala-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-

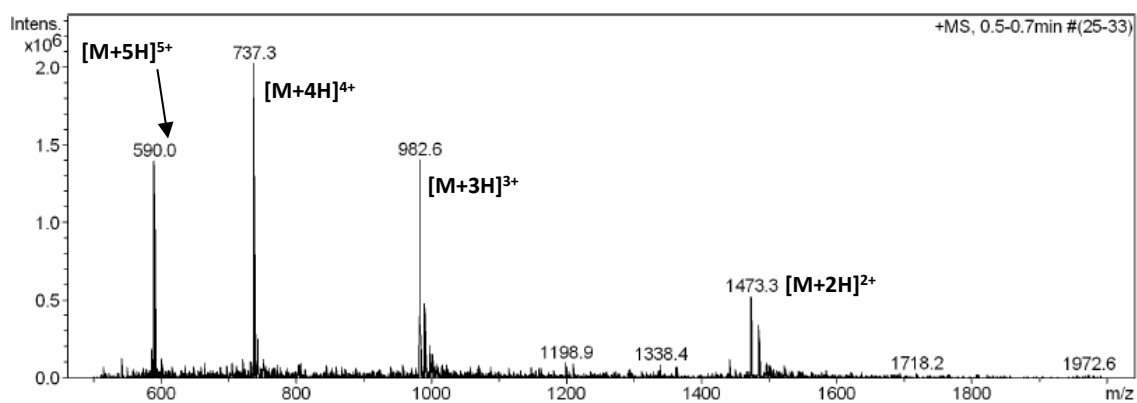
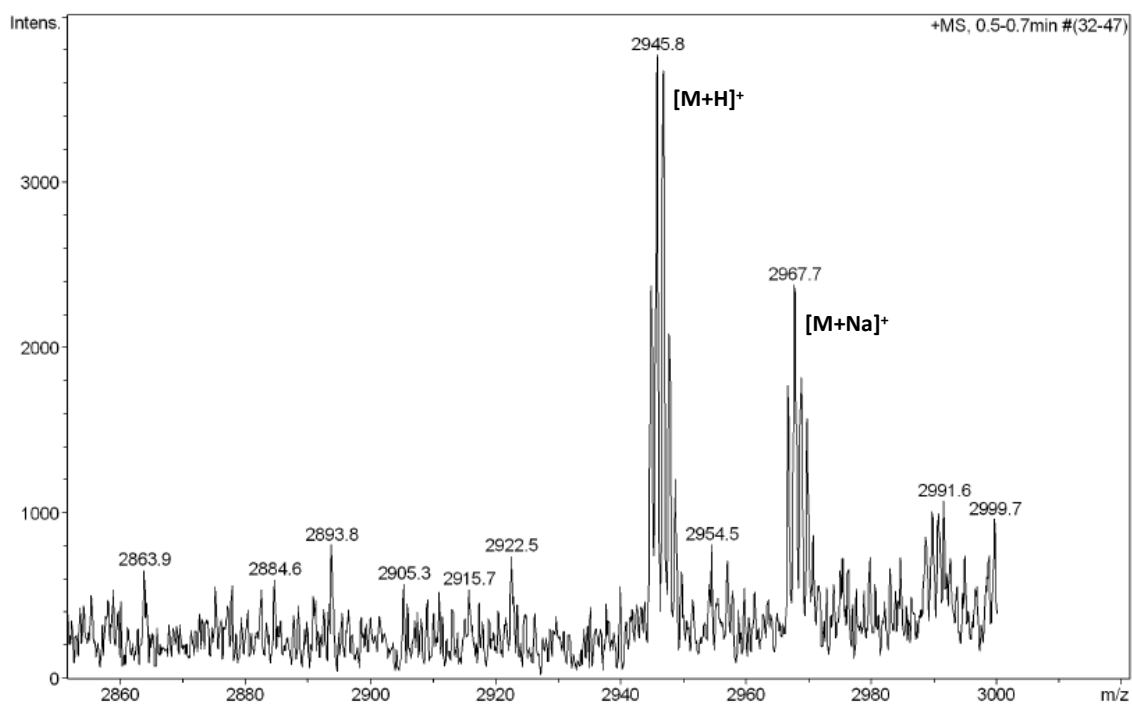
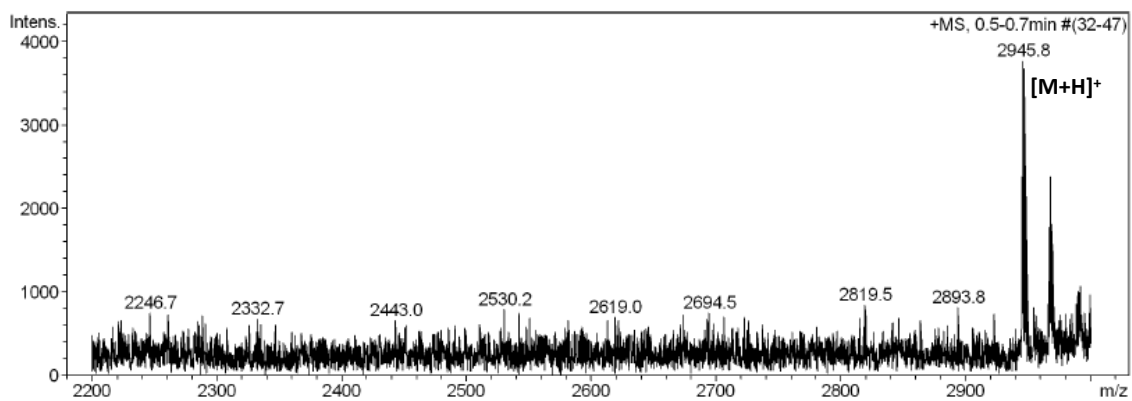
NH₂ LP-4 (fig15-BP100)**IMPURE PRODUCT****HPLC (λ = 220 nm) (LP-4 sense fmoc)**

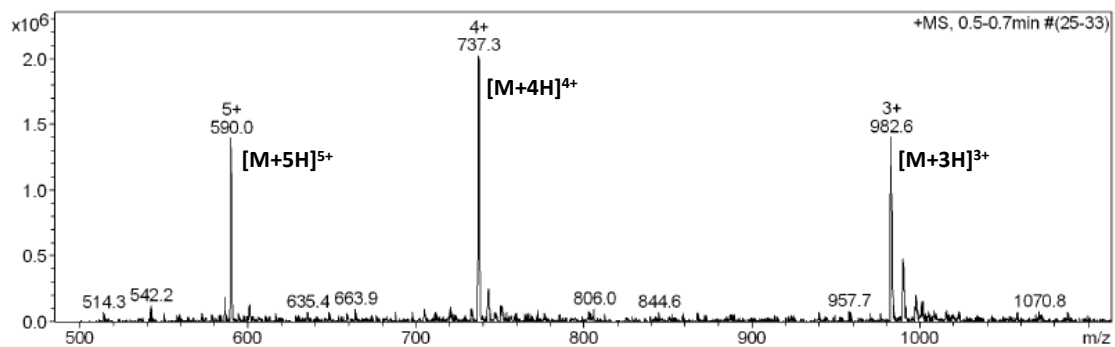
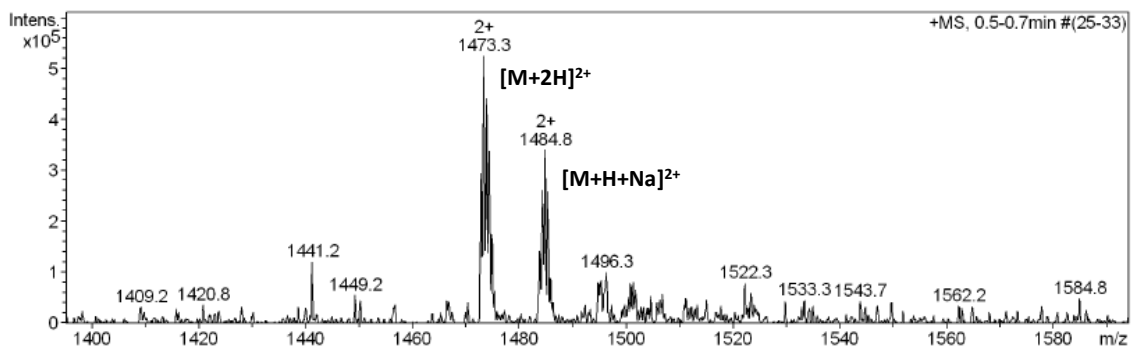
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,50 | 403,695 | 55,805 | 100,00 |
| Total: | | 403,695 | 55,805 | 100,00 |

PURE PRODUCT

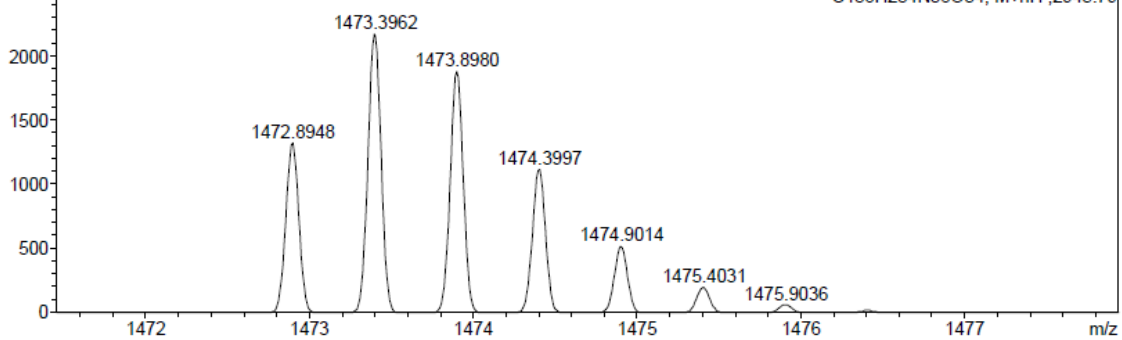
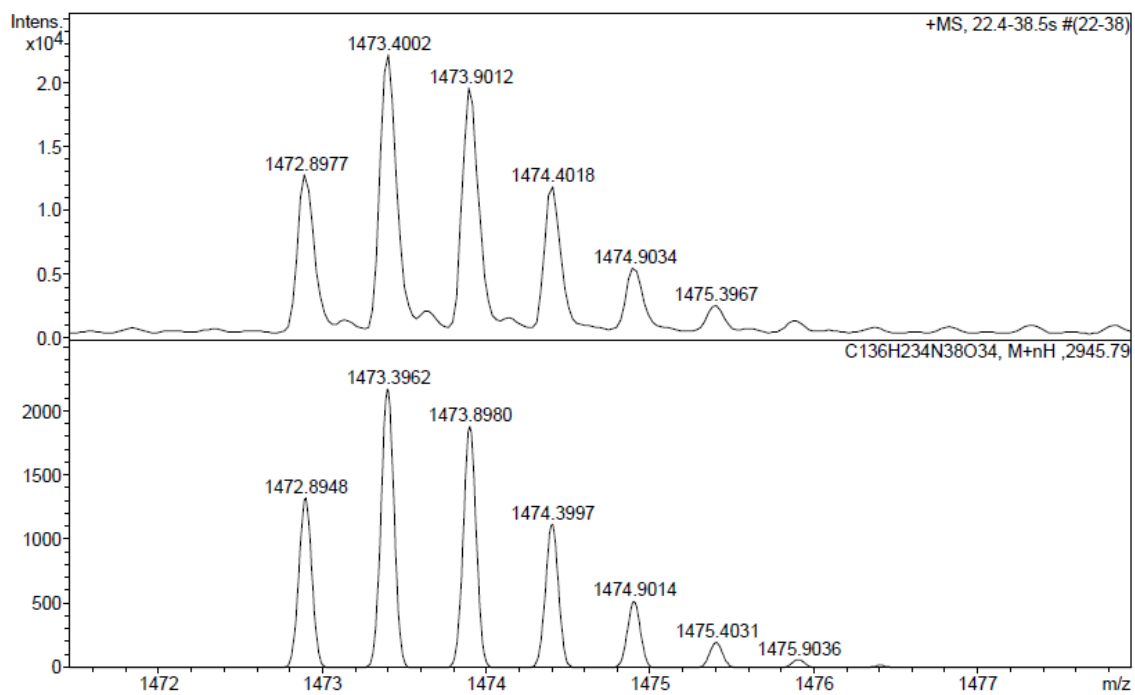
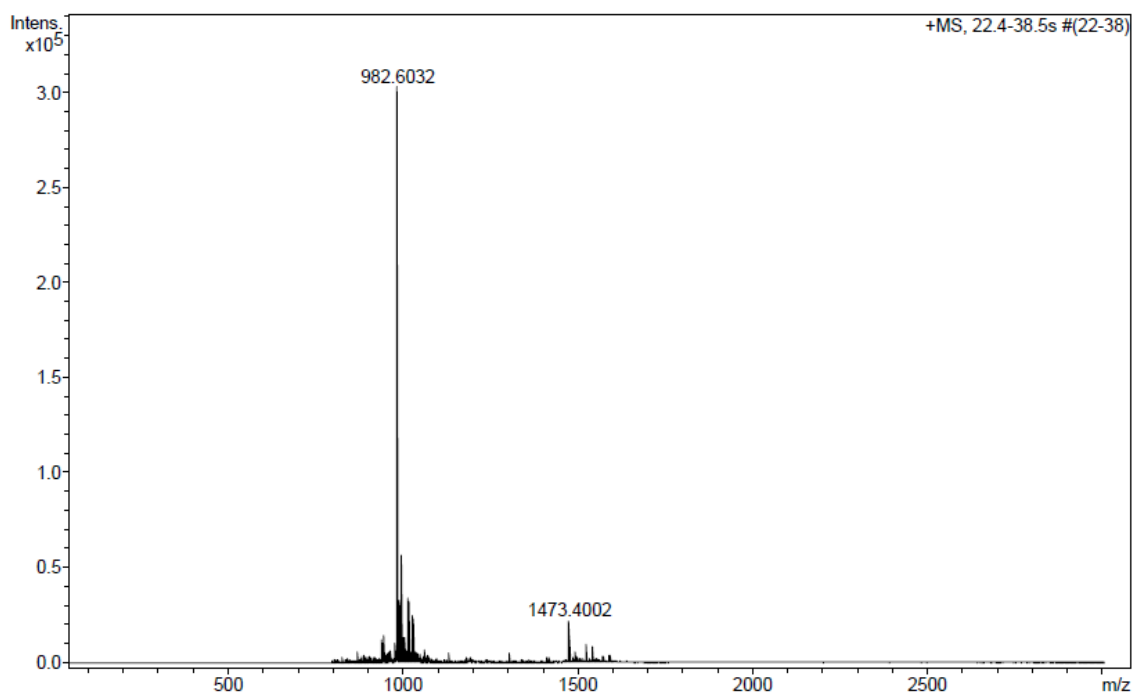
HPLC ($\lambda = 220 \text{ nm}$) (LP4-T54)

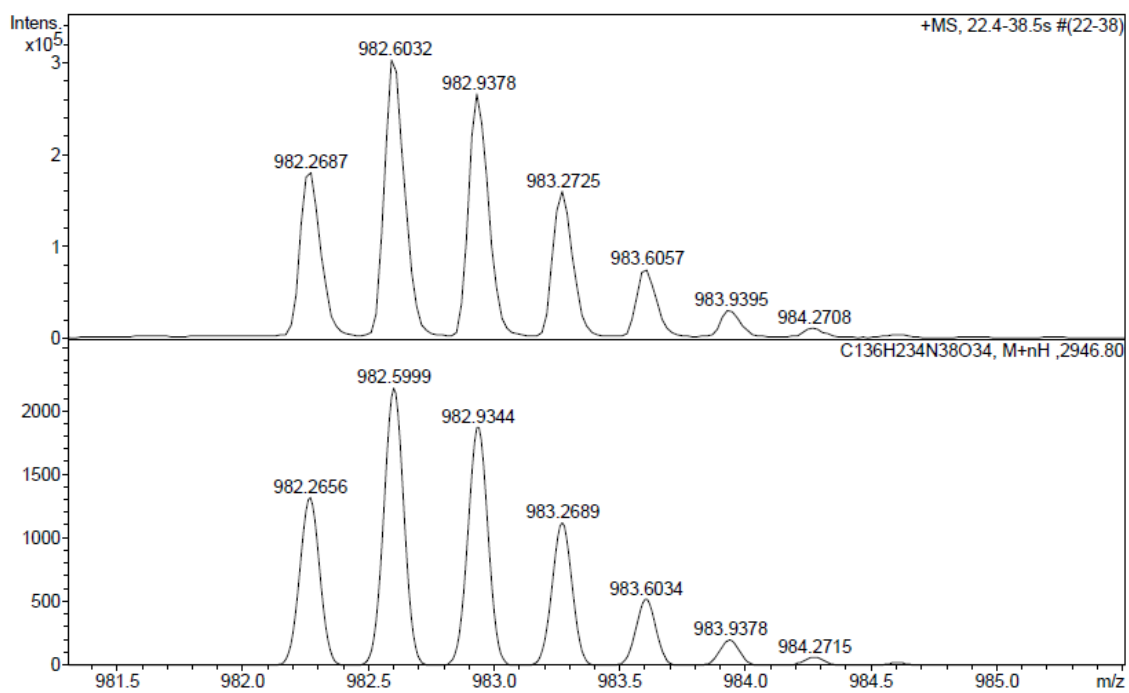
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,02 | 1735,316 | 214,596 | 100,00 |
| Total: | | 1735,316 | 214,596 | 100,00 |

ESI-MS (m/z) (LP4-T54)



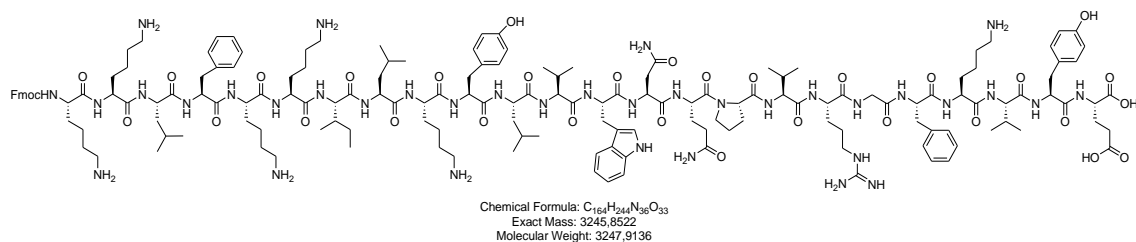
| |
|--------------------------|
| $[M+H]^+ = 2944.8$ |
| $[M+Na]^+ = 2966.7$ |
| $[M+2H]^{2+} = 1473.3$ |
| $[M+H+Na]^{2+} = 1484.8$ |
| $[M+3H]^{3+} = 982.6$ |
| $[M+4H]^{4+} = 737.3$ |
| $[M+5H]^{5+} = 590.0$ |

HRMS (ESI) (m/z)

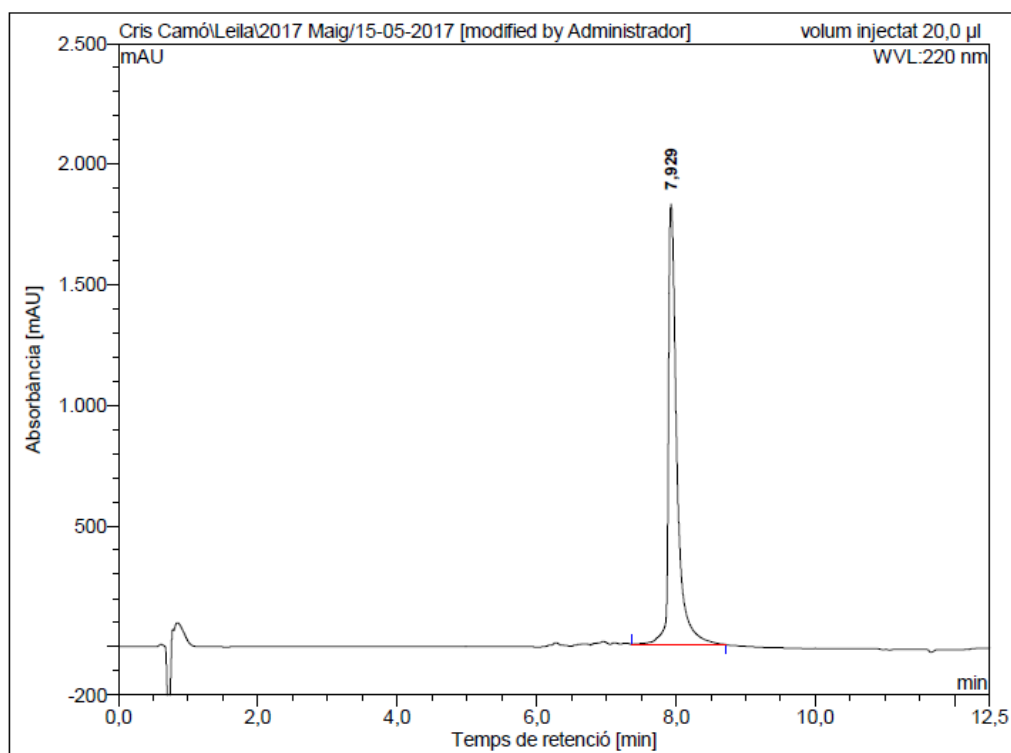


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₃₆ H ₂₃₆ N ₃₈ O ₃₄ | 1472.8948 | 1472.8977 |
| [M+3H]³⁺ | C ₁₃₆ H ₂₃₇ N ₃₈ O ₃₄ | 982.2656 | 982.2687 |

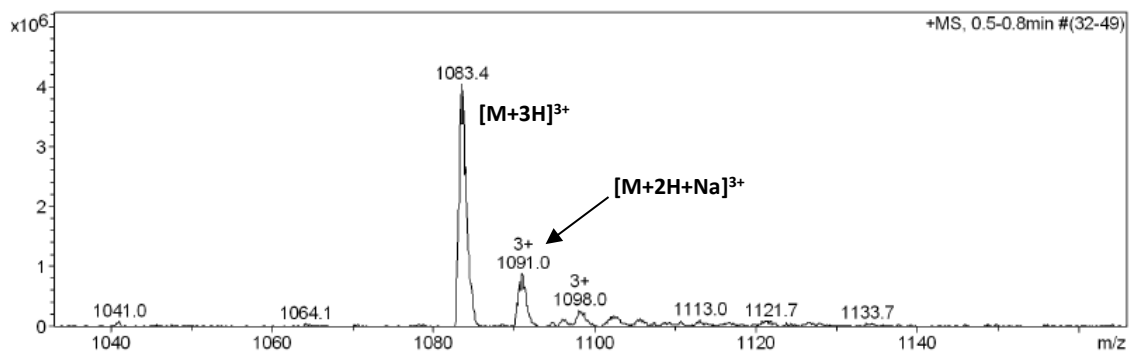
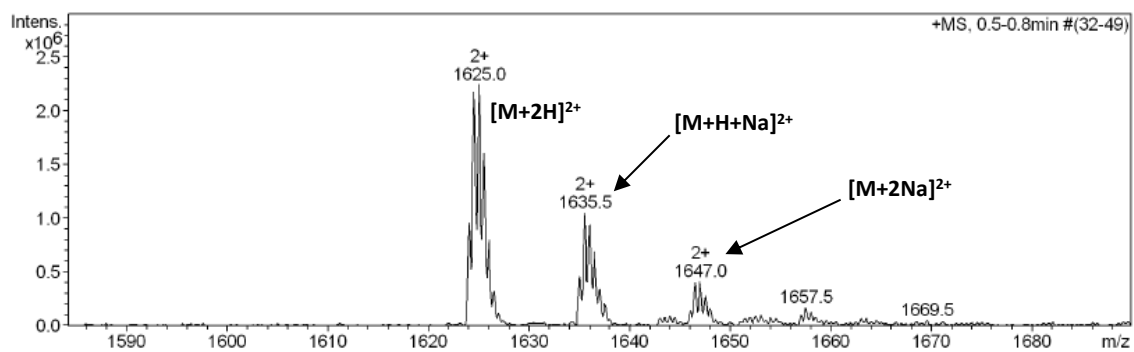
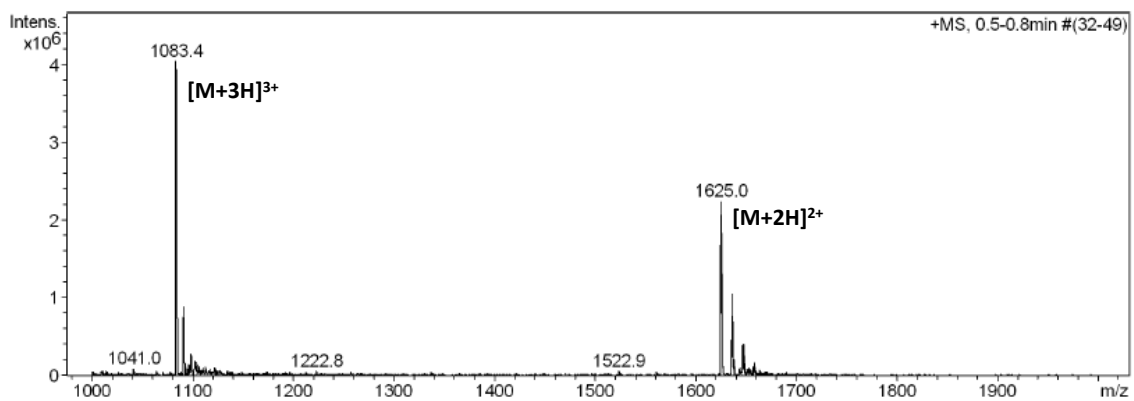
Fmoc-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-
OH LP-5 (BP100-Pep13)



HPLC ($\lambda = 220$ nm) (LP5-2 (Cl.Par.F) pag 88)

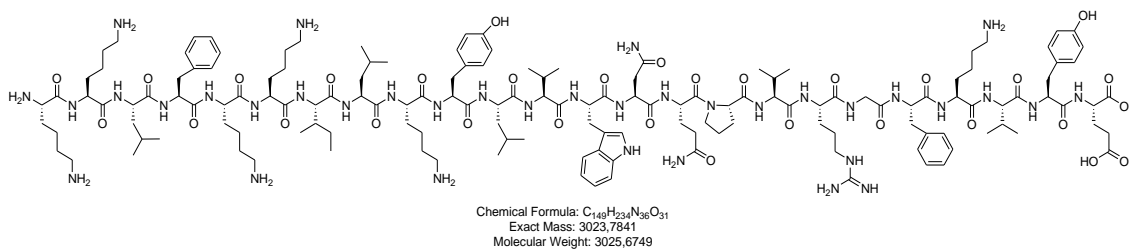
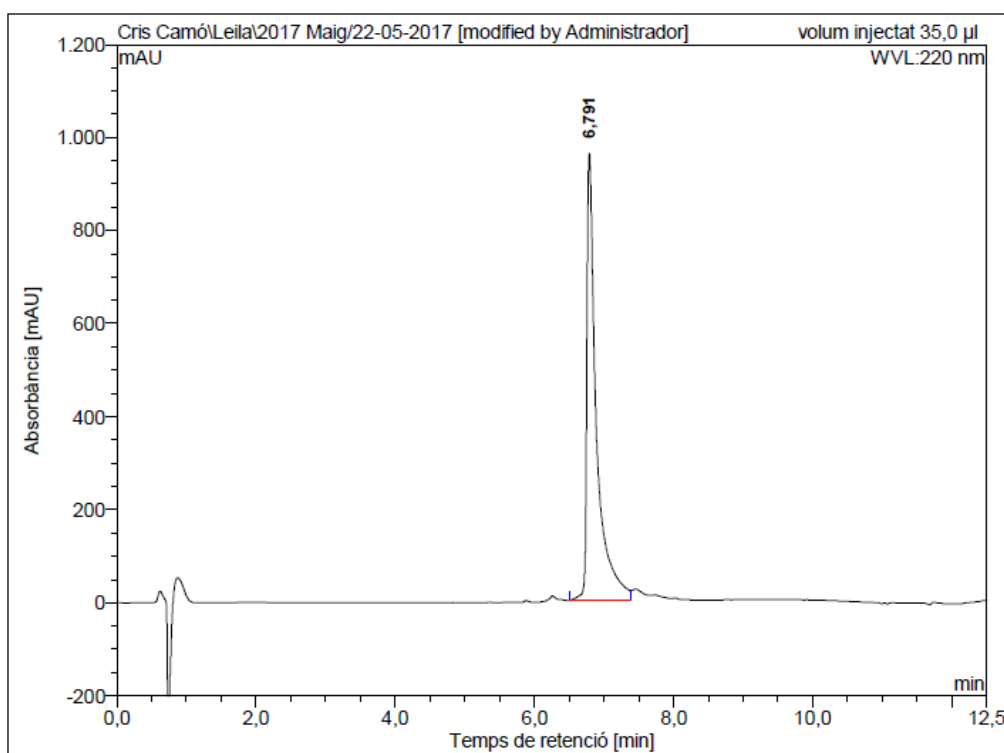


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,93 | 1823,882 | 259,612 | 100,00 |
| Total: | | 1823,882 | 259,612 | 100,00 |

ESI-MS (m/z) (LP5-2 pag 88)

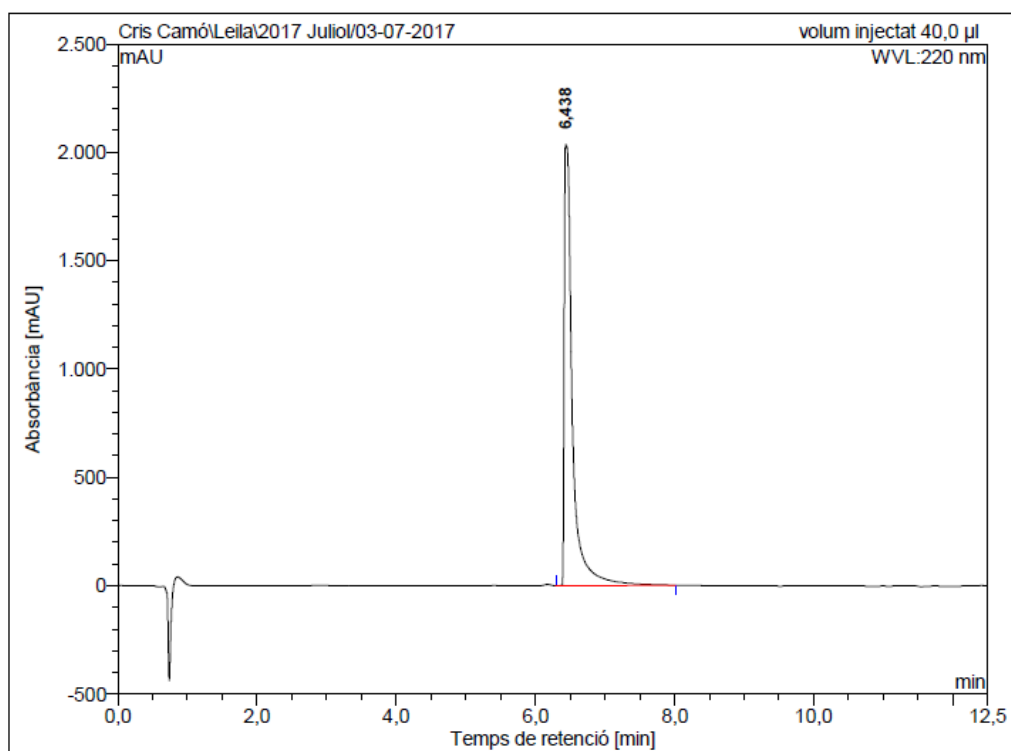
| |
|---------------------------|
| $[M+2H]^{2+} = 1624.0$ |
| $[M+2H]^{2+} = 1635.5$ |
| $[M+2H]^{2+} = 1647.0$ |
| $[M+3H]^{3+} = 1083.4$ |
| $[M+2H+Na]^{3+} = 1091.0$ |

Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH LP-

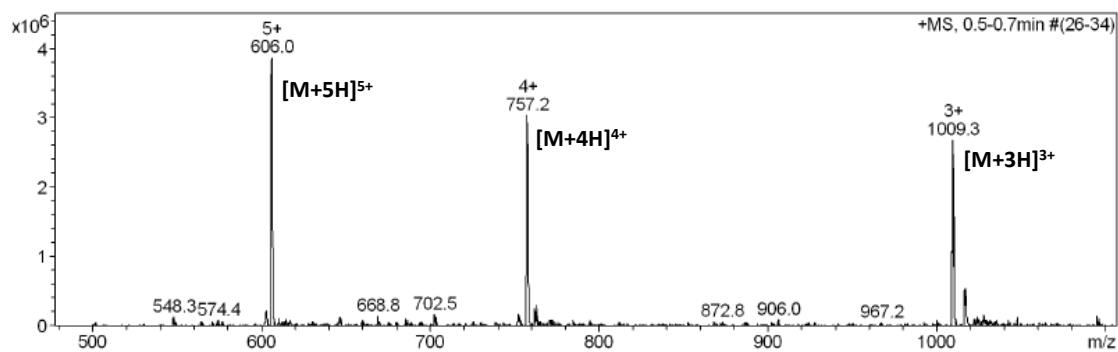
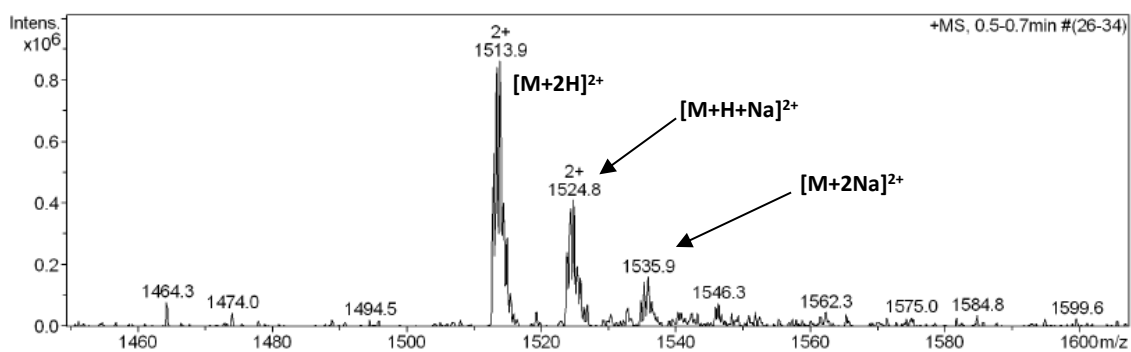
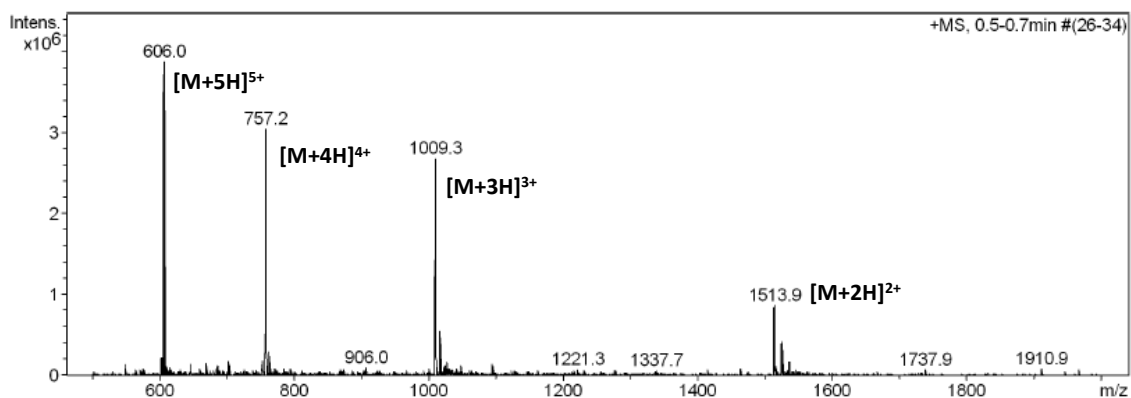
5 (BP100-Pep13)**IMPURE PRODUCT****HPLC ($\lambda = 220$ nm) (LP5-1 sense fmoc)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,79 | 961,045 | 154,033 | 100,00 |
| Total: | | 961,045 | 154,033 | 100,00 |

PURE PRODUCT

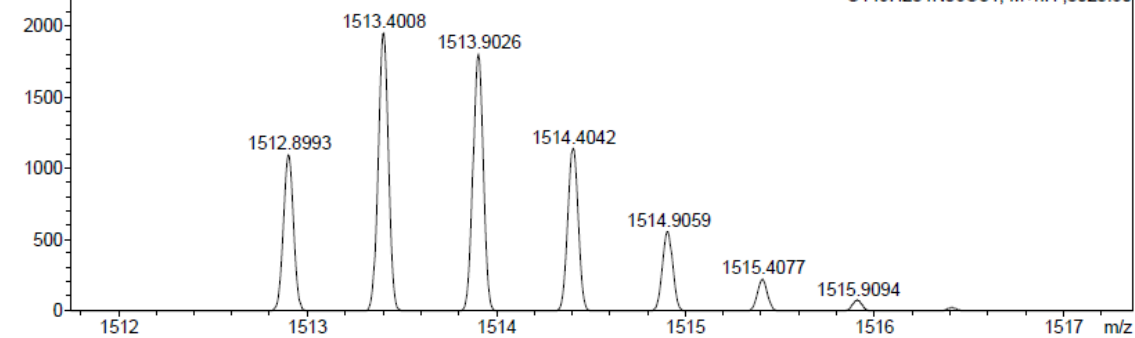
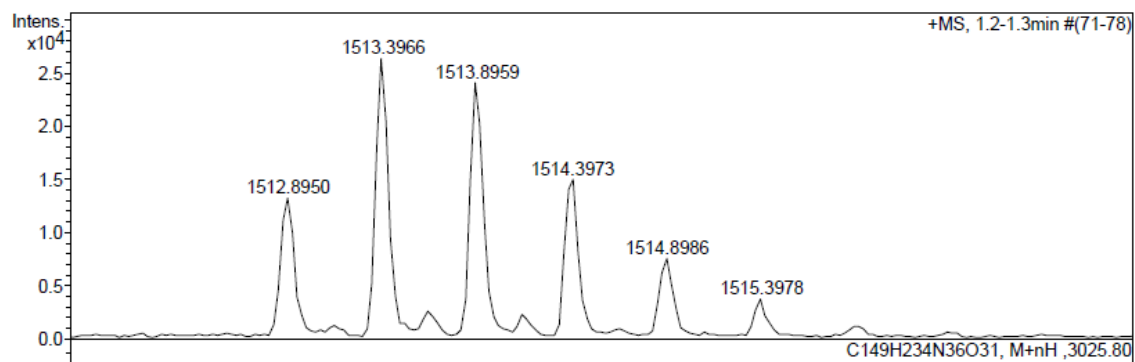
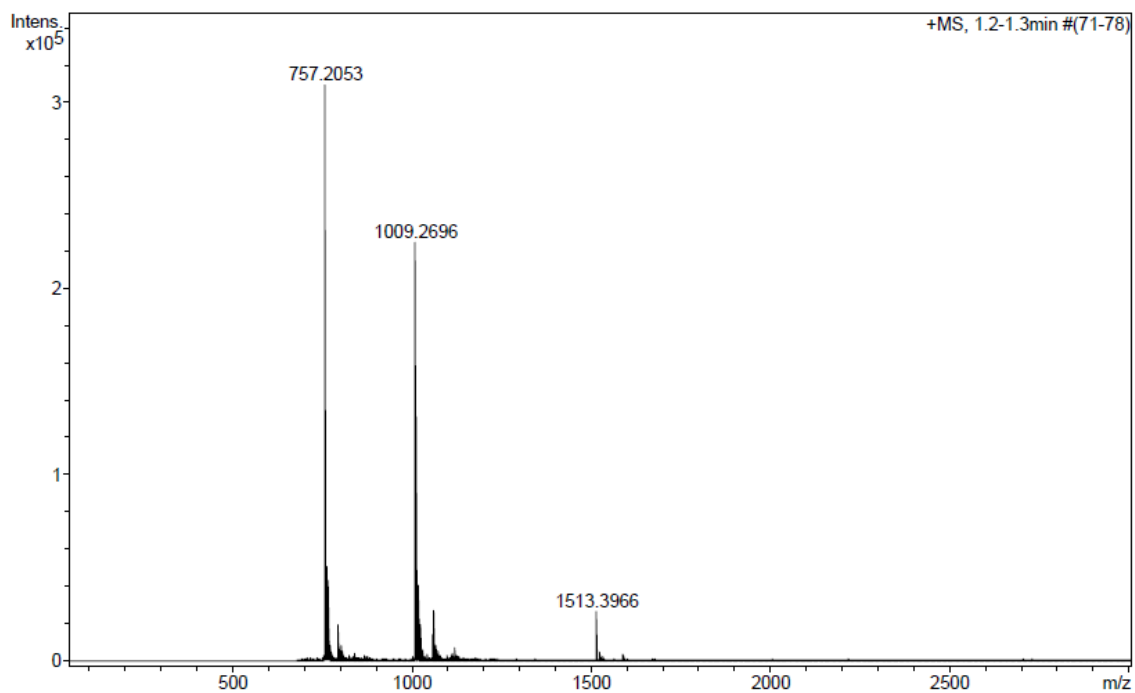
HPLC ($\lambda = 220 \text{ nm}$) (LP5-1-T51)

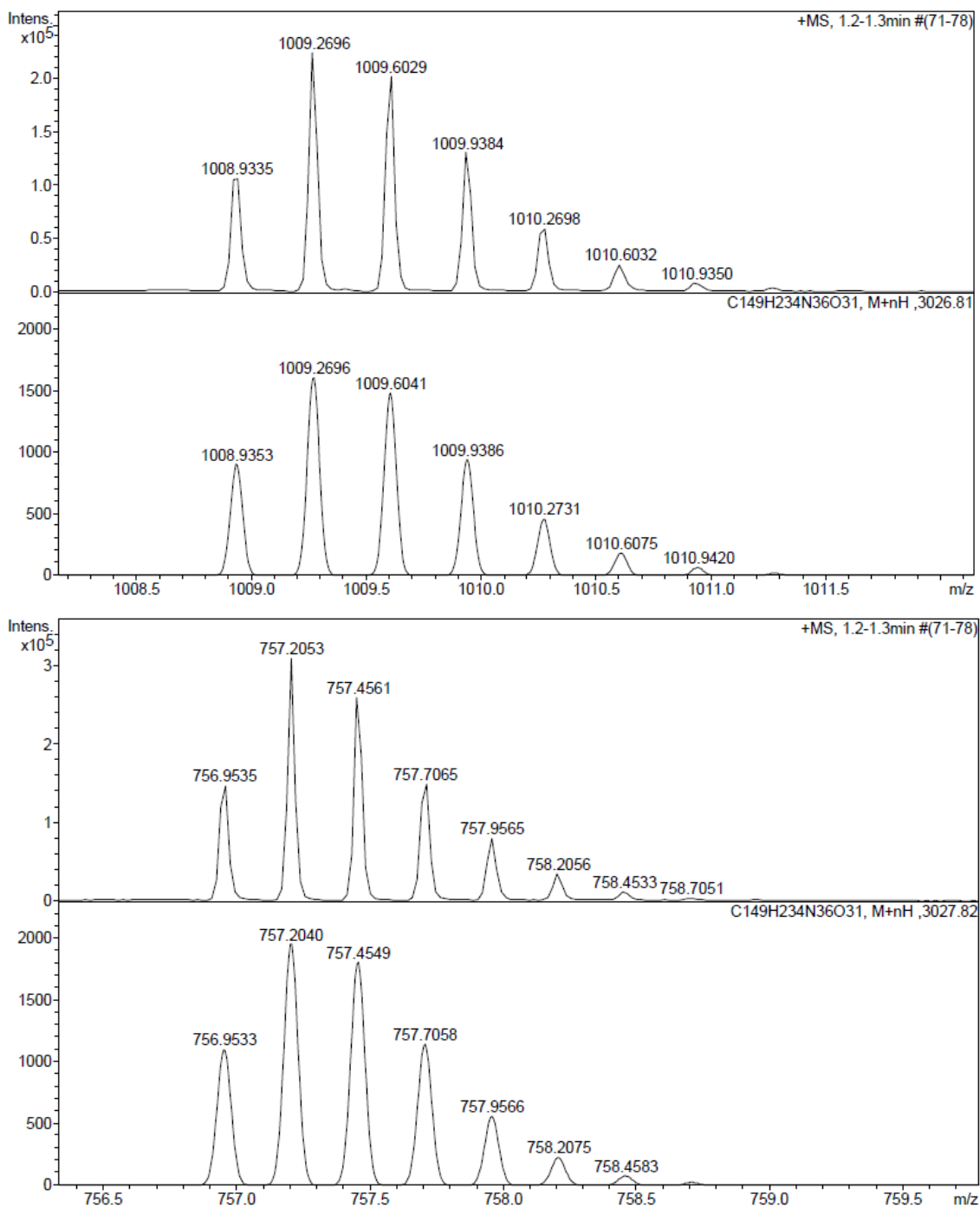
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,44 | 2035,594 | 279,119 | 100,00 |
| Total: | | 2035,594 | 279,119 | 100,00 |

ESI-MS (m/z) (LP5-1-T51)

| |
|--------------------------|
| $[M+2H]^{2+} = 1513.9$ |
| $[M+H+Na]^{2+} = 1524.8$ |
| $[M+2Na]^{2+} = 1535.9$ |
| $[M+3H]^{3+} = 1009.3$ |
| $[M+4H]^{4+} = 757.2$ |
| $[M+5H]^{5+} = 606.0$ |

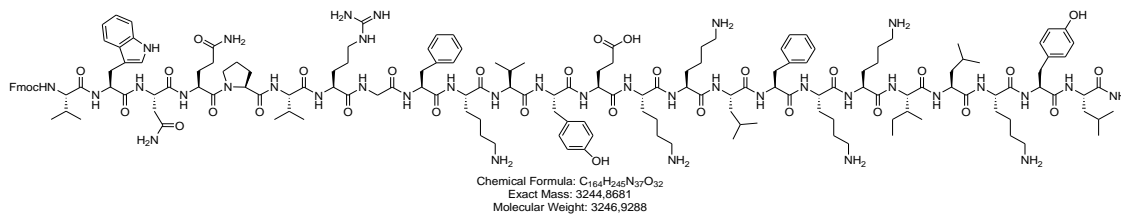
HRMS (ESI) (m/z)



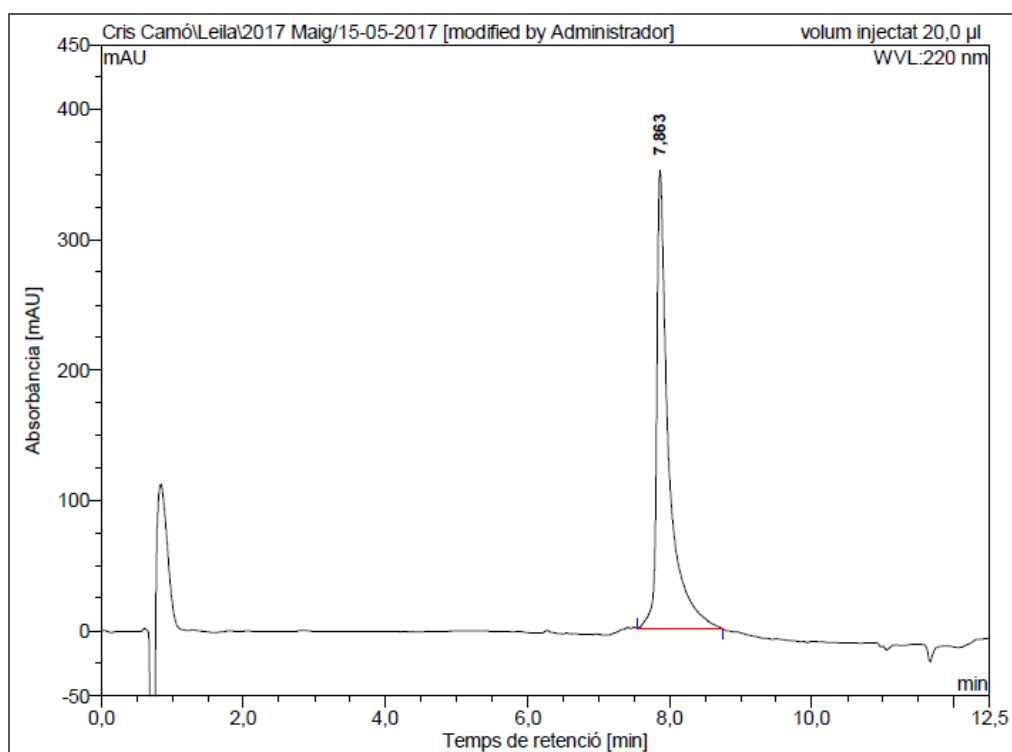


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₉ H ₂₃₆ N ₃₆ O ₃₁ | 1512.8993 | 1512.8950 |
| [M+3H]³⁺ | C ₁₄₉ H ₂₃₇ N ₃₆ O ₃₁ | 1008.9353 | 1008.9335 |
| [M+4H]⁴⁺ | C ₁₄₉ H ₂₃₈ N ₃₆ O ₃₁ | 756.9533 | 756.9535 |

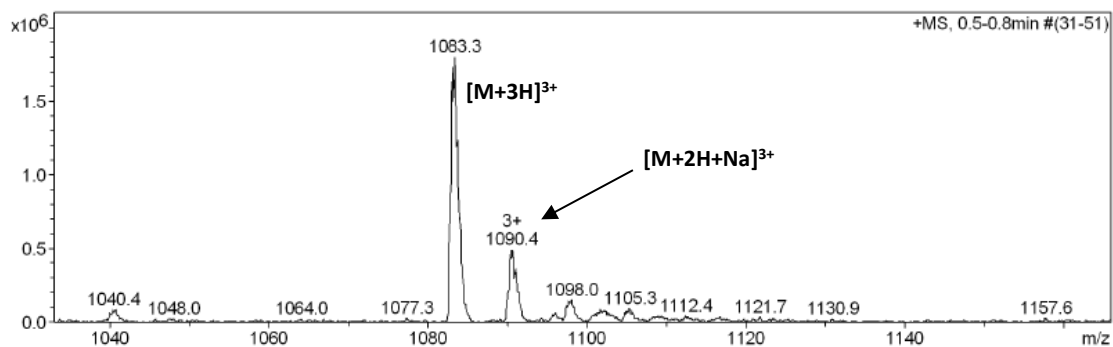
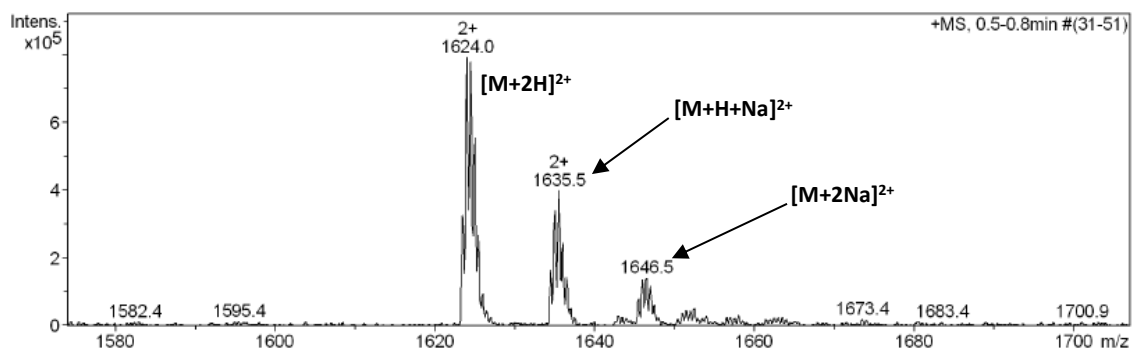
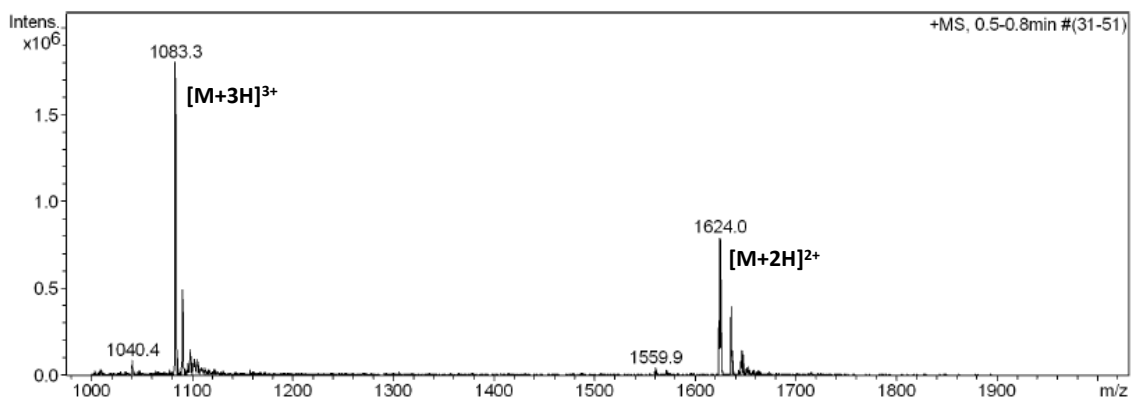
Fmoc-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-
NH₂ LP-6 (Pep13-BP100)



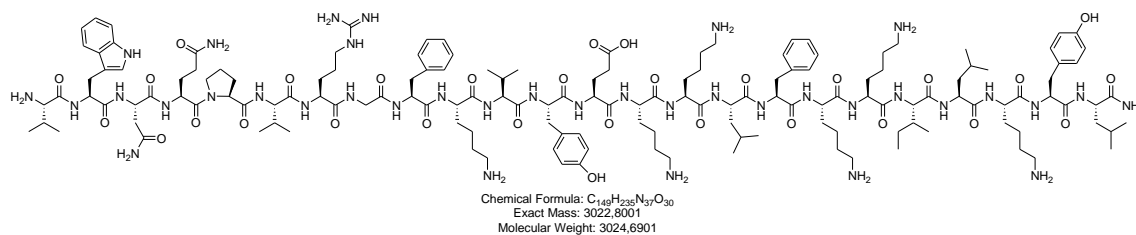
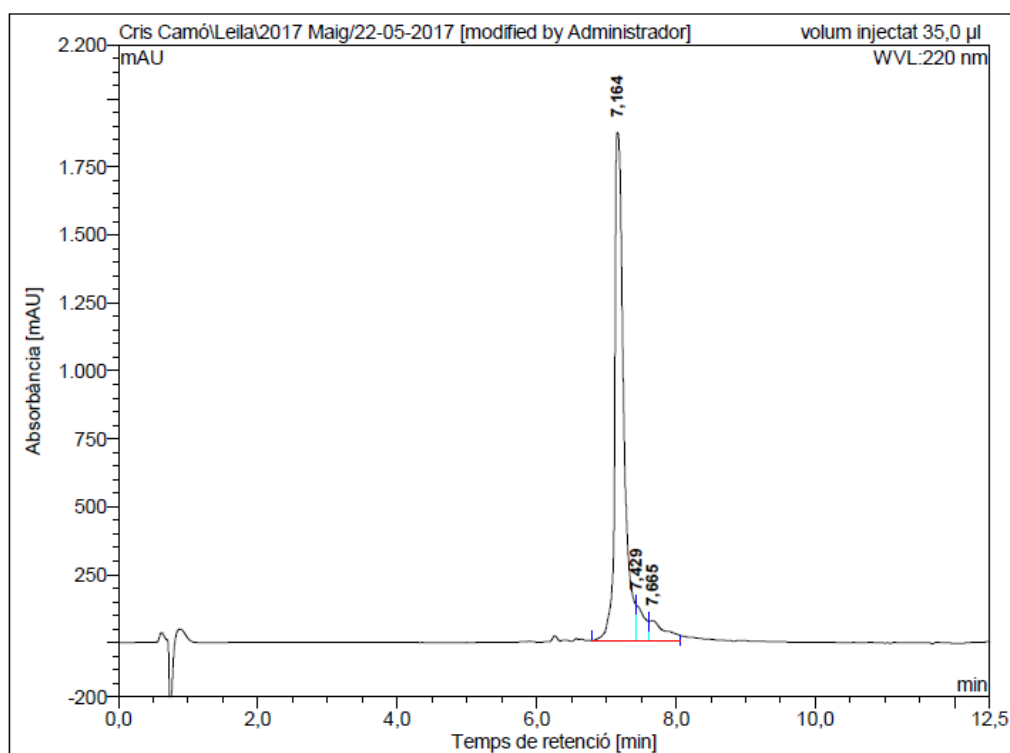
HPLC ($\lambda = 220 \text{ nm}$) (LP6 pag 88)



| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,86 | 351,369 | 68,194 | 100,00 |
| Total: | | 351,369 | 68,194 | 100,00 |

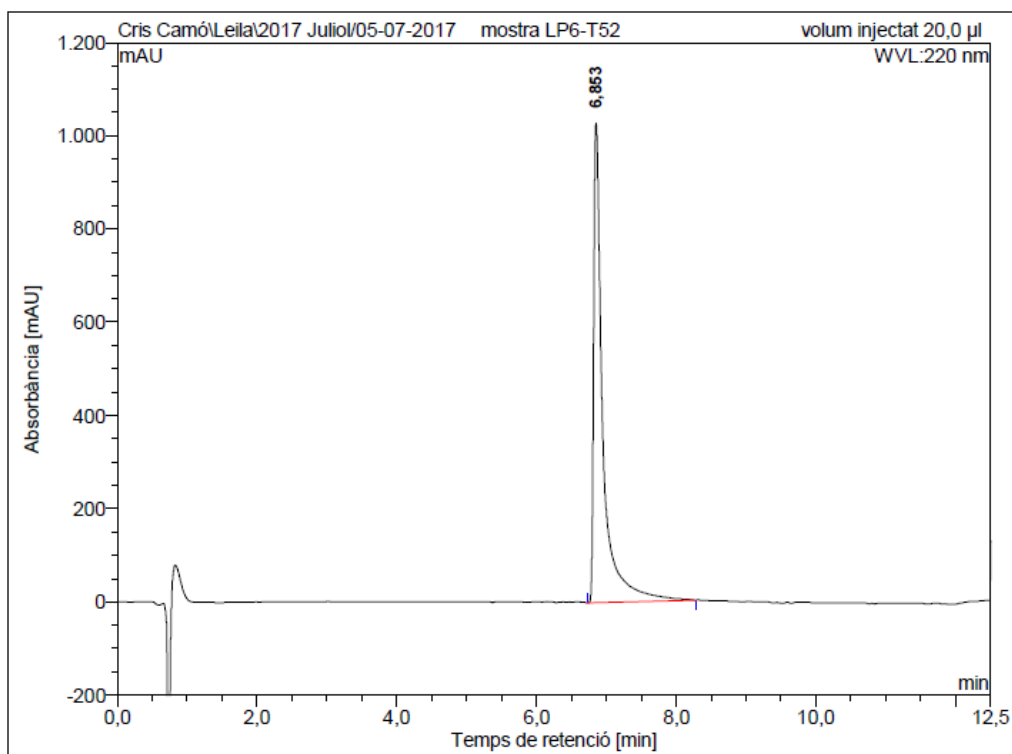
ESI-MS (m/z) (LP6 pag 88)

| |
|---------------------------|
| $[M+2H]^{2+} = 1624.0$ |
| $[M+H+Na]^{2+} = 1635.5$ |
| $[M+2Na]^{2+} = 1646.5$ |
| $[M+3H]^{3+} = 1083.3$ |
| $[M+2H+Na]^{3+} = 1090.4$ |

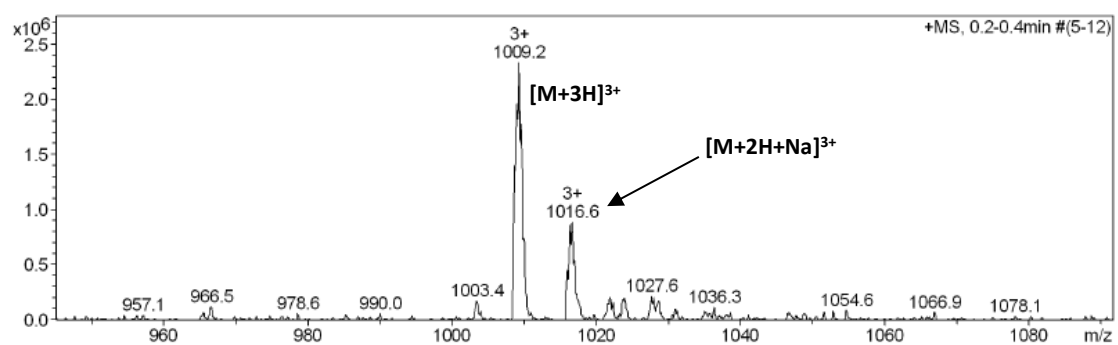
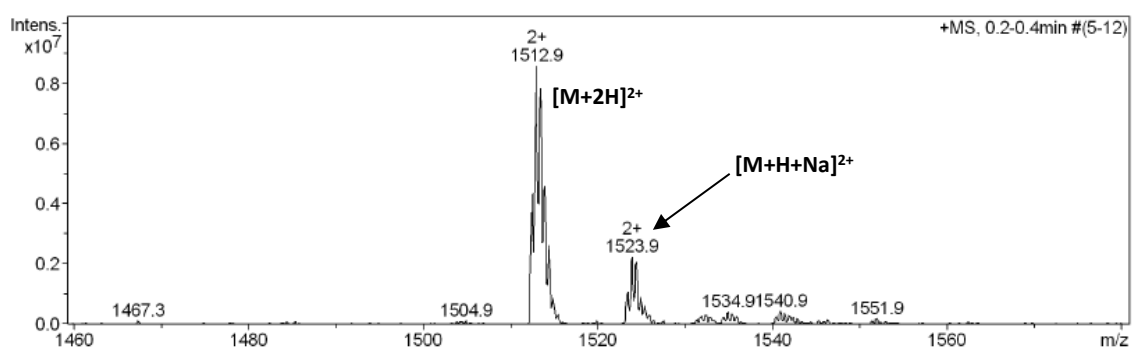
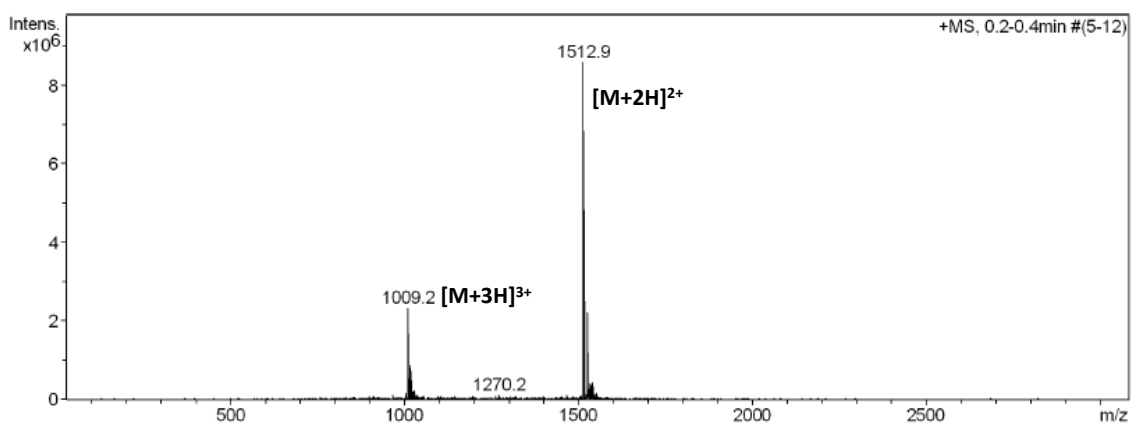
Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Leu-Phe-Lys-Lys-Ile-Leu-Lys-Tyr-Leu-NH₂**LP-6 (Pep13-BP100)****IMPURE PRODUCT**HPLC ($\lambda = 220 \text{ nm}$) (LP6 sense fmoc)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,16 | 1870,417 | 279,898 | 88,04 |
| 2 | 7,43 | 131,241 | 17,730 | 5,58 |
| 3 | 7,66 | 73,567 | 20,277 | 6,38 |
| Total: | | 2075,225 | 317,906 | 100,00 |

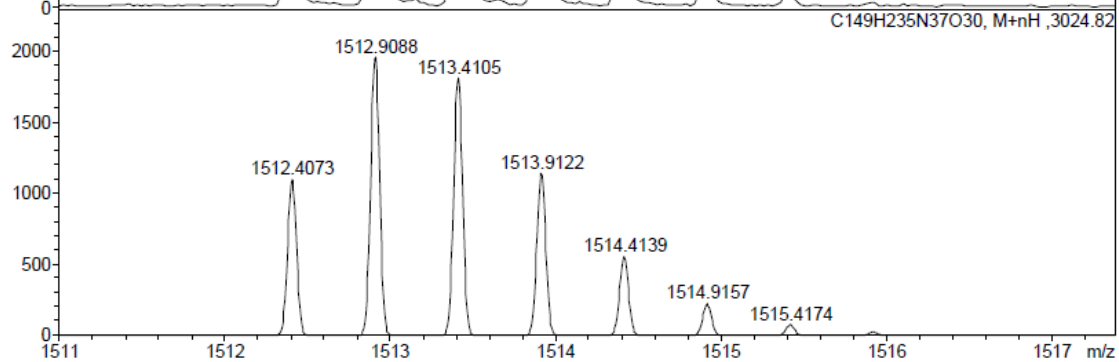
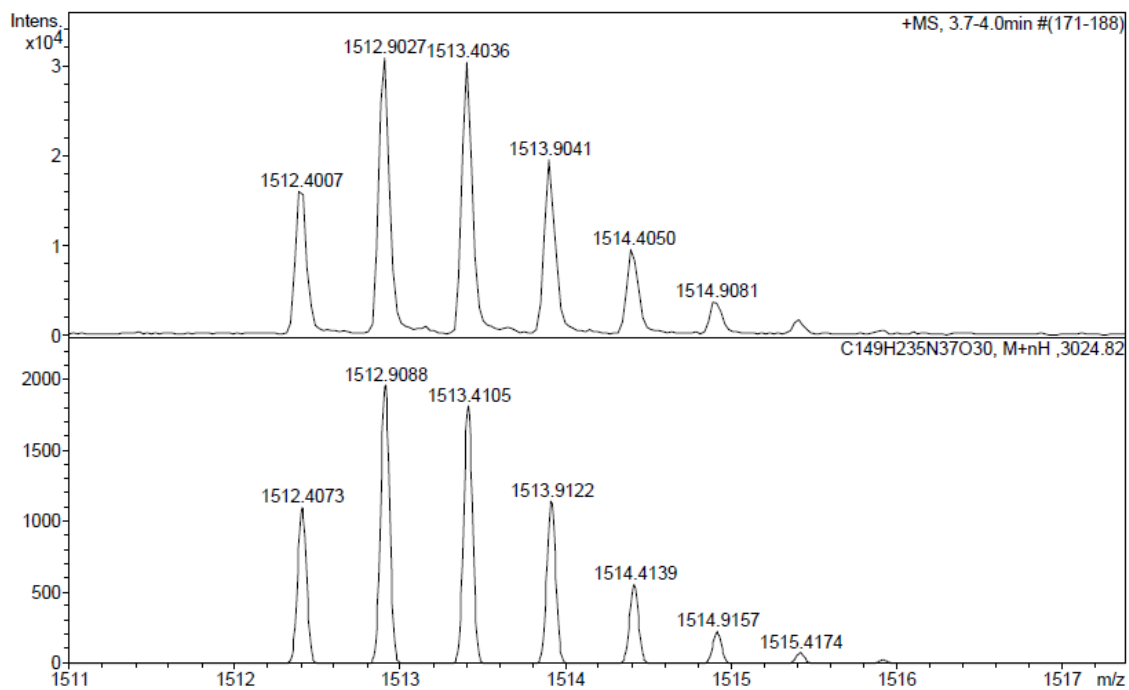
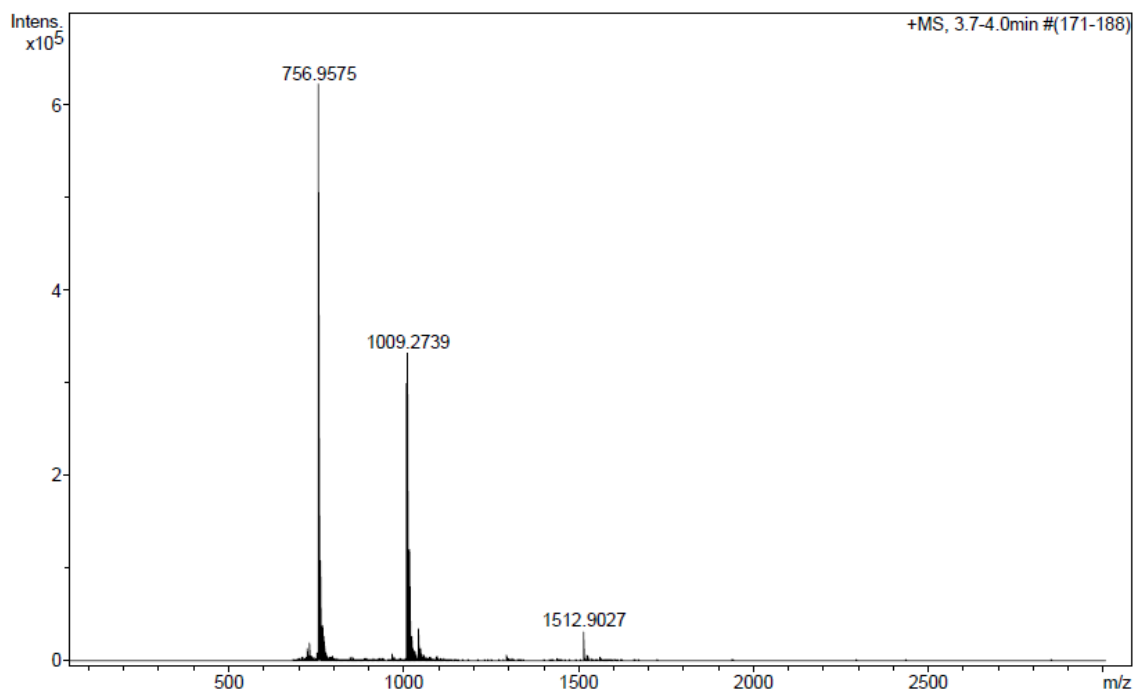
PURE PRODUCT

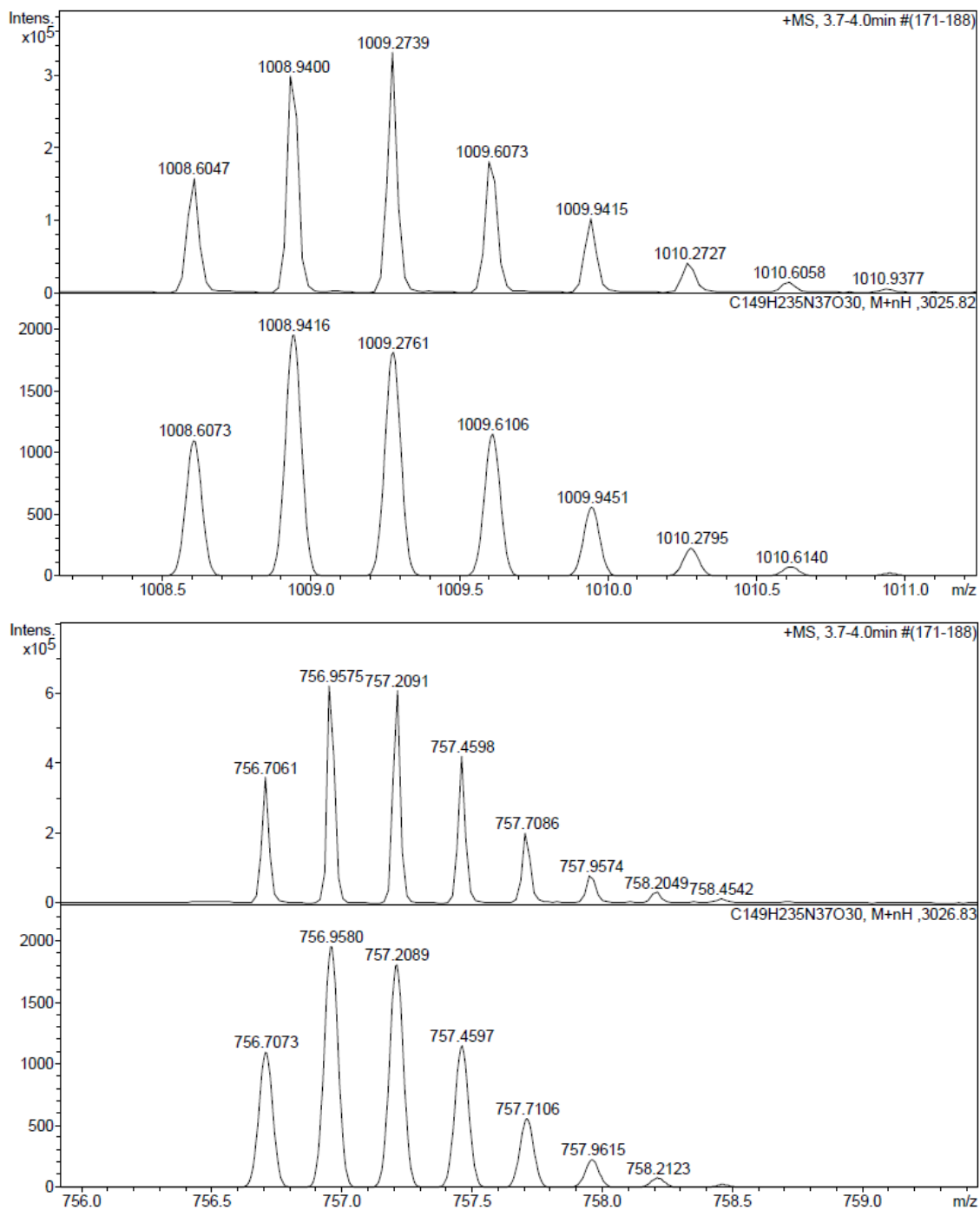
HPLC ($\lambda = 220 \text{ nm}$) (LP6-T52)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,85 | 1028,500 | 158,294 | 100,00 |
| Total: | | 1028,500 | 158,294 | 100,00 |

ESI-MS (m/z) (LP6-T54)

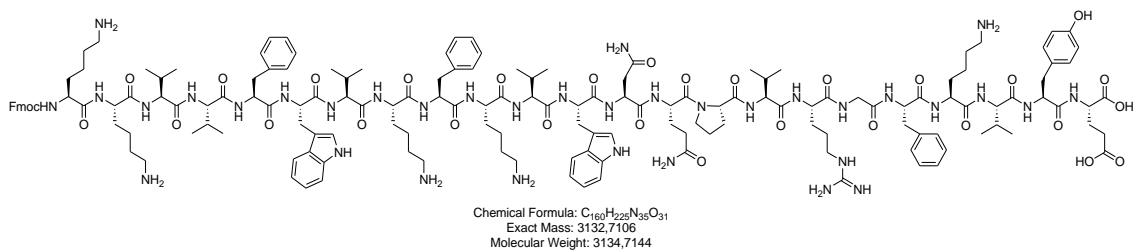
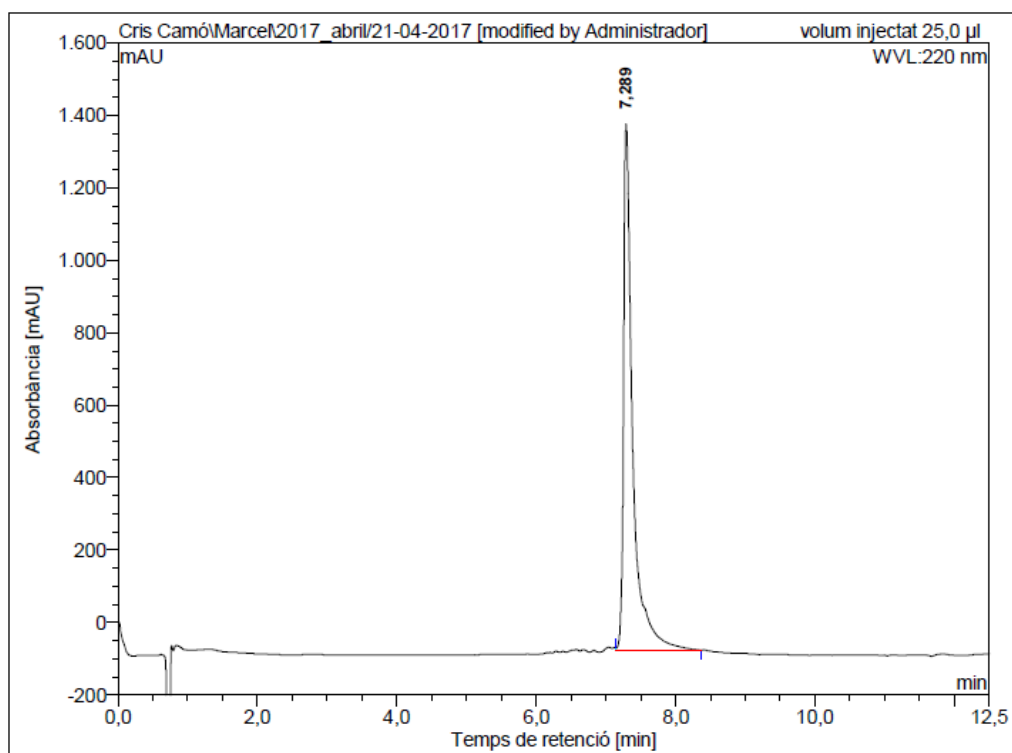
| |
|---------------------------|
| $[M+2H]^{2+} = 1512.9$ |
| $[M+H+Na]^{2+} = 1523.9$ |
| $[M+3H]^{3+} = 1009.2$ |
| $[M+2H+Na]^{3+} = 1016.6$ |

HRMS (ESI) (m/z)

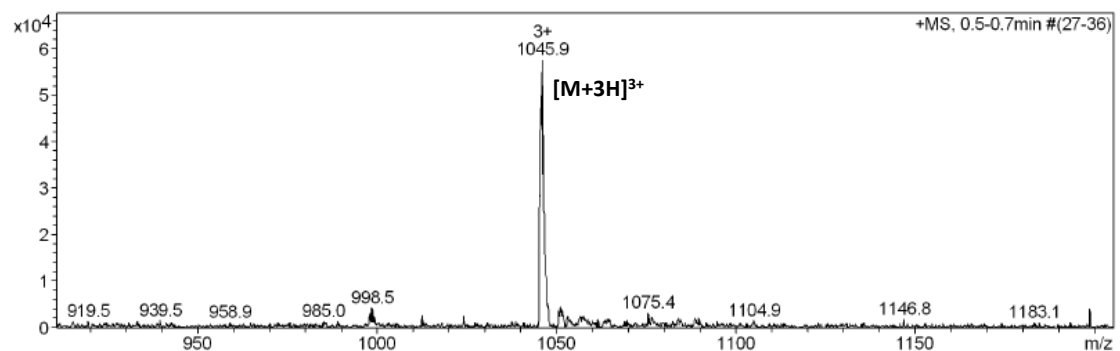
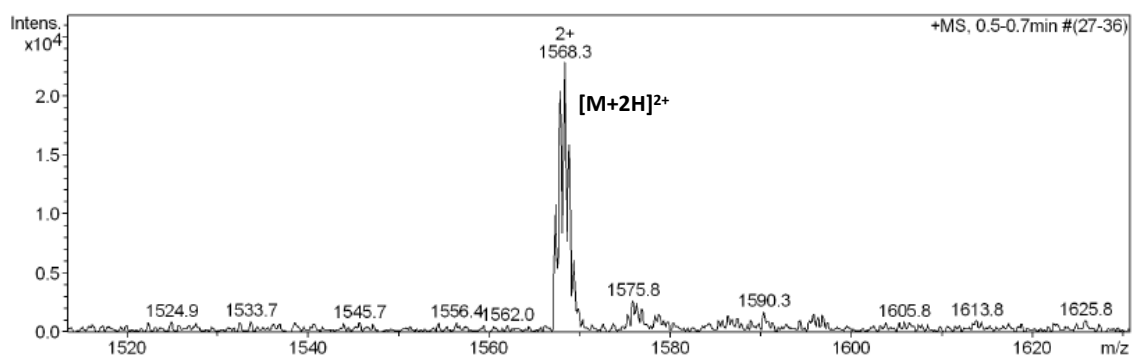
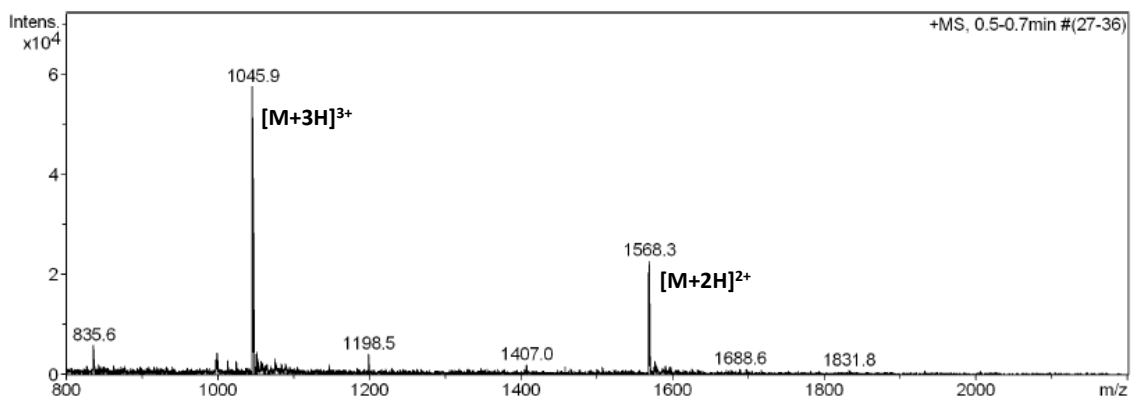


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₉ H ₂₃₇ N ₃₇ O ₃₀ | 1512.4073 | 1512.4007 |
| [M+3H]³⁺ | C ₁₄₉ H ₂₃₈ N ₃₇ O ₃₀ | 1008.6073 | 1008.6047 |
| [M+4H]⁴⁺ | C ₁₄₉ H ₂₃₉ N ₃₇ O ₃₀ | 756.7073 | 756.7061 |

Fmoc-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH

MM-3 (KSLW-Pep13)**HPLC (λ = 220 nm) (MM-3 p46)**

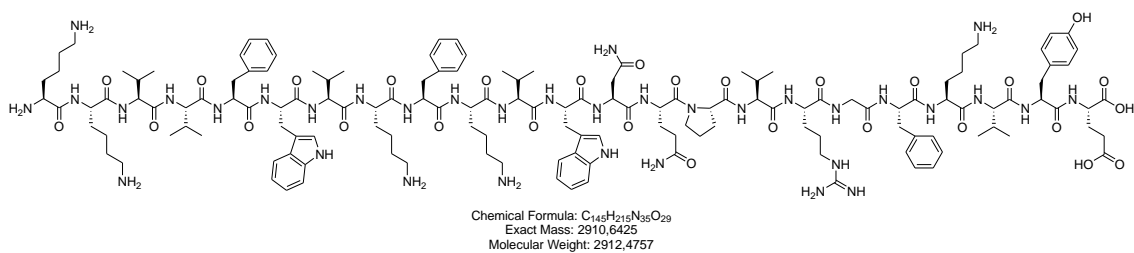
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,29 | 1454,005 | 220,277 | 100,00 |
| Total: | | 1454,005 | 220,277 | 100,00 |

ESI-MS (m/z) (MM-3 p46)

| |
|------------------------|
| $[M+2H]^{2+} = 1567.3$ |
|------------------------|

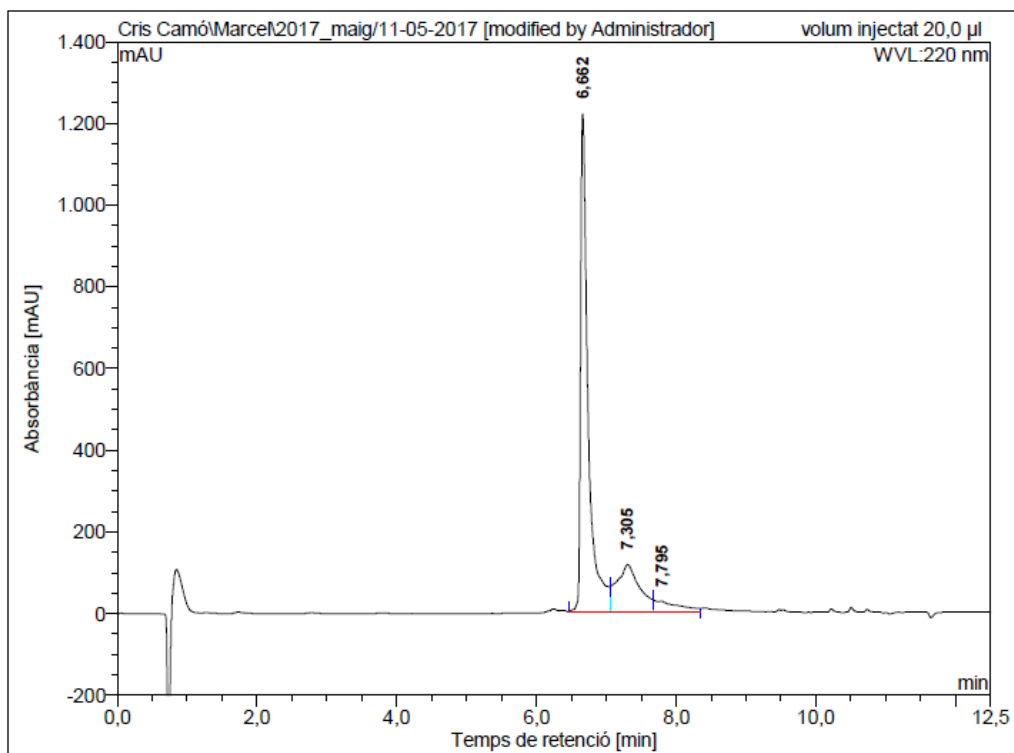
| |
|------------------------|
| $[M+3H]^{3+} = 1045.9$ |
|------------------------|

Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-OH **MM-3**
(KSLW-Pep13)



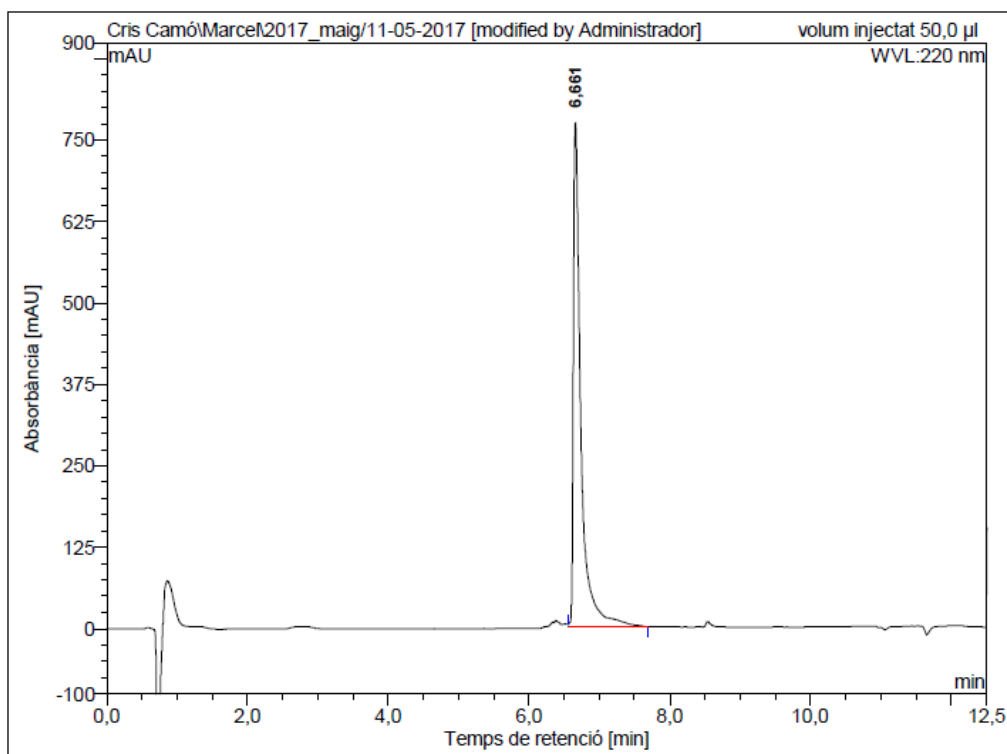
IMPURE PRODUCT

HPLC ($\lambda = 220 \text{ nm}$) (MM-3 p.55 impur)

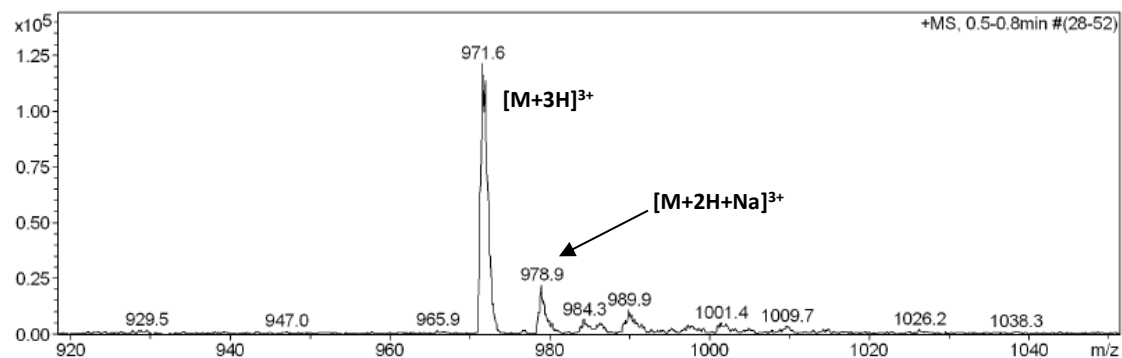
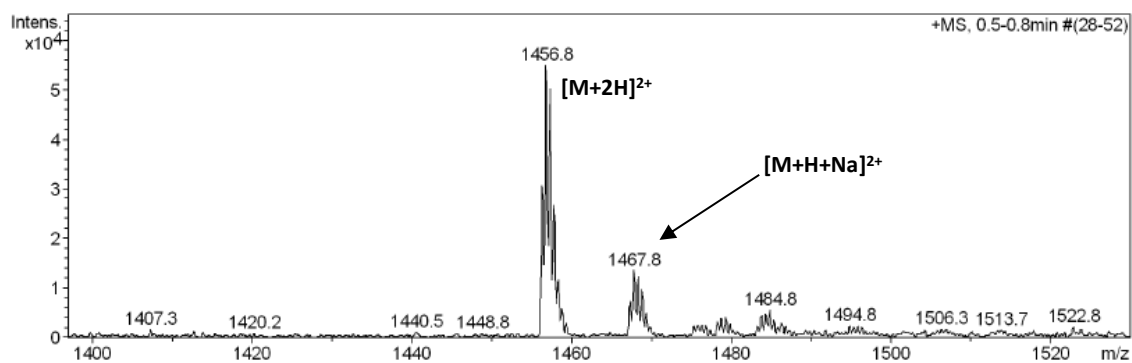
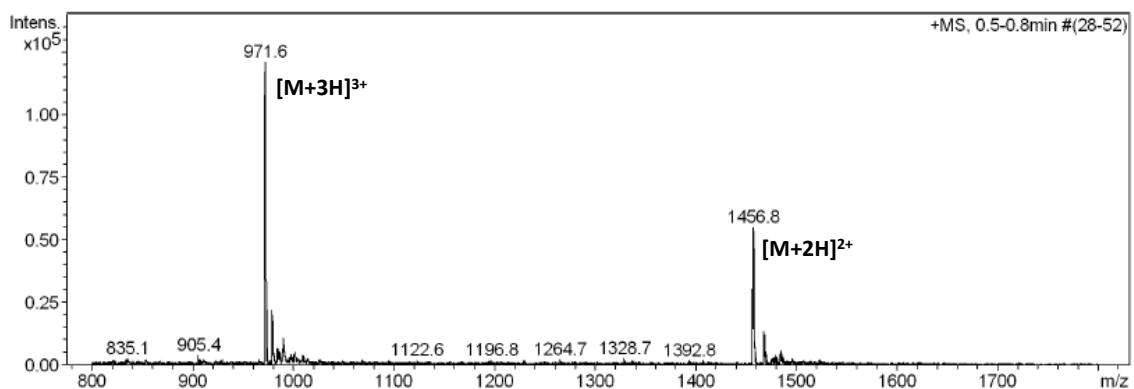


| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,66 | 1219,010 | 152,665 | 73,22 |
| 2 | 7,31 | 115,527 | 44,723 | 21,45 |
| 3 | 7,80 | 26,655 | 11,115 | 5,33 |
| Total: | | 1361,192 | 208,504 | 100,00 |

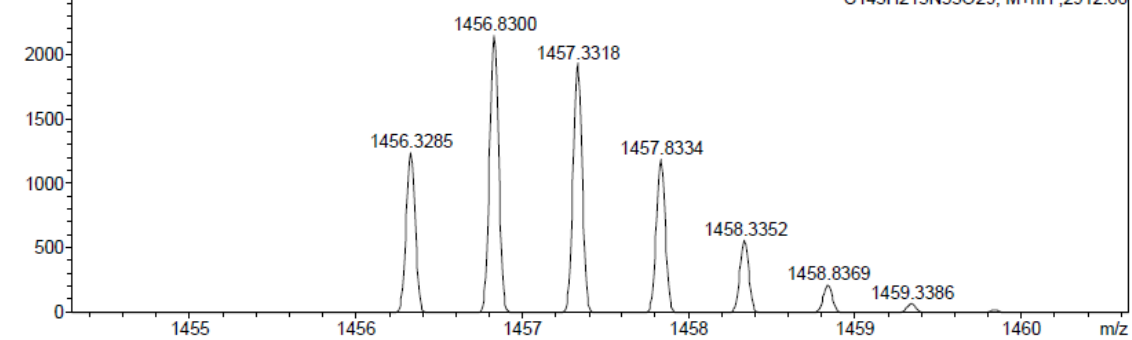
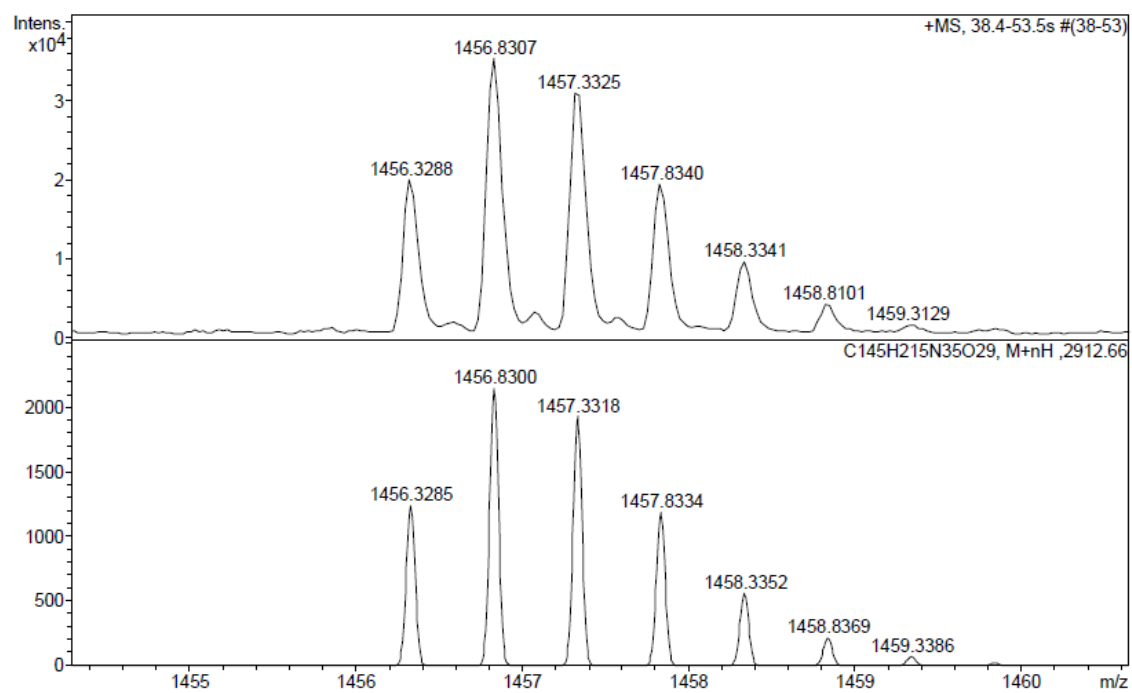
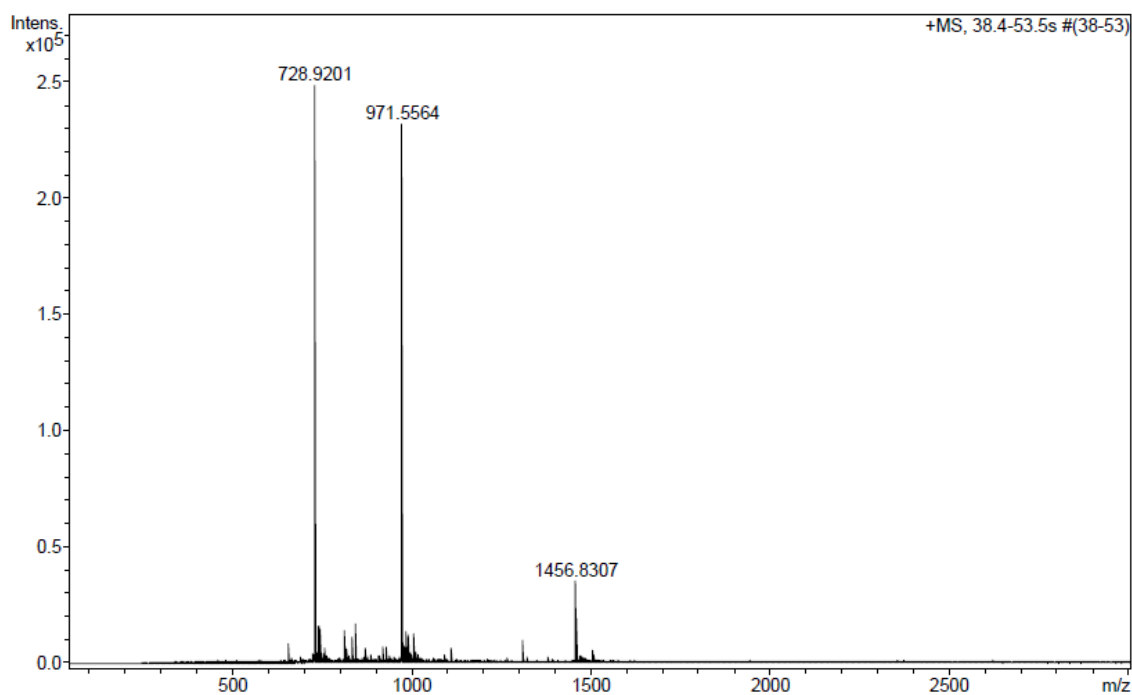
PURE PRODUCT

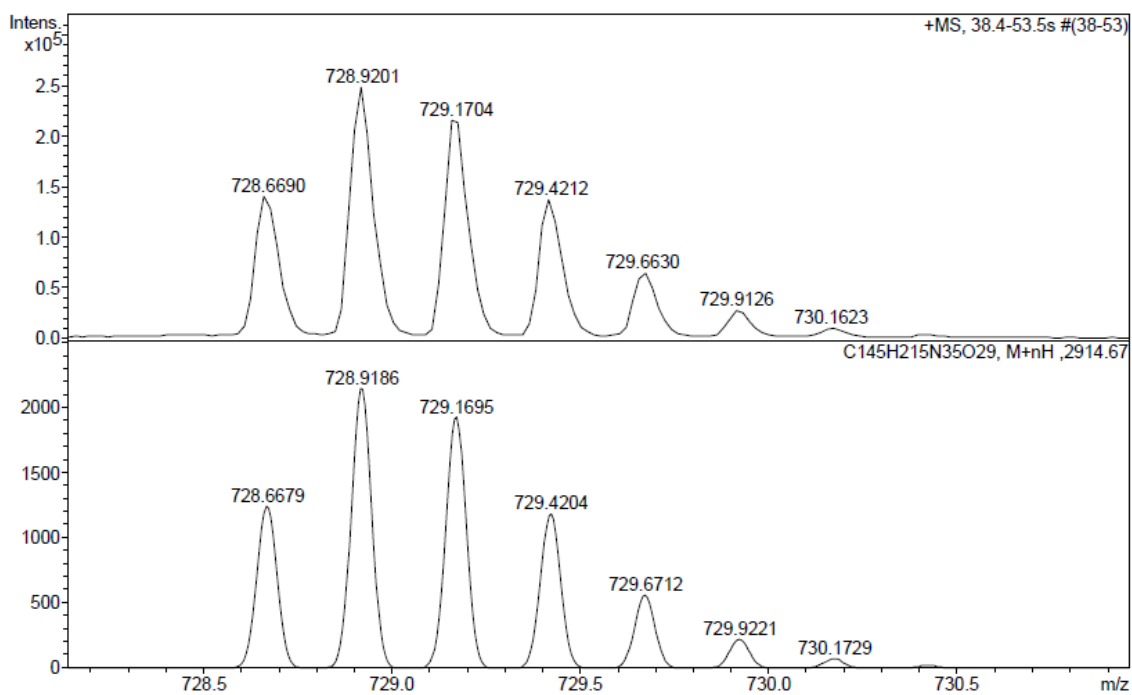
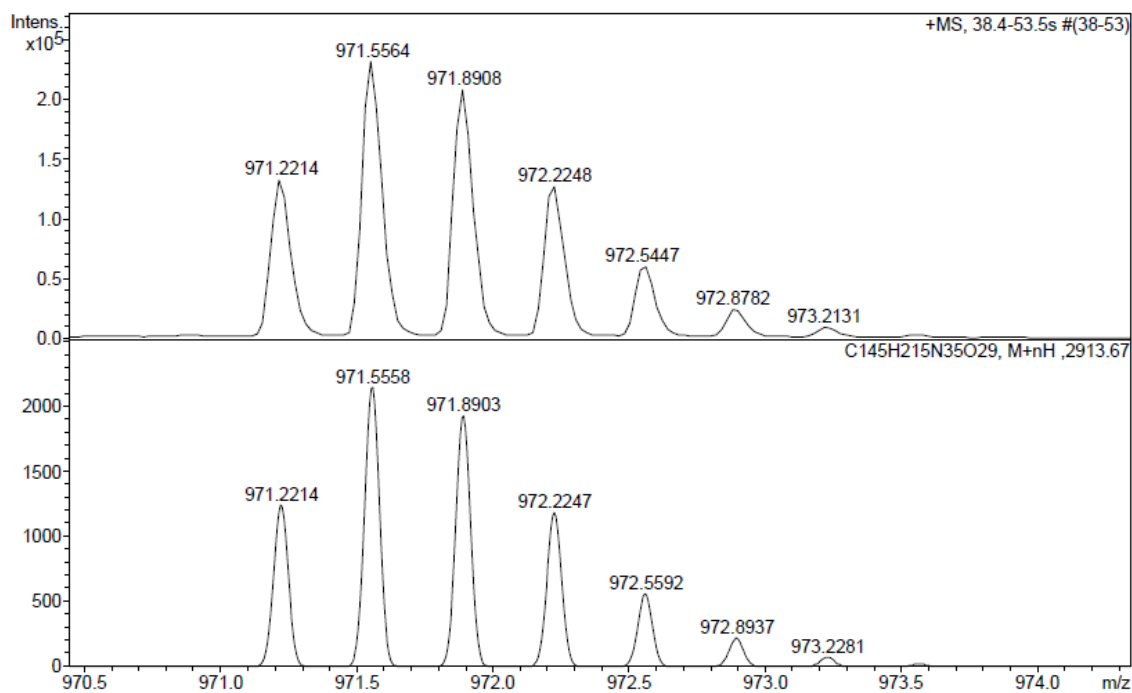
HPLC ($\lambda = 220 \text{ nm}$) (MM-3 p.55 tub 19)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,66 | 774,041 | 97,191 | 100,00 |
| Total: | | 774,041 | 97,191 | 100,00 |

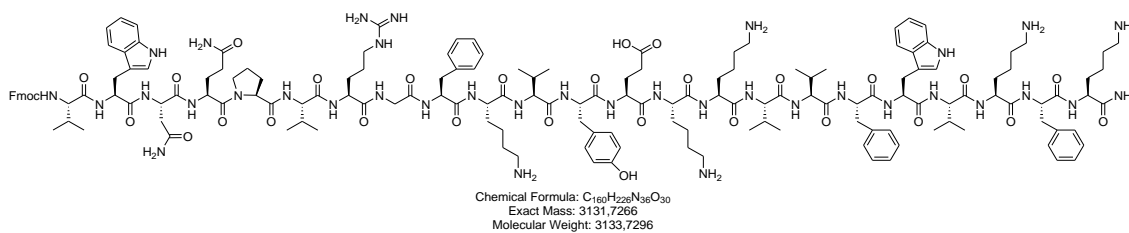
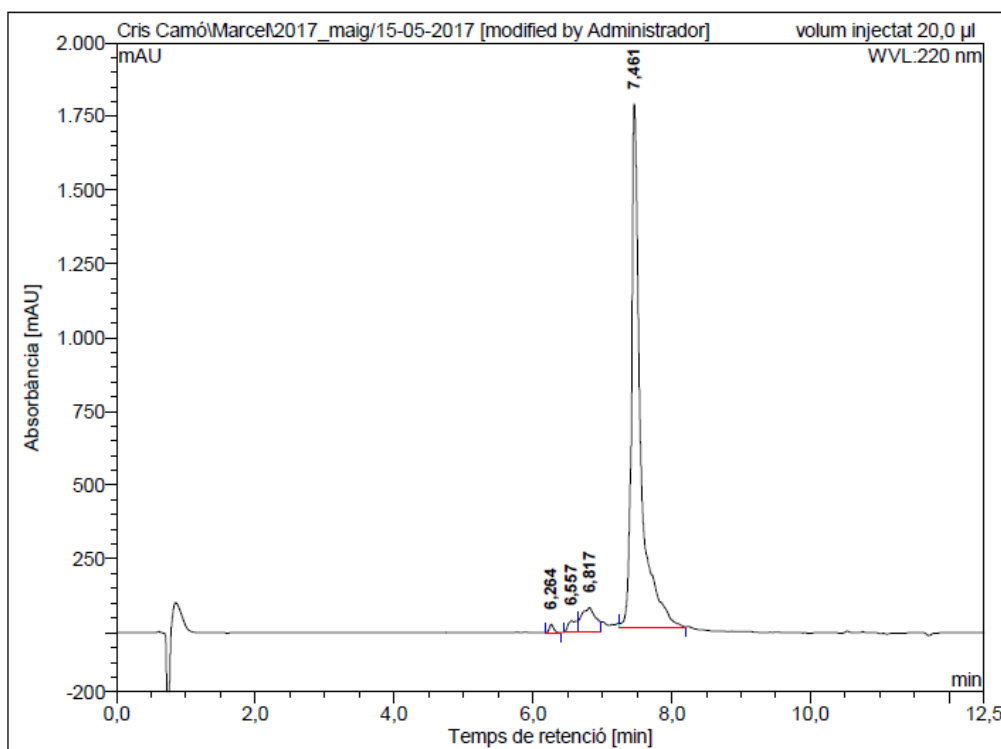
ESI-MS (m/z) (MM-3 p.55 tub 19)

| |
|--------------------------|
| $[M+2H]^{2+} = 1456.8$ |
| $[M+H+Na]^{2+} = 1467.8$ |
| $[M+3H]^{3+} = 971.6$ |
| $[M+2H+Na]^{3+} = 978.9$ |

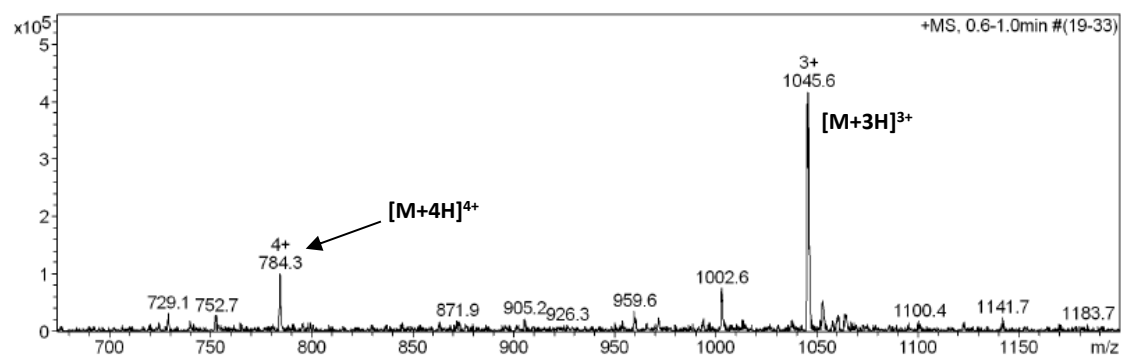
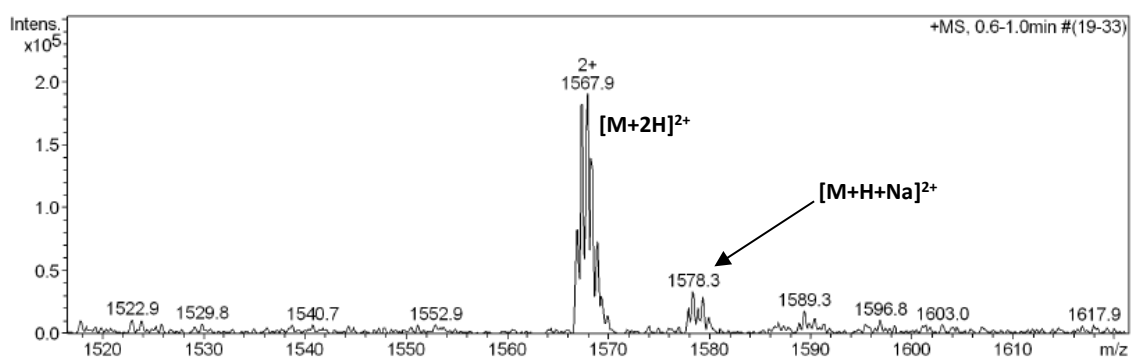
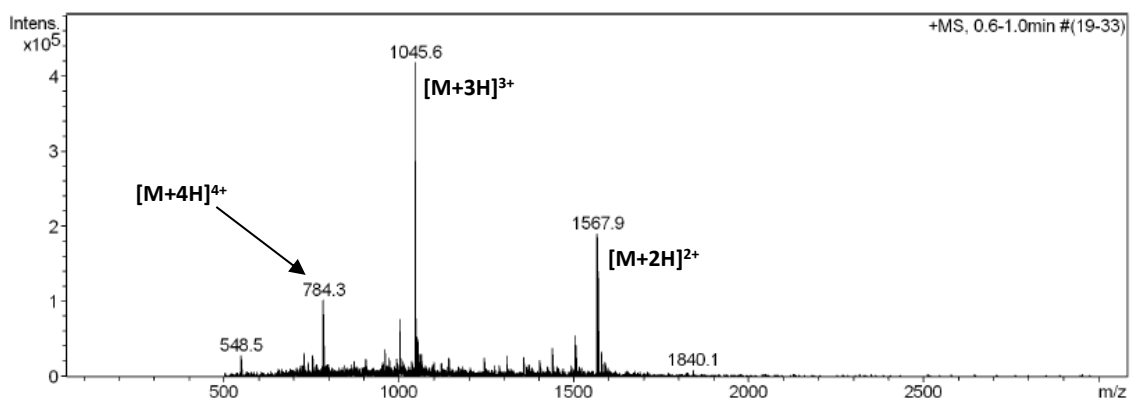
HRMS (ESI) (m/z)



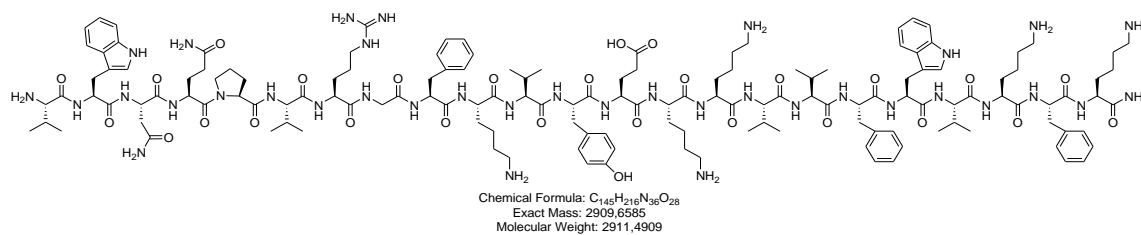
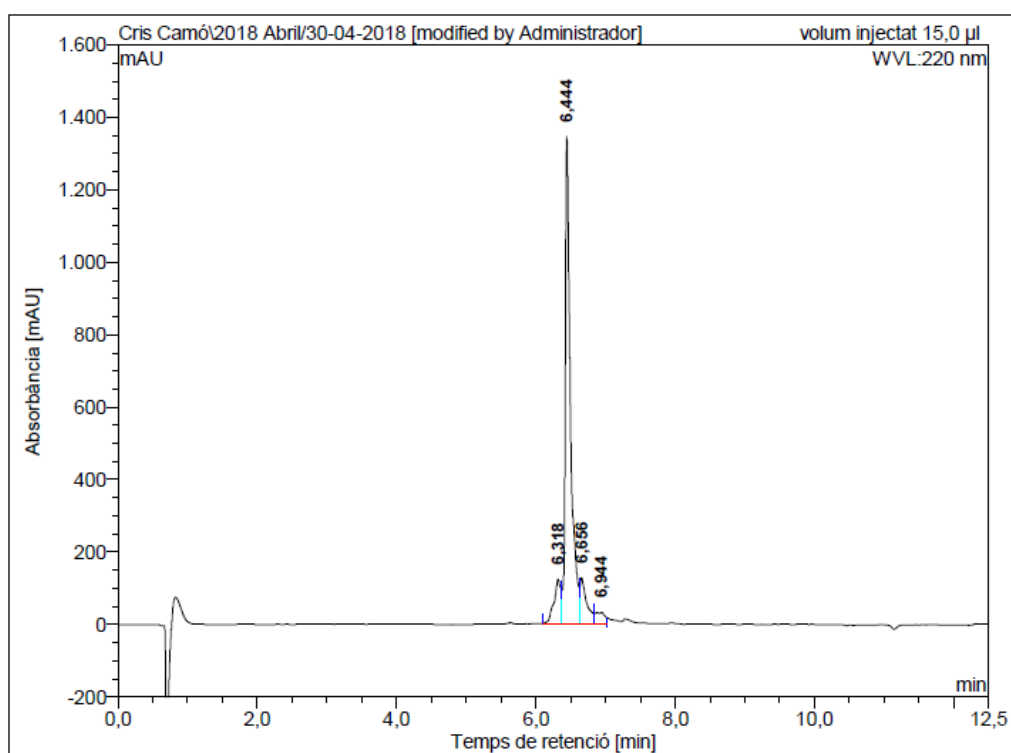
| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₅ H ₂₁₇ N ₃₅ O ₂₉ | 1456.3285 | 1456.3288 |
| [M+3H]³⁺ | C ₁₄₅ H ₂₁₈ N ₃₅ O ₂₉ | 971.2214 | 971.2214 |
| [M+4H]⁴⁺ | C ₁₄₅ H ₂₁₉ N ₃₅ O ₂₉ | 728.6679 | 728.6690 |

Fmoc-Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂**MM-4 (Pep13-KSLW)****HPLC (λ = 220 nm) (MM-4 p.56)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 28,672 | 2,136 | 0,72 |
| 2 | 6,56 | 38,169 | 5,235 | 1,77 |
| 3 | 6,82 | 82,754 | 19,747 | 6,69 |
| 4 | 7,46 | 1772,373 | 268,105 | 90,81 |
| Total: | | 1921,968 | 295,223 | 100,00 |

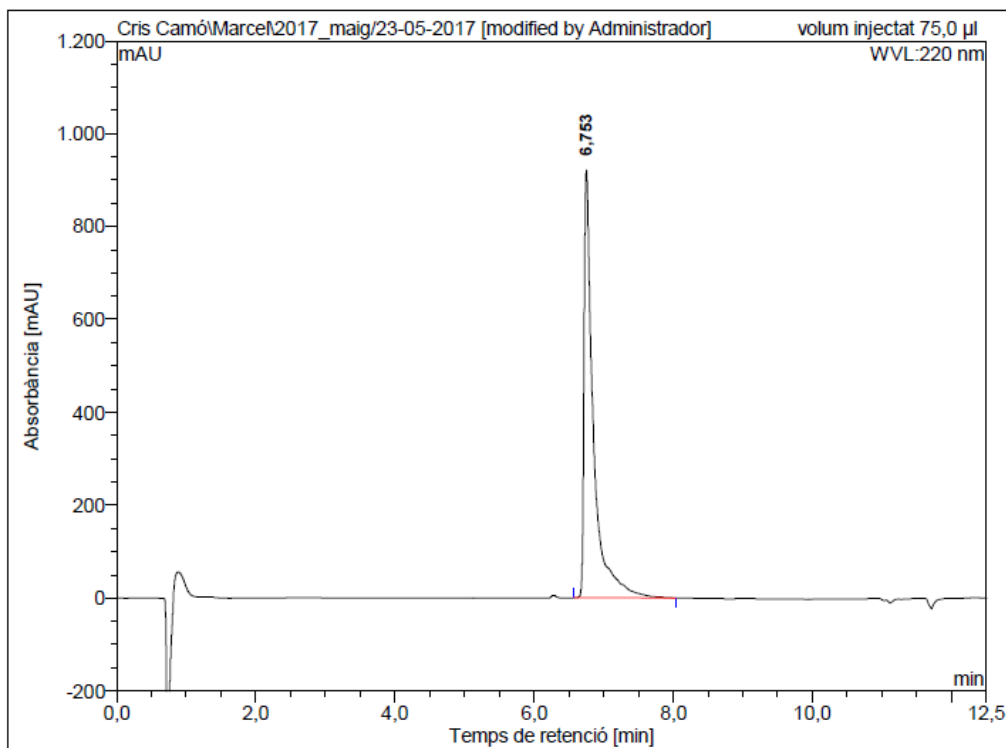
ESI-MS (m/z) (MM-4 p.56)

| |
|--------------------------|
| $[M+2H]^{2+} = 1567.9$ |
| $[M+H+Na]^{2+} = 1578.3$ |
| $[M+3H]^{3+} = 1045.6$ |
| $[M+4H]^{4+} = 784.3$ |

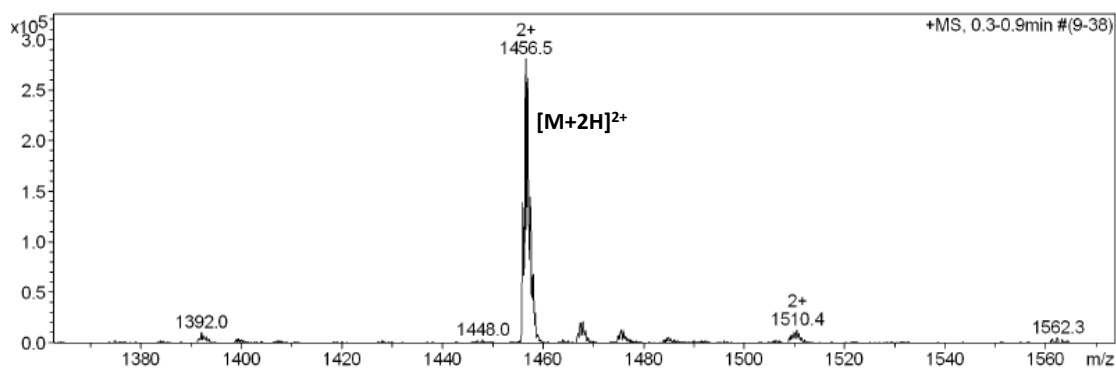
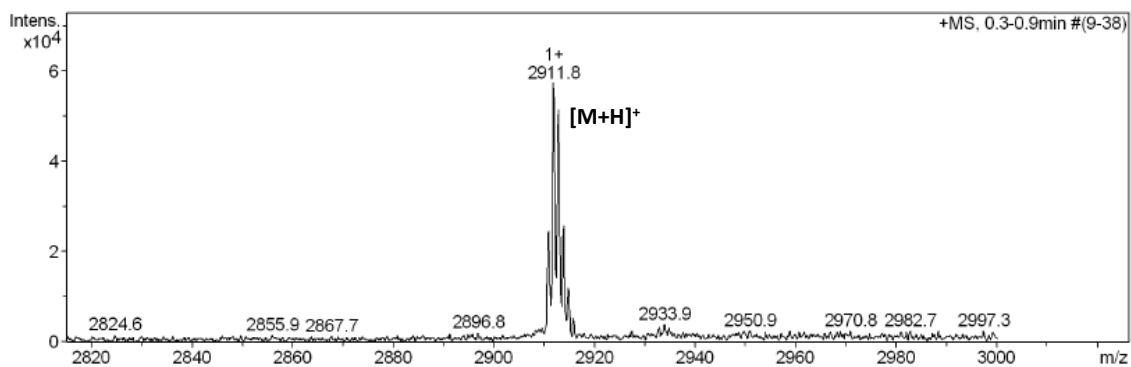
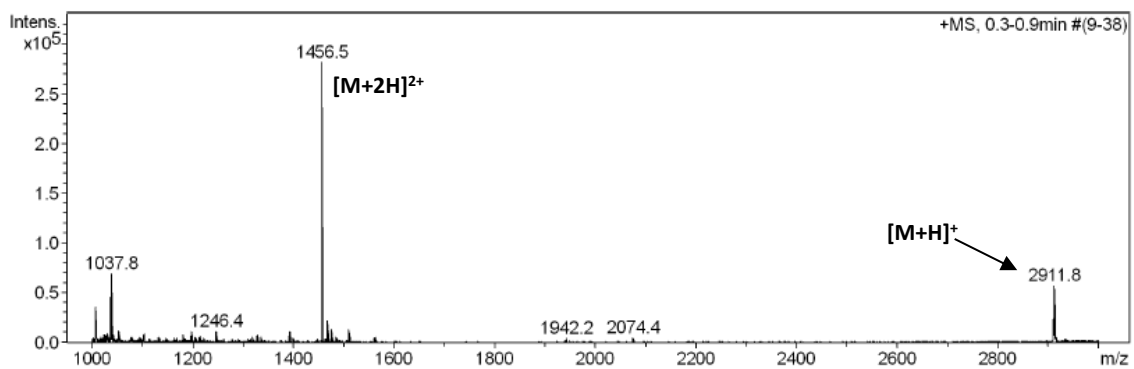
Val-Trp-Asn-Gln-Pro-Val-Arg-Gly-Phe-Lys-Val-Tyr-Glu-Lys-Lys-Val-Val-Phe-Trp-Val-Lys-Phe-Lys-NH₂ **MM-4****(Pep13-KSLW)****IMPURE PRODUCT****HPLC ($\lambda = 220$ nm) (MM-4 impur)**

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,32 | 122,127 | 14,373 | 9,61 |
| 2 | 6,44 | 1346,032 | 115,849 | 77,46 |
| 3 | 6,66 | 126,871 | 14,522 | 9,71 |
| 4 | 6,94 | 30,610 | 4,819 | 3,22 |
| Total: | | 1625,640 | 149,564 | 100,00 |

PURE PRODUCT

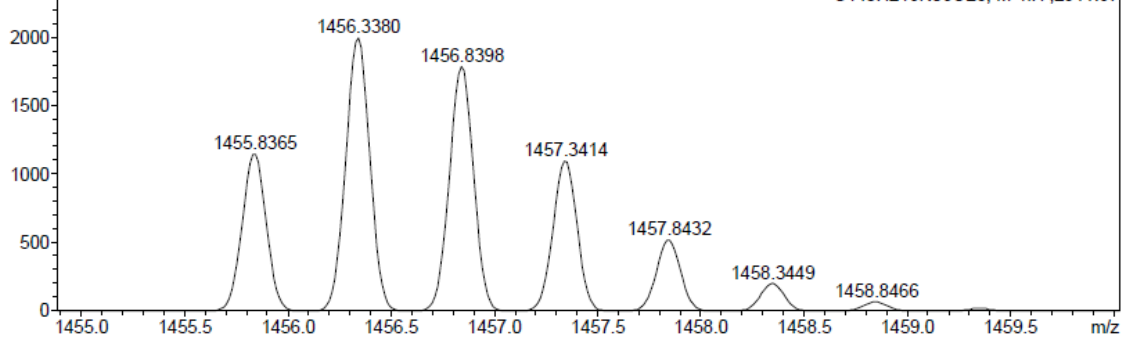
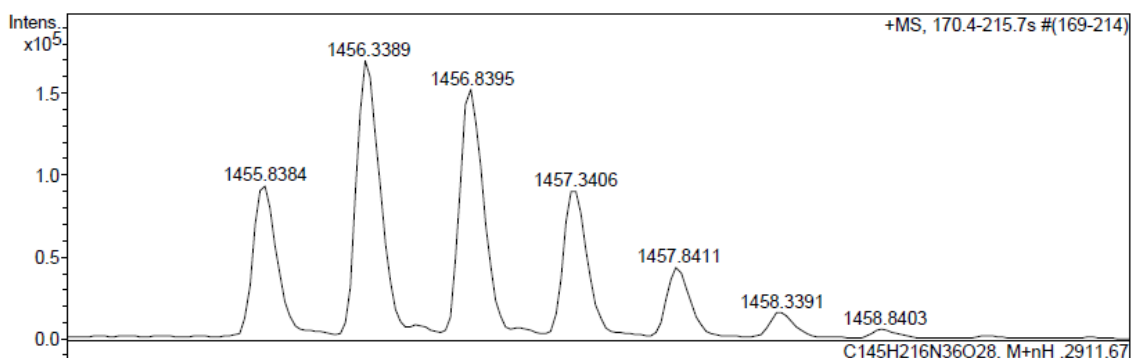
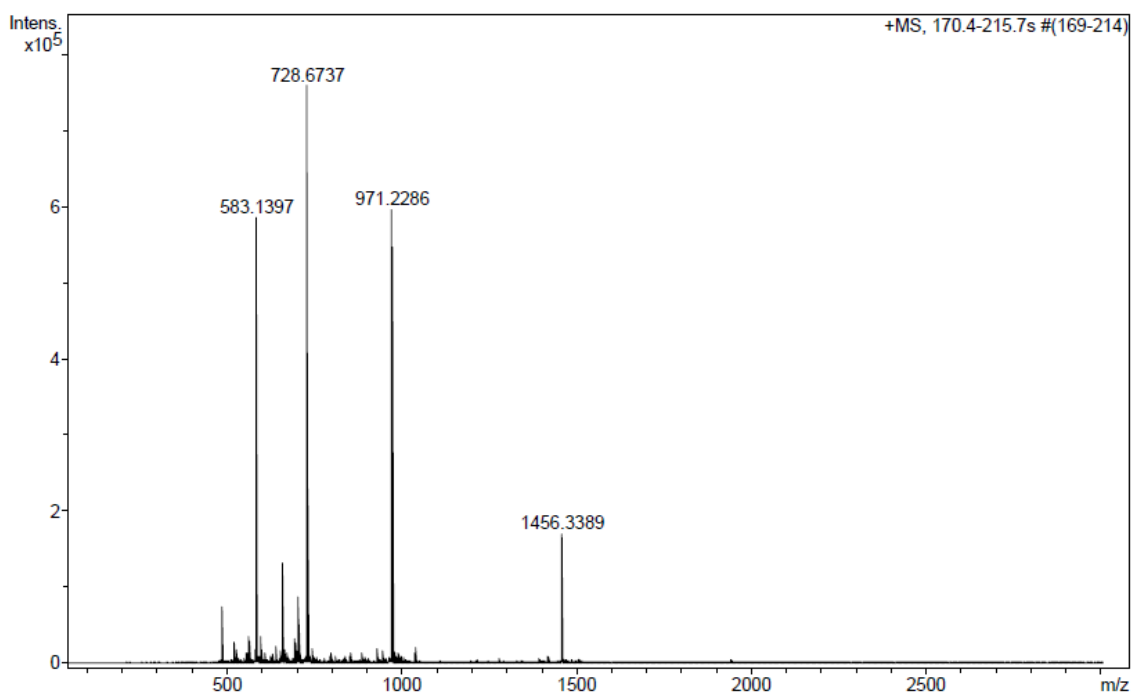
HPLC ($\lambda = 220 \text{ nm}$) (MM-4 p.60 tub 17)

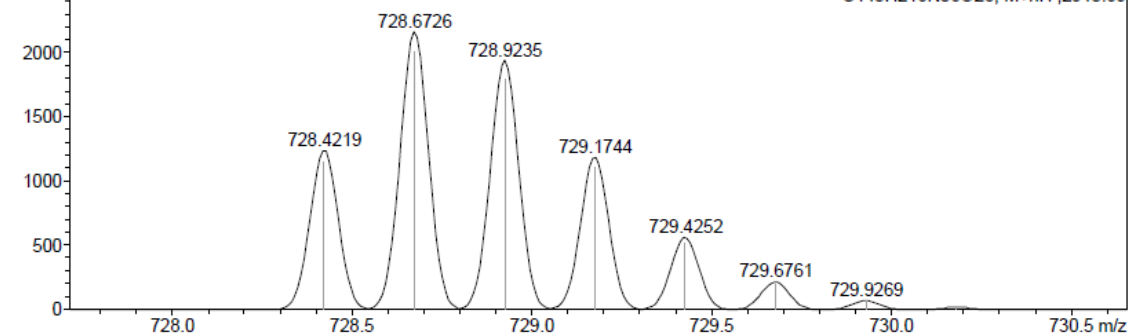
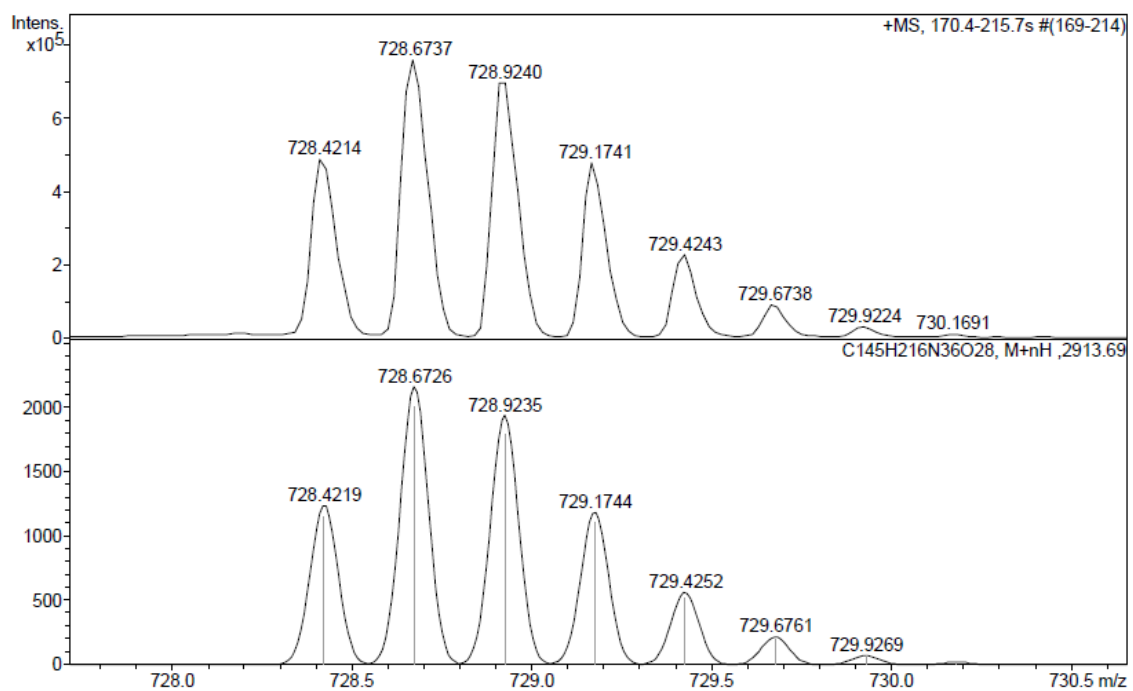
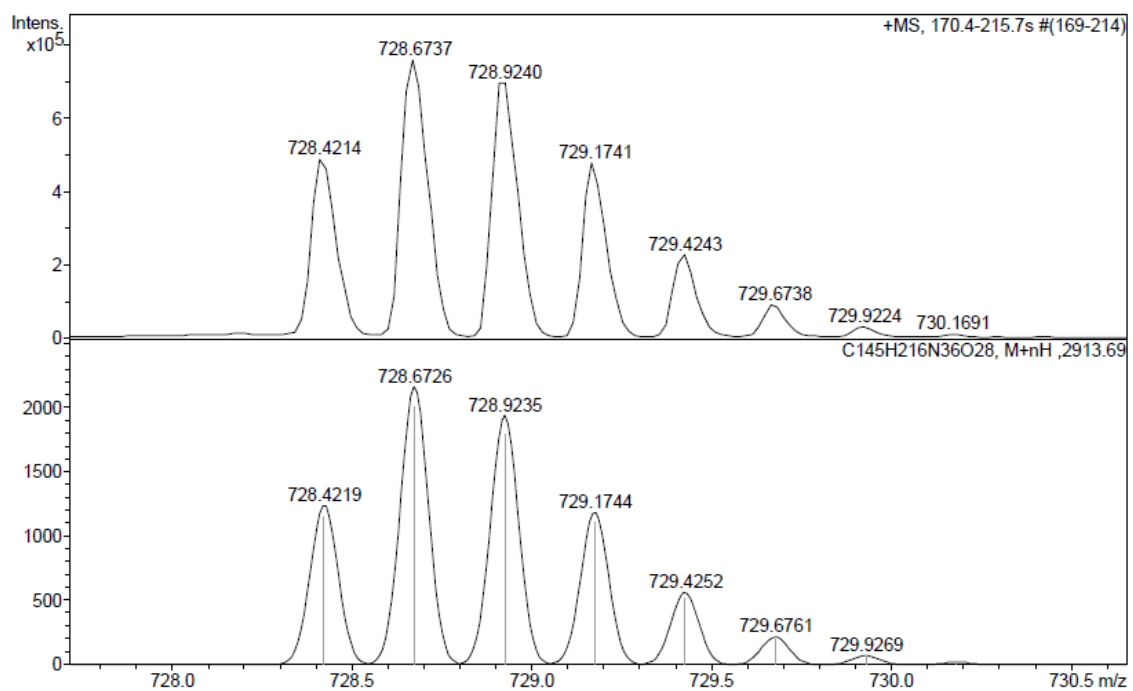
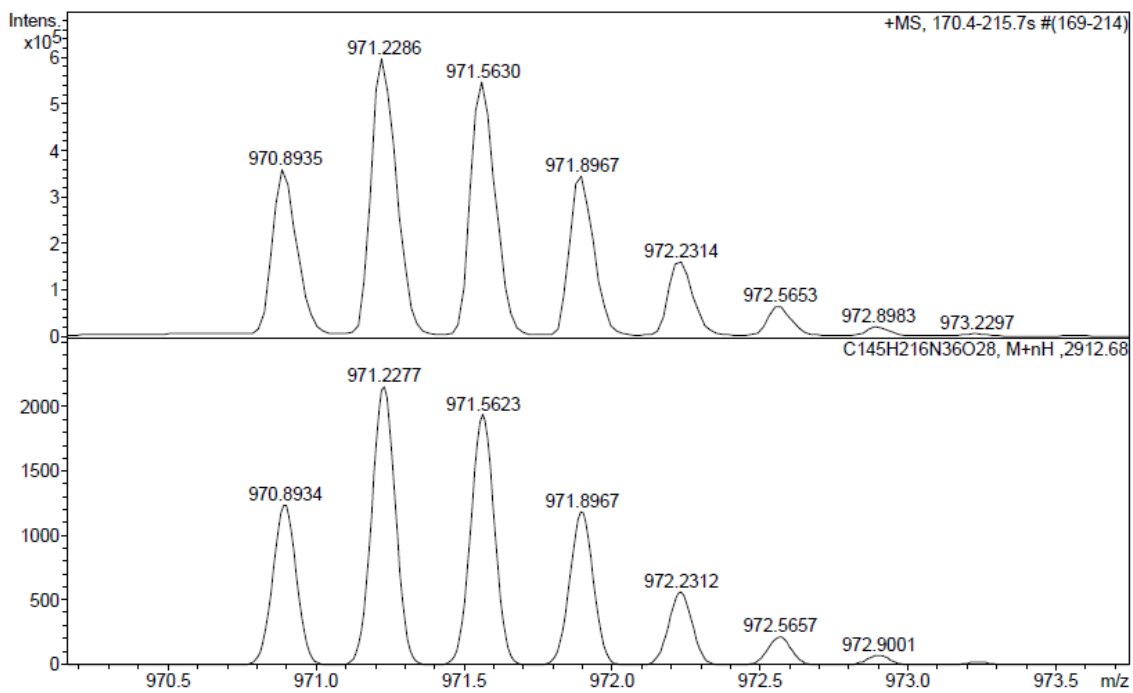
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,75 | 920,149 | 143,001 | 100,00 |
| Total: | | 920,149 | 143,001 | 100,00 |

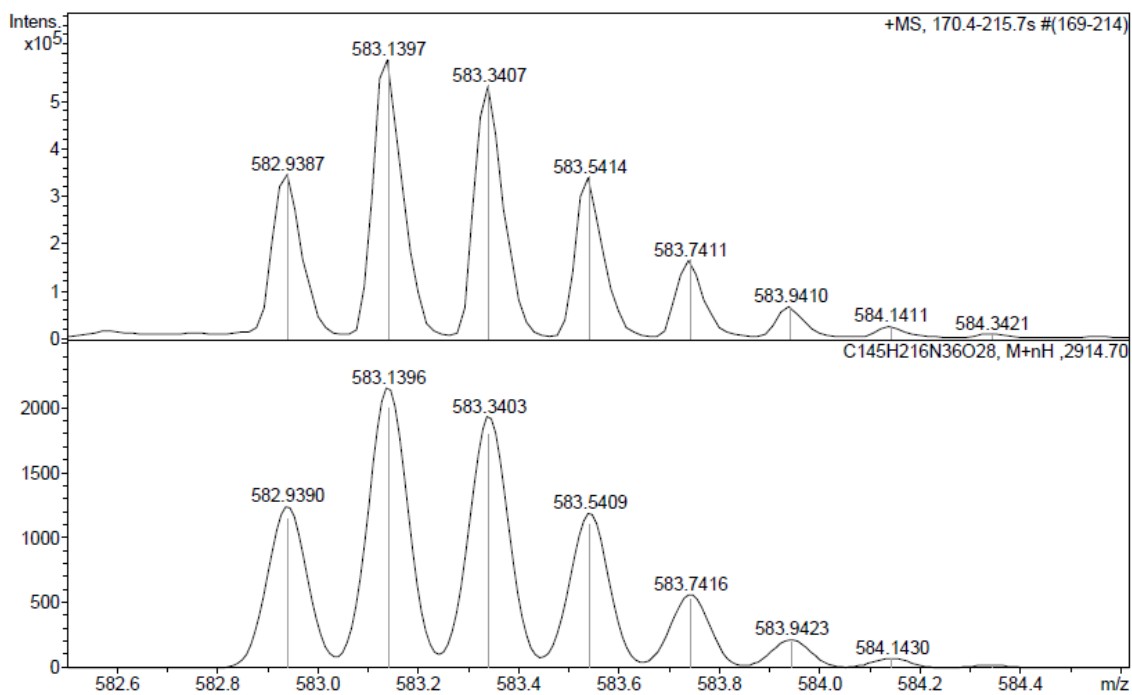
ESI-MS (m/z) (MM-4 p.60 tub 17)

| |
|--------------------|
| $[M+H]^+ = 2910.8$ |
|--------------------|

| |
|------------------------|
| $[M+2H]^{2+} = 1456.5$ |
|------------------------|

HRMS (ESI) (m/z)



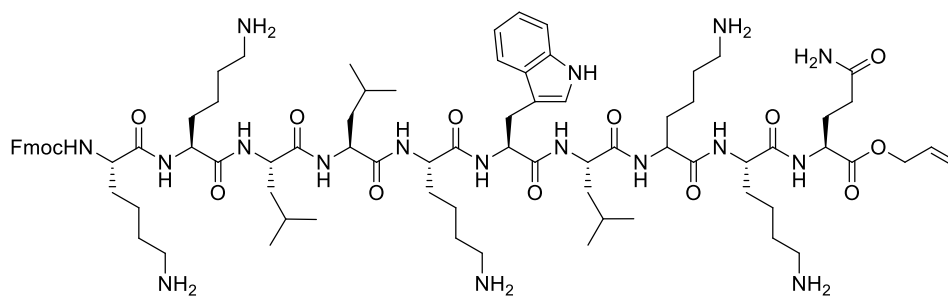


| | Molecular formula | Calculated | Found |
|----------------------------|---|------------|-----------|
| [M+2H]²⁺ | C ₁₄₅ H ₂₁₈ N ₃₆ O ₂₈ | 1455.8365 | 1455.8384 |
| [M+3H]³⁺ | C ₁₄₅ H ₂₁₉ N ₃₆ O ₂₈ | 970.8934 | 970.8935 |
| [M+4H]⁴⁺ | C ₁₄₅ H ₂₂₀ N ₃₆ O ₂₈ | 728.4219 | 728.4214 |
| [M+5H]⁵⁺ | C ₁₄₅ H ₂₂₁ N ₃₆ O ₂₈ | 582.9390 | 582.9387 |

Trp-containing cyclic decapeptides

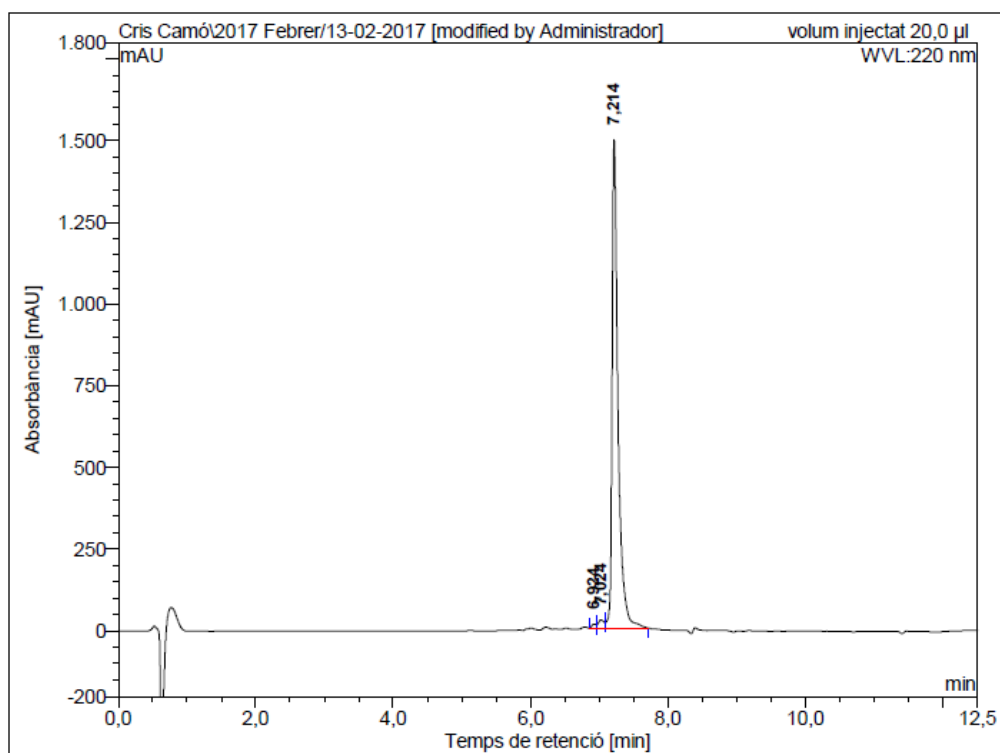
ANNEX

Fmoc-Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OAll

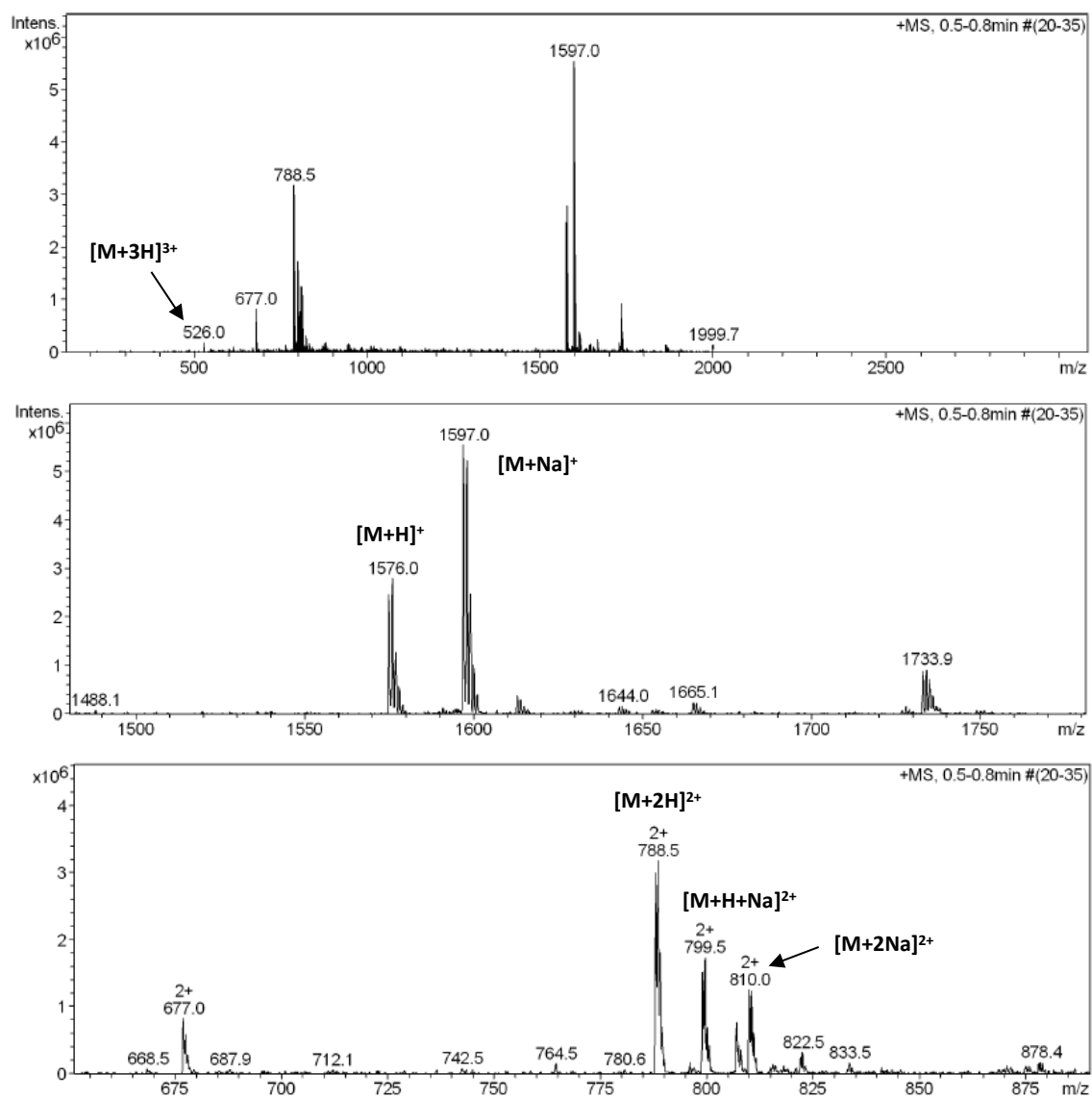
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

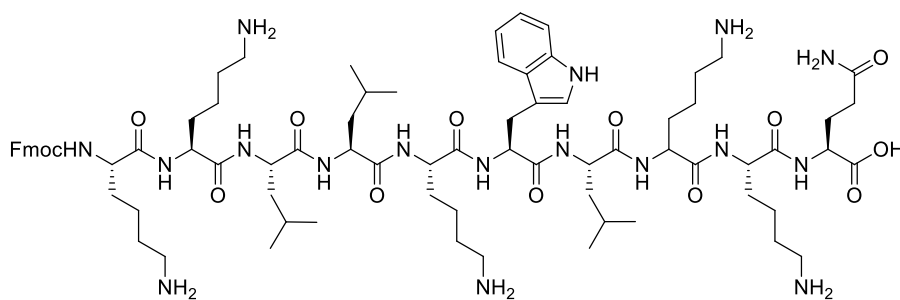
HPLC ($\lambda = 220 \text{ nm}$) (BPC136W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,92 | 12,121 | 0,922 | 0,60 |
| 2 | 7,02 | 24,978 | 2,456 | 1,59 |
| 3 | 7,21 | 1494,851 | 150,806 | 97,81 |
| Total: | | 1531,950 | 154,184 | 100,00 |

ESI-MS (m/z) (BPC136W-953)

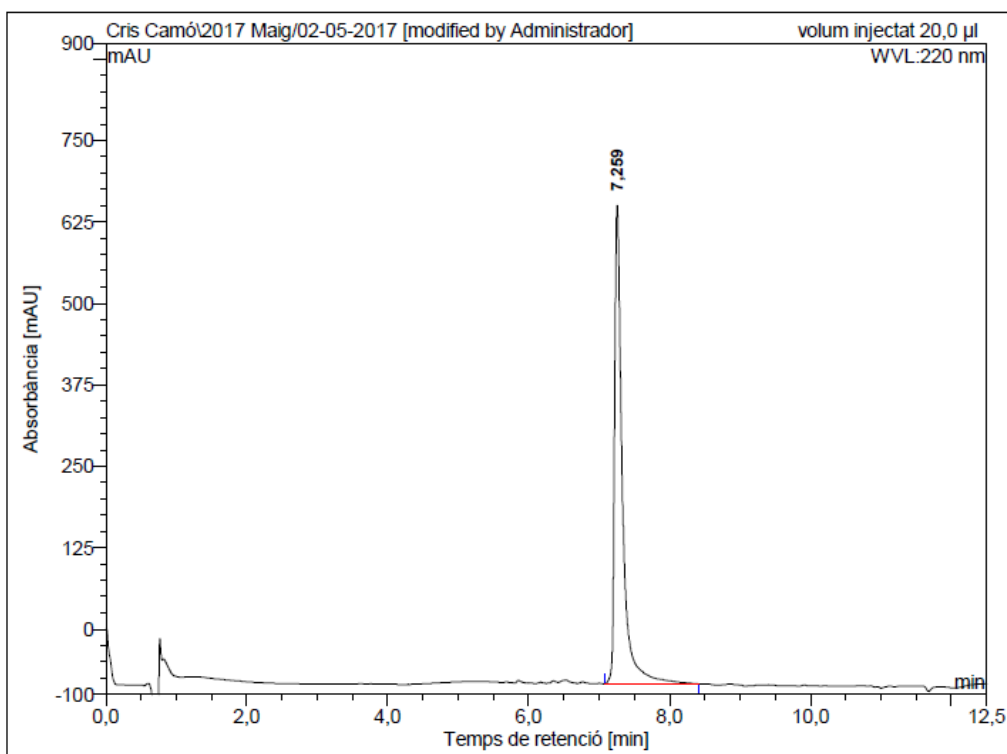
| |
|-------------------------|
| $[M+H]^+ = 1575.0$ |
| $[M+Na]^+ = 1597.0$ |
| $[M+2H]^{2+} = 788.5$ |
| $[M+H+Na]^{2+} = 799.5$ |
| $[M+2Na]^{2+} = 810.0$ |
| $[M+3H]^{3+} = 526.0$ |

Fmoc-Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OH

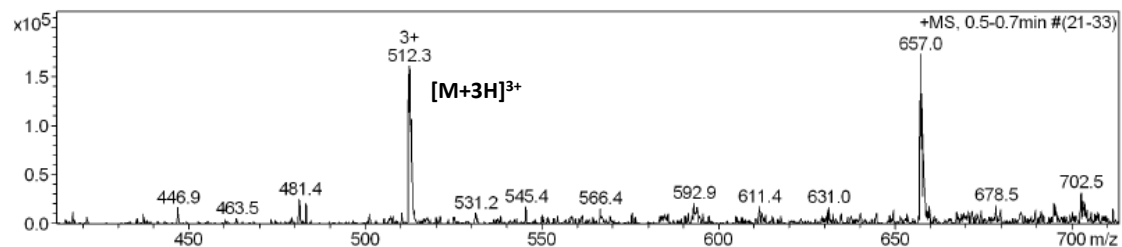
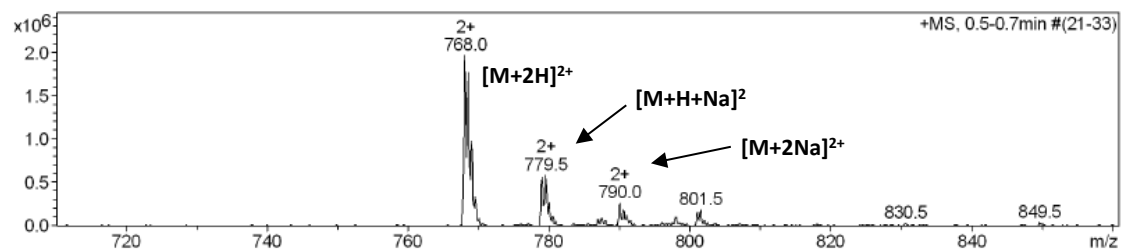
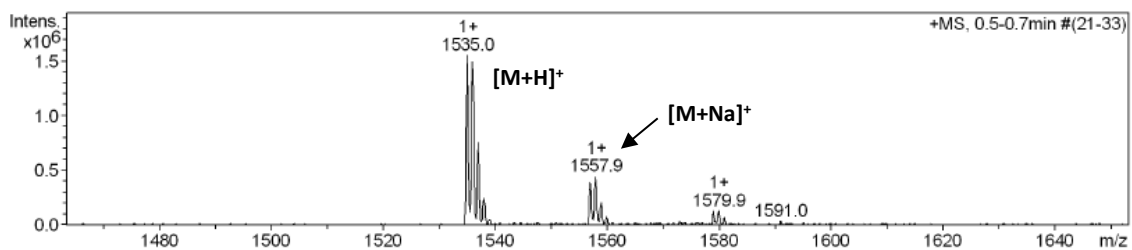
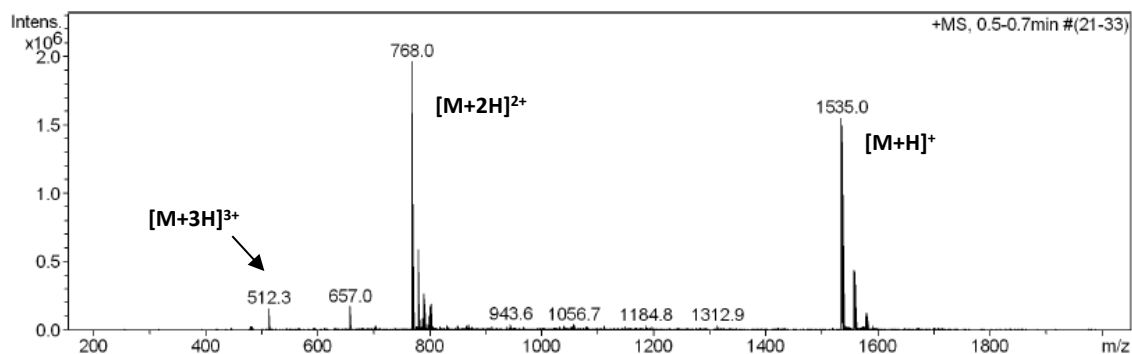
Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

Exact Mass: 1533,9435

Molecular Weight: 1534,9274

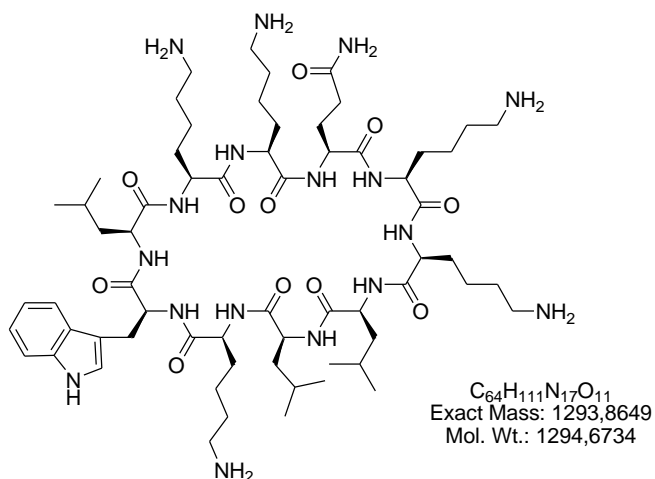
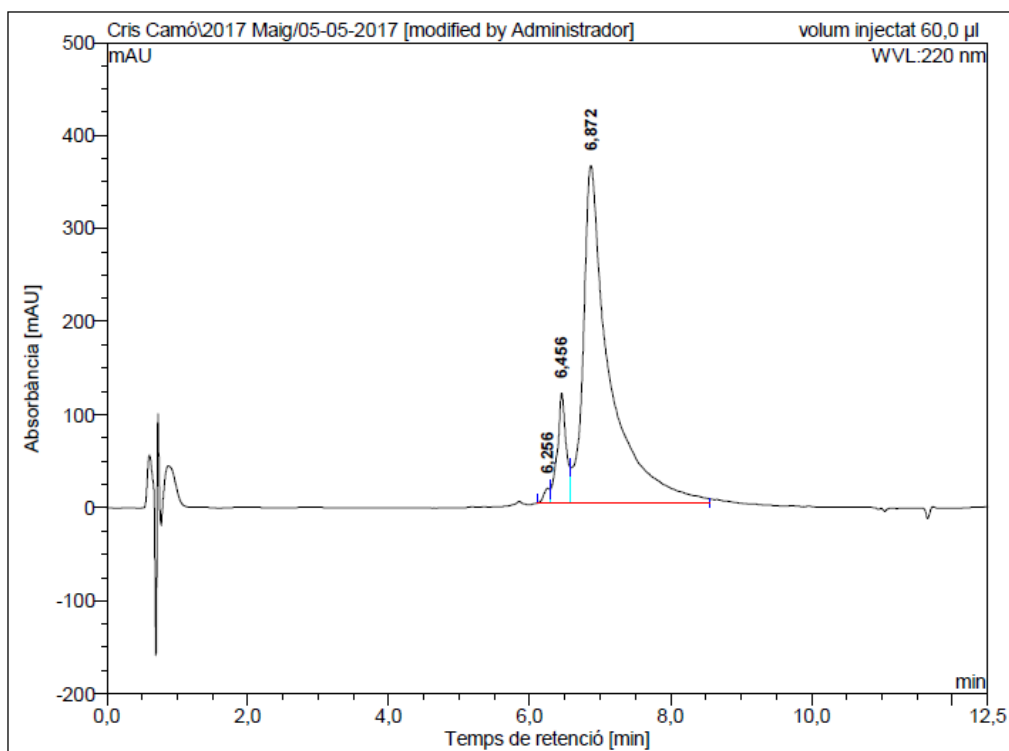
HPLC ($\lambda = 220 \text{ nm}$) (BPC136W-1045)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,26 | 734,486 | 95,652 | 100,00 |
| Total: | | 734,486 | 95,652 | 100,00 |

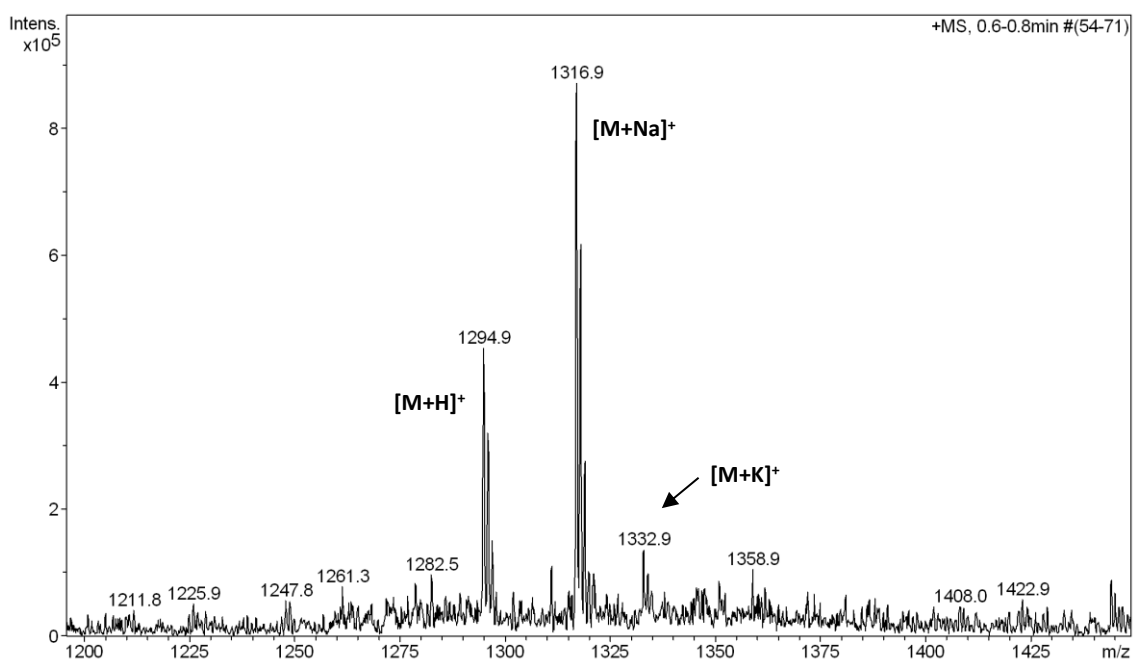
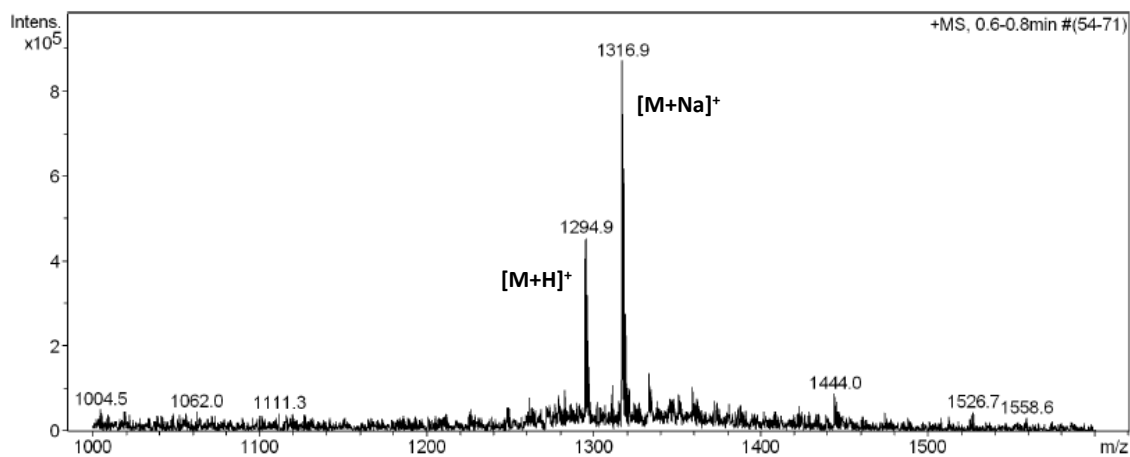
ESI-MS (m/z) (BPC136W sense al-lil gran)

| |
|-------------------------|
| $[M+H]^+ = 1535.0$ |
| $[M+Na]^+ = 1557.9$ |
| $[M+2H]^{2+} = 768.0$ |
| $[M+H+Na]^{2+} = 779.5$ |
| $[M+2Na]^{2+} = 790.0$ |
| $[M+3H]^{3+} = 512.3$ |

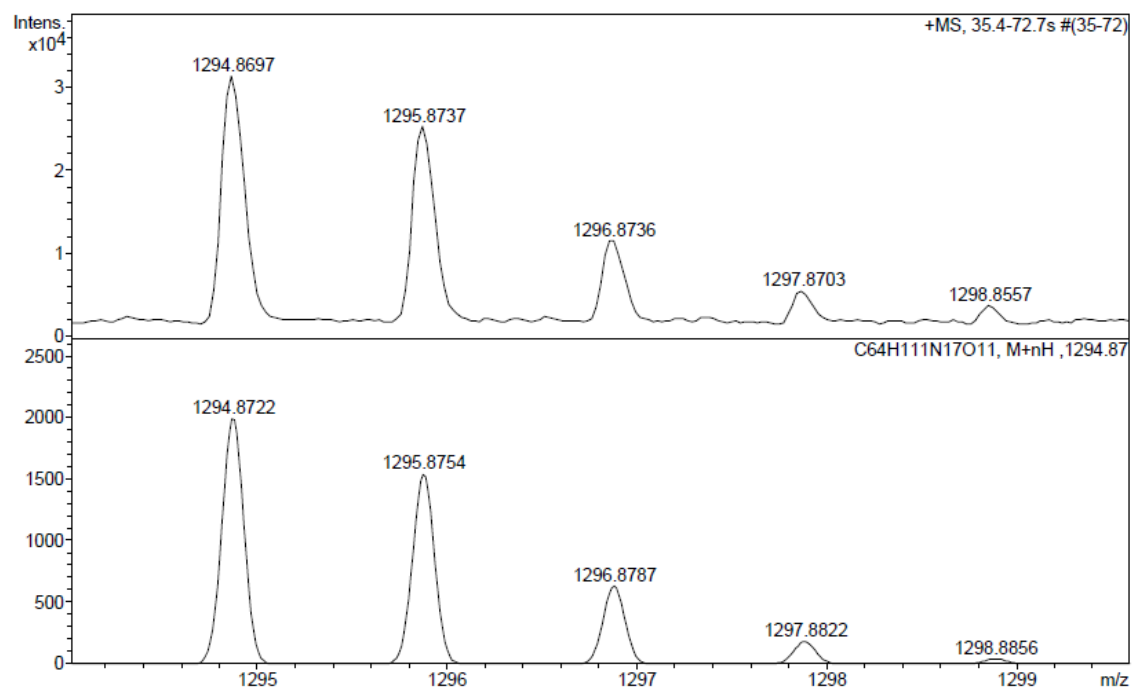
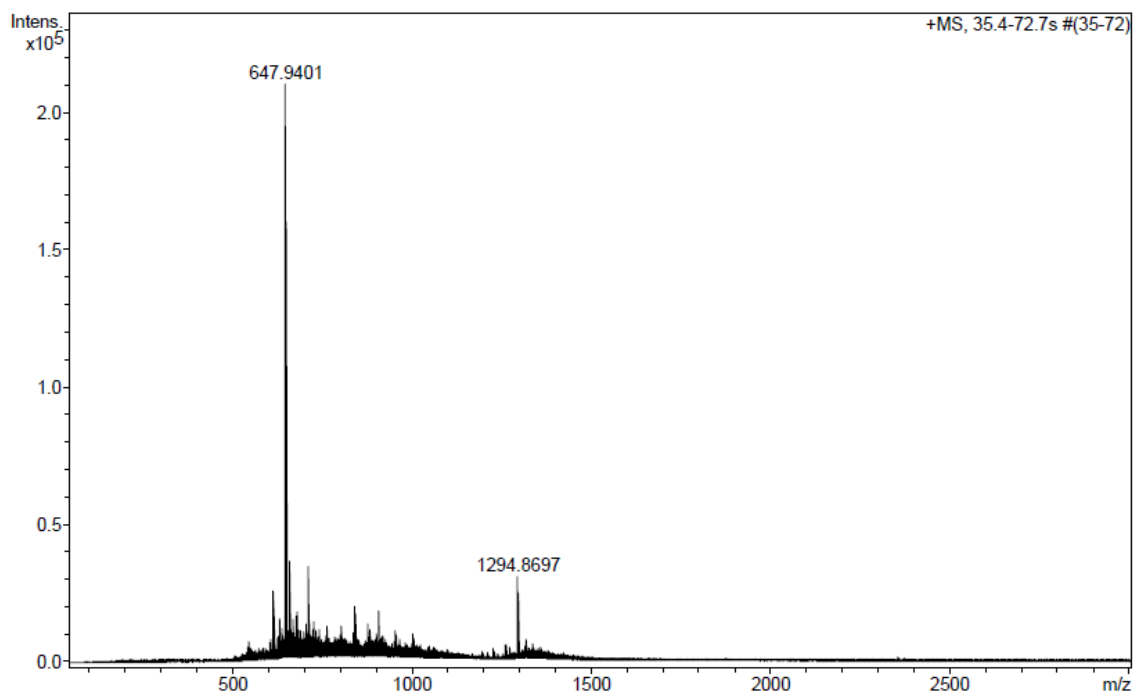
c(Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Lys-Gln) (BPC136W)

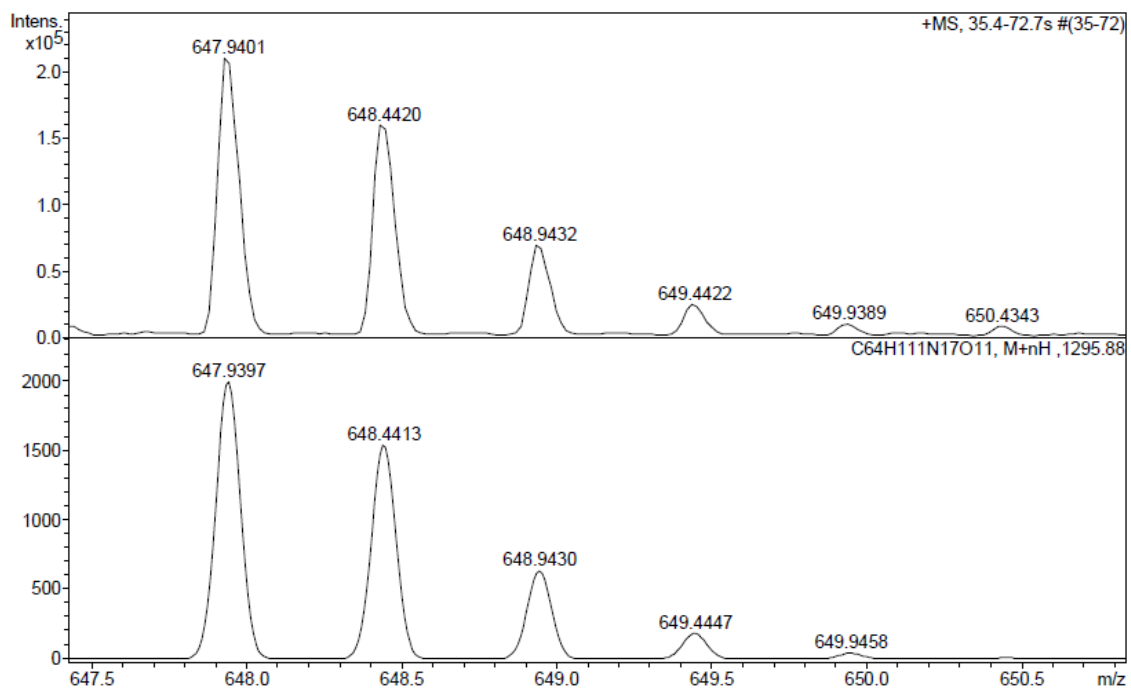
HPLC ($\lambda = 220$ nm) (BPC136W-1053)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 15,674 | 1,570 | 0,89 |
| 2 | 6,46 | 117,743 | 17,553 | 9,95 |
| 3 | 6,87 | 362,579 | 157,355 | 89,16 |
| Total: | | 495,996 | 176,477 | 100,00 |

ESI-MS (m/z) (BPC136W-1083)

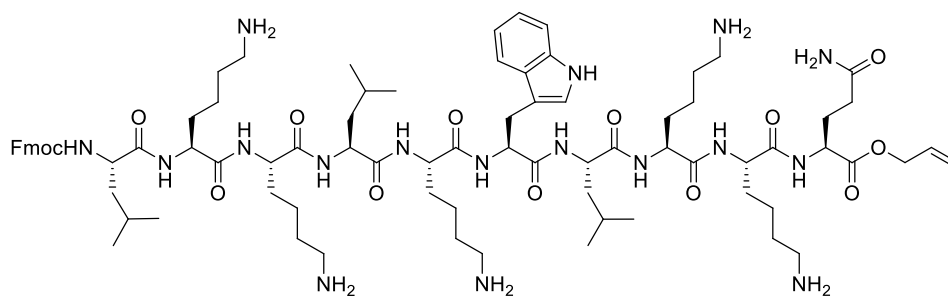
| |
|---------------------|
| $[M+H]^+ = 1294.9$ |
| $[M+Na]^+ = 1316.9$ |
| $[M+K]^+ = 1332.9$ |

HRMS (ESI) (m/z) (BPC136W)



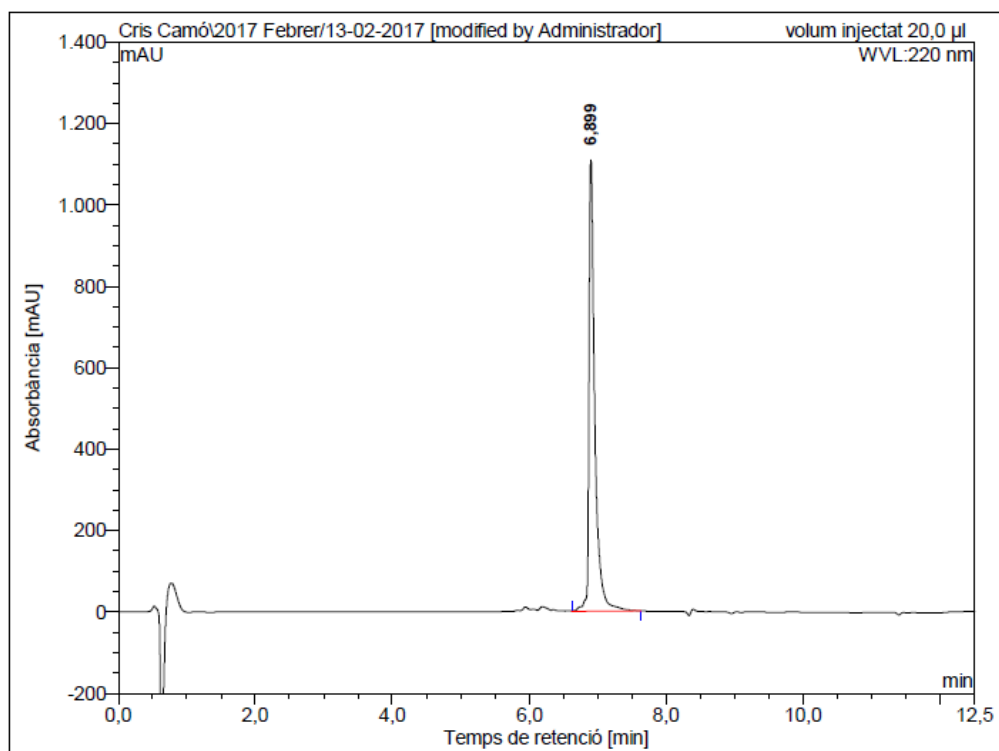
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₂ N ₁₇ O ₁₁ | 1294.8722 | 1294.8697 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₃ N ₁₇ O ₁₁ | 647.9397 | 647.9401 |

Fmoc-Leu-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OAll

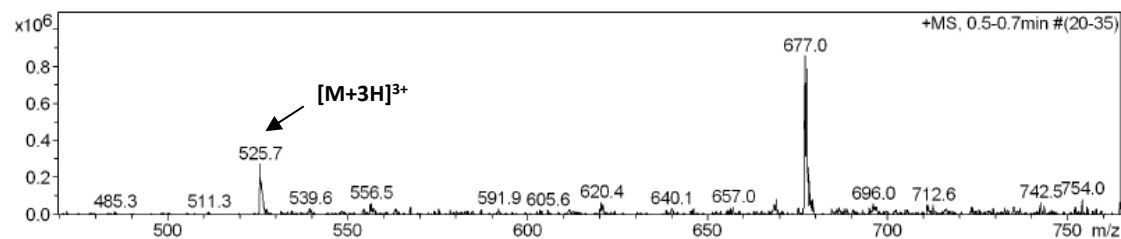
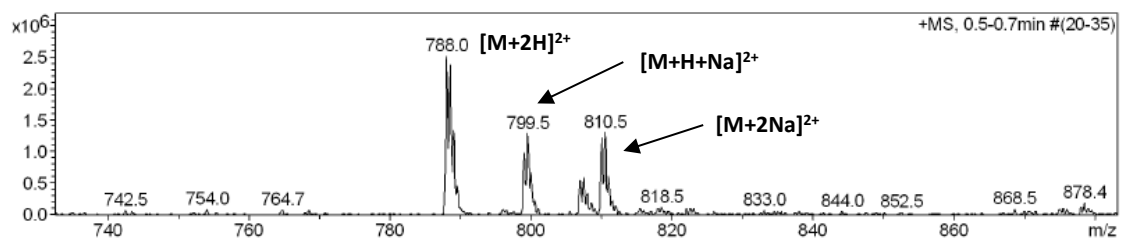
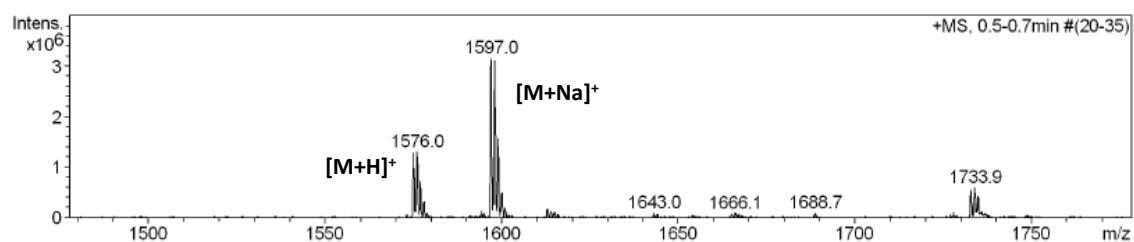
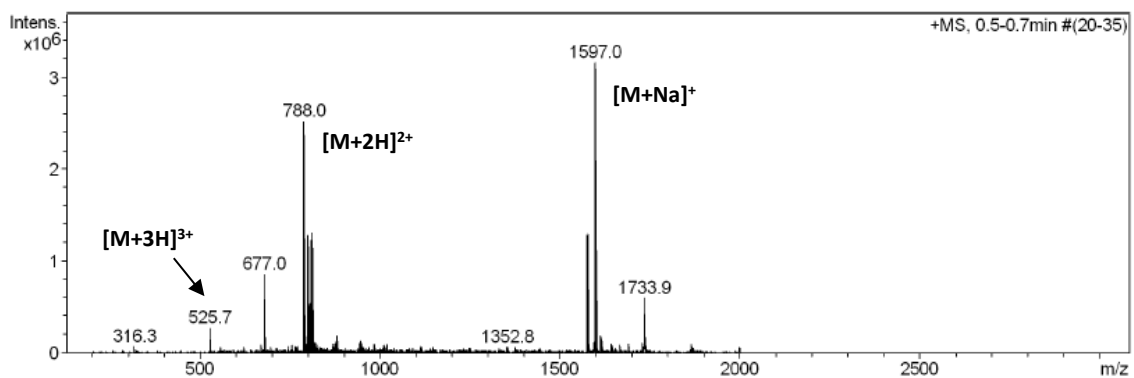
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

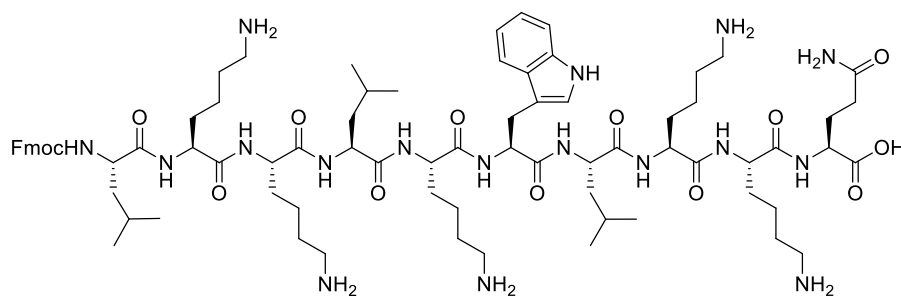
HPLC ($\lambda = 220$ nm) (BPC140W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,90 | 1108,458 | 110,025 | 100,00 |
| Total: | | 1108,458 | 110,025 | 100,00 |

ESI-MS (m/z) (BPC140W-953)

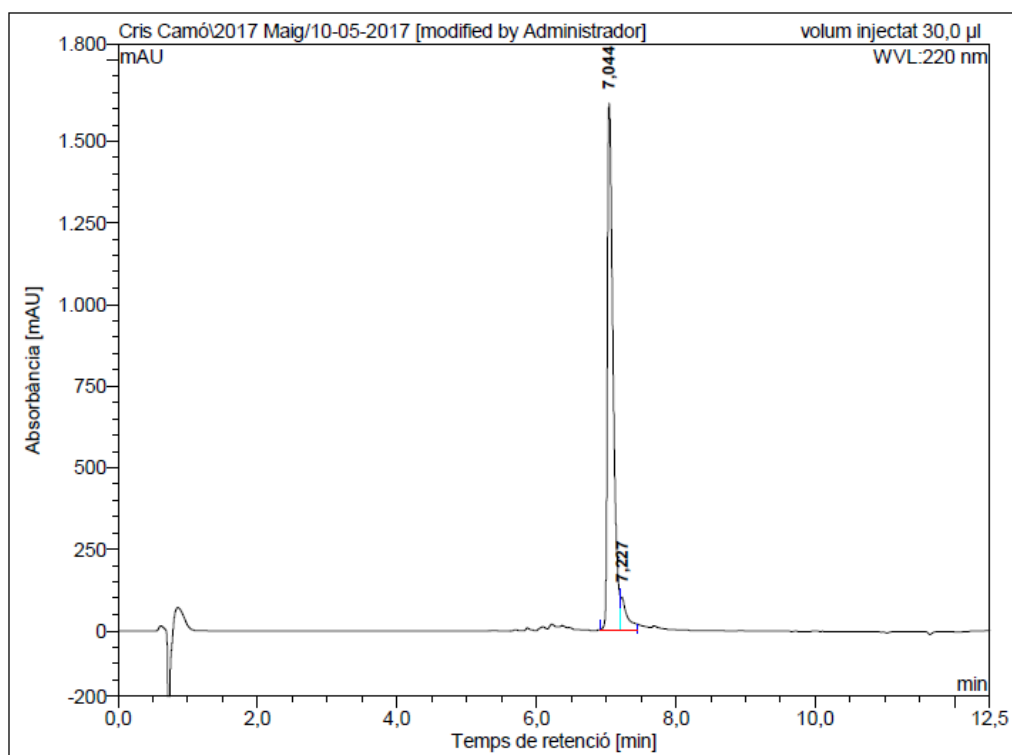
| |
|-------------------------|
| $[M+H]^+$ = 1575.0 |
| $[M+Na]^+$ = 1597.0 |
| $[M+2H]^{2+}$ = 788.0 |
| $[M+H+Na]^{2+}$ = 799.5 |
| $[M+2Na]^{2+}$ = 810.5 |
| $[M+3H]^{3+}$ = 525.7 |

Fmoc-Leu-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OH

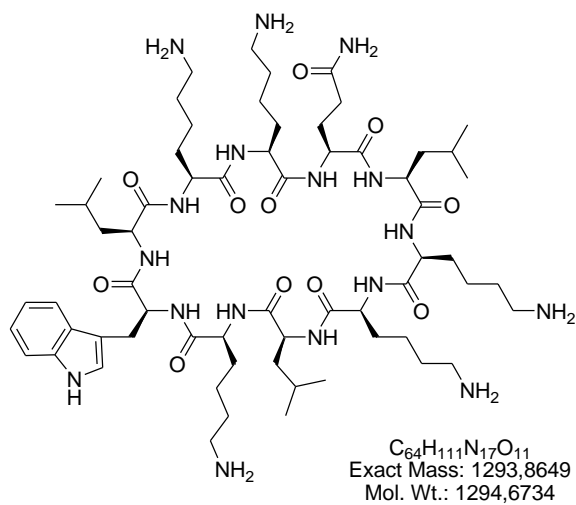
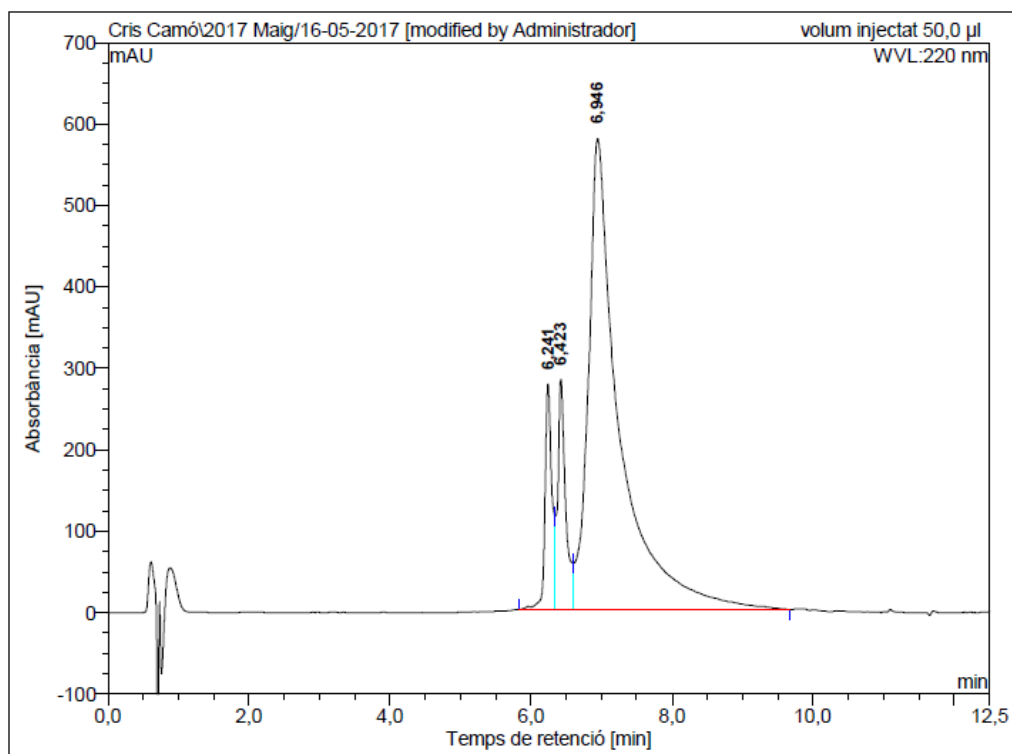
Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

Exact Mass: 1533,9435

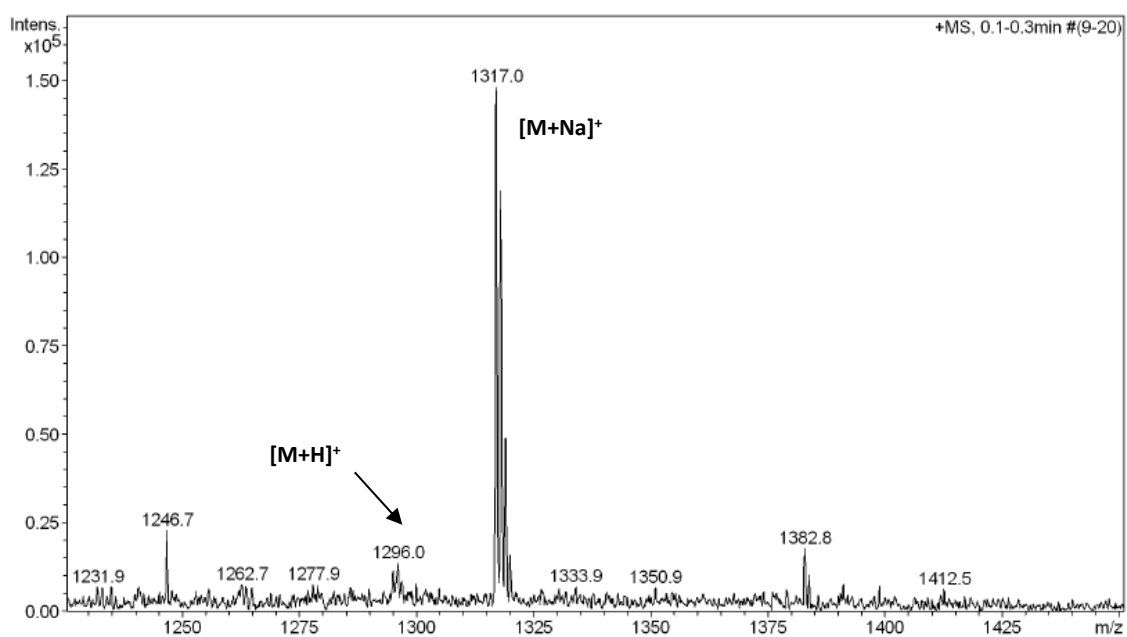
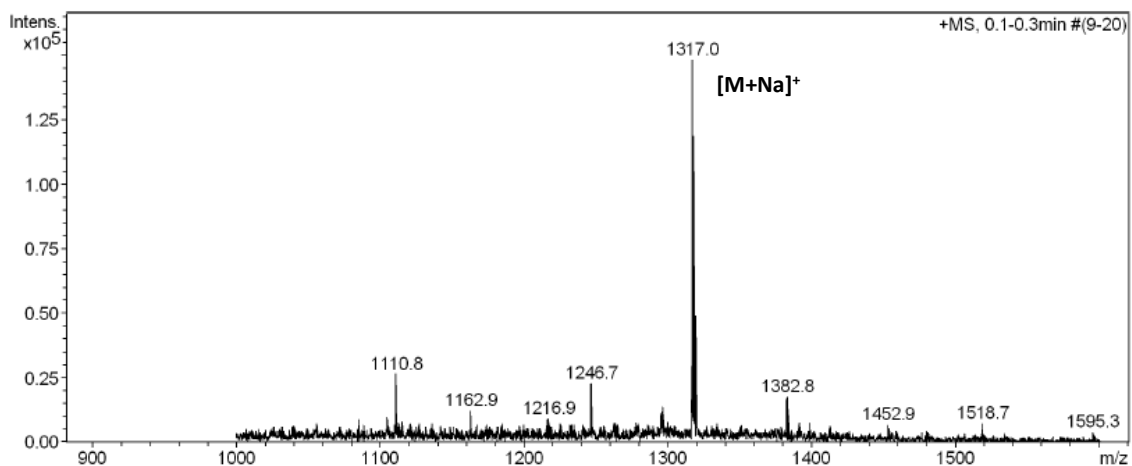
Molecular Weight: 1534,9274

HPLC ($\lambda = 220$ nm) (BPC140W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,04 | 1613,003 | 154,303 | 93,41 |
| 2 | 7,23 | 100,293 | 10,884 | 6,59 |
| Total: | | 1713,296 | 165,187 | 100,00 |

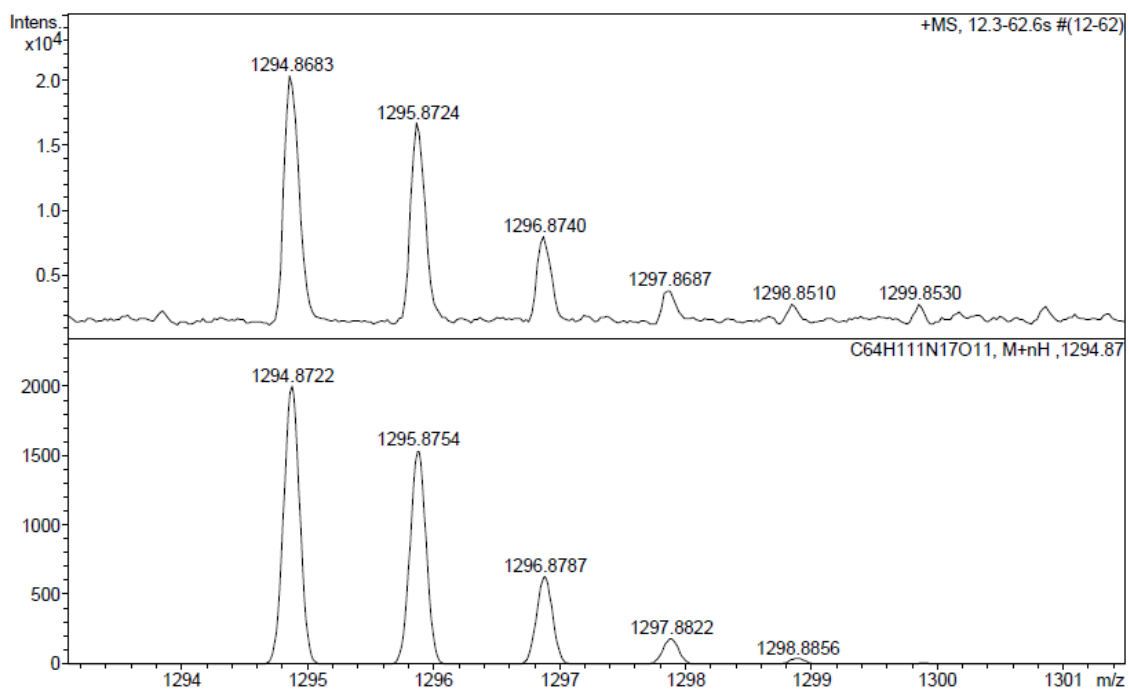
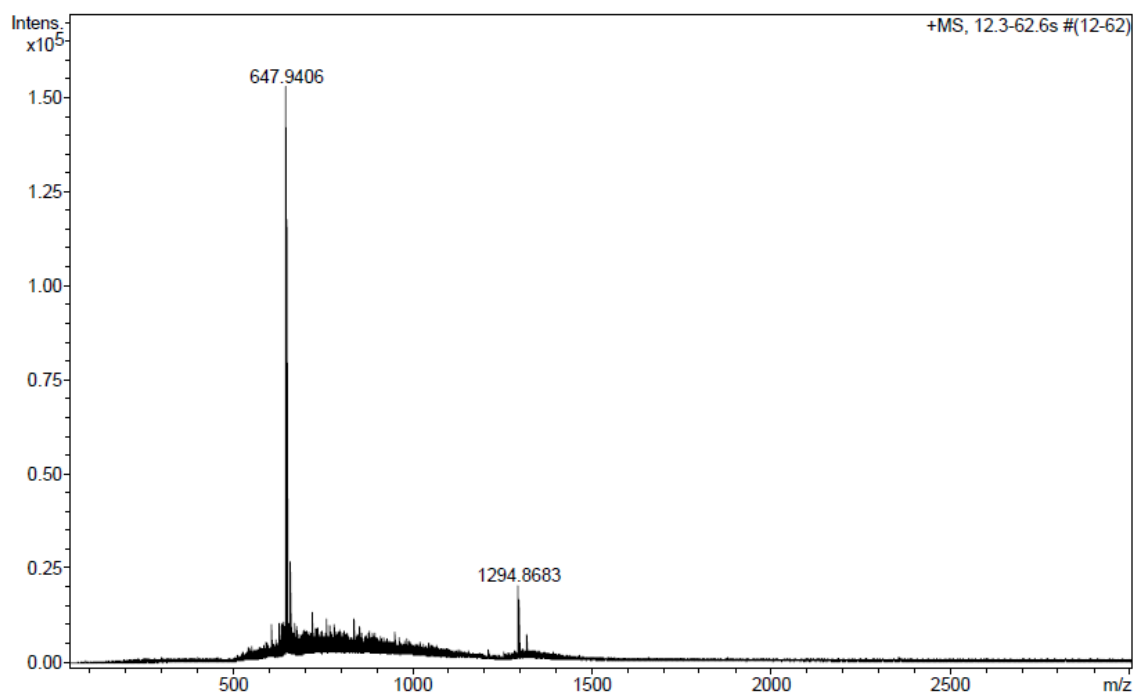
c(Leu-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln) (**BPC140W**)HPLC ($\lambda = 220$ nm) (BPC140W-1070)

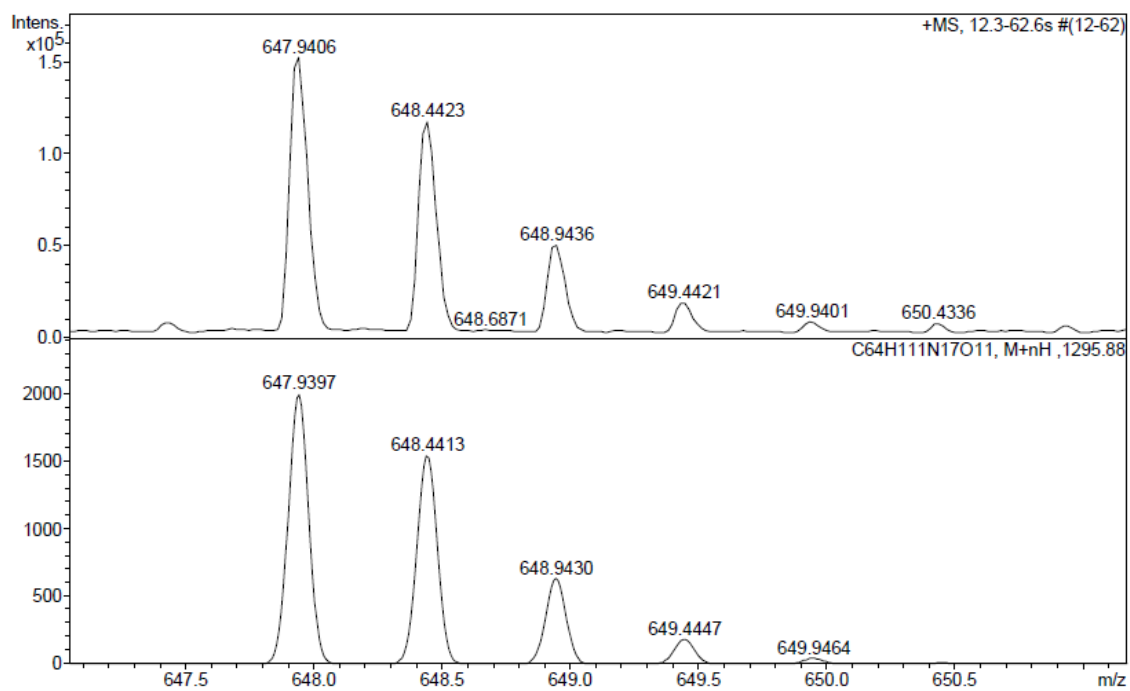
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 276,919 | 31,730 | 8,69 |
| 2 | 6,42 | 282,317 | 36,439 | 9,99 |
| 3 | 6,95 | 578,068 | 296,751 | 81,32 |
| Total: | | 1137,304 | 364,920 | 100,00 |

ESI-MS (m/z) (BPC140W-1070)

| |
|--------------------|
| $[M+H]^+ = 1296.0$ |
|--------------------|

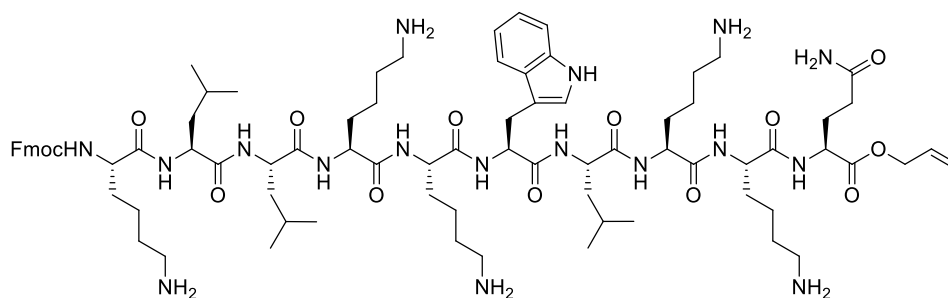
| |
|---------------------|
| $[M+Na]^+ = 1317.0$ |
|---------------------|

HRMS (ESI) (m/z) (BPC140W)



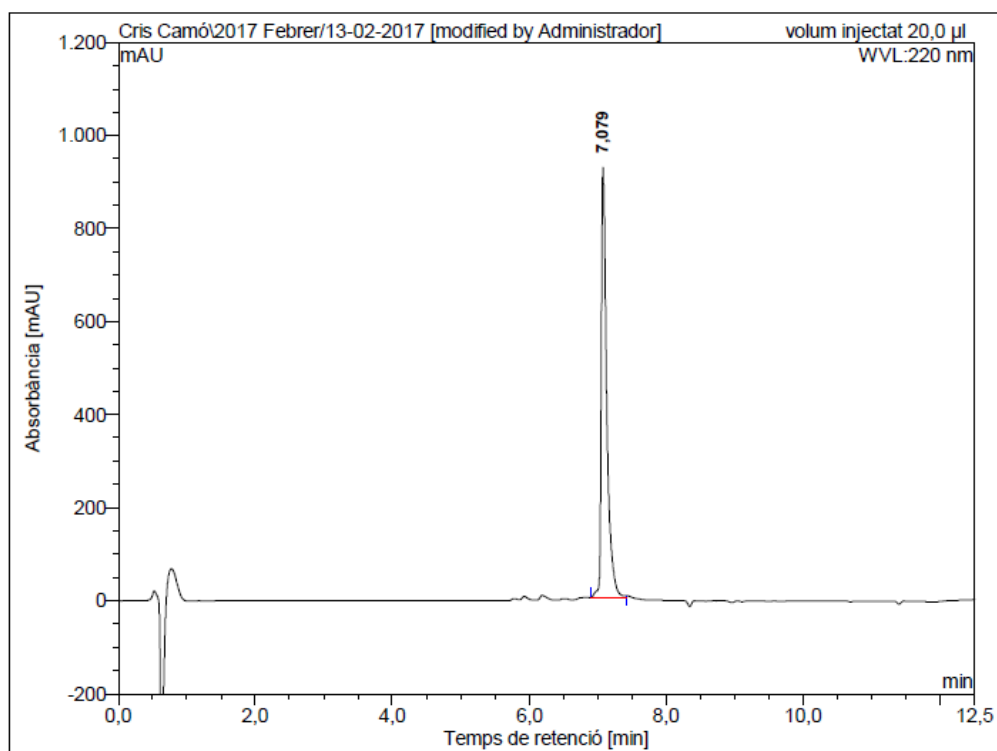
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₂ N ₁₇ O ₁₁ | 1294.8722 | 1294.8683 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₃ N ₁₇ O ₁₁ | 647.9397 | 647.9406 |

Fmoc-Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OAll

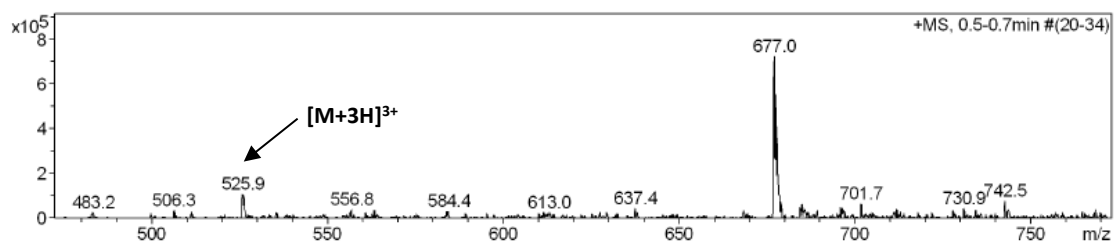
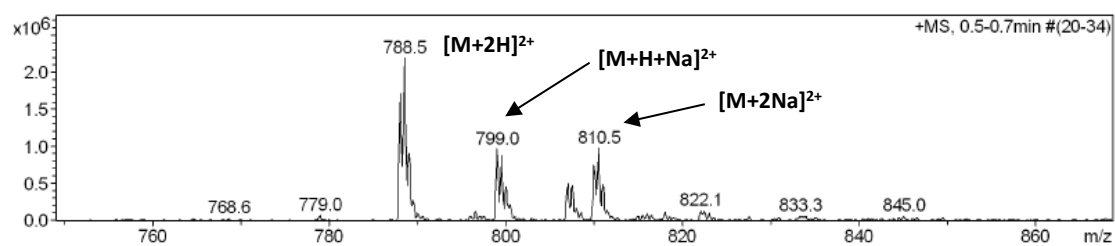
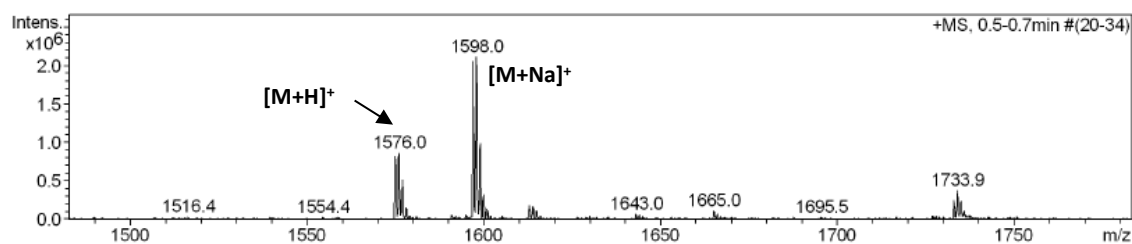
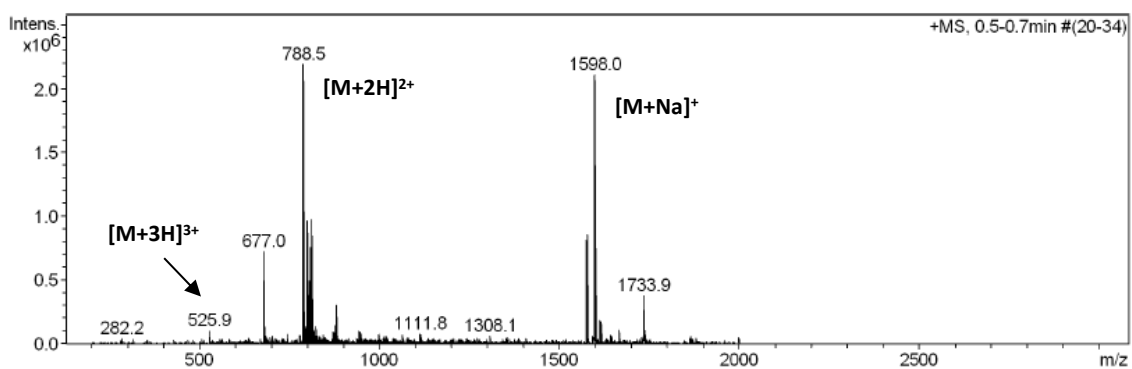
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

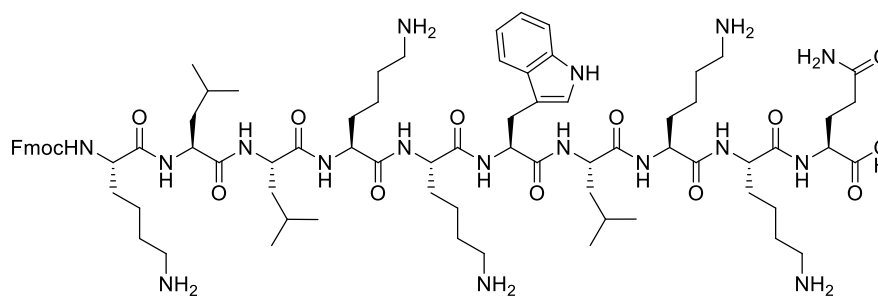
HPLC ($\lambda = 220$ nm) (BPC142W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,08 | 925,658 | 85,592 | 100,00 |
| Total: | | 925,658 | 85,592 | 100,00 |

ESI-MS (m/z) (BPC142W-953)

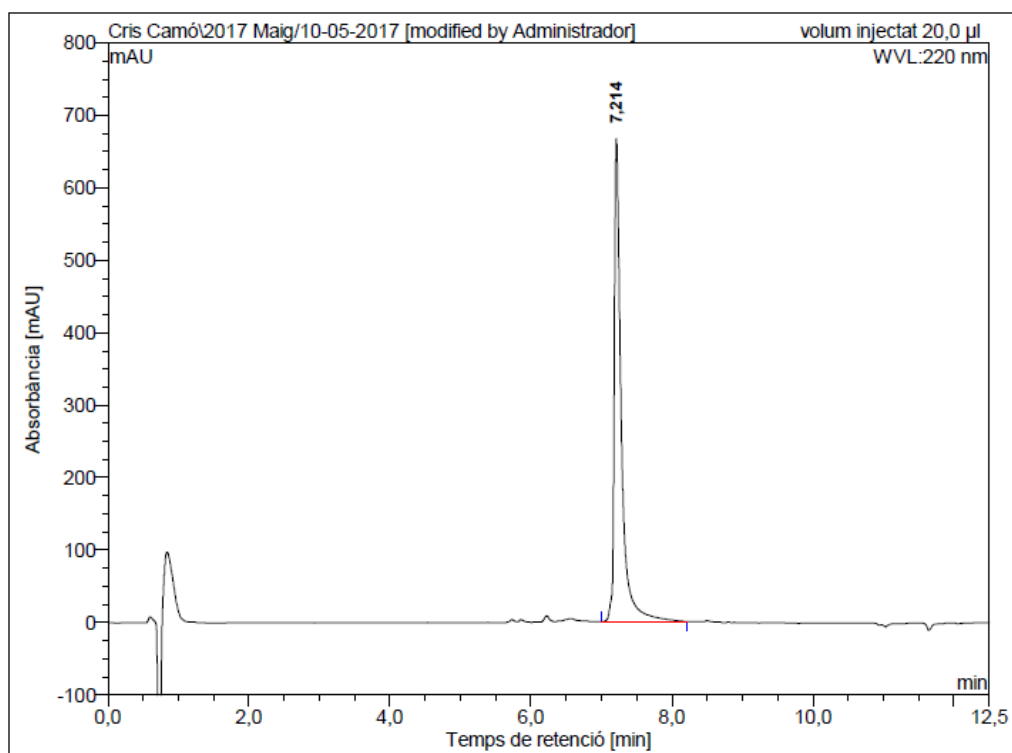
| |
|-------------------------|
| $[M+H]^+ = 1575.0$ |
| $[M+Na]^+ = 1597.0$ |
| $[M+2H]^{2+} = 788.5$ |
| $[M+H+Na]^{2+} = 799.0$ |
| $[M+2Na]^{2+} = 810.5$ |
| $[M+3H]^{3+} = 525.9$ |

Fmoc-Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

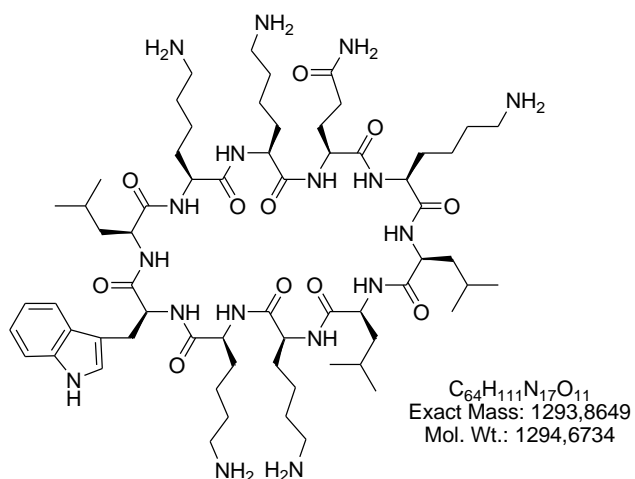
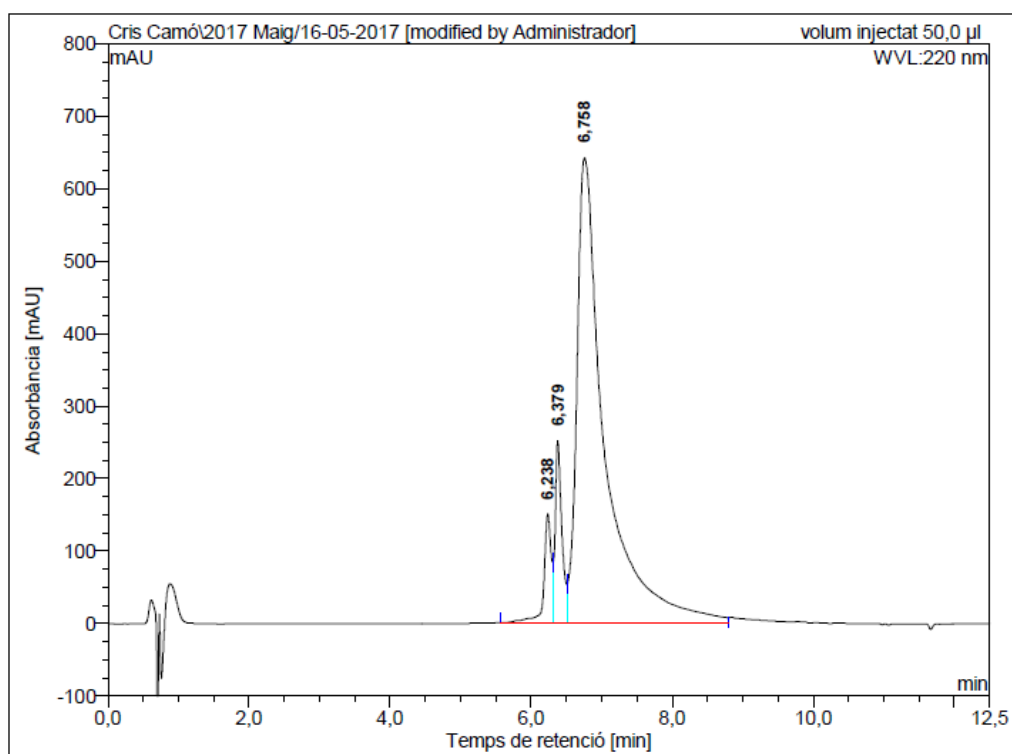
Exact Mass: 1533,9435

Molecular Weight: 1534,9274

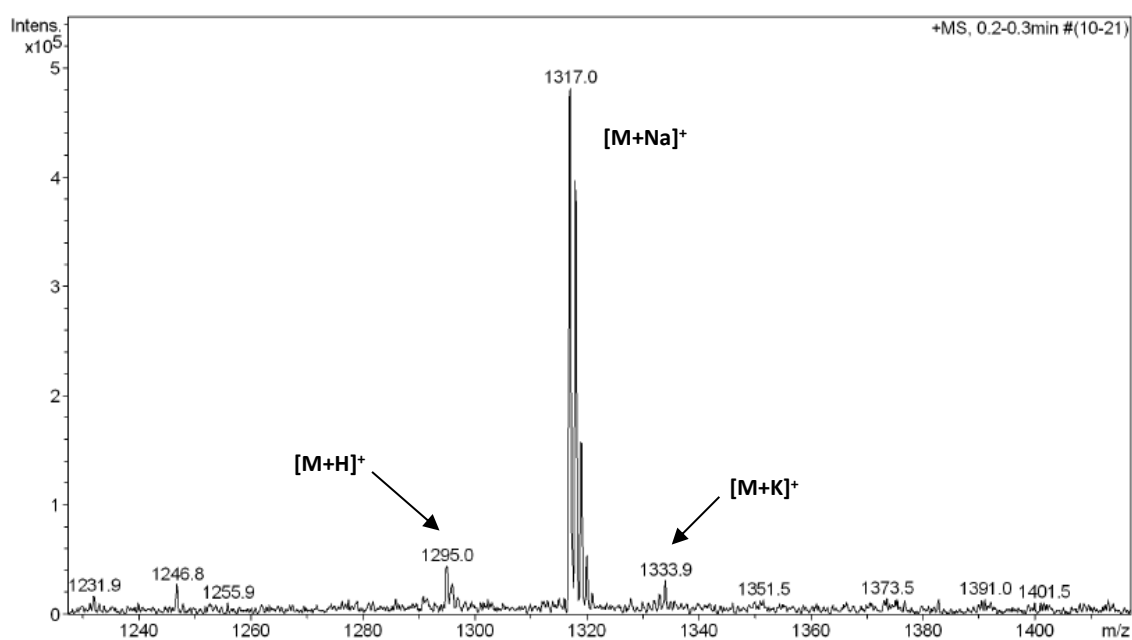
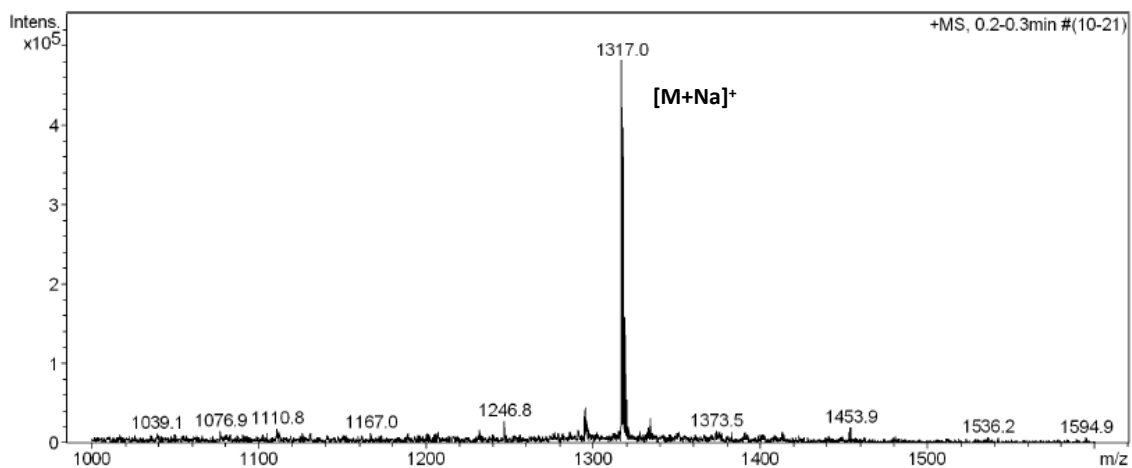
HPLC ($\lambda = 220$ nm) (BPC142W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,21 | 667,690 | 78,247 | 100,00 |
| Total: | | 667,690 | 78,247 | 100,00 |

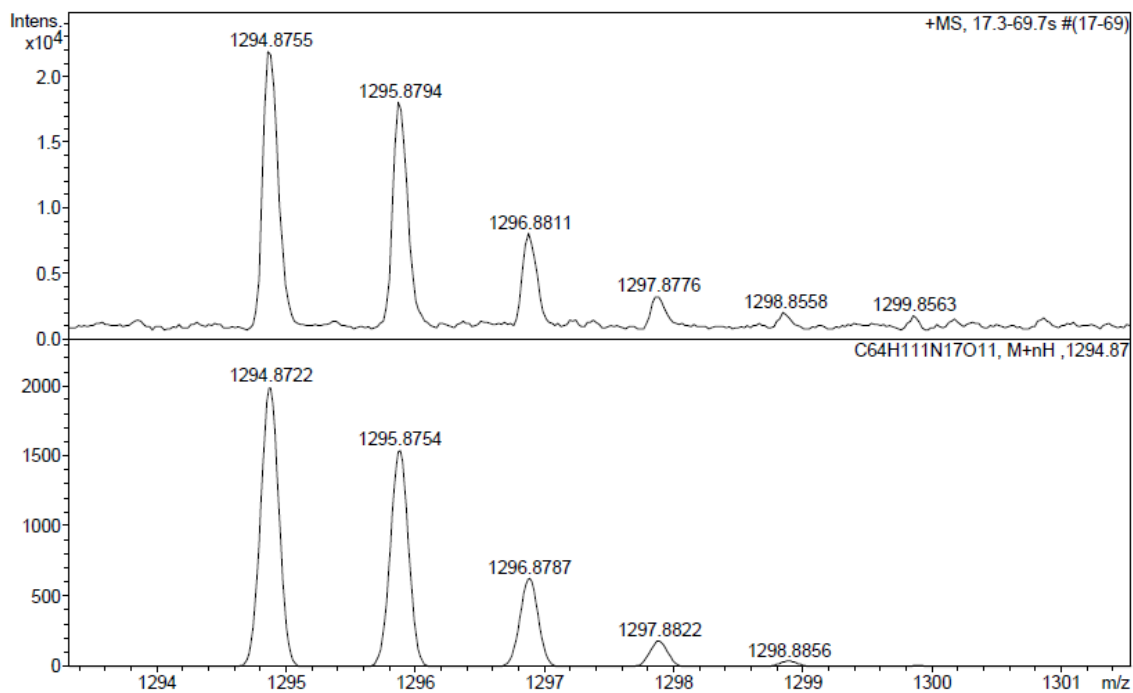
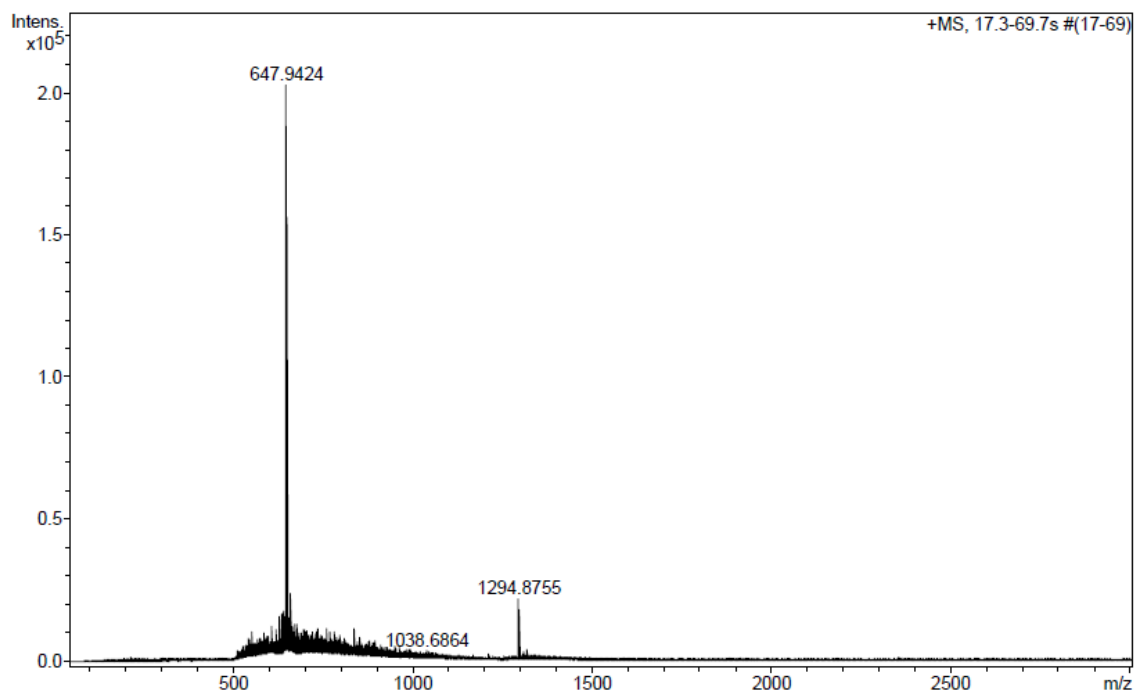
c(Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln) (BPC142W)

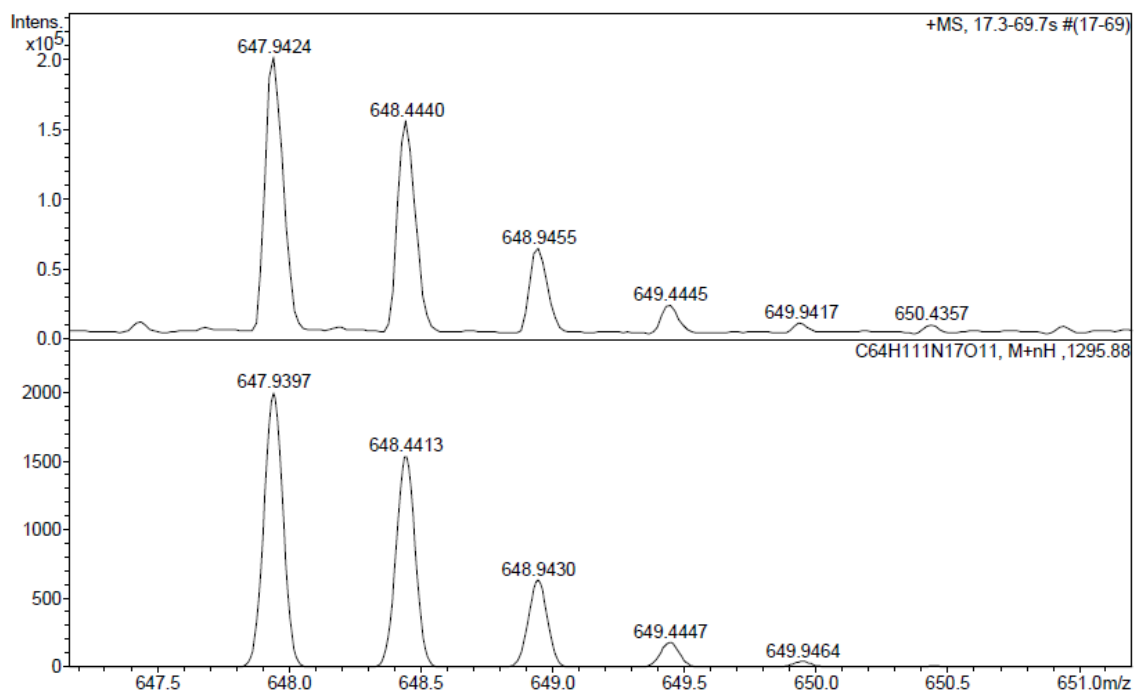
HPLC ($\lambda = 220$ nm) (BPC142W-1070)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 150,024 | 17,899 | 5,26 |
| 2 | 6,38 | 251,083 | 27,850 | 8,19 |
| 3 | 6,76 | 641,655 | 294,245 | 86,54 |
| Total: | | 1042,762 | 339,993 | 100,00 |

ESI-MS (m/z) (BPC142W-1070)

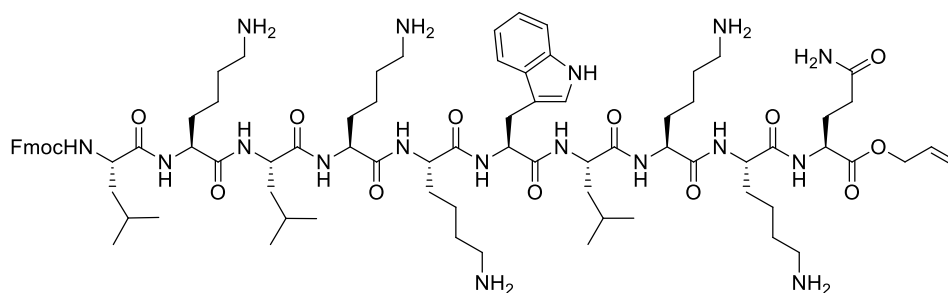
| |
|------------------------------|
| [M+H] ⁺ = 1295.0 |
| [M+Na] ⁺ = 1317.0 |
| [M+K] ⁺ = 1333.9 |

HRMS (ESI) (m/z) (BPC142W)



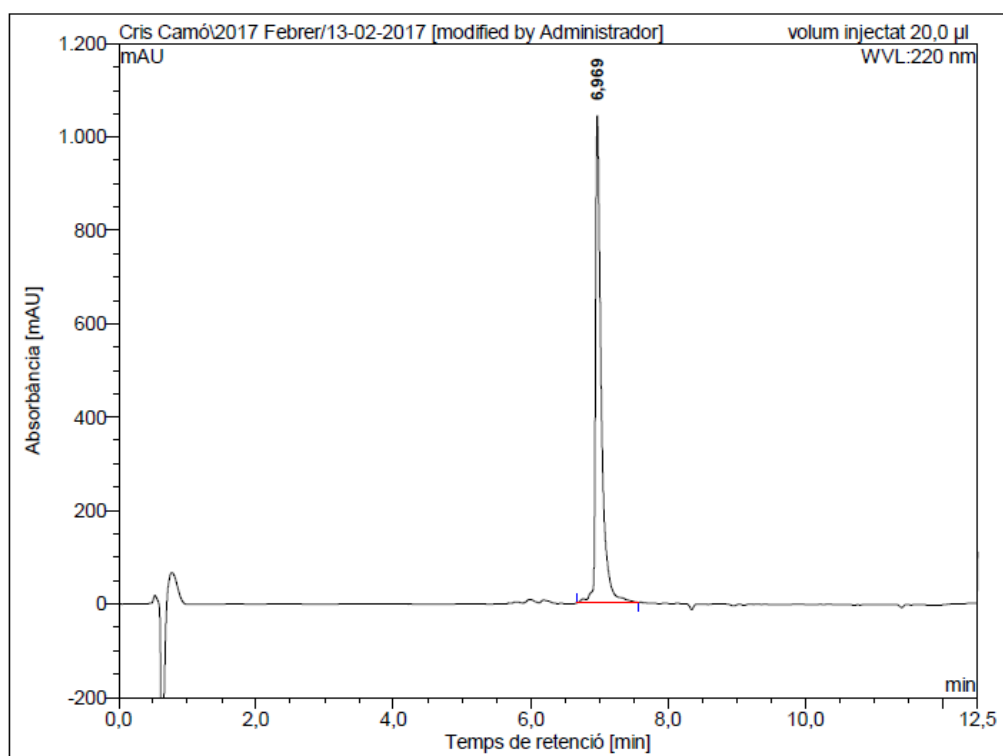
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₂ N ₁₇ O ₁₁ | 1294.8722 | 1294.8755 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₃ N ₁₇ O ₁₁ | 647.9397 | 647.9424 |

Fmoc-Leu-Lys-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OAll

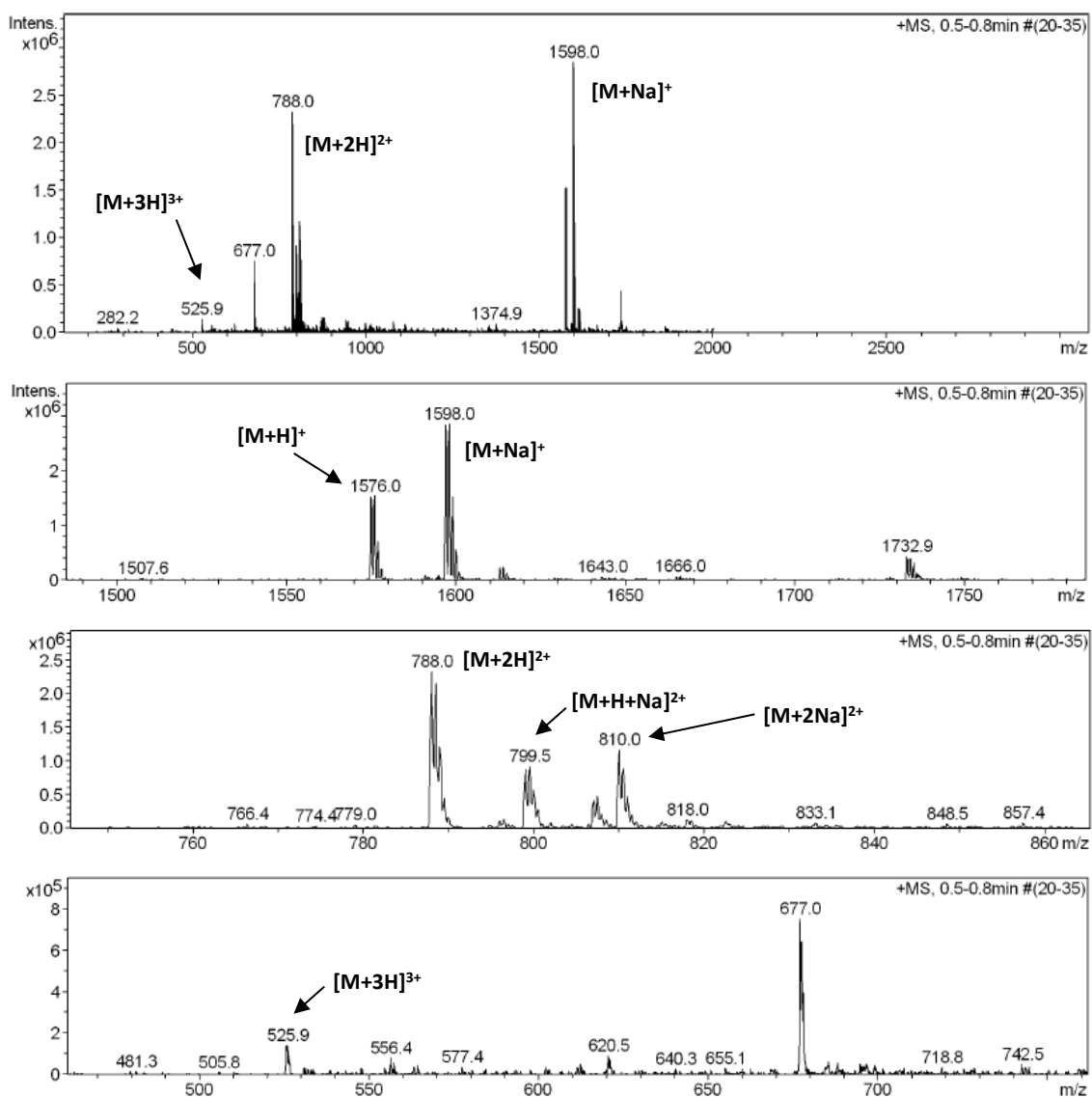
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

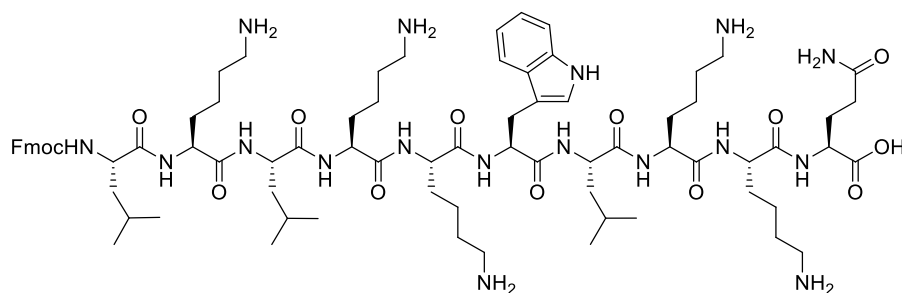
HPLC ($\lambda = 220$ nm) (BPC144W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,97 | 1042,972 | 102,259 | 100,00 |
| Total: | | 1042,972 | 102,259 | 100,00 |

ESI-MS (m/z) (BPC144W-953)

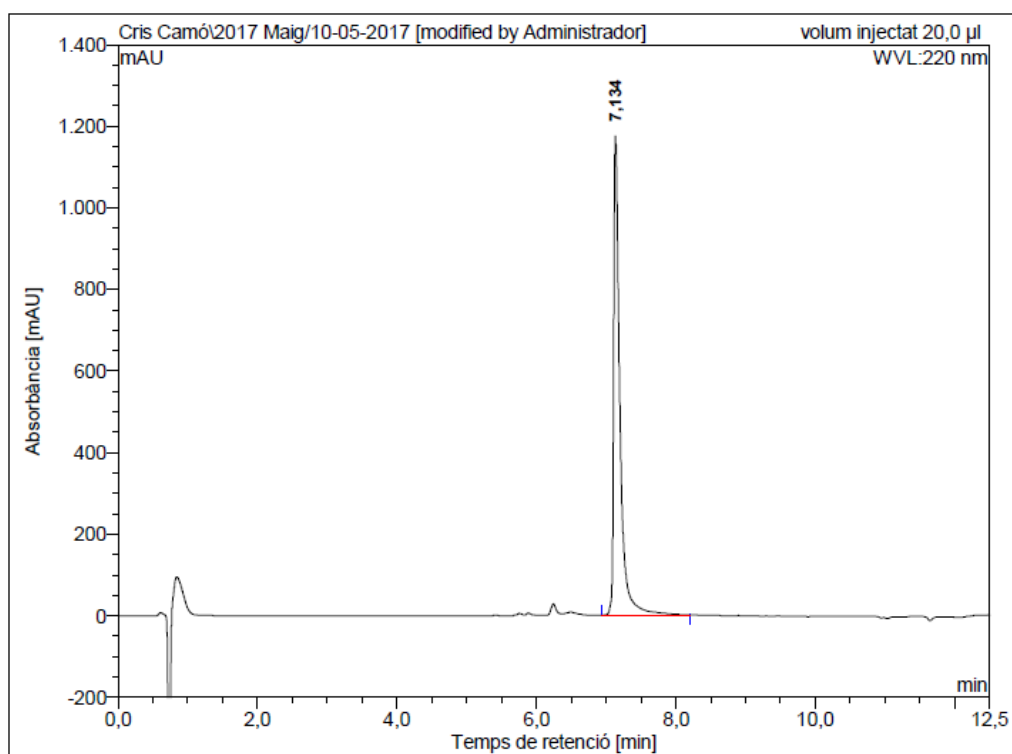
| |
|-------------------------|
| $[M+H]^+$ = 1575.0 |
| $[M+Na]^+$ = 1597.0 |
| $[M+2H]^{2+}$ = 788.0 |
| $[M+H+Na]^{2+}$ = 799.5 |
| $[M+2Na]^{2+}$ = 810.0 |
| $[M+3H]^{3+}$ = 525.9 |

Fmoc-Leu-Lys-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

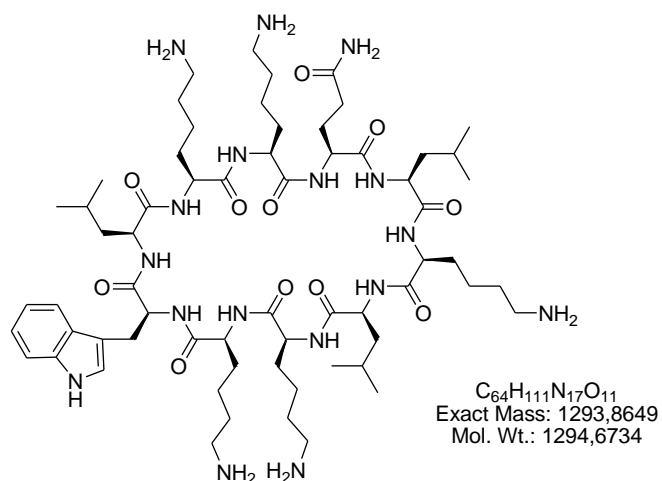
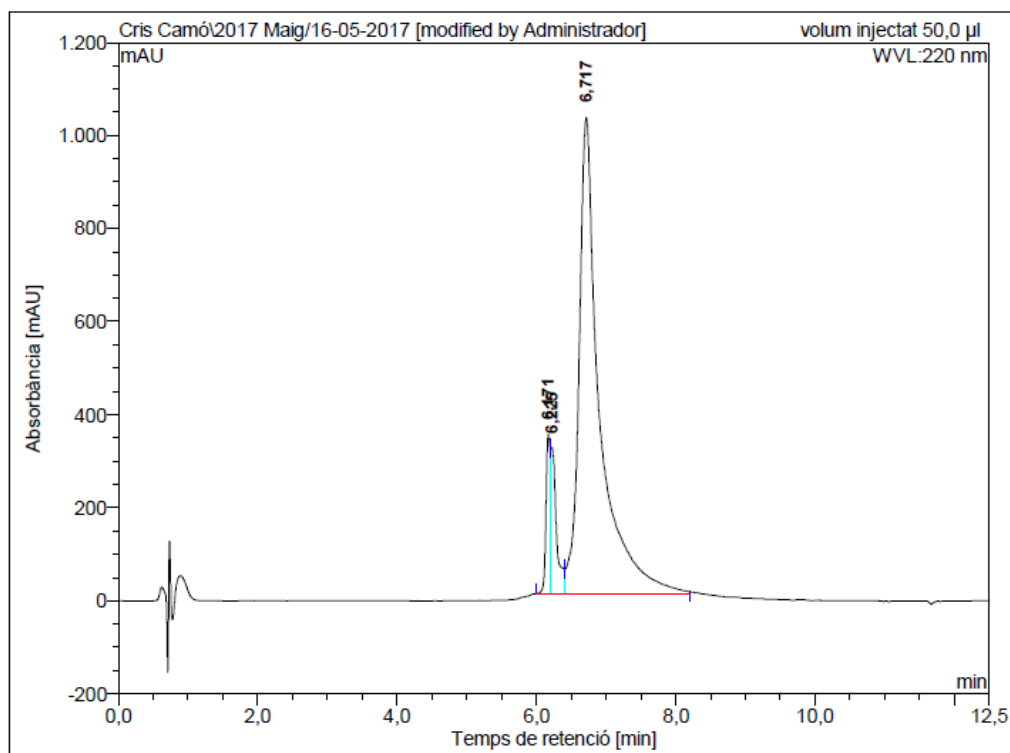
Exact Mass: 1533,9435

Molecular Weight: 1534,9274

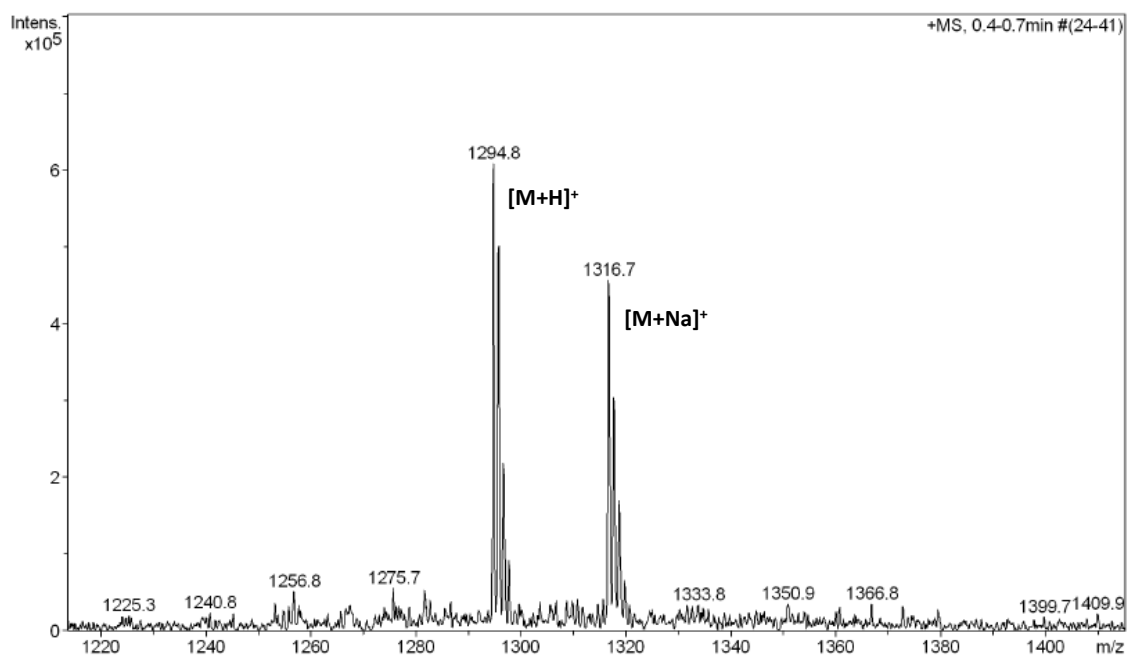
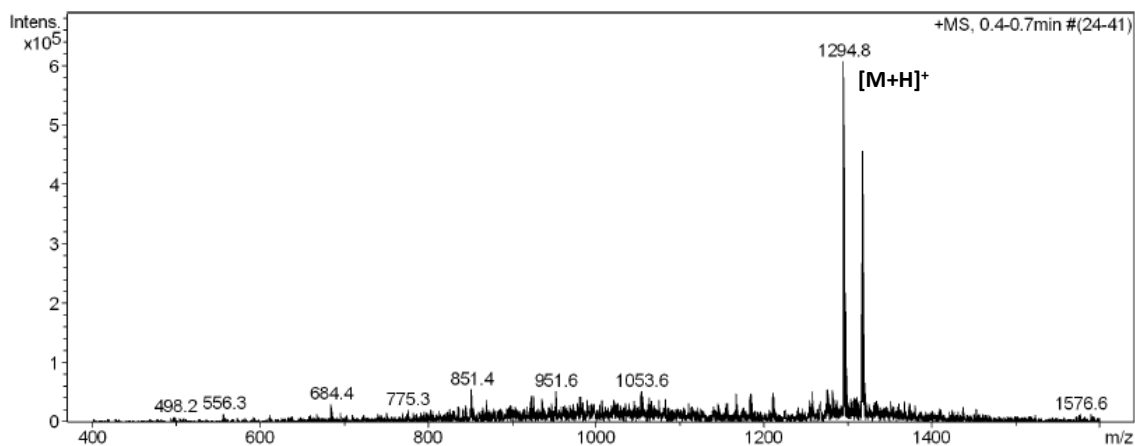
HPLC ($\lambda = 220$ nm) (BPC144W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,13 | 1174,136 | 124,214 | 100,00 |
| Total: | | 1174,136 | 124,214 | 100,00 |

c(Leu-Lys-Leu-Lys-Lys-Trp-Leu-Lys-Lys-Gln) (BPC144W)

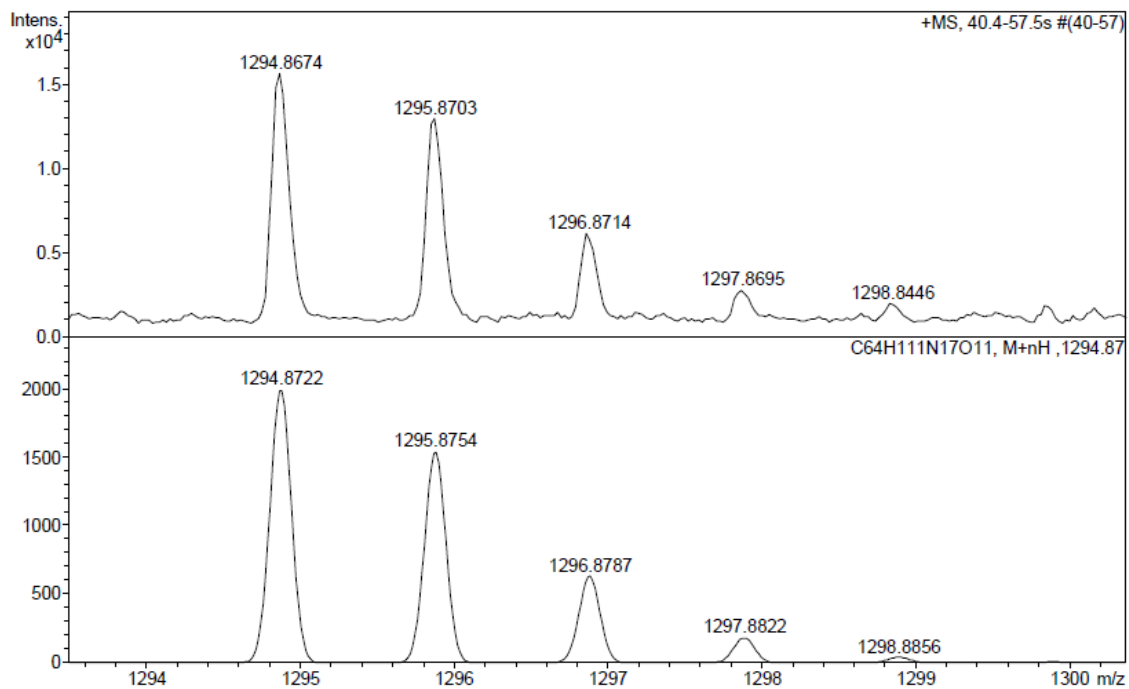
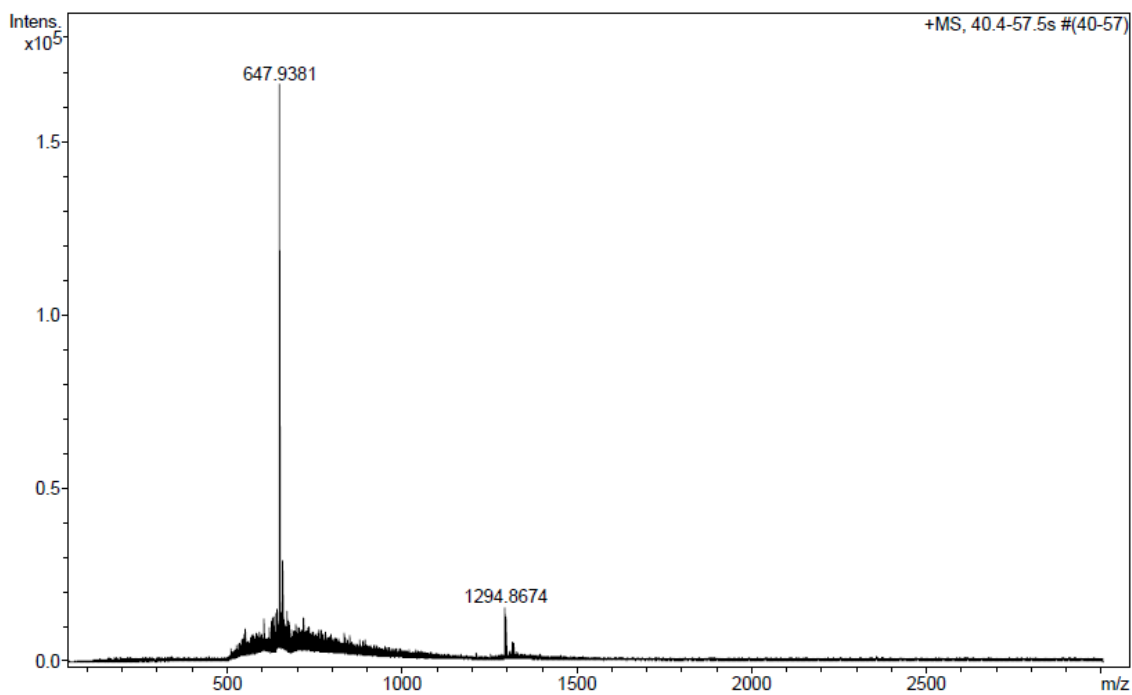
HPLC ($\lambda = 220$ nm) (BPC144W-1070)

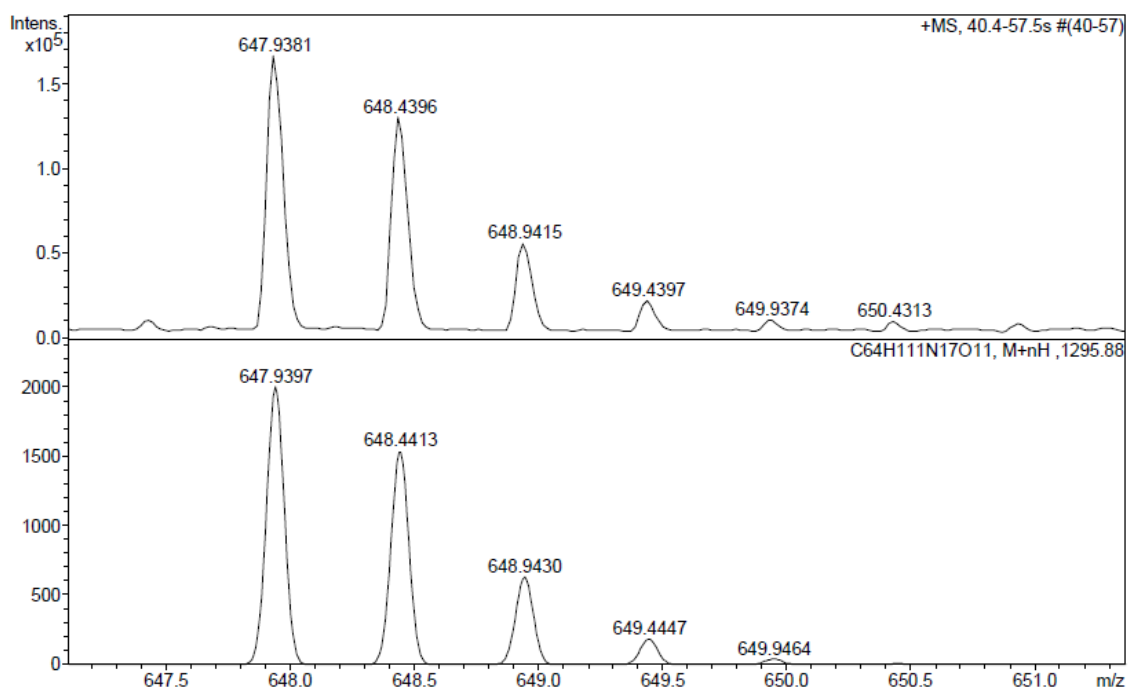
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,17 | 341,324 | 25,010 | 6,16 |
| 2 | 6,22 | 314,160 | 28,046 | 6,91 |
| 3 | 6,72 | 1023,240 | 352,721 | 86,92 |
| Total: | | 1678,724 | 405,777 | 100,00 |

ESI-MS (m/z) (BPC144W)

| |
|-----------------------------|
| [M+H] ⁺ = 1294.8 |
|-----------------------------|

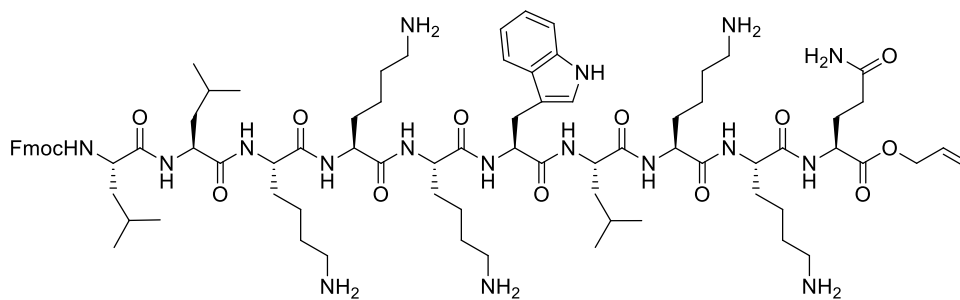
| |
|------------------------------|
| [M+Na] ⁺ = 1316.7 |
|------------------------------|

HRMS (ESI) (m/z) (BPC144W)



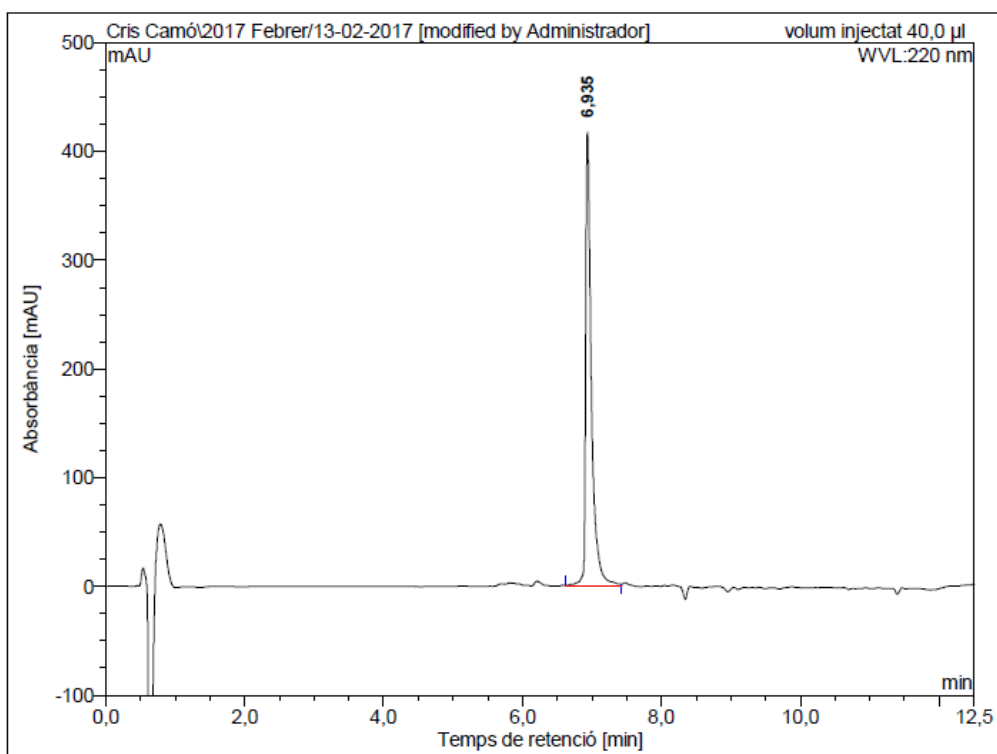
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{112}N_{17}O_{11}$ | 1294.8722 | 1294.8674 |
| $[M+2H]^{2+}$ | $C_{64}H_{113}N_{17}O_{11}$ | 647.9397 | 647.9381 |

Fmoc-Leu-Leu-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OAll

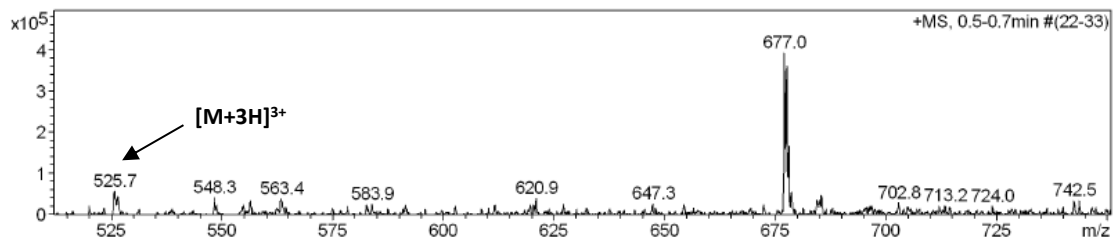
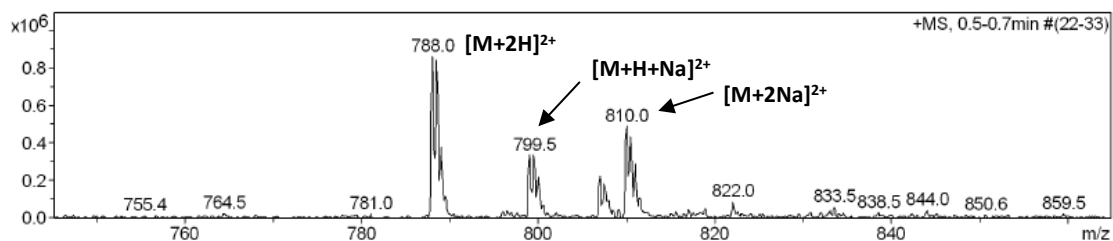
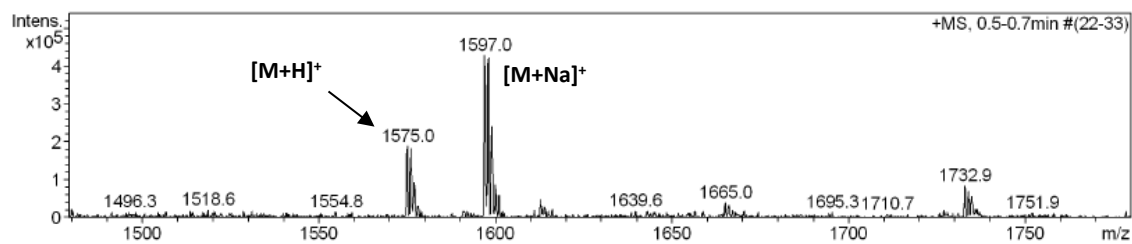
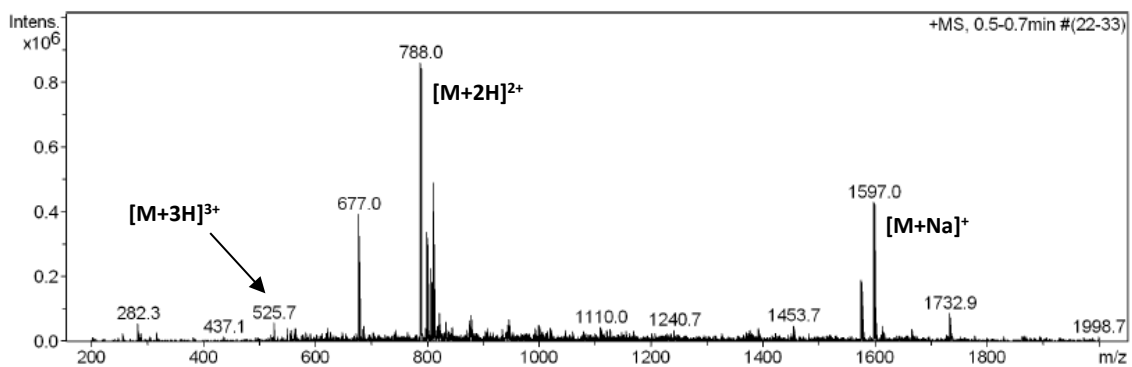
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

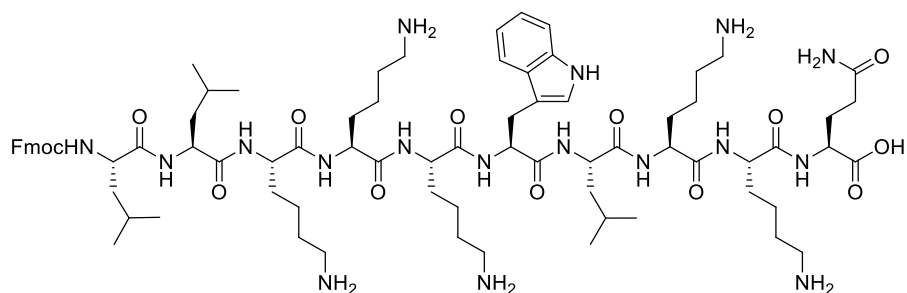
HPLC ($\lambda = 220 \text{ nm}$) (BPC146W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,93 | 417,063 | 40,348 | 100,00 |
| Total: | | 417,063 | 40,348 | 100,00 |

ESI-MS (m/z) (BPC146W-953)

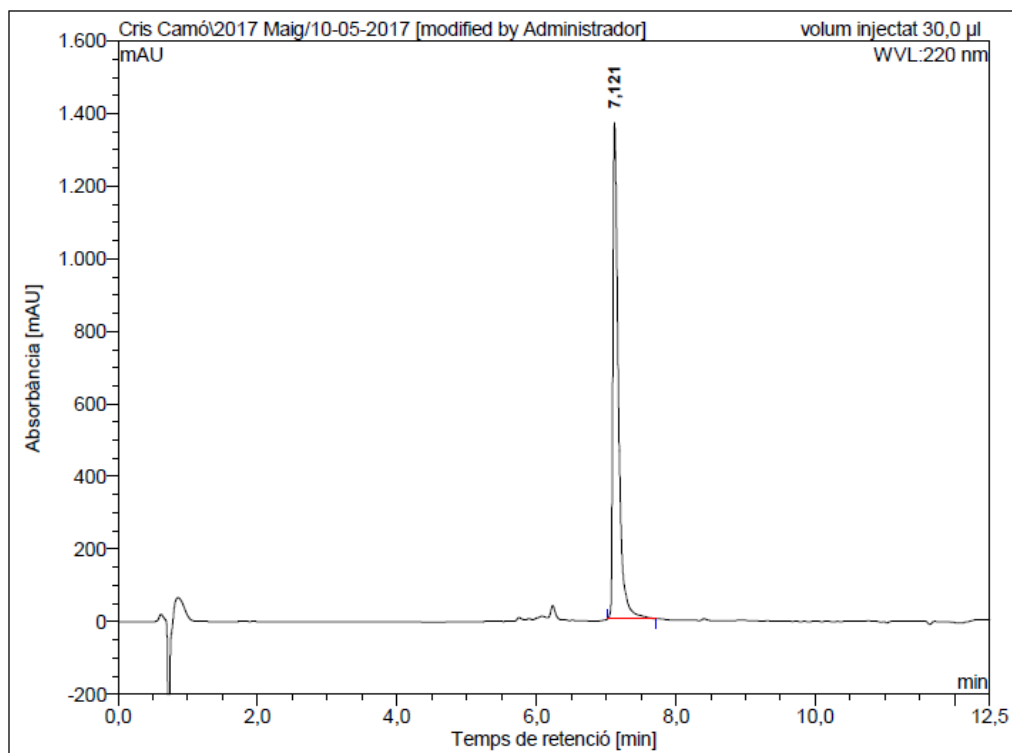
| |
|-------------------------|
| $[M+H]^+$ = 1575.0 |
| $[M+Na]^+$ = 1597.0 |
| $[M+2H]^{2+}$ = 788.0 |
| $[M+H+Na]^{2+}$ = 799.5 |
| $[M+2Na]^{2+}$ = 810.0 |
| $[M+3H]^{3+}$ = 525.7 |

Fmoc-Leu-Leu-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OH

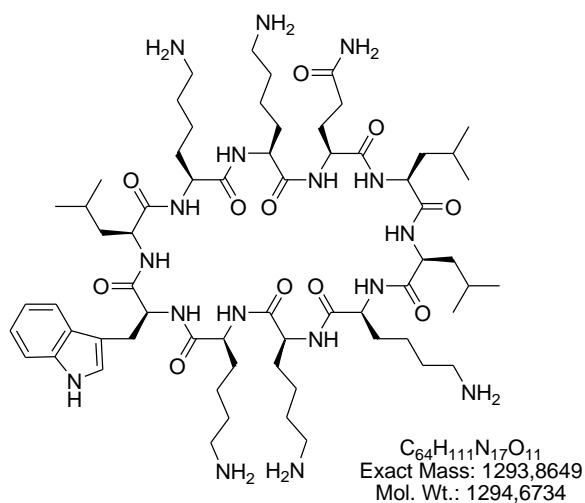
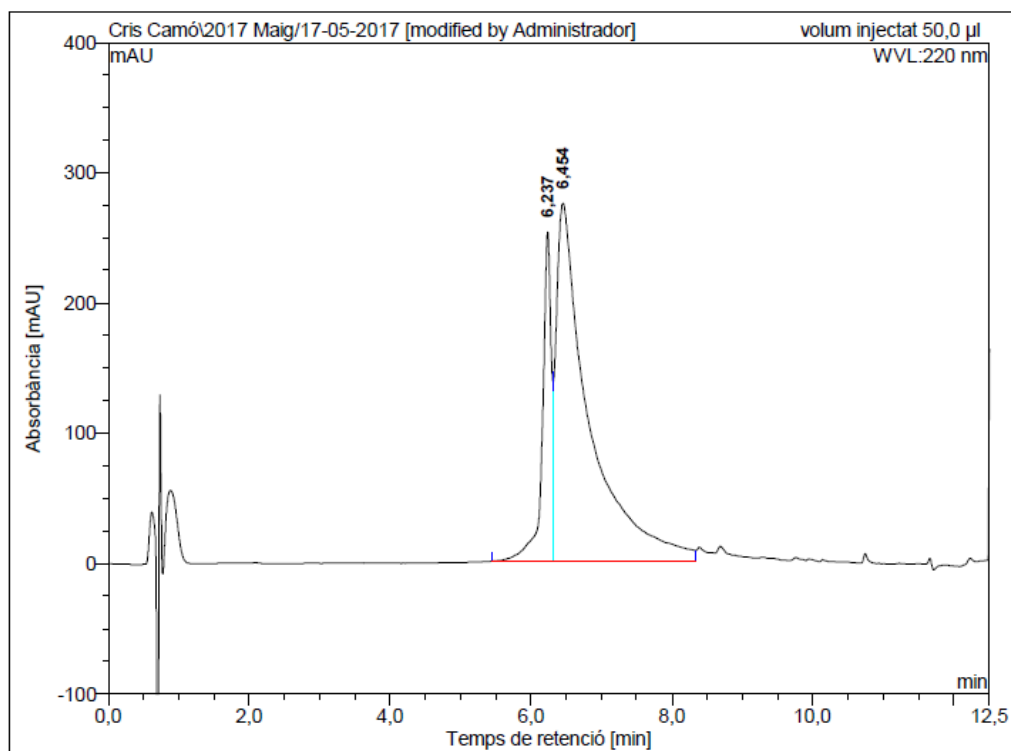
Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

Exact Mass: 1533,9435

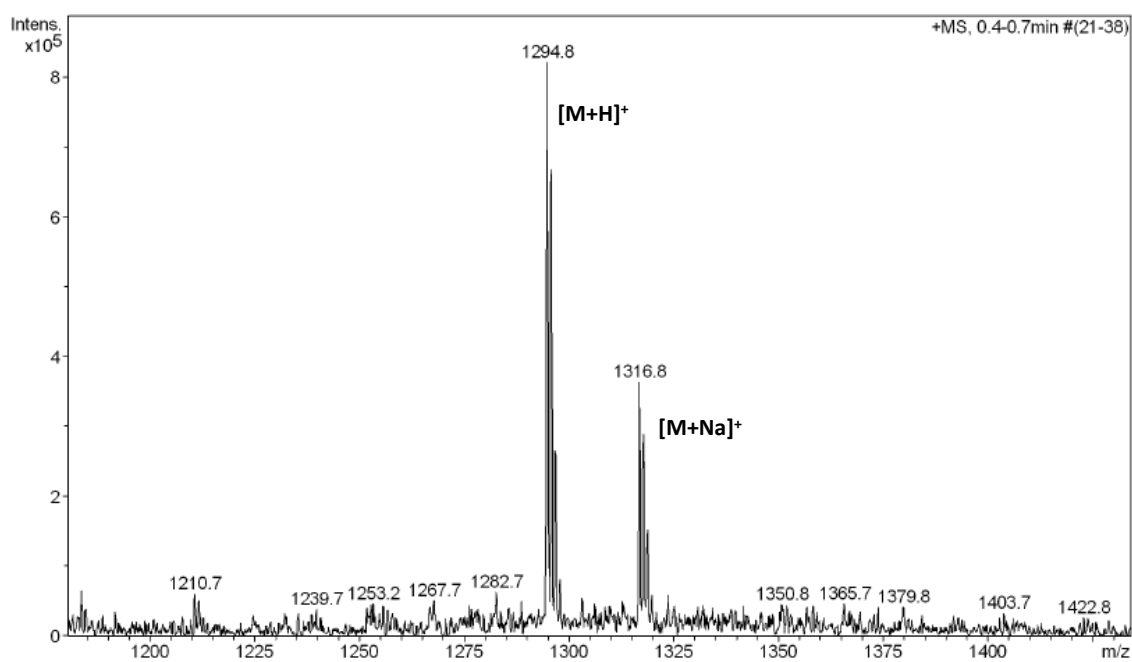
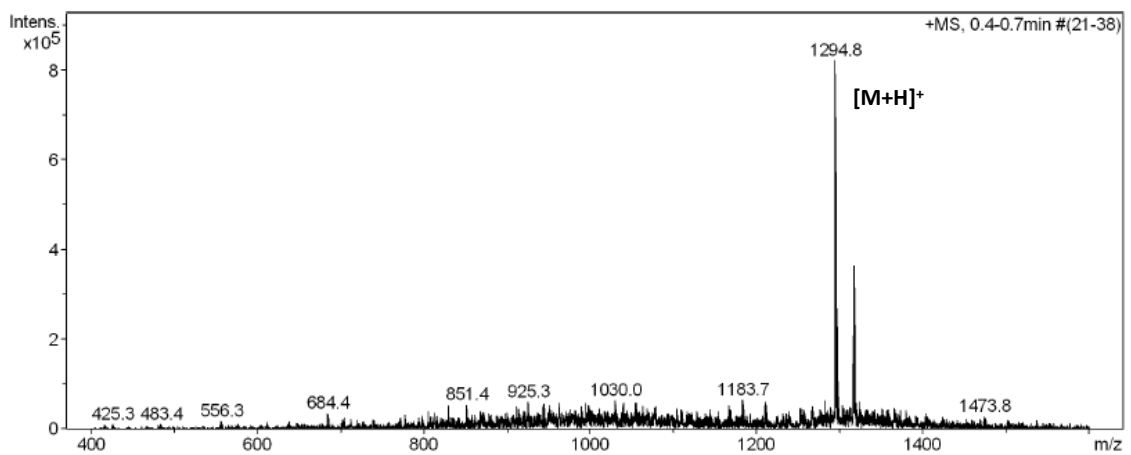
Molecular Weight: 1534,9274

HPLC ($\lambda = 220$ nm) (BPC146W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,12 | 1367,863 | 125,959 | 100,00 |
| Total: | | 1367,863 | 125,959 | 100,00 |

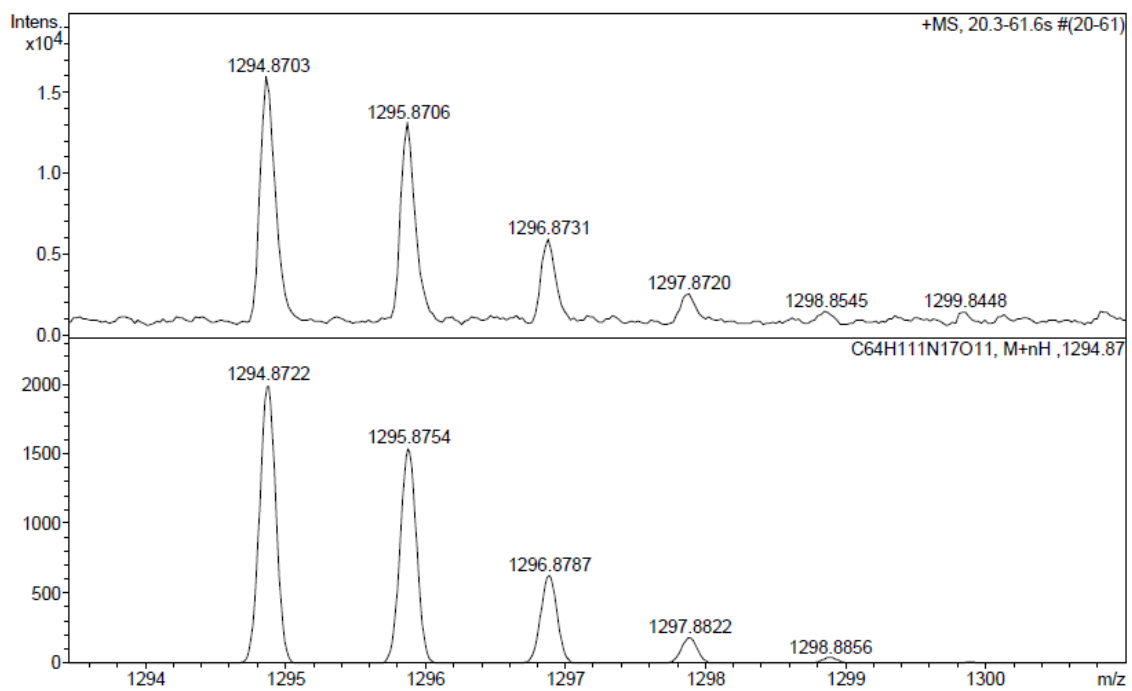
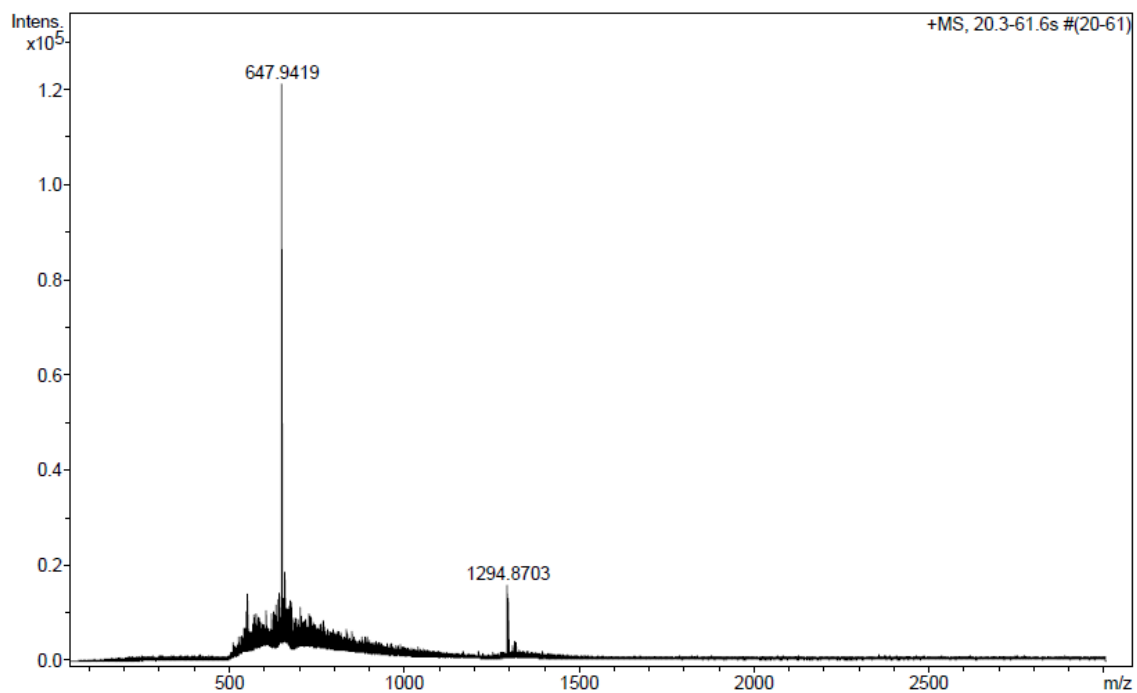
c(Leu-Leu-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln) (**BPC146W**)**HPLC** ($\lambda = 220 \text{ nm}$) (BPC146W-1071)

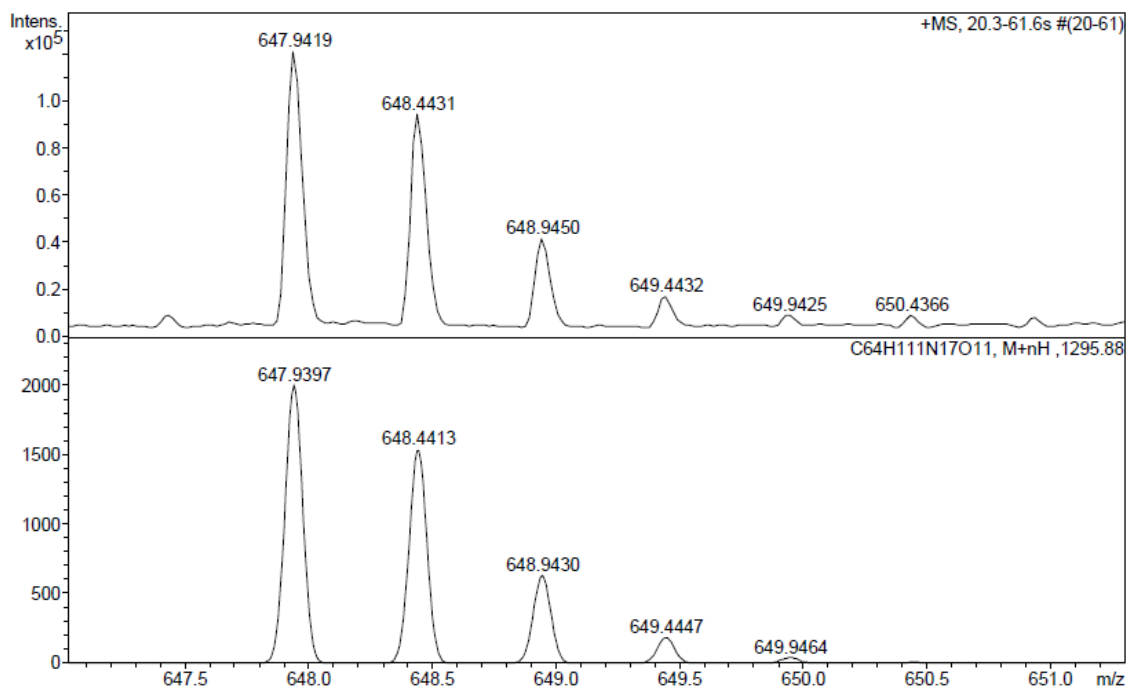
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 252,564 | 36,858 | 19,92 |
| 2 | 6,45 | 274,622 | 148,180 | 80,08 |
| Total: | | 527,186 | 185,038 | 100,00 |

ESI-MS (m/z) (BPC146W-1071)

| |
|--------------------|
| $[M+H]^+ = 1294.8$ |
|--------------------|

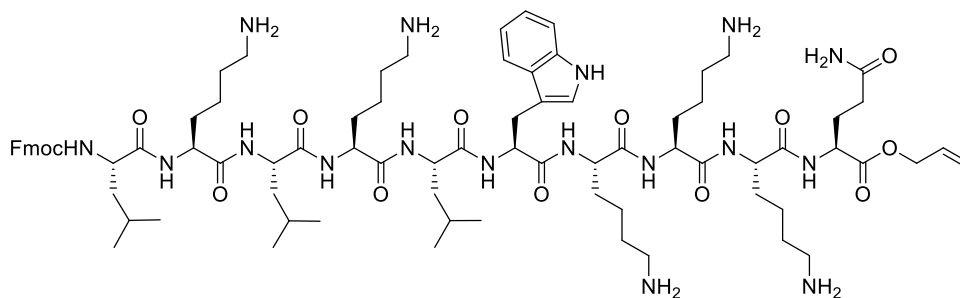
| |
|---------------------|
| $[M+Na]^+ = 1316.8$ |
|---------------------|

HRMS (ESI) (m/z) (BPC146W)



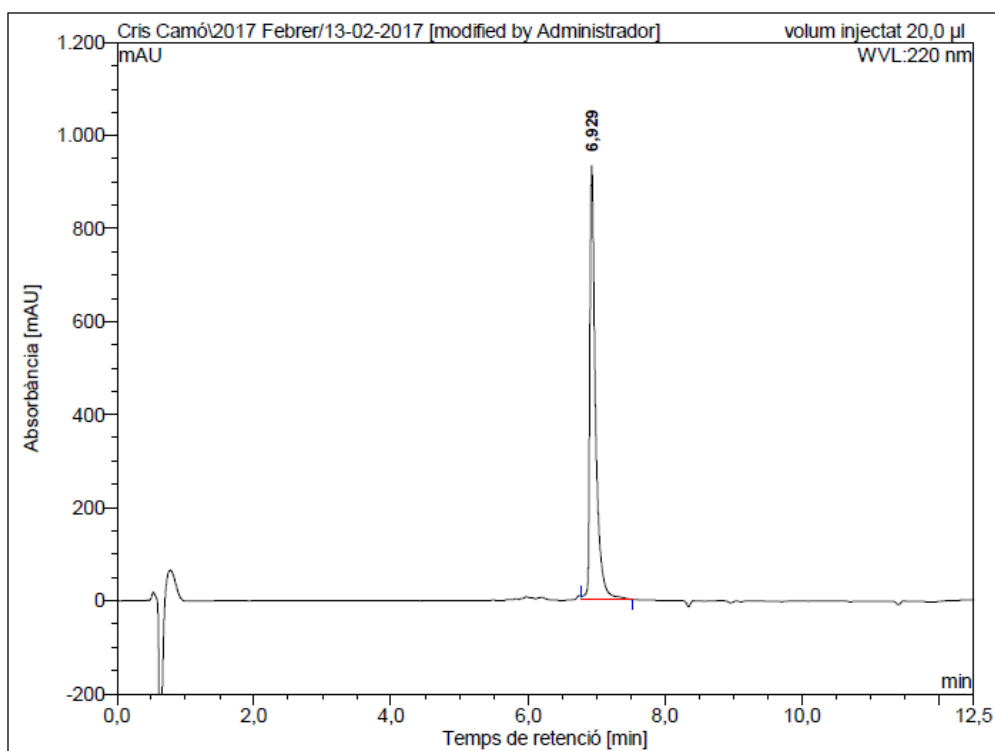
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{112}N_{17}O_{11}$ | 1294.8722 | 1294.8703 |
| $[M+2H]^{2+}$ | $C_{64}H_{113}N_{17}O_{11}$ | 647.9397 | 647.9419 |

Fmoc-Leu-Lys-Leu-Lys-Leu-Trp-Lys-Lys-Lys-Gln-OAll

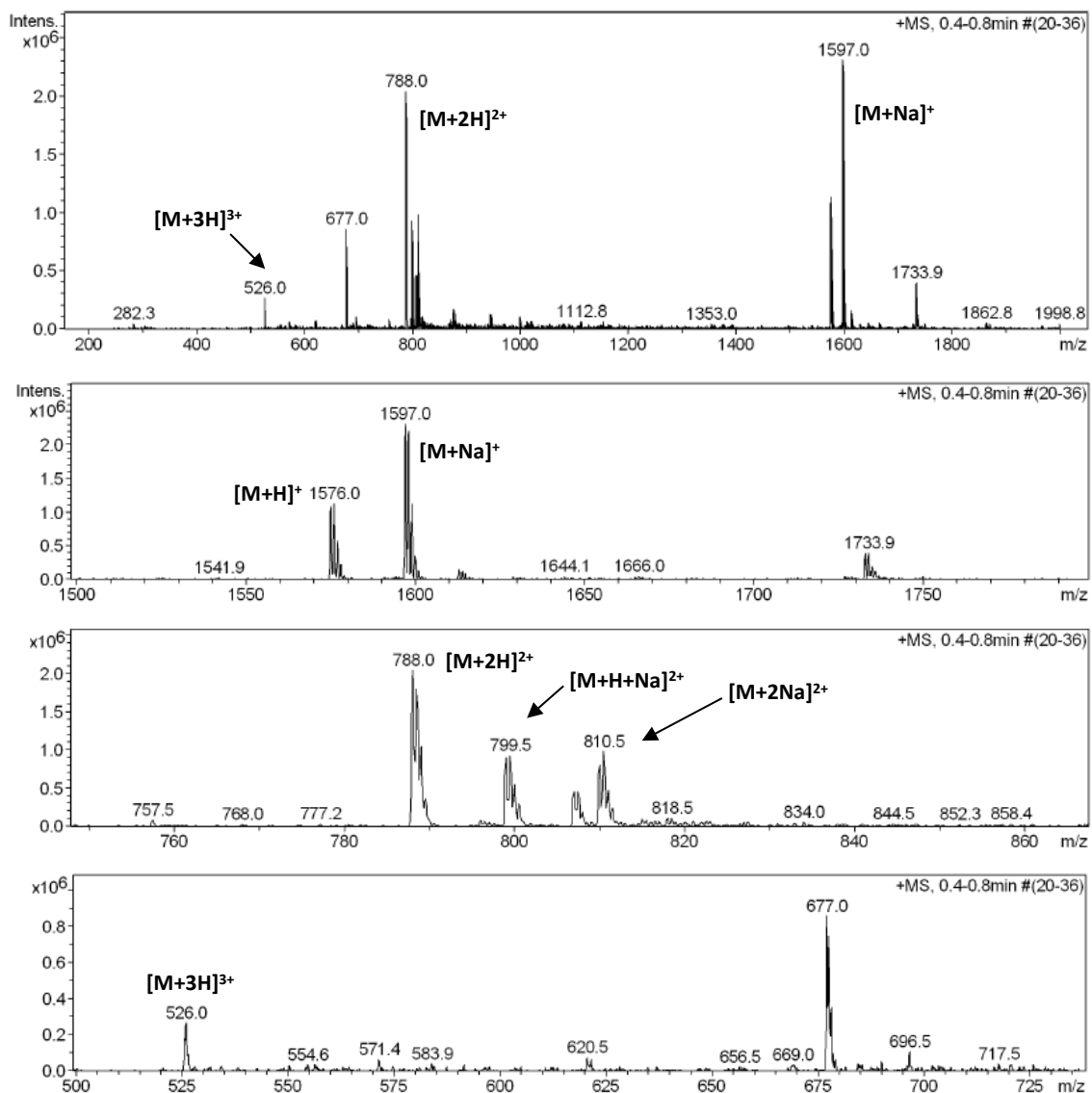
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

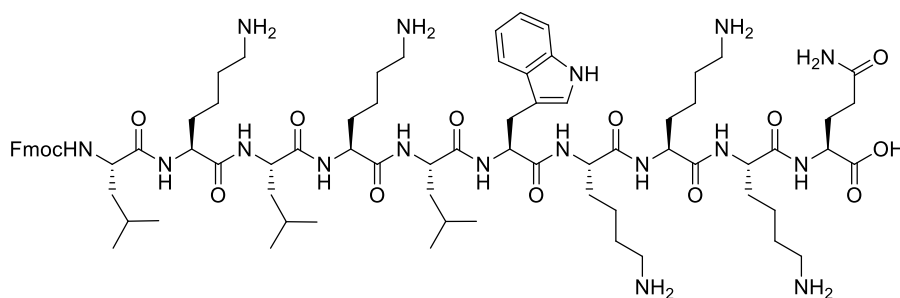
HPLC ($\lambda = 220 \text{ nm}$) (BPC156W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,93 | 932,424 | 90,223 | 100,00 |
| Total: | | 932,424 | 90,223 | 100,00 |

ESI-MS (m/z) (BPC156W-953)

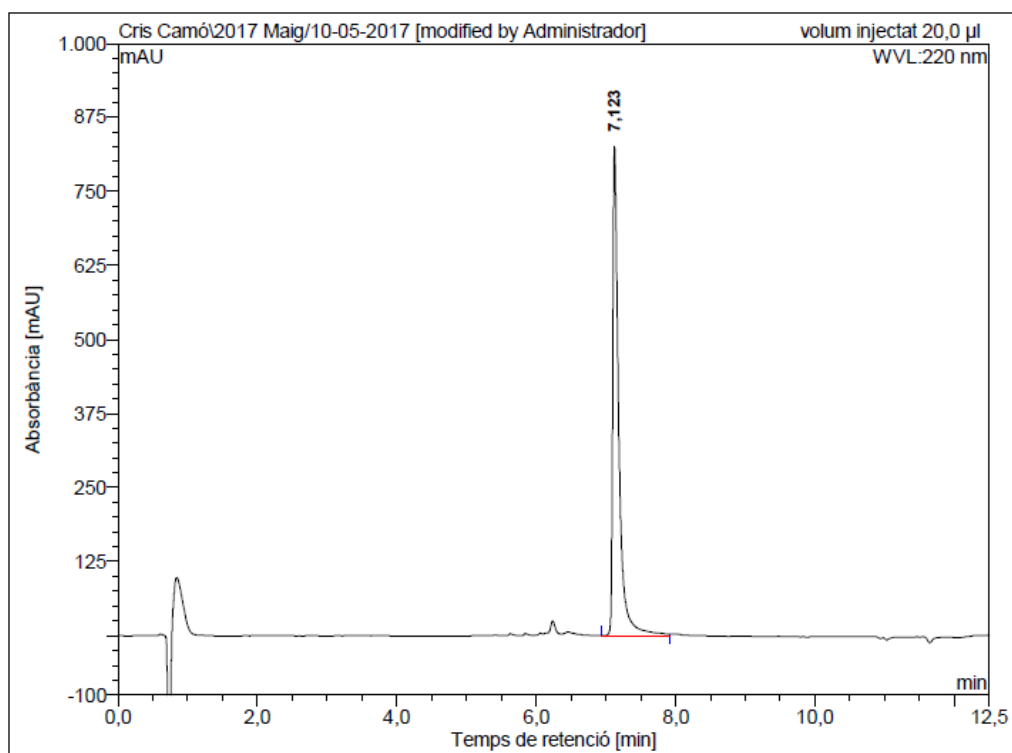
| |
|-------------------------|
| $[M+H]^+ = 1576.0$ |
| $[M+Na]^+ = 1597.0$ |
| $[M+2H]^{2+} = 788.0$ |
| $[M+H+Na]^{2+} = 799.5$ |
| $[M+2Na]^{2+} = 810.5$ |
| $[M+3H]^{3+} = 526.0$ |

Fmoc-Leu-Lys-Leu-Lys-Leu-Trp-Lys-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

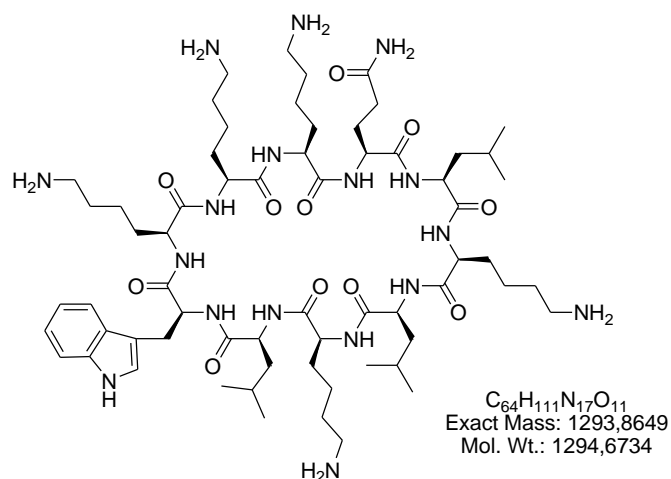
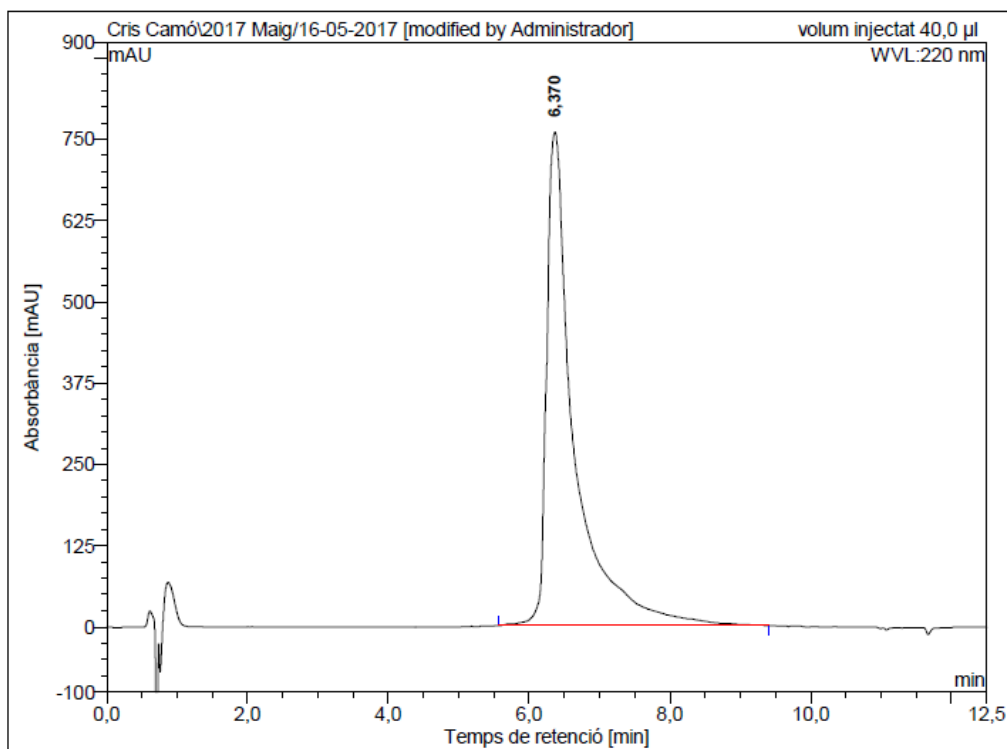
Exact Mass: 1533,9435

Molecular Weight: 1534,9274

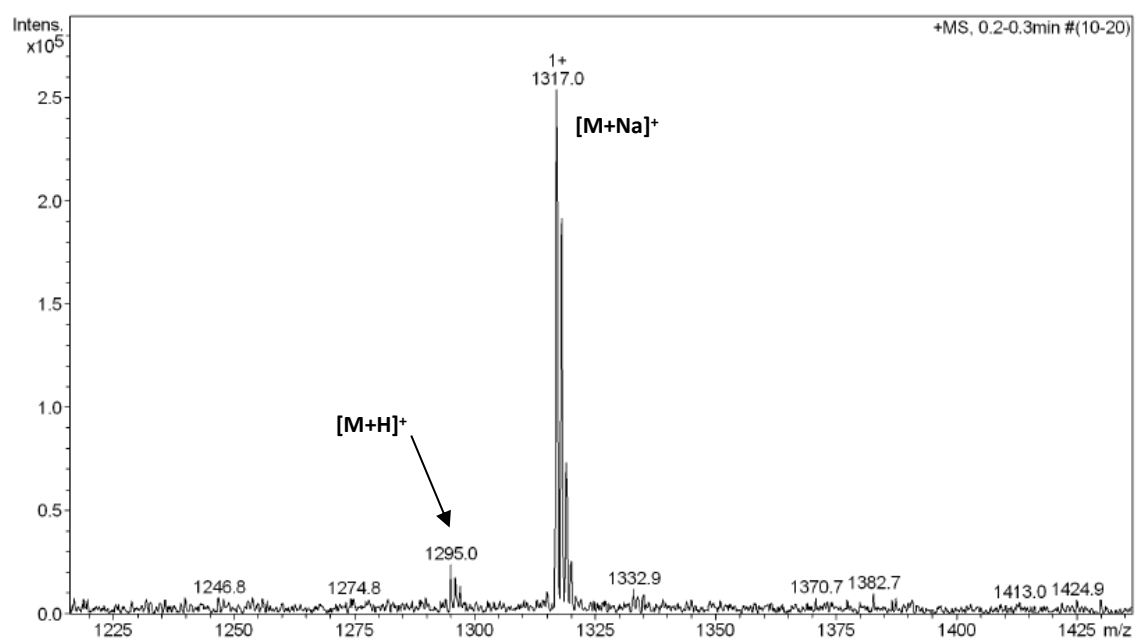
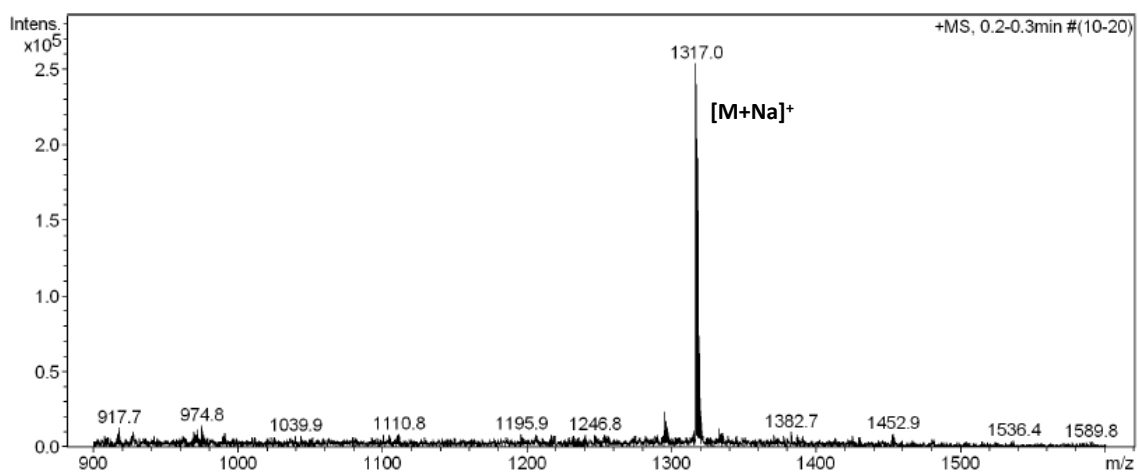
HPLC ($\lambda = 220$ nm) (BPC156W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,12 | 826,274 | 83,923 | 100,00 |
| Total: | | 826,274 | 83,923 | 100,00 |

c(Leu-Lys-Leu-Lys-Leu-Trp-Lys-Lys-Lys-Gln) (BPC156W)

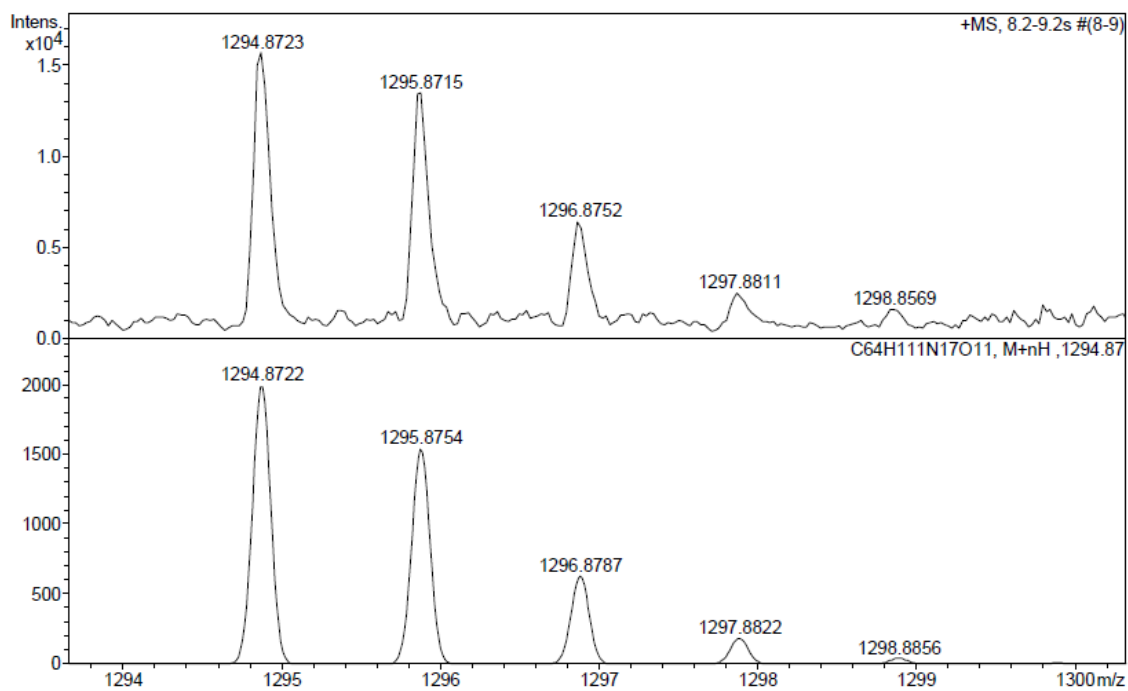
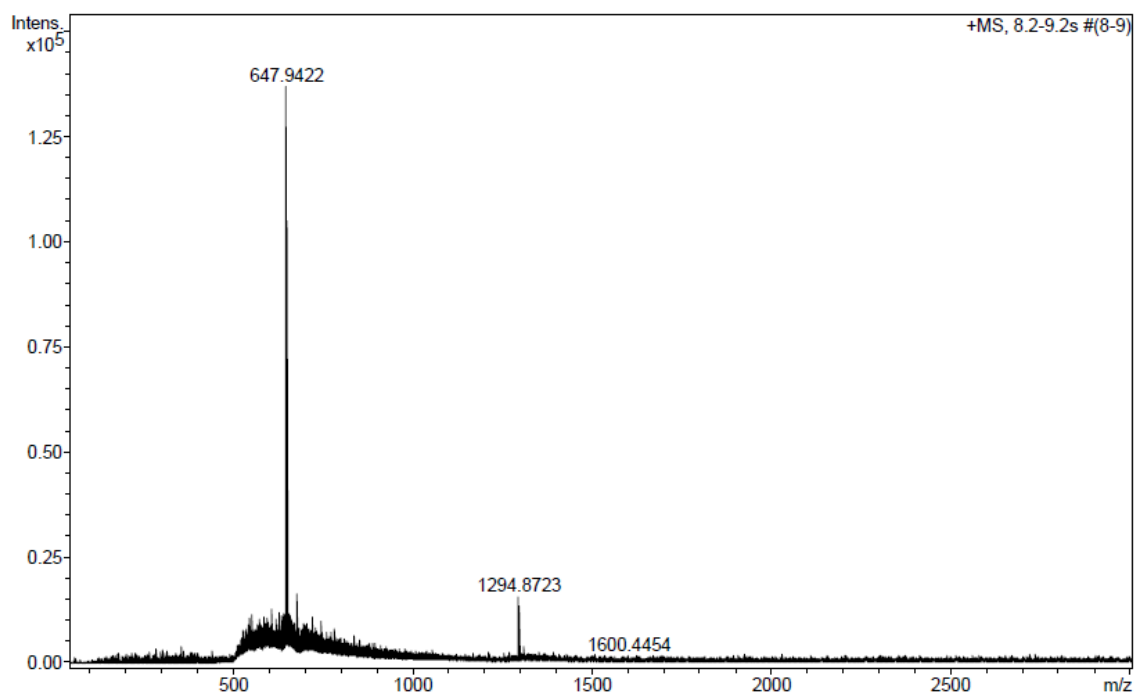
HPLC ($\lambda = 220$ nm) (BPC156W-1070)

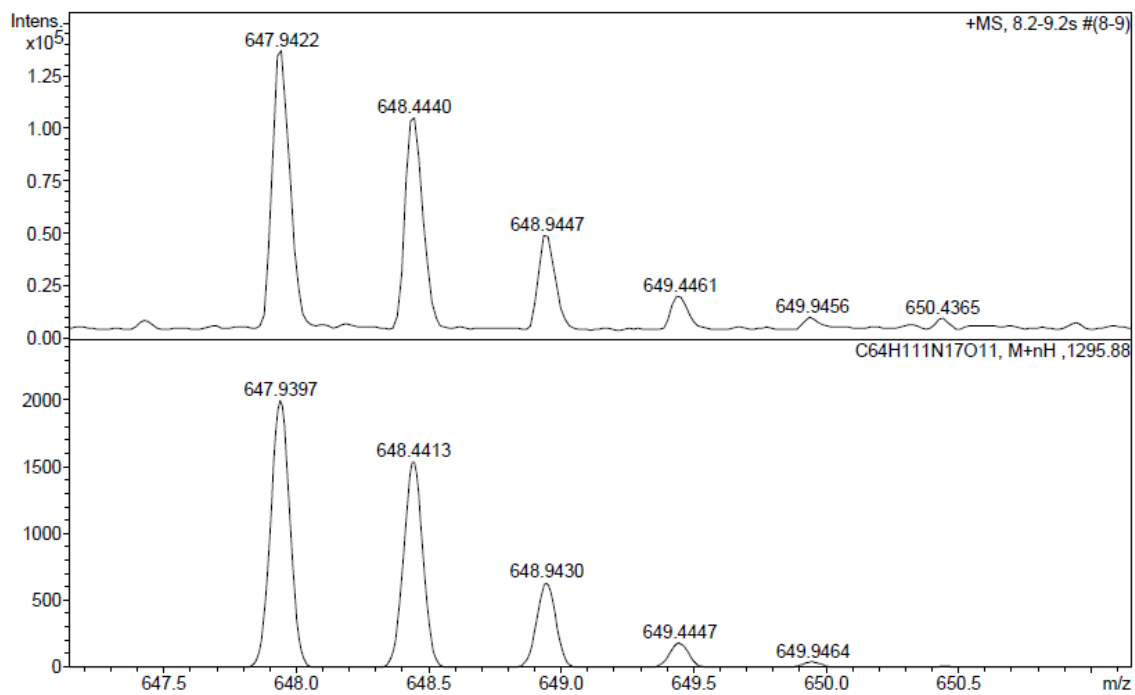
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,37 | 759,030 | 347,416 | 100,00 |
| Total: | | 759,030 | 347,416 | 100,00 |

ESI-MS (m/z) (BPC156W-1070)

| |
|-----------------------------|
| [M+H] ⁺ = 1295.0 |
|-----------------------------|

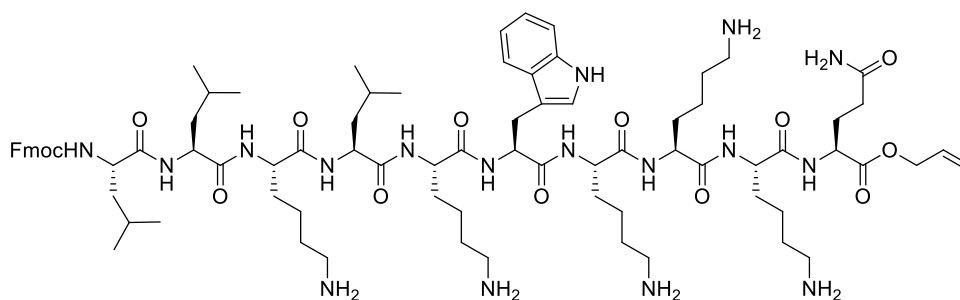
| |
|------------------------------|
| [M+Na] ⁺ = 1317.0 |
|------------------------------|

HRMS (ESI) (m/z) (BPC156W)



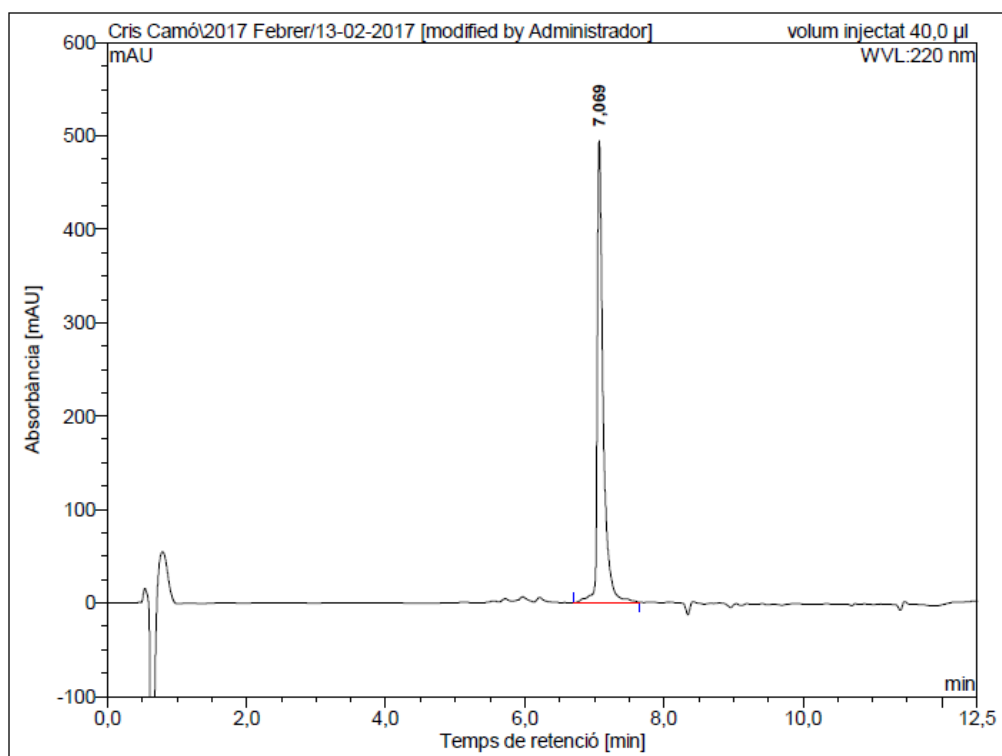
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₂ N ₁₇ O ₁₁ | 1294.8722 | 1294.8723 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₃ N ₁₇ O ₁₁ | 647.9397 | 647.9422 |

Fmoc-Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Lys-Gln-OAll

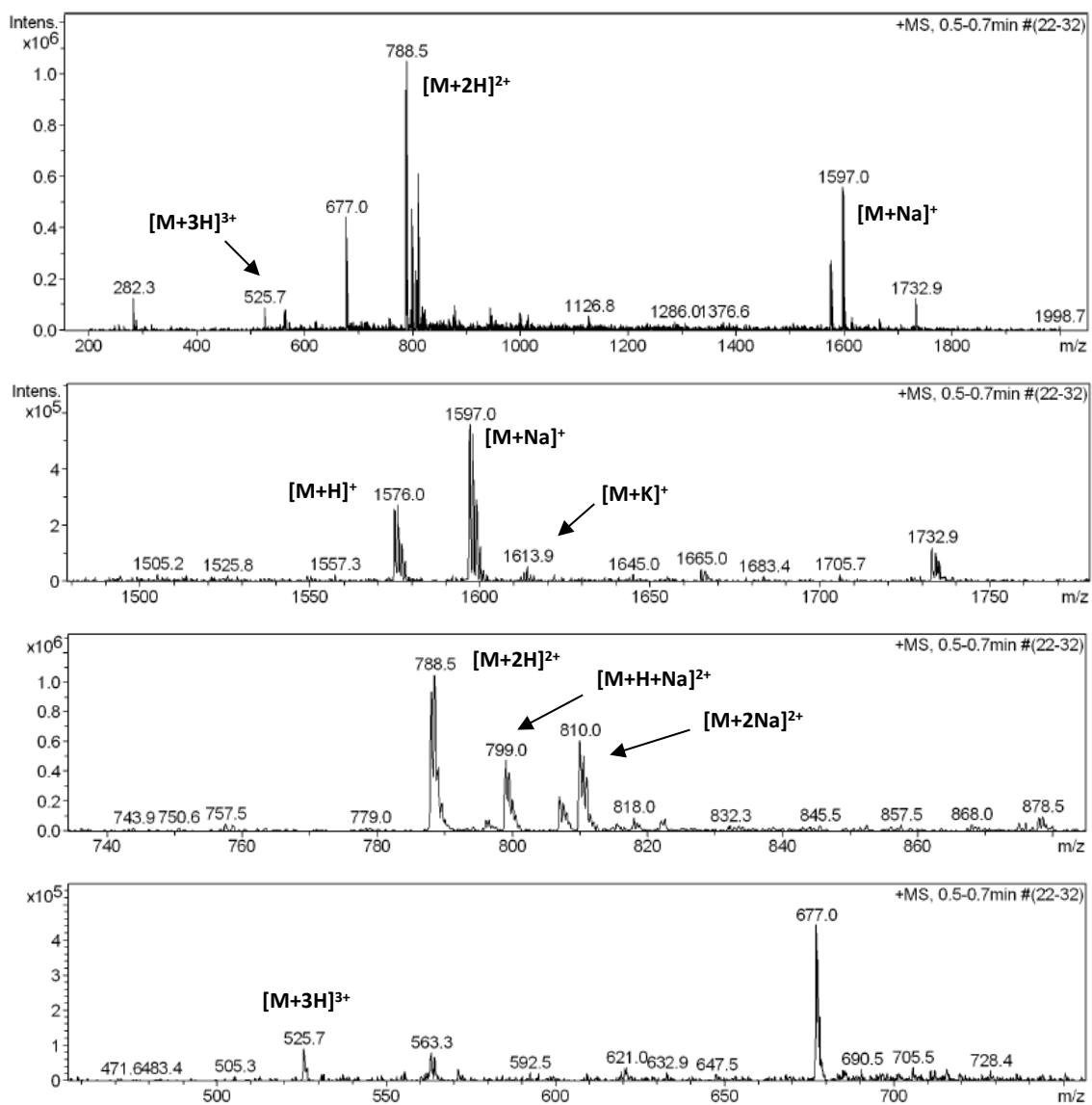
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

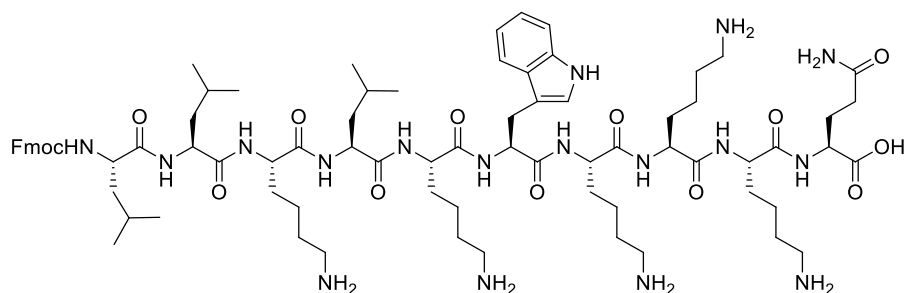
HPLC ($\lambda = 220$ nm) (BPC164W-953)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,07 | 494,480 | 49,059 | 100,00 |
| Total: | | 494,480 | 49,059 | 100,00 |

ESI-MS (m/z) (BPC164W-953)

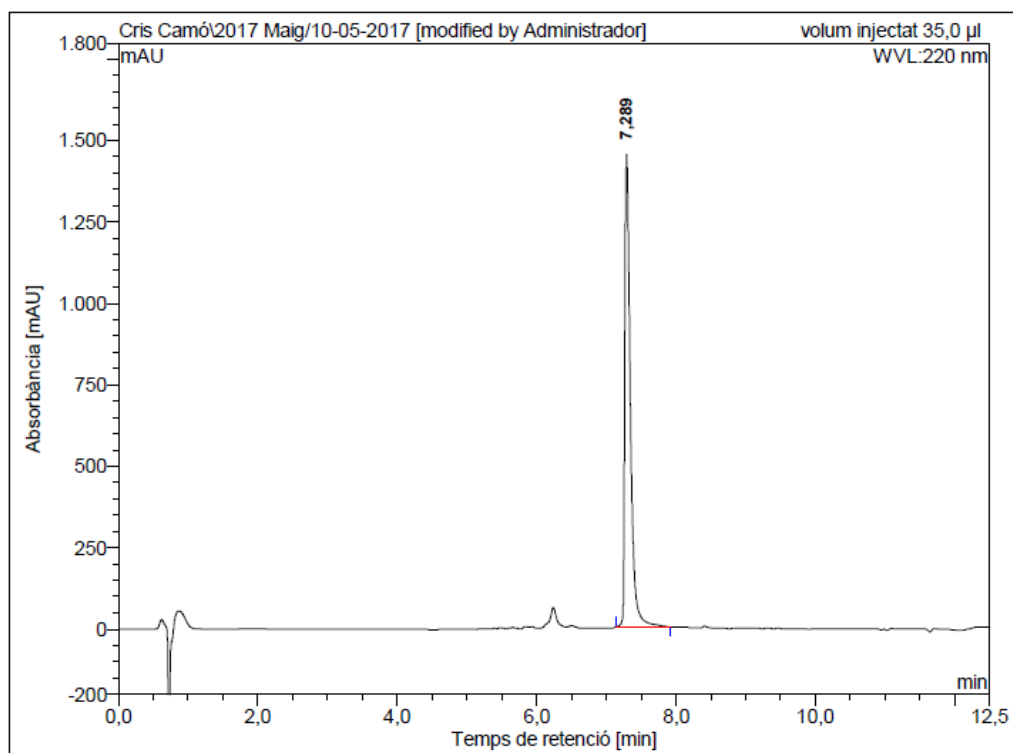
| |
|-------------------------|
| $[M+H]^+$ = 1575.0 |
| $[M+Na]^+$ = 1597.0 |
| $[M+K]^+$ = 1613.9 |
| $[M+2H]^{2+}$ = 788.5 |
| $[M+H+Na]^{2+}$ = 799.0 |
| $[M+2Na]^{2+}$ = 810.0 |
| $[M+3H]^{3+}$ = 525.7 |

Fmoc-Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

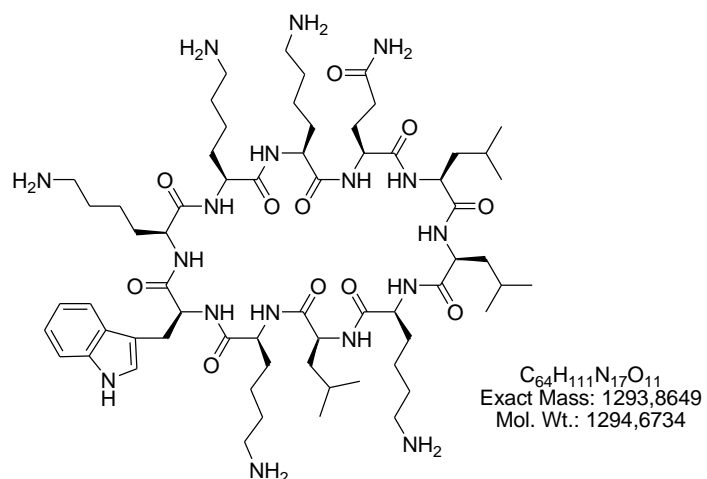
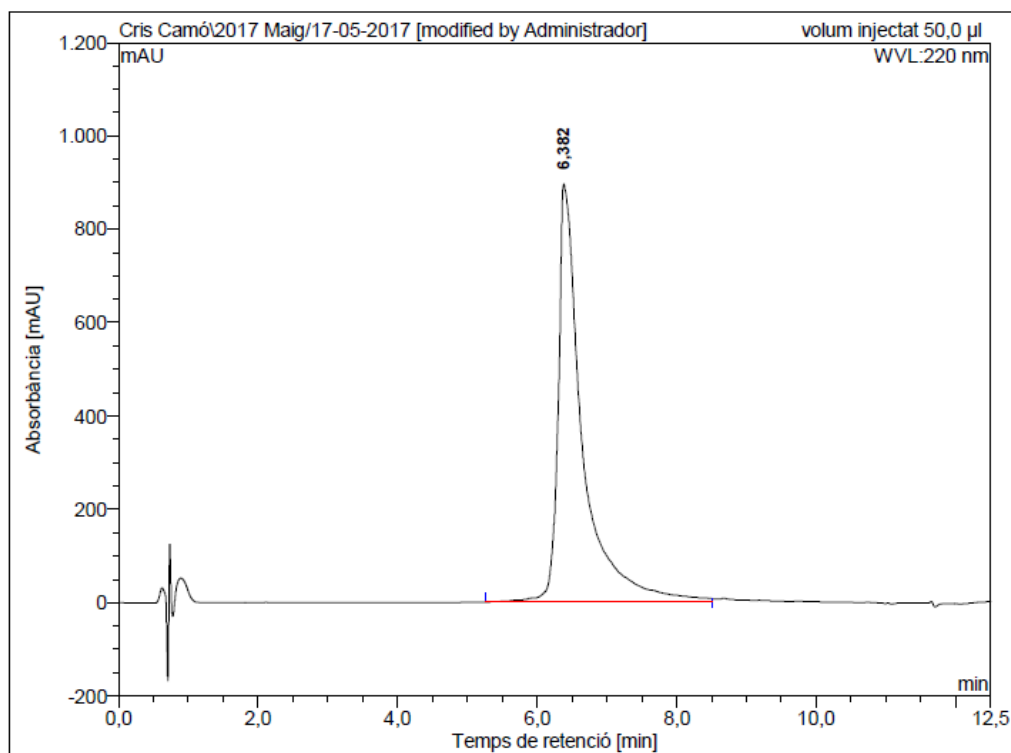
Exact Mass: 1533,9435

Molecular Weight: 1534,9274

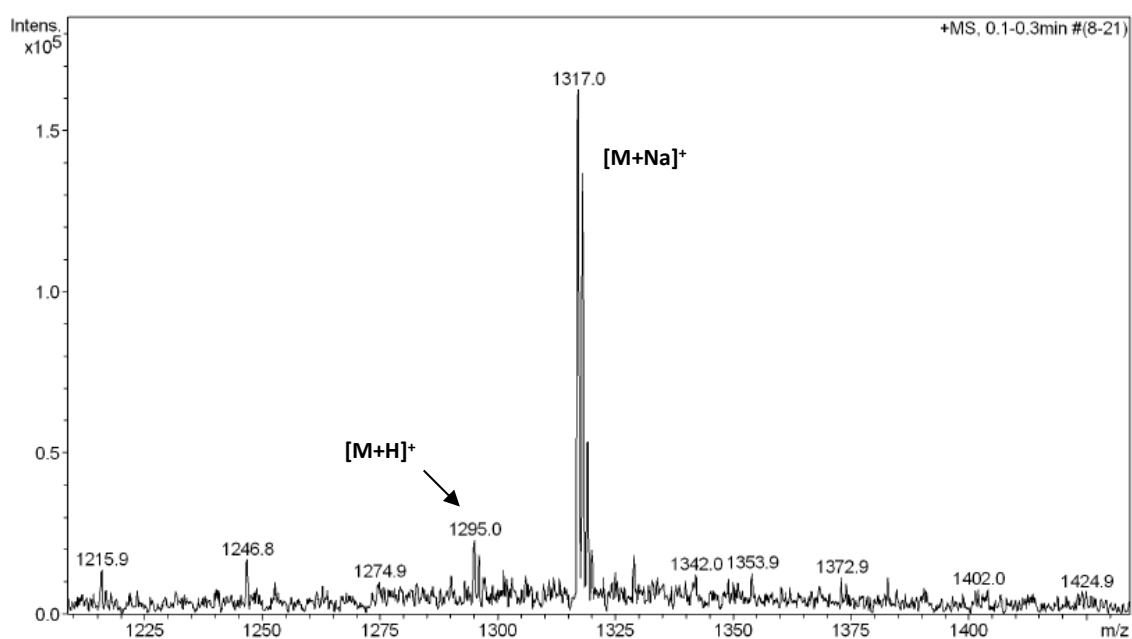
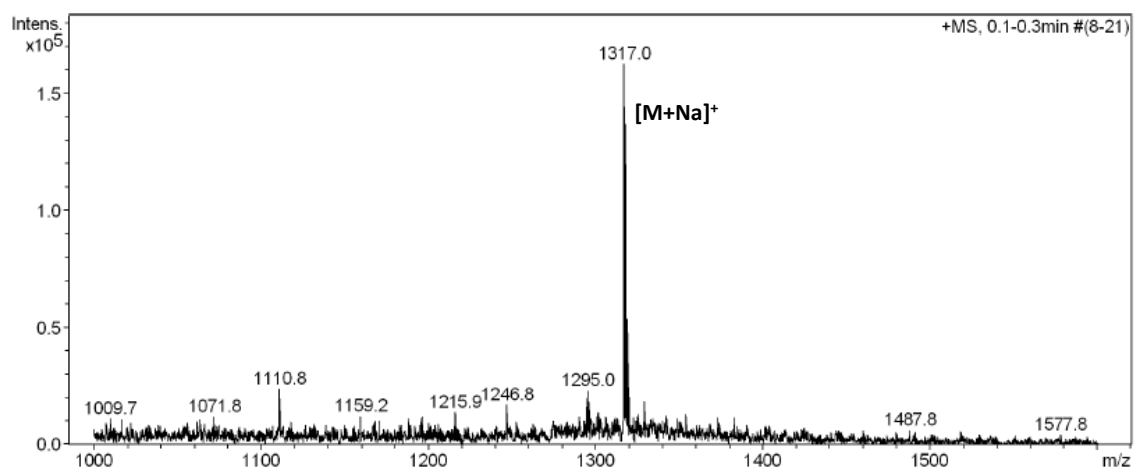
HPLC ($\lambda = 220$ nm) (BPC164W-1061)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,29 | 1452,262 | 134,976 | 100,00 |
| Total: | | 1452,262 | 134,976 | 100,00 |

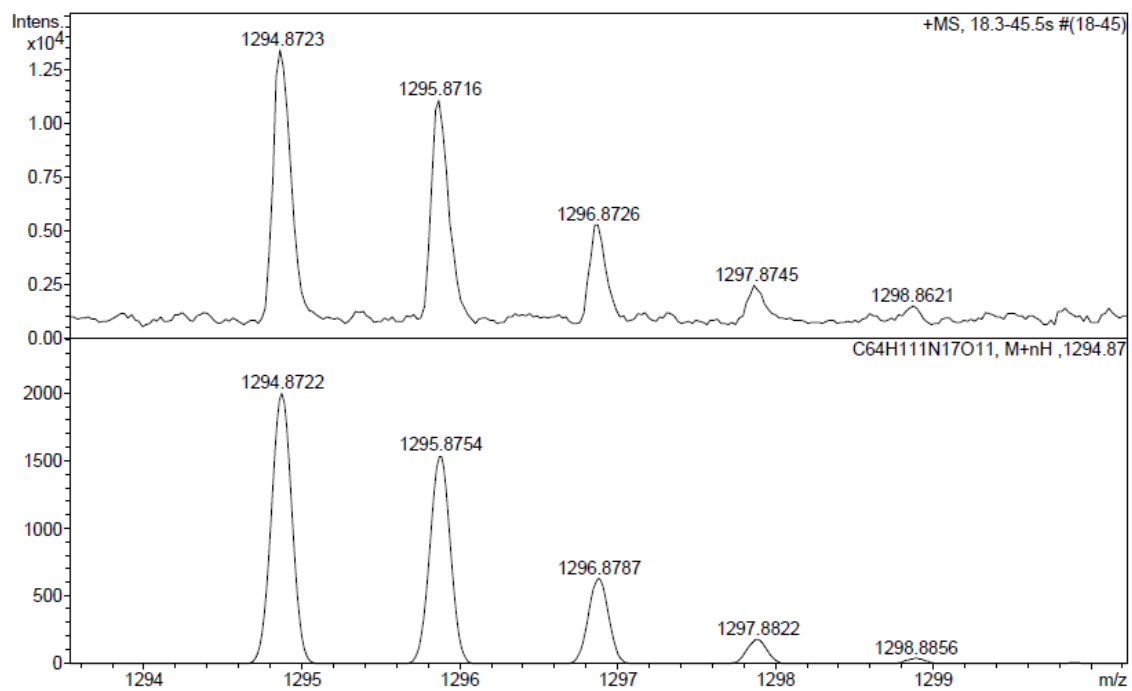
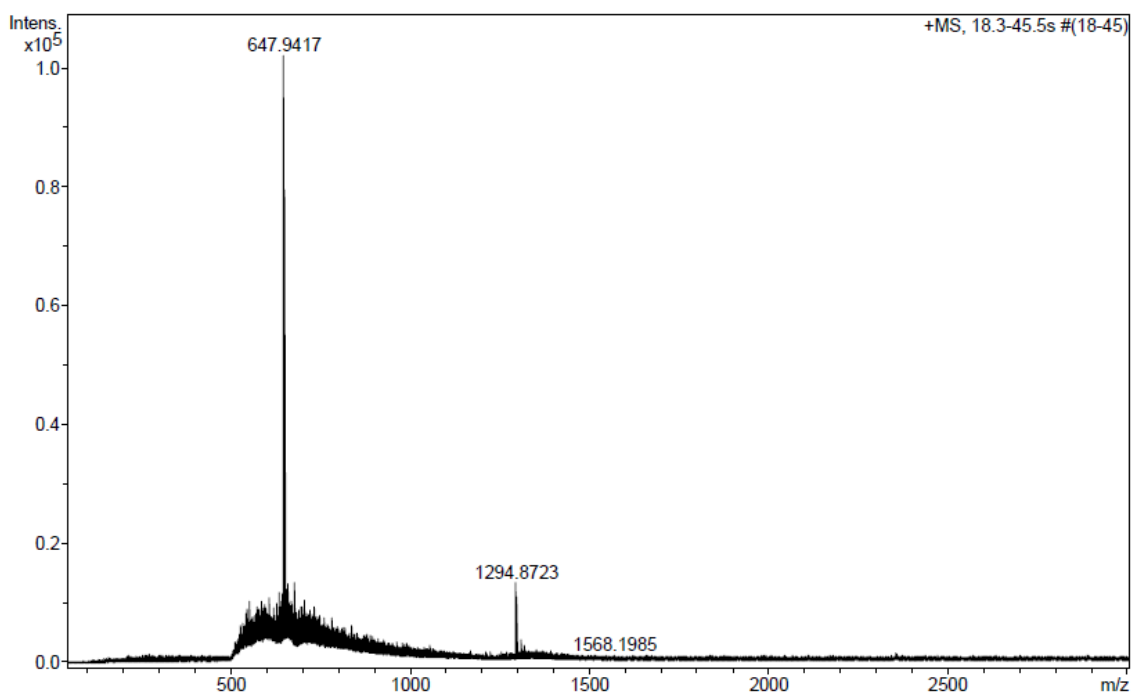
c(Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Lys-Gln) (BPC164W)

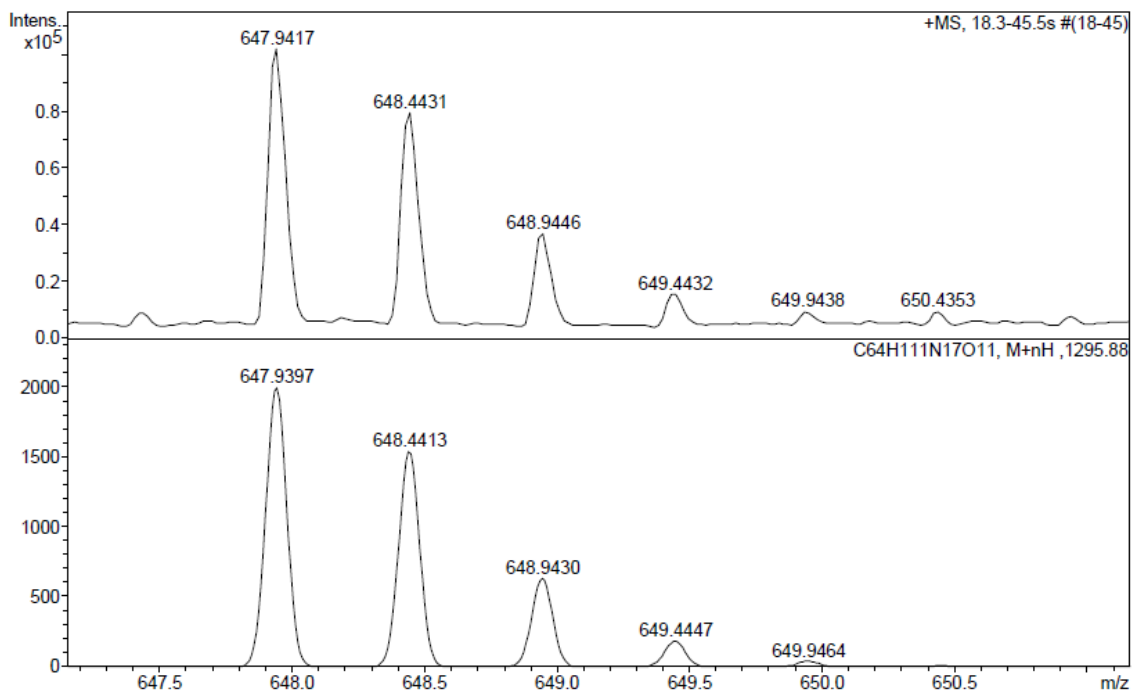
HPLC ($\lambda = 220$ nm) (BPC164W-1071)

| No. | Temps retenció min | alçada mAU | Àrea mAU*min | Àrea relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,38 | 894,724 | 363,194 | 100,00 |
| Total: | | 894,724 | 363,194 | 100,00 |

ESI-MS (m/z) (BPC164W-1071)

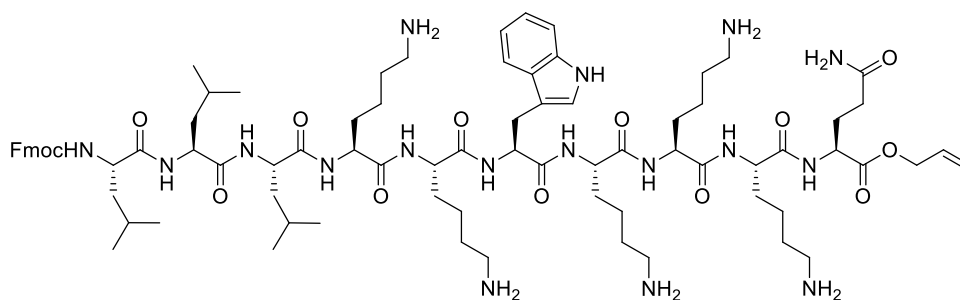
| |
|------------------------------|
| [M+H] ⁺ = 1295.0 |
| [M+Na] ⁺ = 1317.0 |

HRMS (ESI) (m/z) (BPC164W)



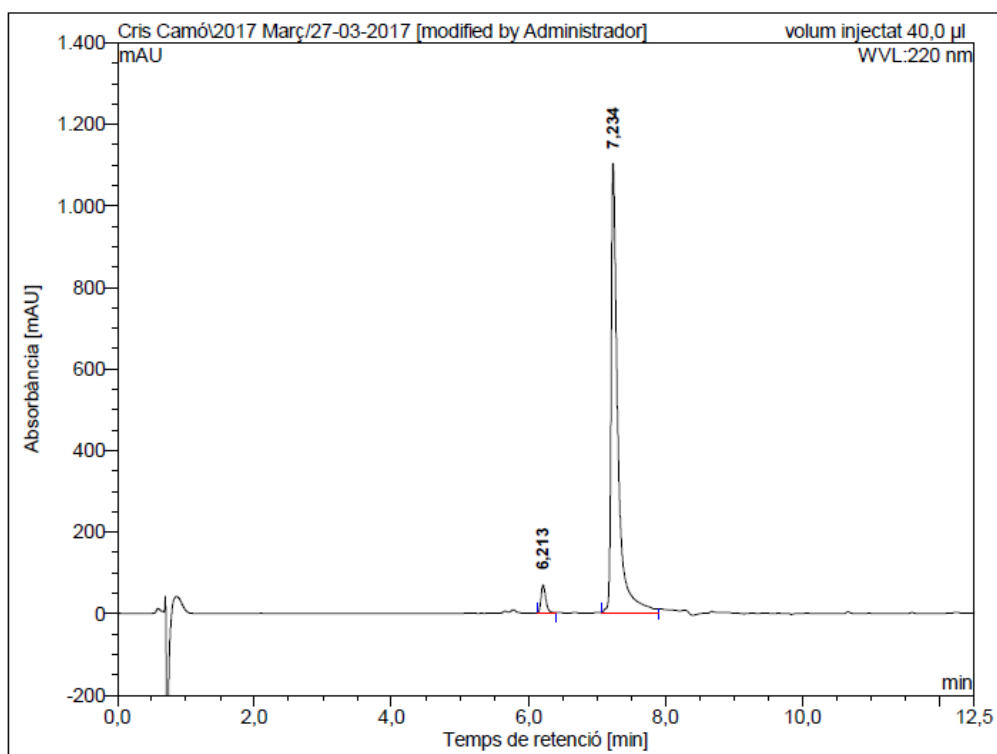
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₂ N ₁₇ O ₁₁ | 1294.8722 | 1294.8723 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₃ N ₁₇ O ₁₁ | 647.9397 | 647.9417 |

Fmoc-Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Lys-Gln-OAll

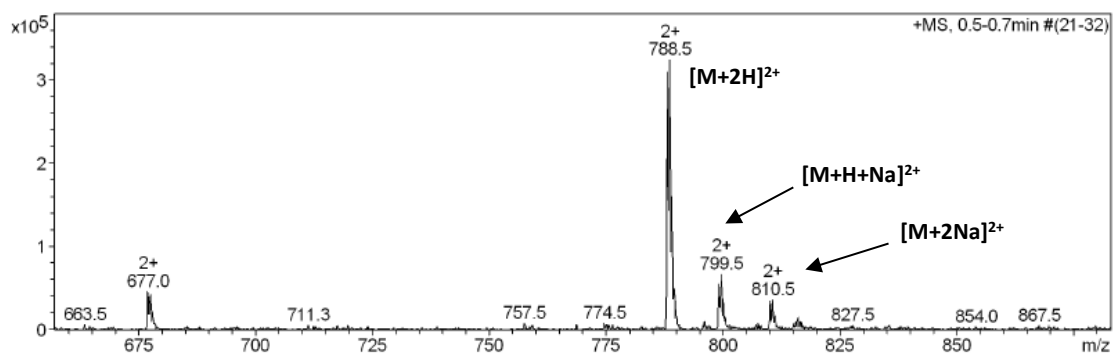
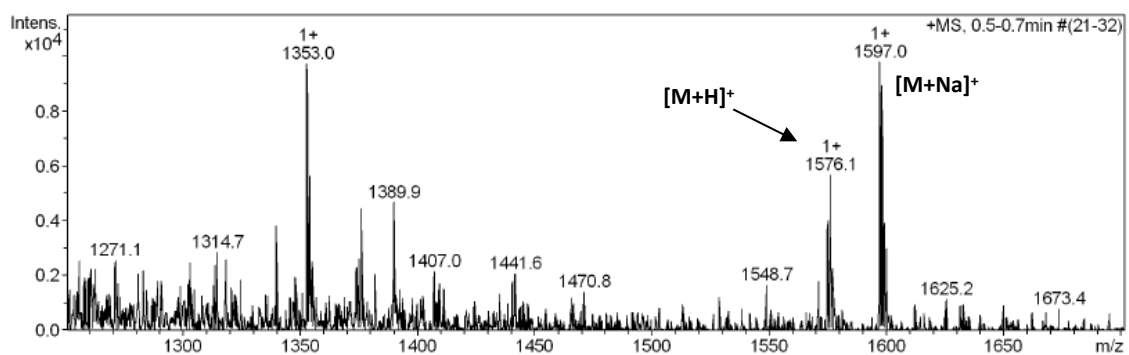
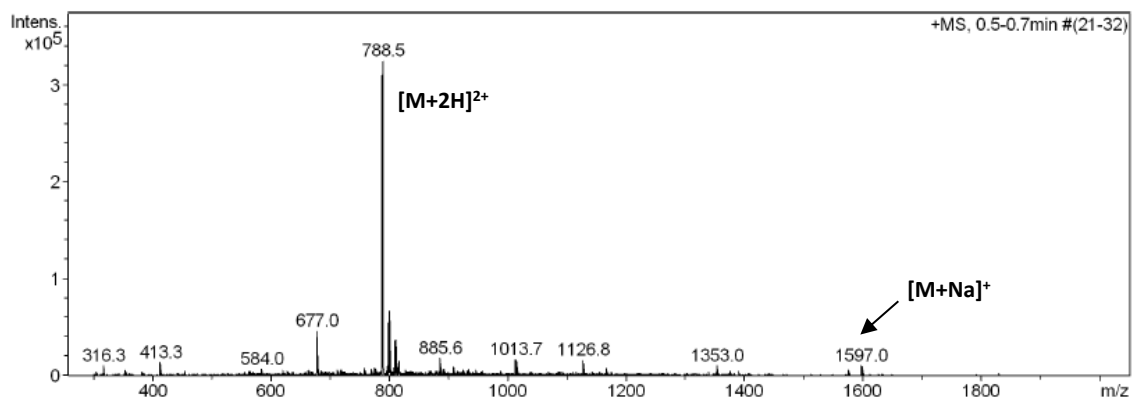
Chemical Formula: $C_{82}H_{127}N_{17}O_{14}$

Exact Mass: 1573,9748

Molecular Weight: 1574,9913

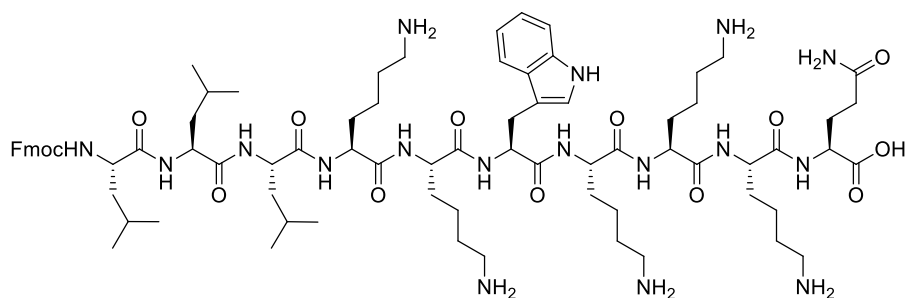
HPLC ($\lambda = 220$ nm) (BPC166W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 69,177 | 5,512 | 4,18 |
| 2 | 7,23 | 1101,285 | 126,507 | 95,82 |
| Total: | | 1170,461 | 132,019 | 100,00 |

ESI-MS (m/z) (BPC166W-1002)

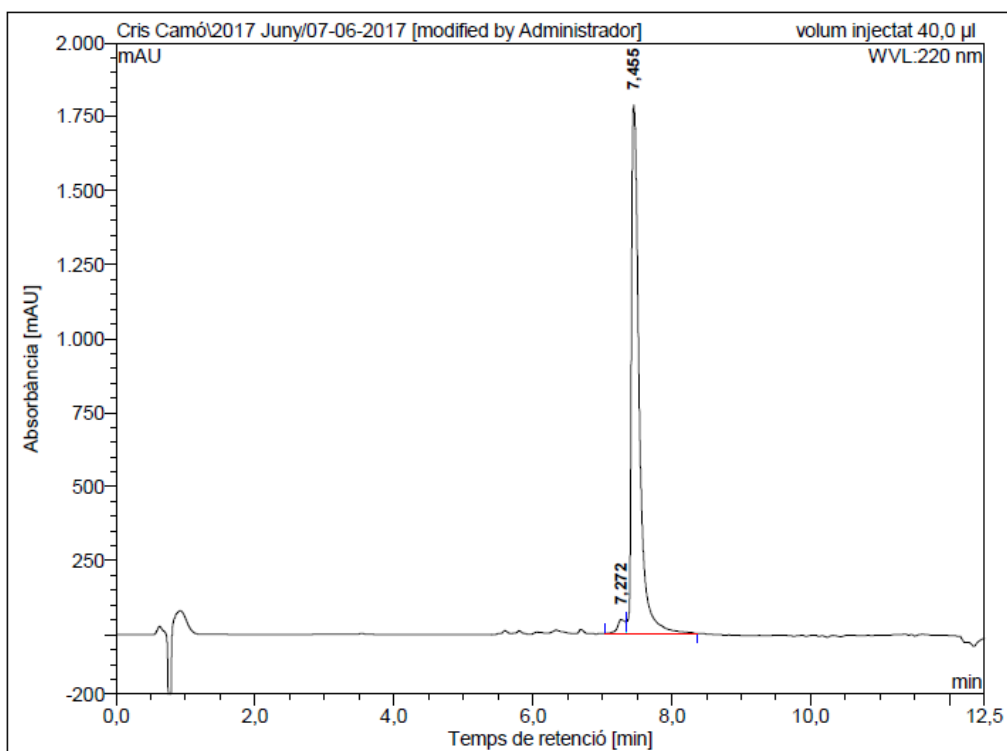
| |
|-------------------------|
| $[M+H]^+ = 1575.1$ |
| $[M+Na]^+ = 1597.0$ |
| $[M+2H]^{2+} = 788.5$ |
| $[M+H+Na]^{2+} = 799.5$ |
| $[M+2Na]^{2+} = 810.5$ |

Fmoc-Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Lys-Gln-OH

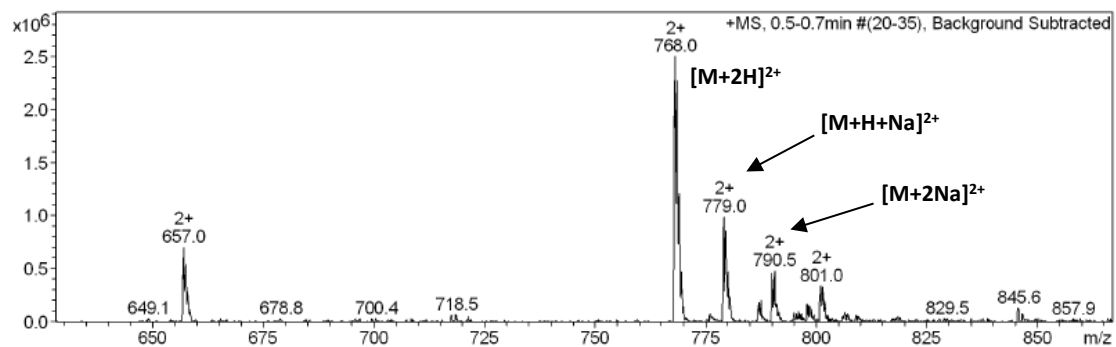
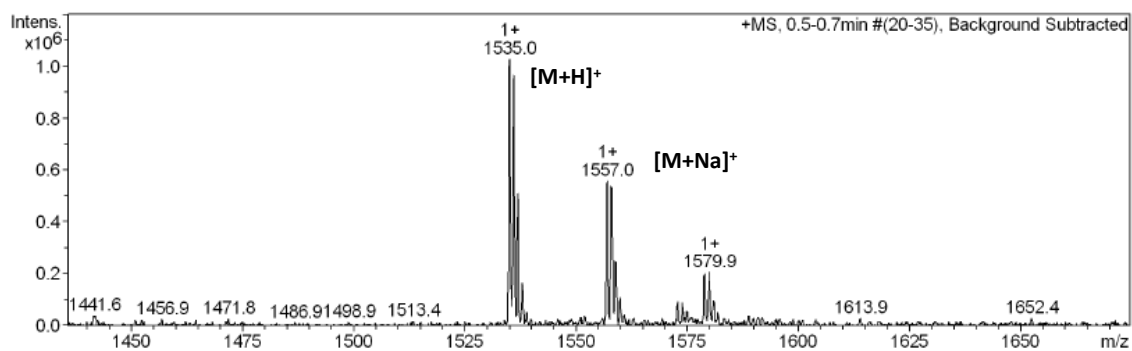
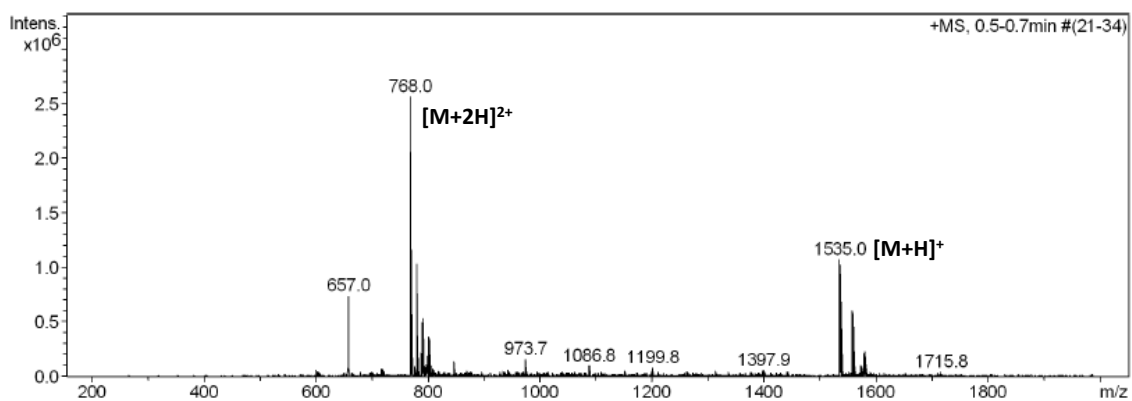
Chemical Formula: $C_{79}H_{123}N_{17}O_{14}$

Exact Mass: 1533,9435

Molecular Weight: 1534,9274

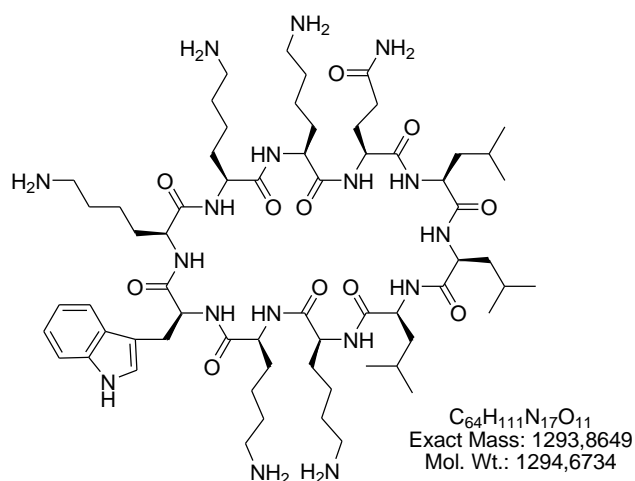
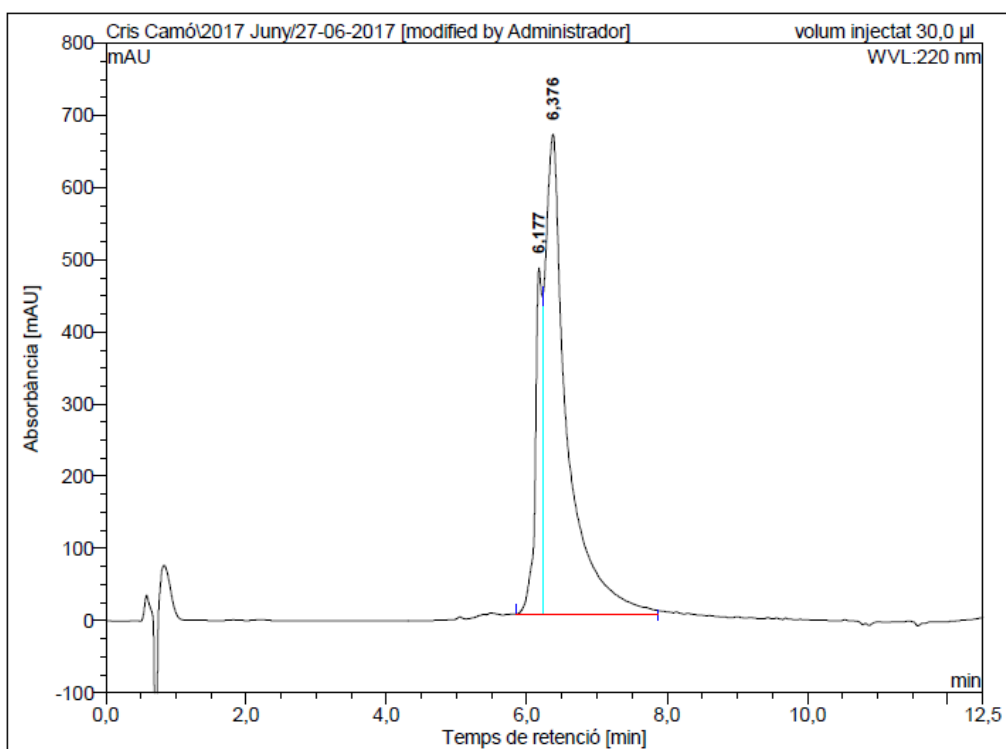
HPLC ($\lambda = 220$ nm) (BPC166W-1098)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,27 | 46,816 | 6,233 | 2,60 |
| 2 | 7,45 | 1784,908 | 233,935 | 97,40 |
| Total: | | 1831,724 | 240,168 | 100,00 |

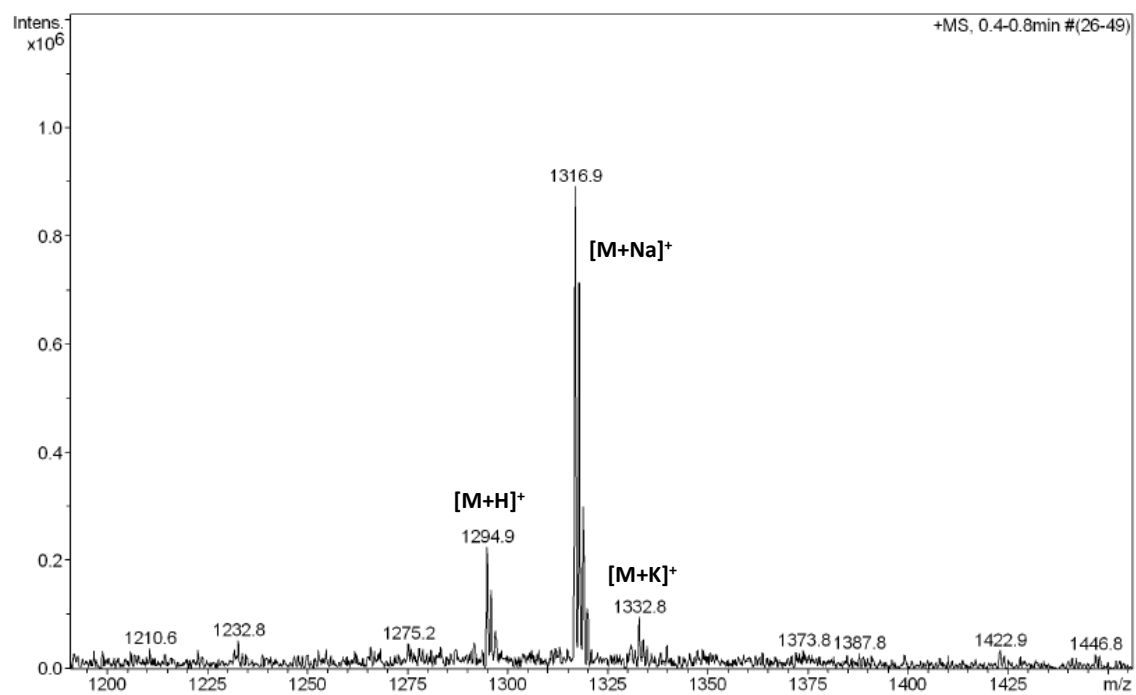
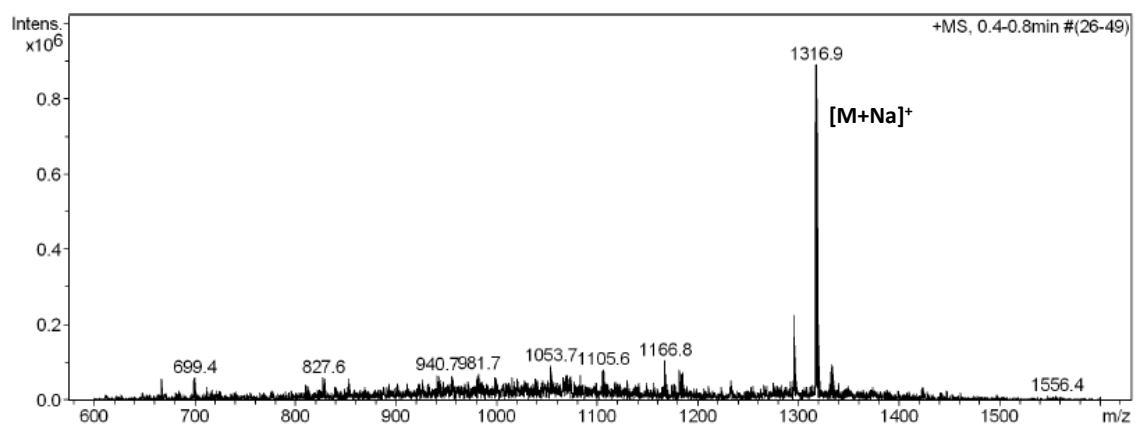
ESI-MS (m/z) (BPC166W sense al·lil)

| |
|-------------------------|
| $[M+H]^+ = 1535.0$ |
| $[M+Na]^+ = 1557.0$ |
| $[M+2H]^{2+} = 768.0$ |
| $[M+H+Na]^{2+} = 779.0$ |
| $[M+2Na]^{2+} = 790.5$ |

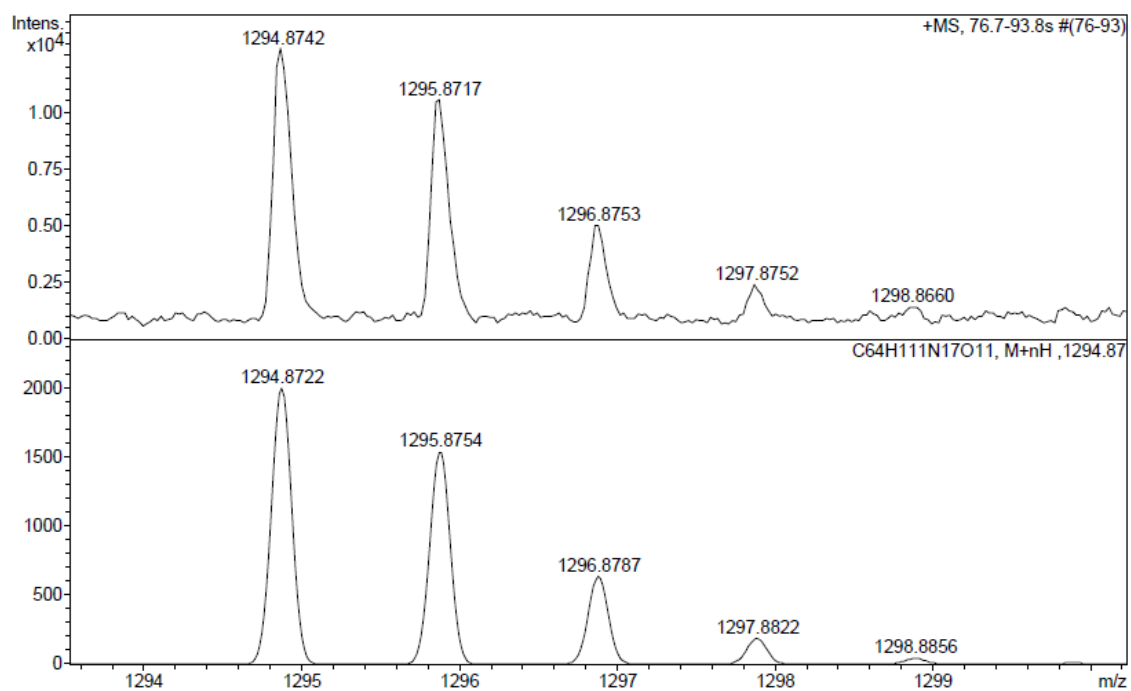
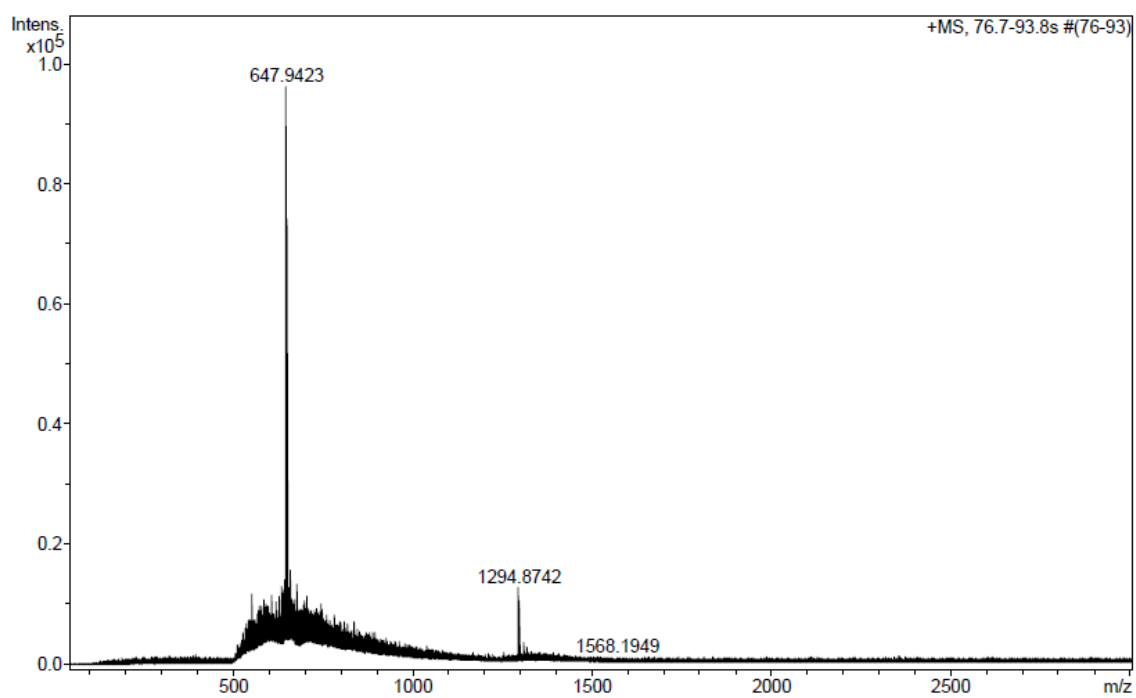
c(Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Lys-Gln) (BPC166W)

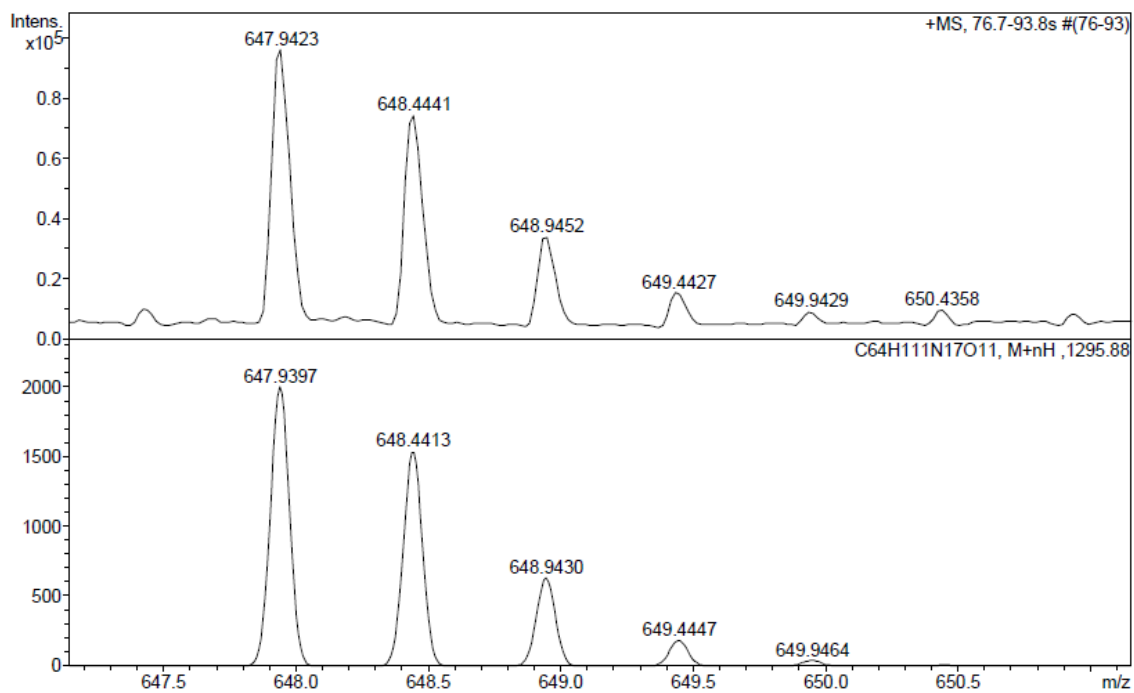
HPLC ($\lambda = 220$ nm) (BPC166W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 479,352 | 51,726 | 17,48 |
| 2 | 6,38 | 665,028 | 244,198 | 82,52 |
| Total: | | 1144,380 | 295,924 | 100,00 |

ESI-MS (m/z) (BPC166W-1104)

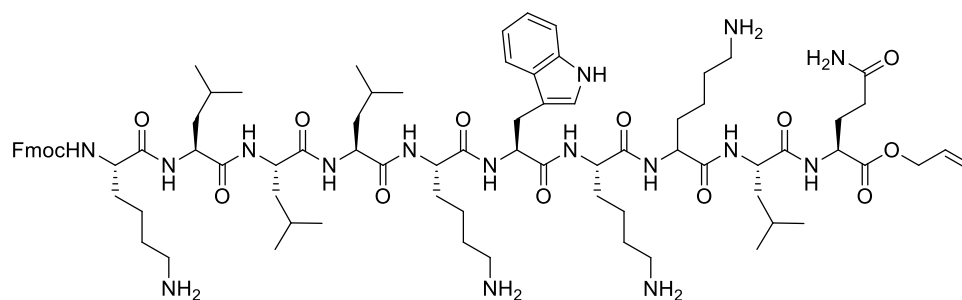
| |
|---------------------|
| $[M+H]^+ = 1294.9$ |
| $[M+Na]^+ = 1316.9$ |
| $[M+K]^+ = 1332.8$ |

HRMS (ESI) (m/z) (BPC166W)



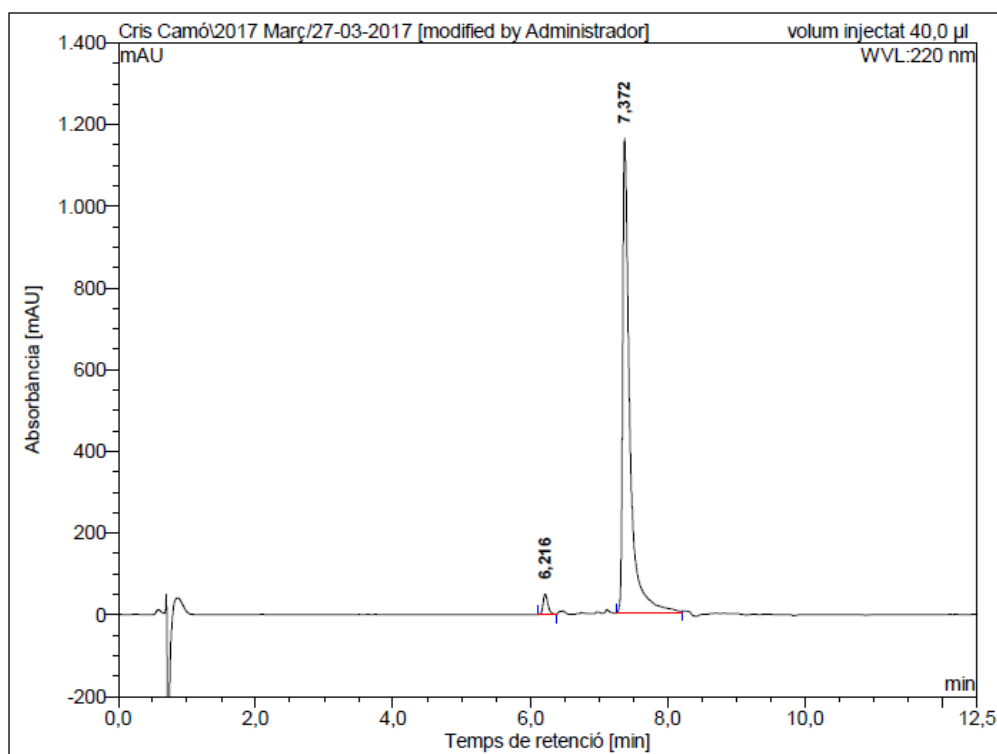
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{112}N_{17}O_{11}$ | 1294.8722 | 1294.8742 |
| $[M+2H]^{2+}$ | $C_{64}H_{113}N_{17}O_{11}$ | 647.9397 | 647.9423 |

Fmoc-Lys-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OAll

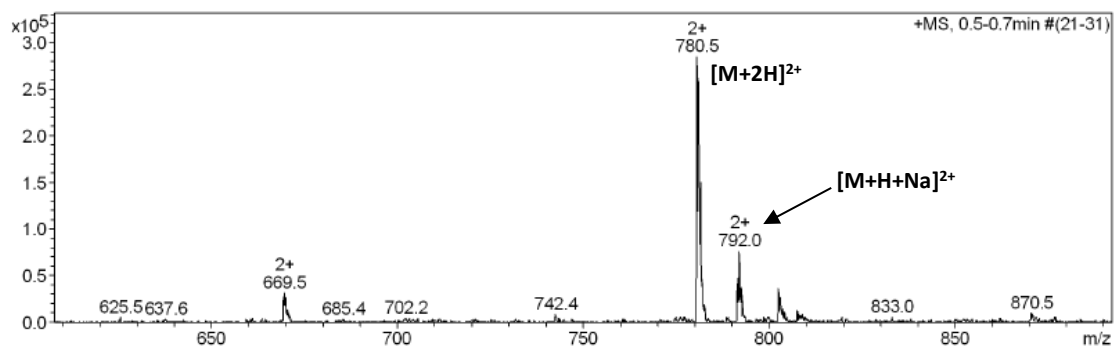
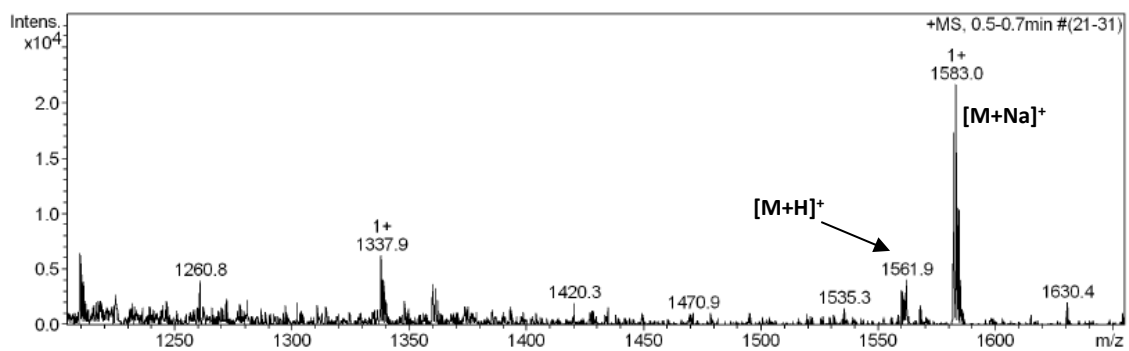
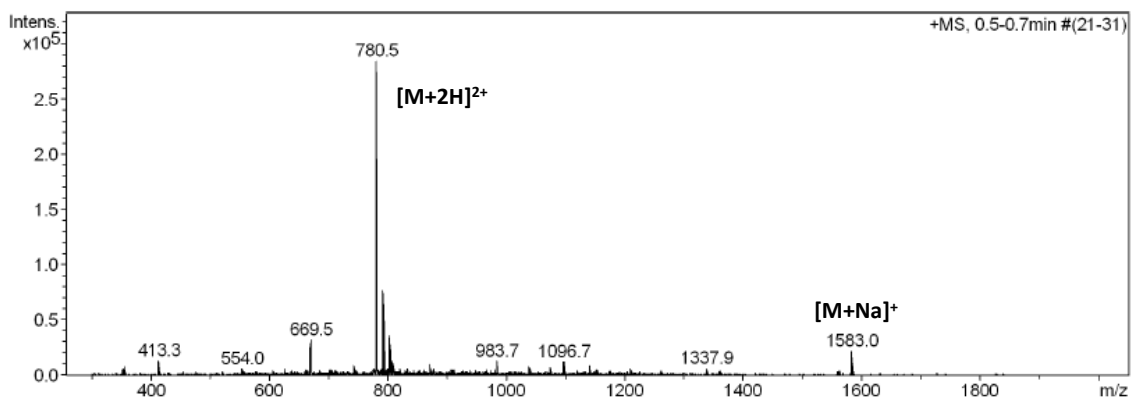
Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

Exact Mass: 1558,9639

Molecular Weight: 1559,9766

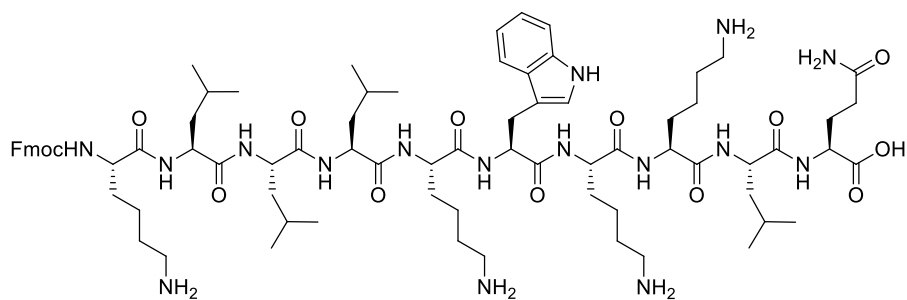
HPLC ($\lambda = 220$ nm) (BPC184W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,22 | 50,441 | 4,098 | 2,82 |
| 2 | 7,37 | 1162,983 | 141,454 | 97,18 |
| Total: | | 1213,424 | 145,552 | 100,00 |

ESI-MS (m/z) (BCP184W-1002)

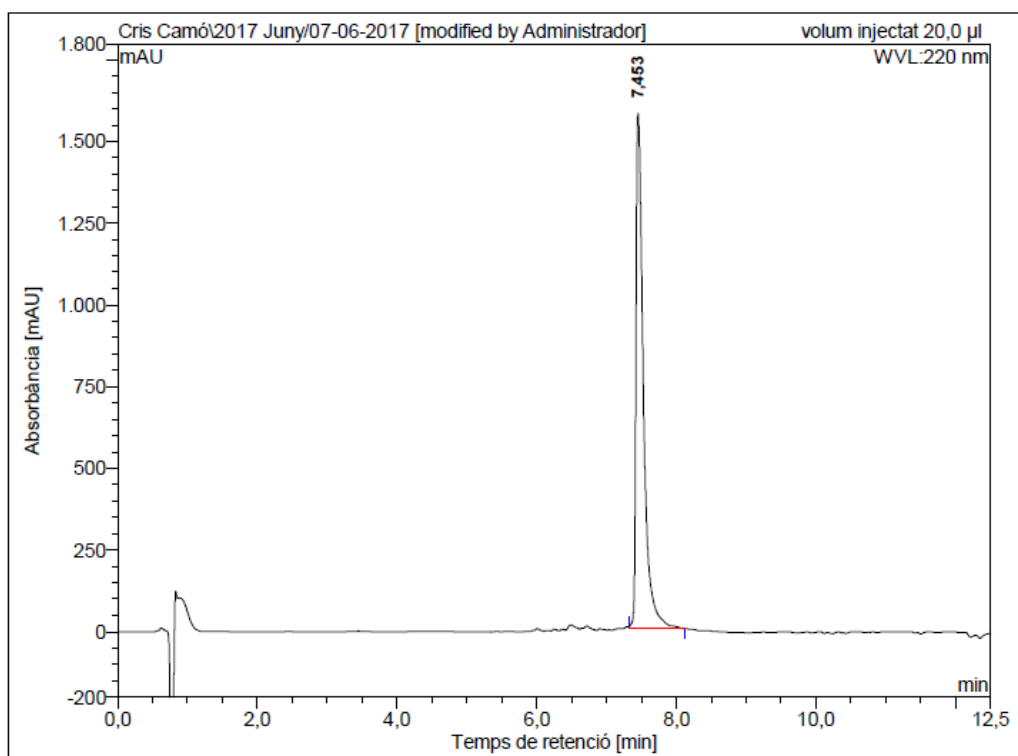
| |
|-------------------------|
| $[M+H]^+ = 1560.9$ |
| $[M+Na]^+ = 1582.0$ |
| $[M+2H]^{2+} = 780.5$ |
| $[M+H+Na]^{2+} = 792.0$ |

Fmoc-Lys-Leu-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OH

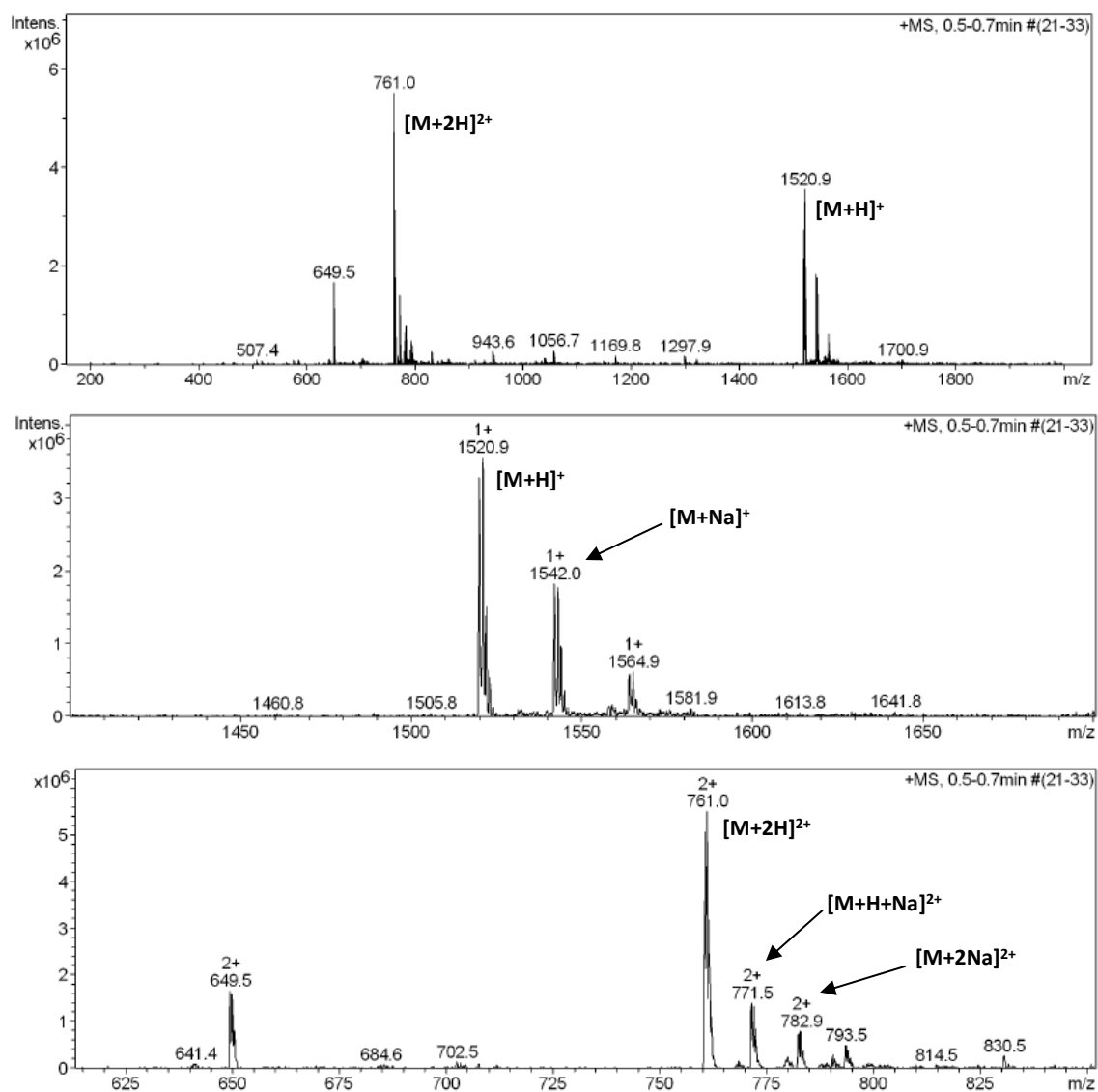
Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

Exact Mass: 1518,9326

Molecular Weight: 1519,9128

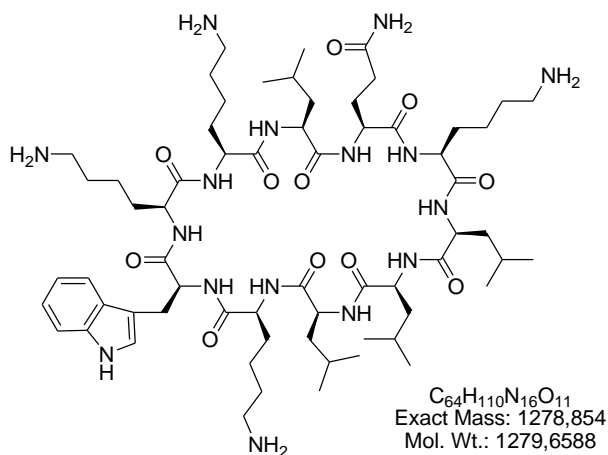
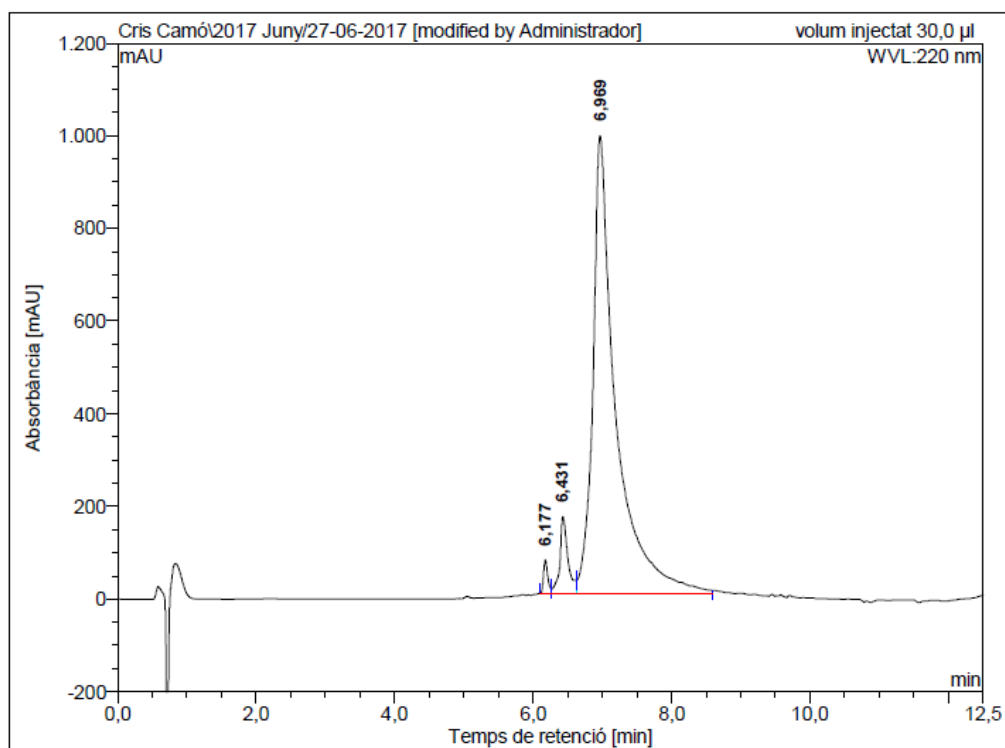
HPLC ($\lambda = 220$ nm) (BPC184W-1098)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,45 | 1578,124 | 196,008 | 100,00 |
| Total: | | 1578,124 | 196,008 | 100,00 |

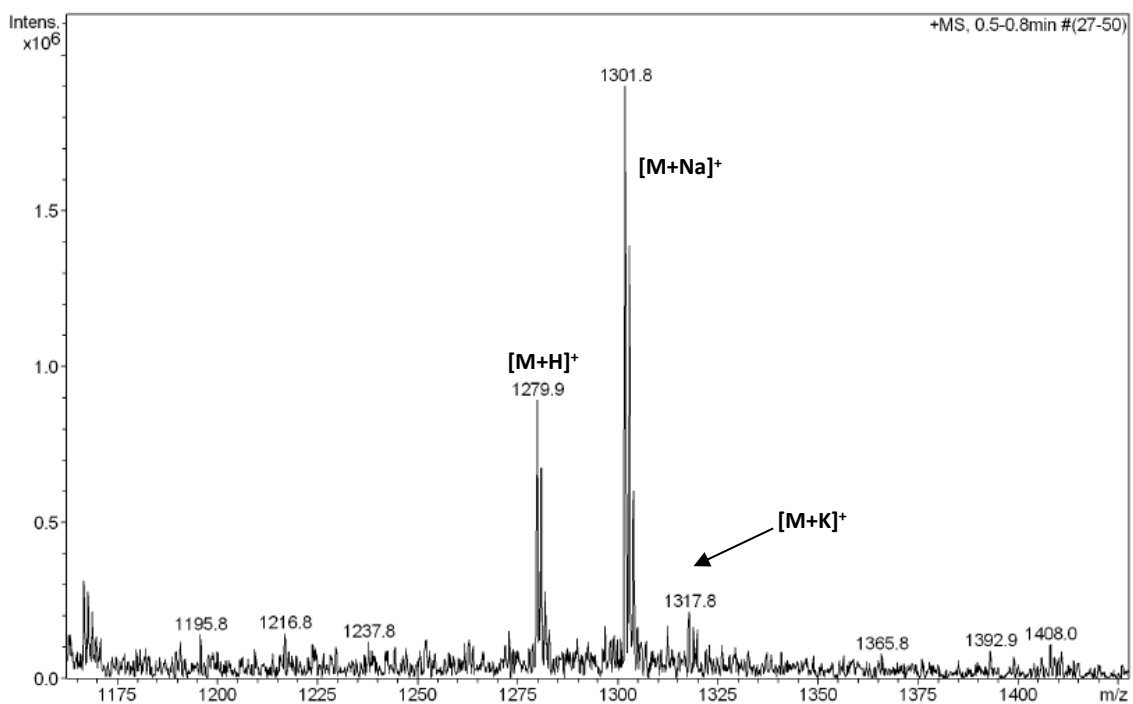
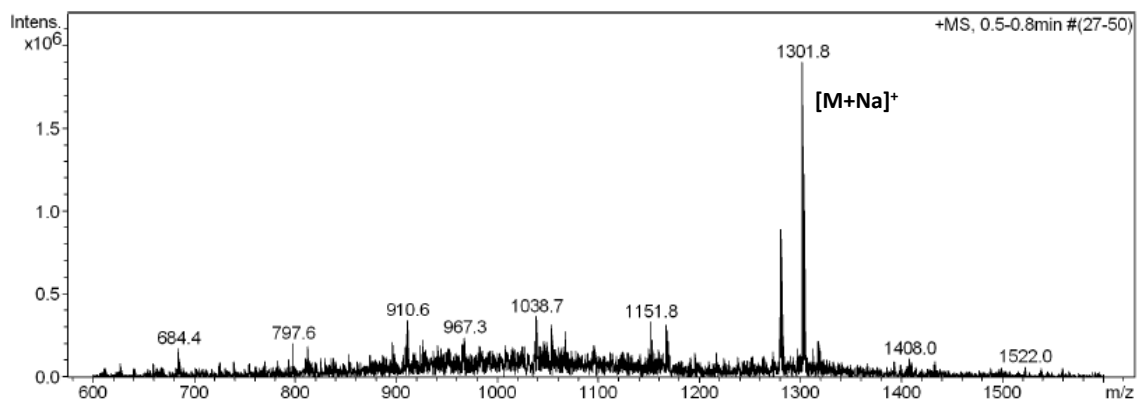
ESI-MS (m/z) (BPC184W sense al·lil)

| |
|-------------------------|
| $[M+H]^+ = 1519.9$ |
| $[M+Na]^+ = 1542.0$ |
| $[M+2H]^{2+} = 761.0$ |
| $[M+H+Na]^{2+} = 771.5$ |
| $[M+2Na]^{2+} = 782.9$ |

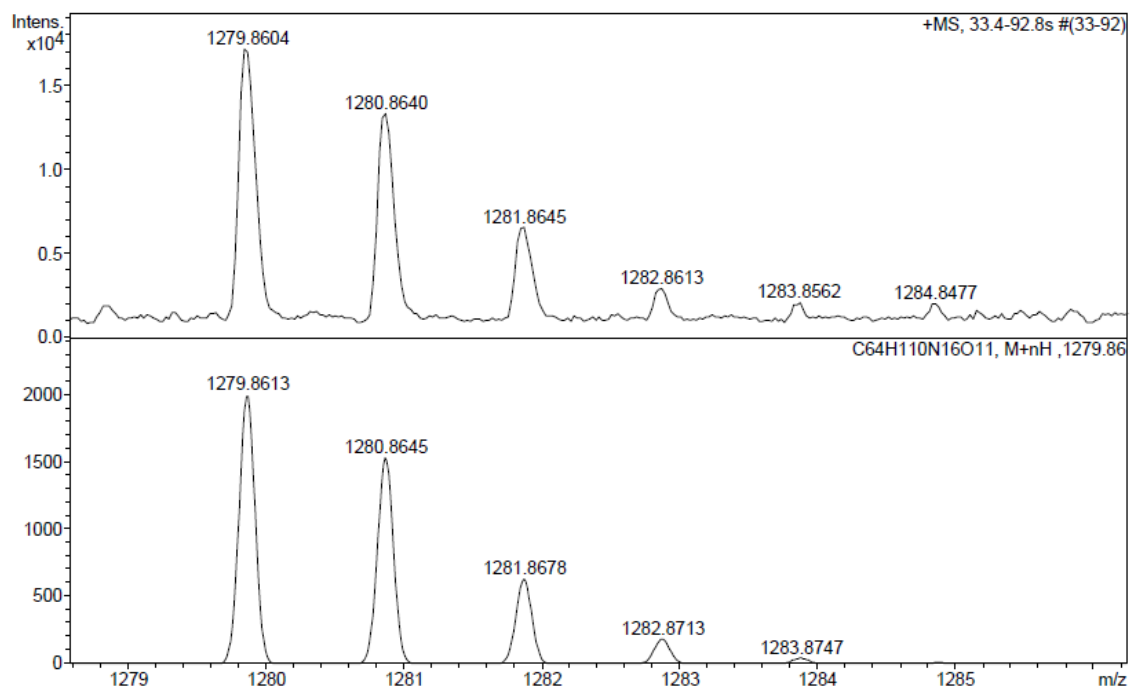
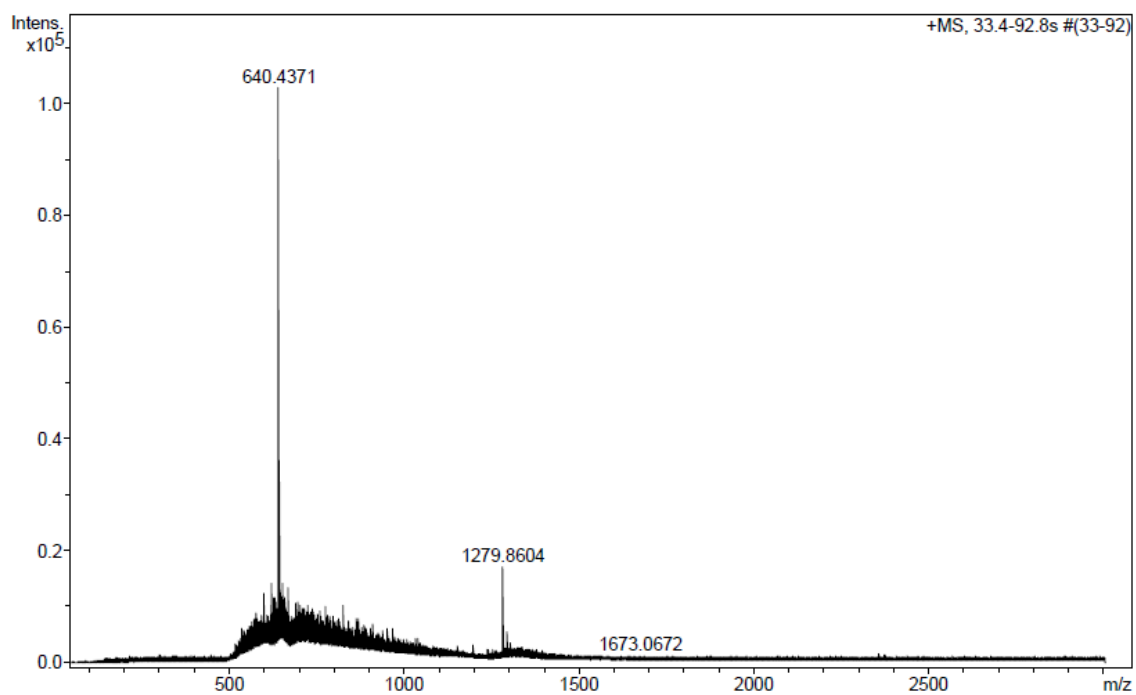
c(Lys-Leu-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln) (BPC184W)

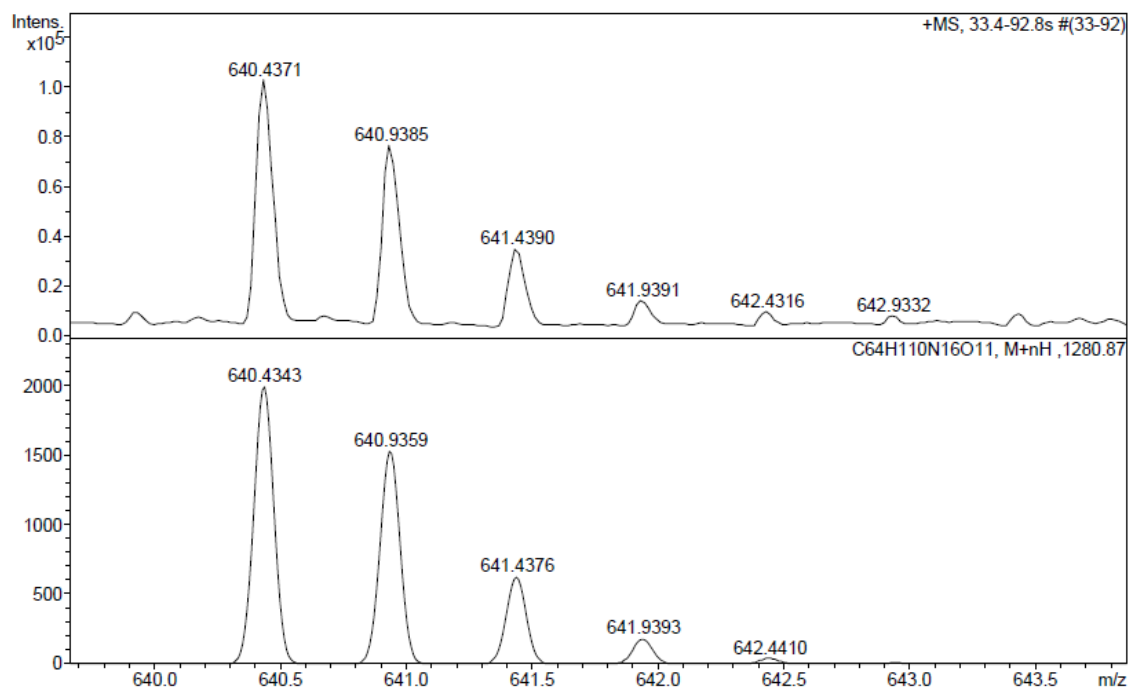
HPLC ($\lambda = 220$ nm) (BPC184W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 72,723 | 5,159 | 1,27 |
| 2 | 6,43 | 166,023 | 22,846 | 5,62 |
| 3 | 6,97 | 987,902 | 378,664 | 93,11 |
| Total: | | 1226,648 | 406,670 | 100,00 |

ESI-MS (m/z) (BPC184W-1104)

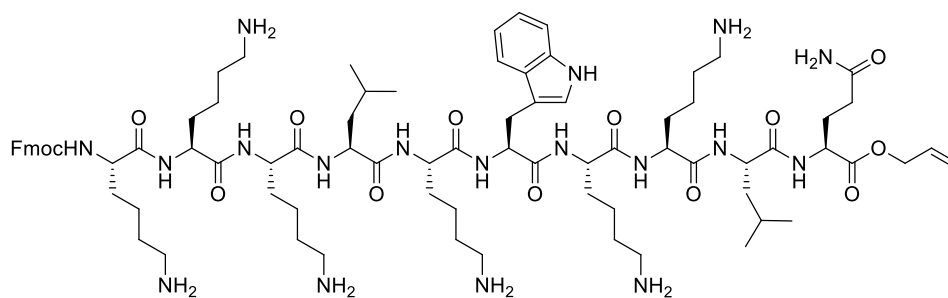
| |
|---------------------|
| $[M+H]^+ = 1279.9$ |
| $[M+Na]^+ = 1301.8$ |
| $[M+K]^+ = 1317.8$ |

HRMS (ESI) (m/z) (BPC184W)



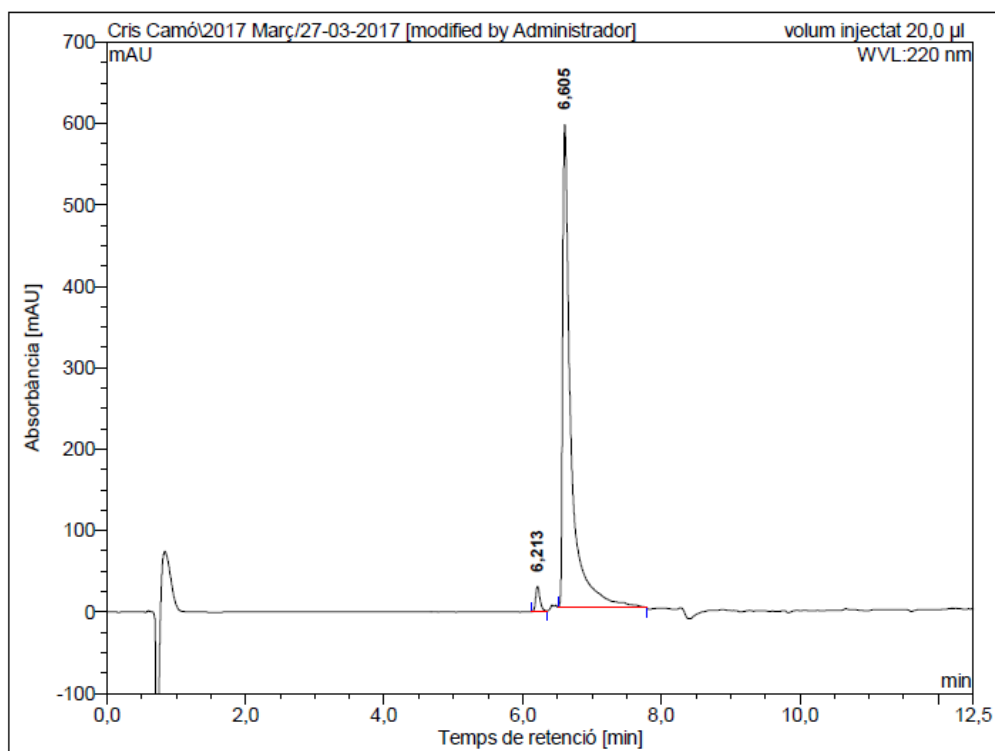
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{111}N_{16}O_{11}$ | 1279.8613 | 1279.8604 |
| $[M+2H]^{2+}$ | $C_{64}H_{112}N_{16}O_{11}$ | 640.4343 | 640.4371 |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OAll

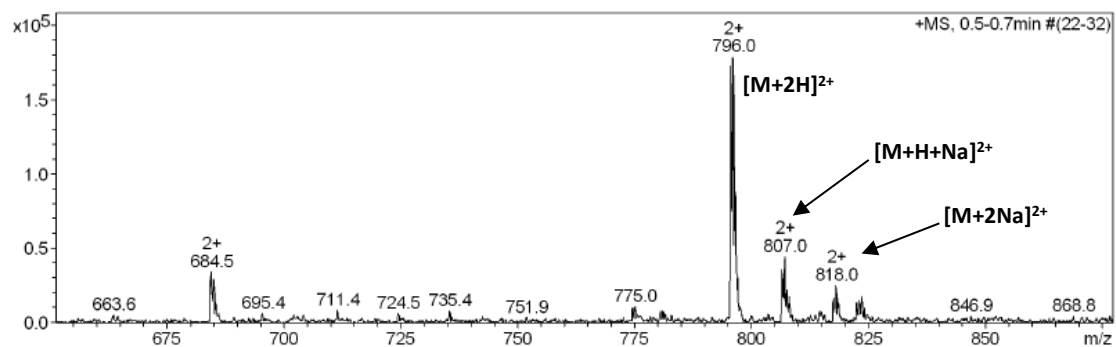
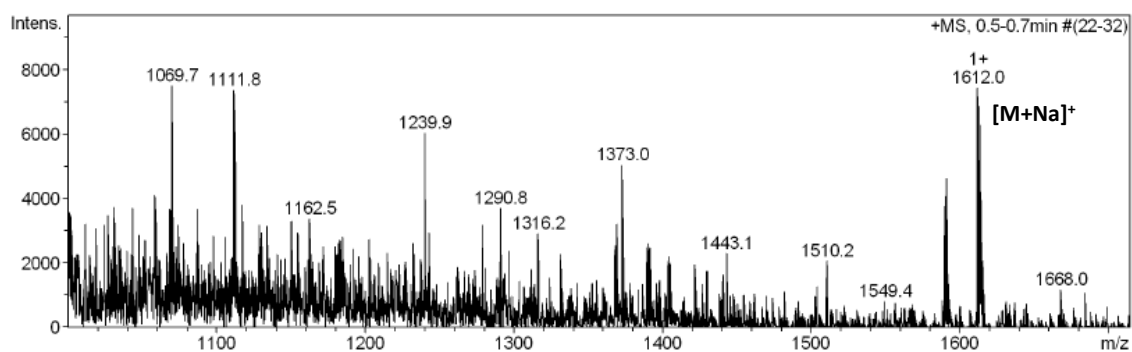
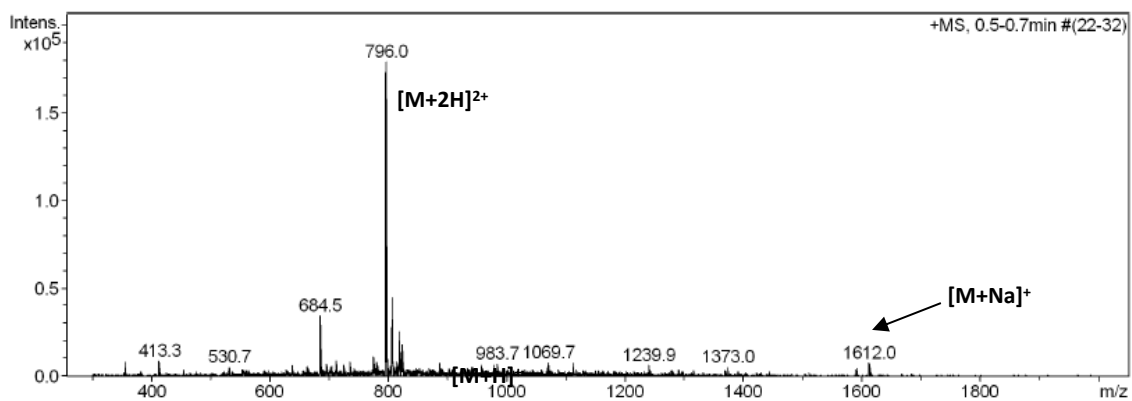
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

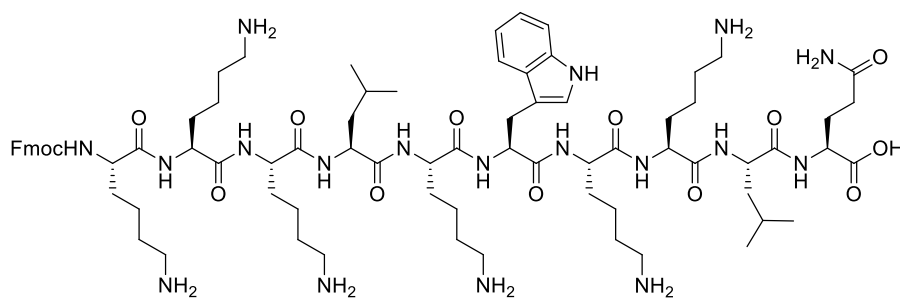
HPLC ($\lambda = 220$ nm) (BPC186W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 31,481 | 2,358 | 2,80 |
| 2 | 6,61 | 593,014 | 81,853 | 97,20 |
| Total: | | 624,495 | 84,211 | 100,00 |

ESI-MS (m/z) (BPC186W-1002)

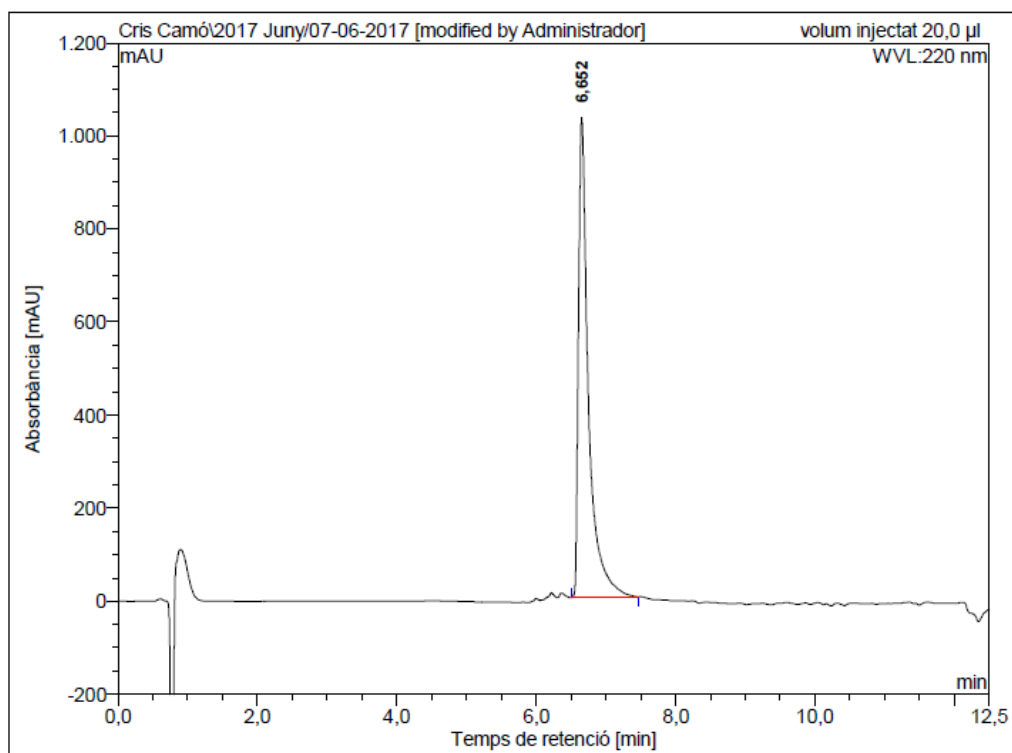
| |
|-------------------------|
| $[M+Na]^+ = 1612.0$ |
| $[M+2H]^{2+} = 796.0$ |
| $[M+H+Na]^{2+} = 807.0$ |
| $[M+2Na]^{2+} = 818.0$ |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OH

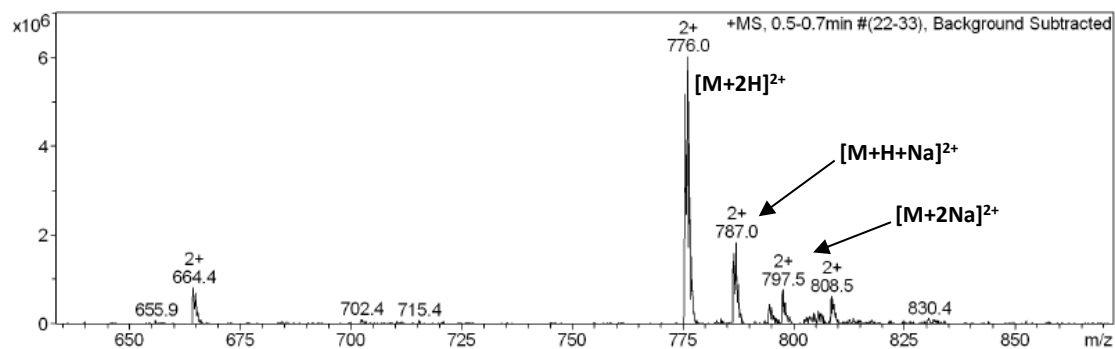
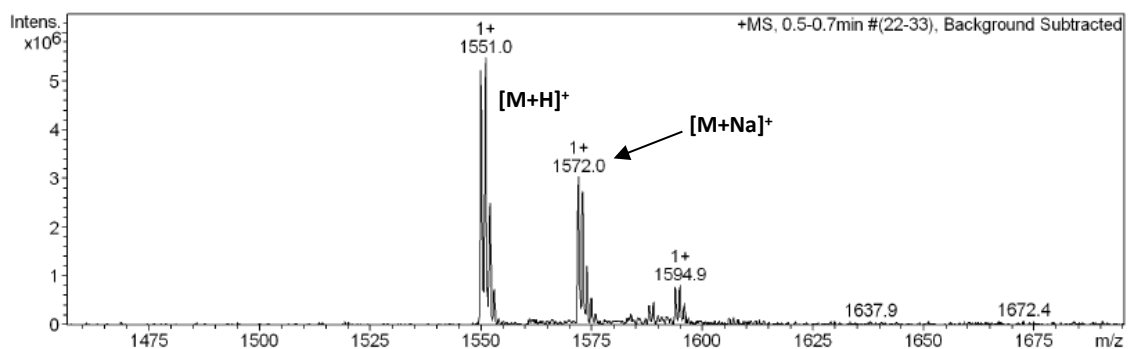
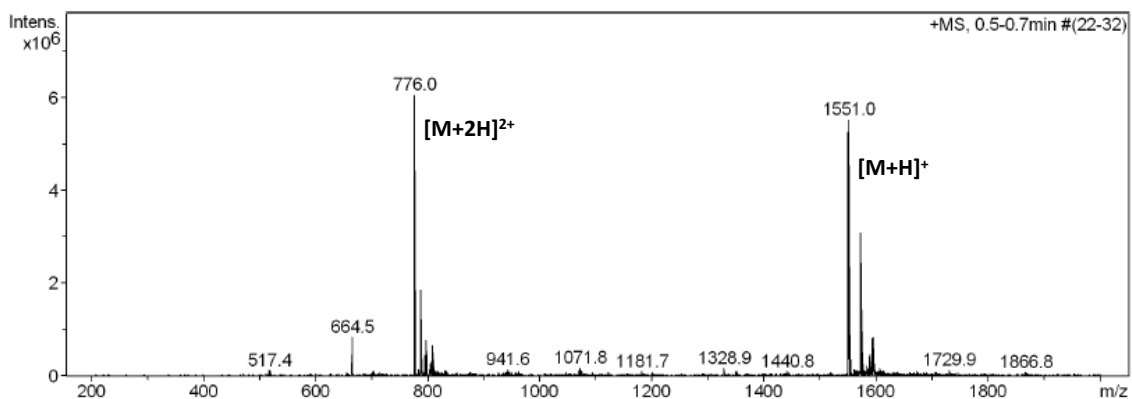
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

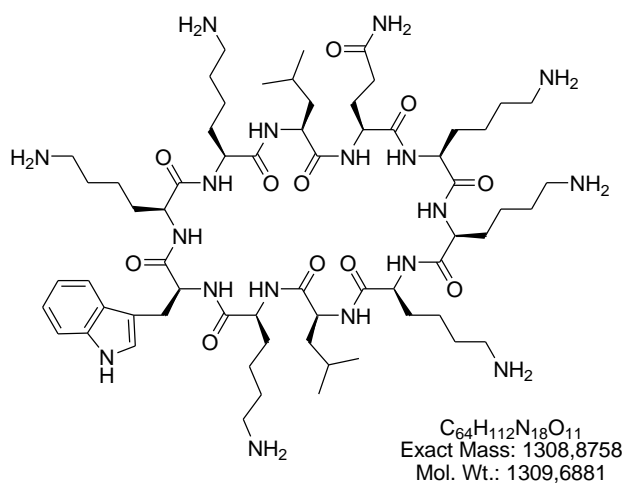
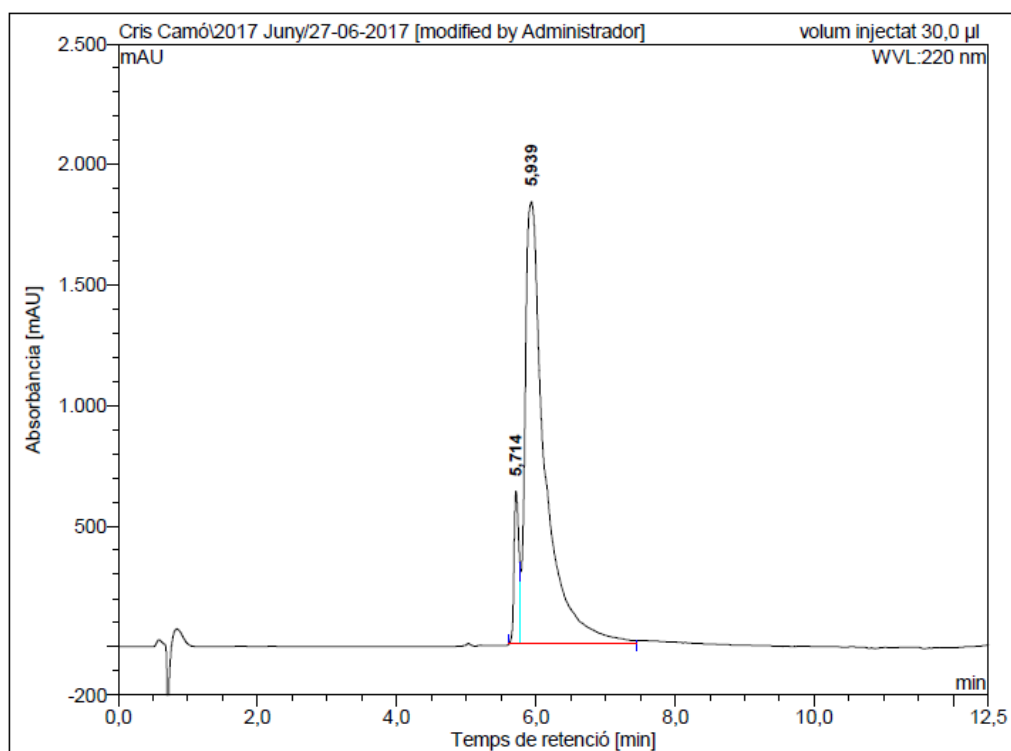
HPLC ($\lambda = 220$ nm) (BPC186W-1098)

| No. | Temps retenci3 min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,65 | 1030,918 | 172,597 | 100,00 |
| Total: | | 1030,918 | 172,597 | 100,00 |

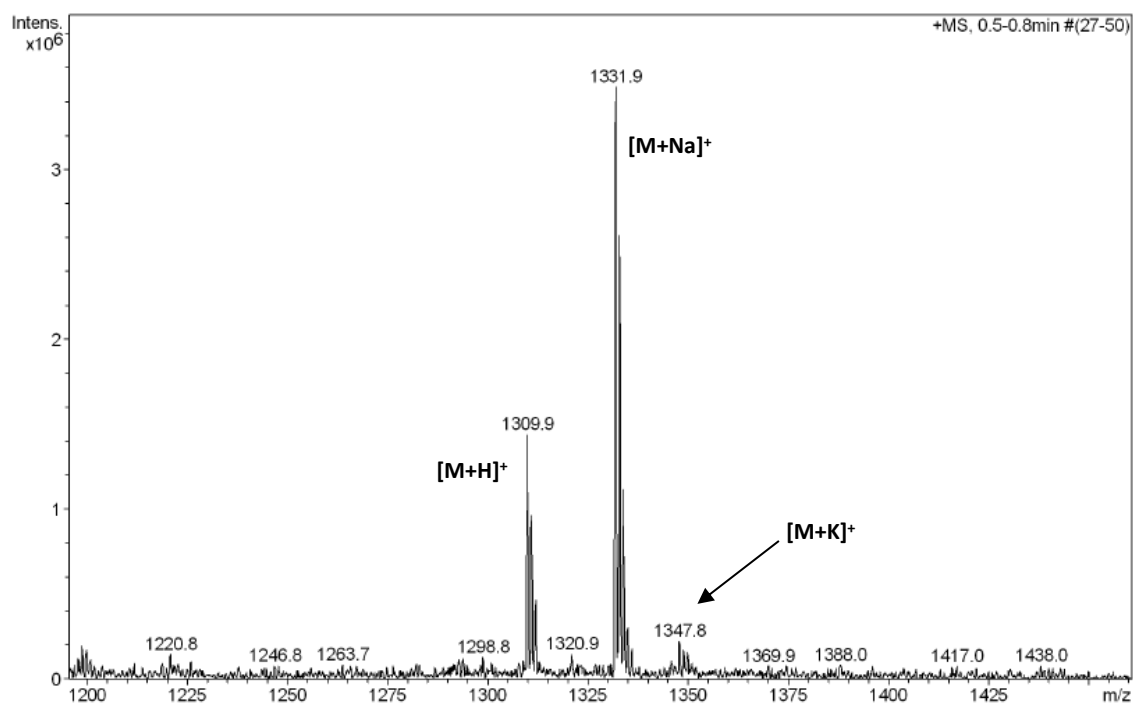
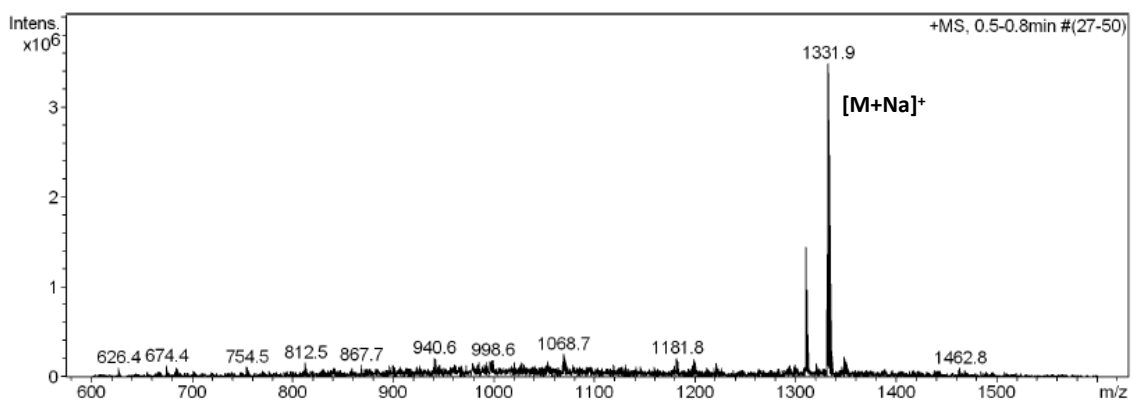
ESI-MS (m/z) (BPC186W sense al·lil)

| |
|-------------------------|
| $[M+H]^+ = 1550.0$ |
| $[M+Na]^+ = 1572.0$ |
| $[M+2H]^{2+} = 776.0$ |
| $[M+H+Na]^{2+} = 787.0$ |
| $[M+2Na]^{2+} = 797.5$ |

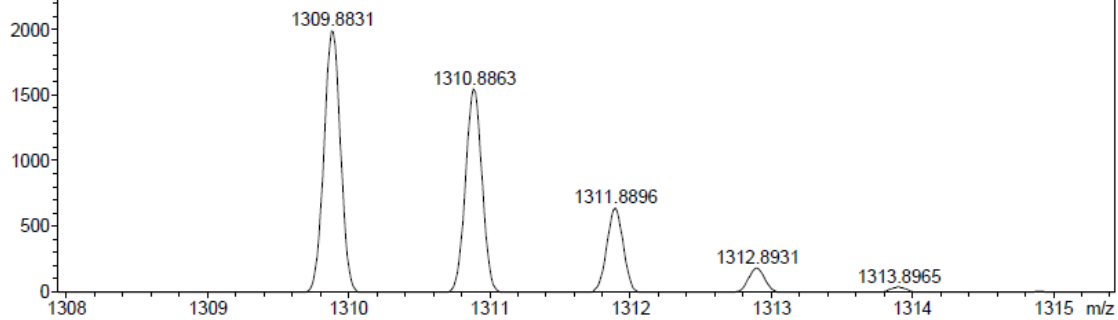
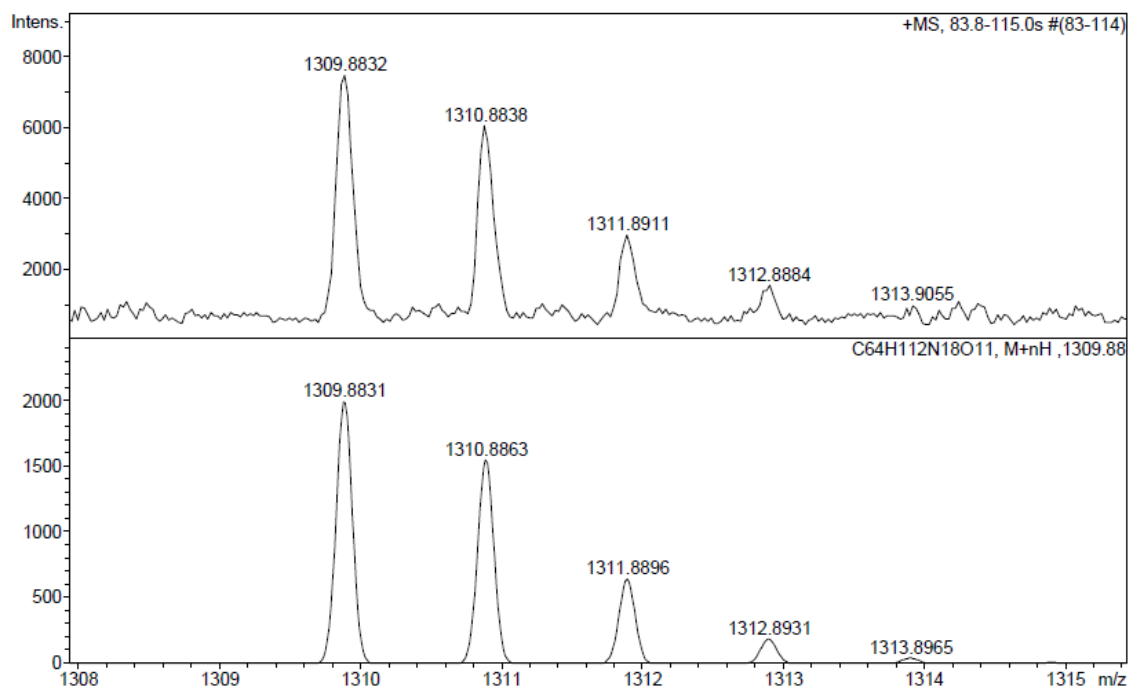
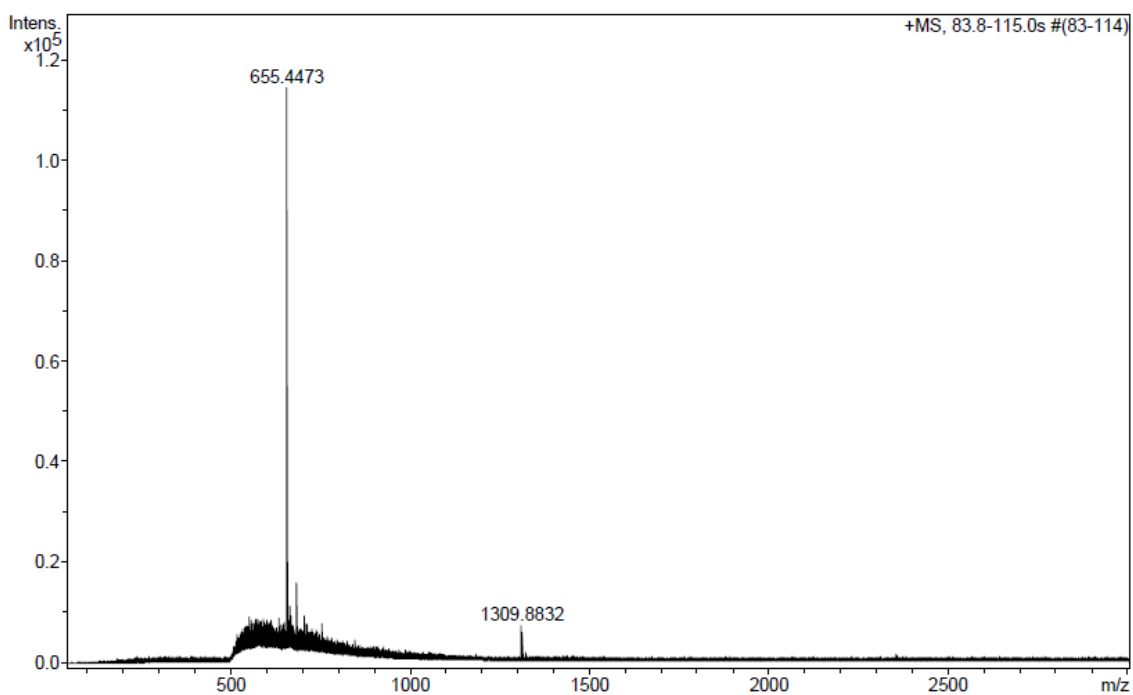
c(Lys-Lys-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln) (BPC186W)

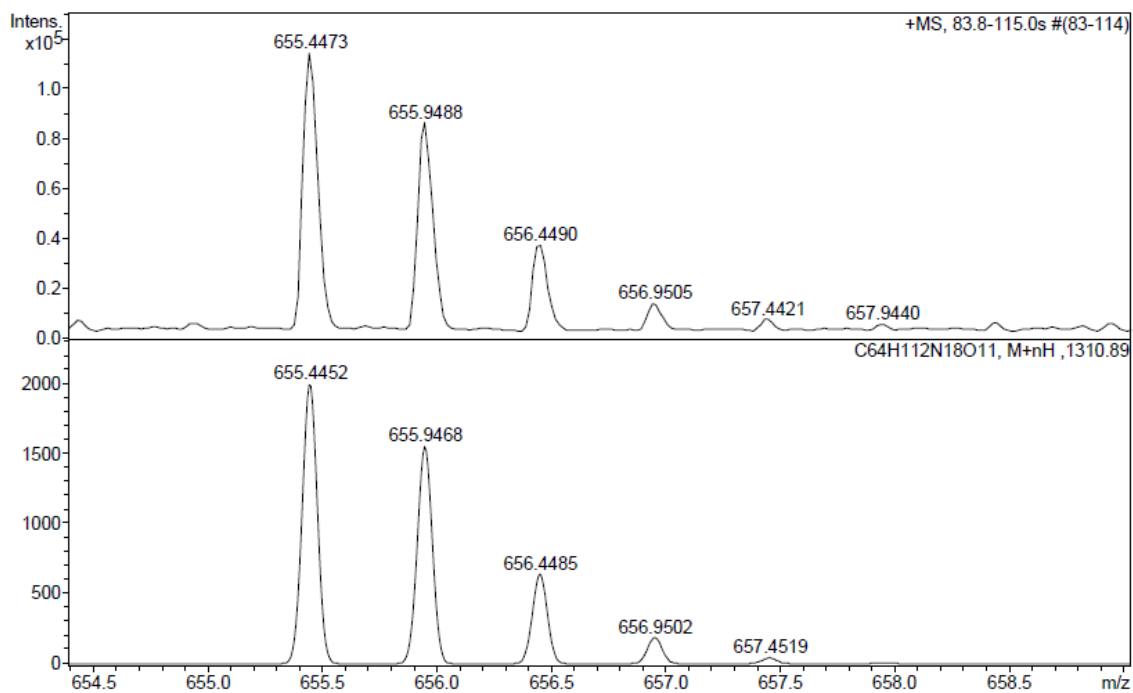
HPLC ($\lambda = 220$ nm) (BPC186W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,71 | 632,240 | 53,017 | 8,07 |
| 2 | 5,94 | 1833,316 | 604,062 | 91,93 |
| Total: | | 2465,556 | 657,080 | 100,00 |

ESI-MS (m/z) (BPC186W-1104)

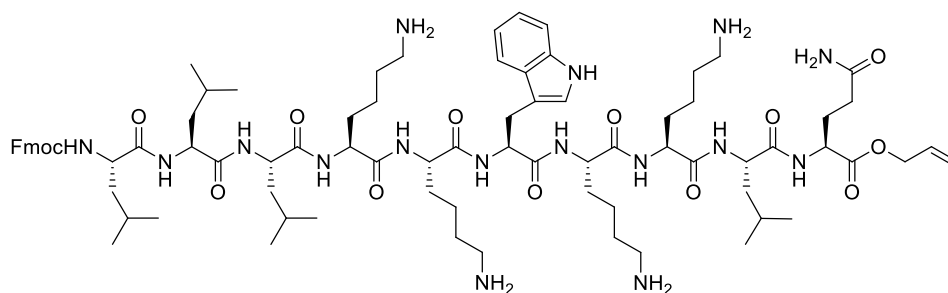
| |
|------------------------------|
| [M+H] ⁺ = 1309.9 |
| [M+Na] ⁺ = 1331.9 |
| [M+K] ⁺ = 1347.8 |

HRMS (ESI) (m/z) (BPC186W)



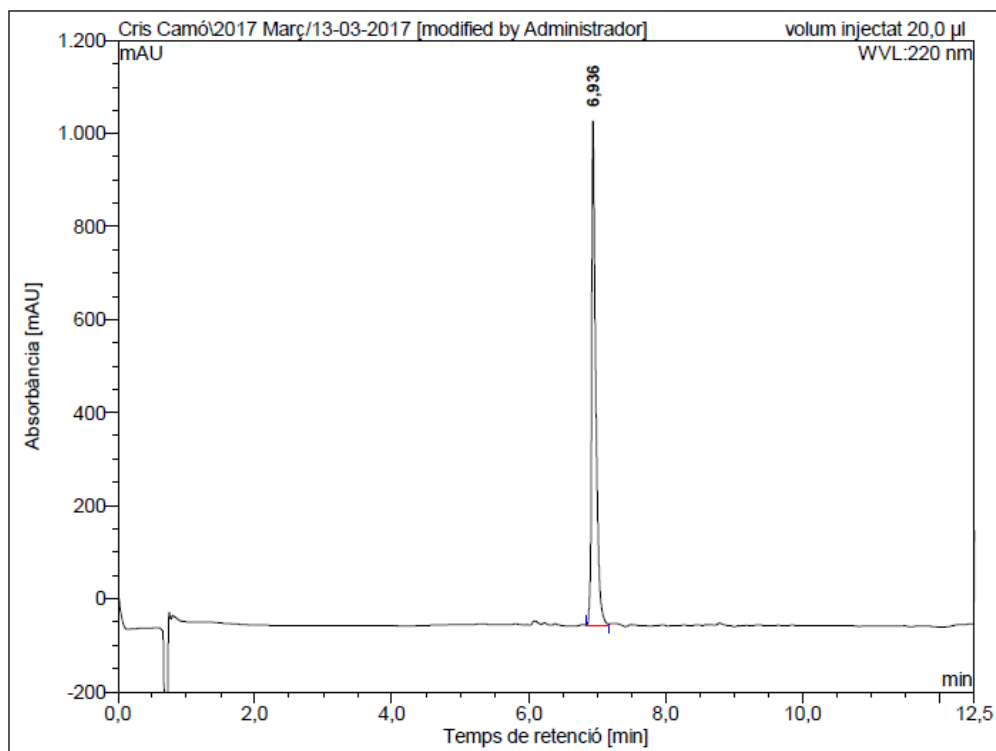
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{113}N_{18}O_{11}$ | 1309.8831 | 1309.8832 |
| $[M+2H]^{2+}$ | $C_{64}H_{114}N_{18}O_{11}$ | 655.4452 | 655.4473 |

Fmoc-Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OAll

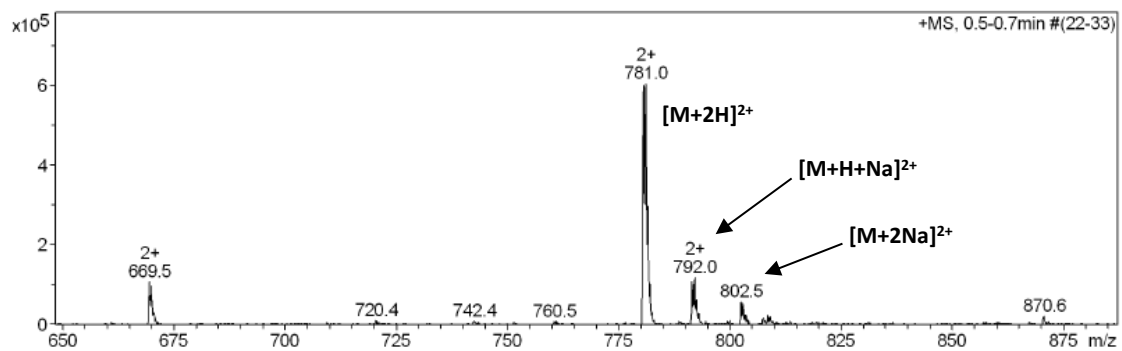
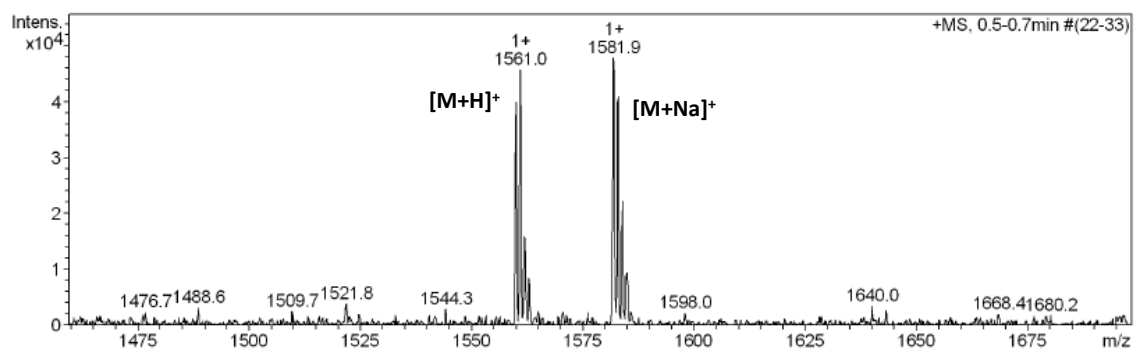
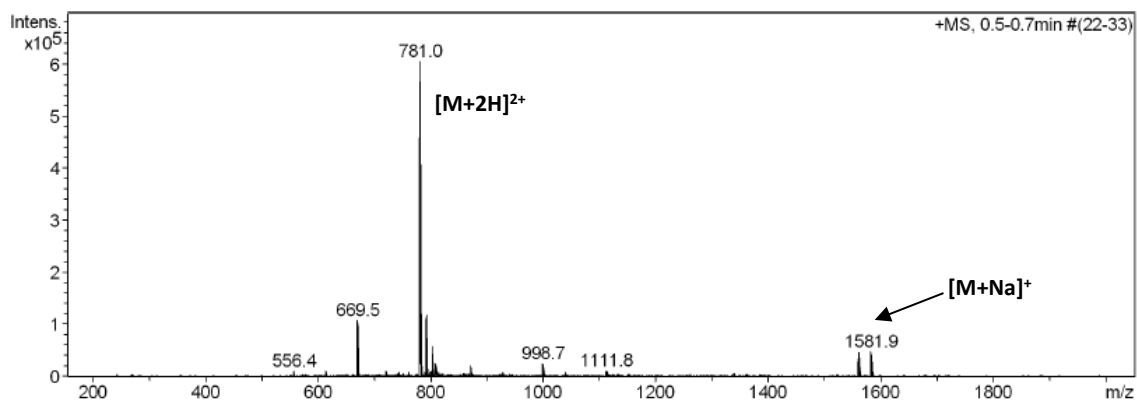
Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

Exact Mass: 1558,9639

Molecular Weight: 1559,9766

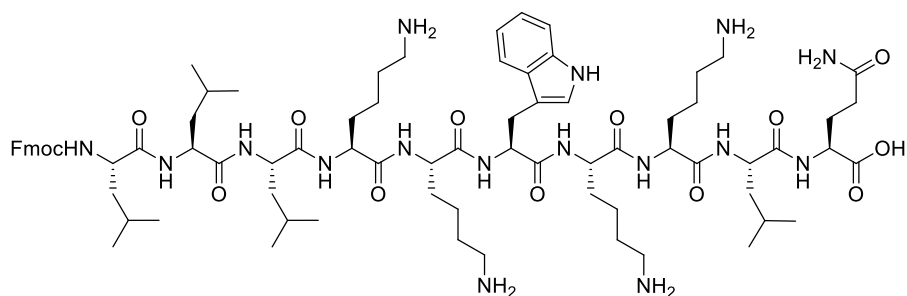
HPLC ($\lambda = 220$ nm) (BPC188W-984)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,94 | 1083,208 | 76,532 | 100,00 |
| Total: | | 1083,208 | 76,532 | 100,00 |

ESI-MS (m/z) (BPC188W-1002-2)

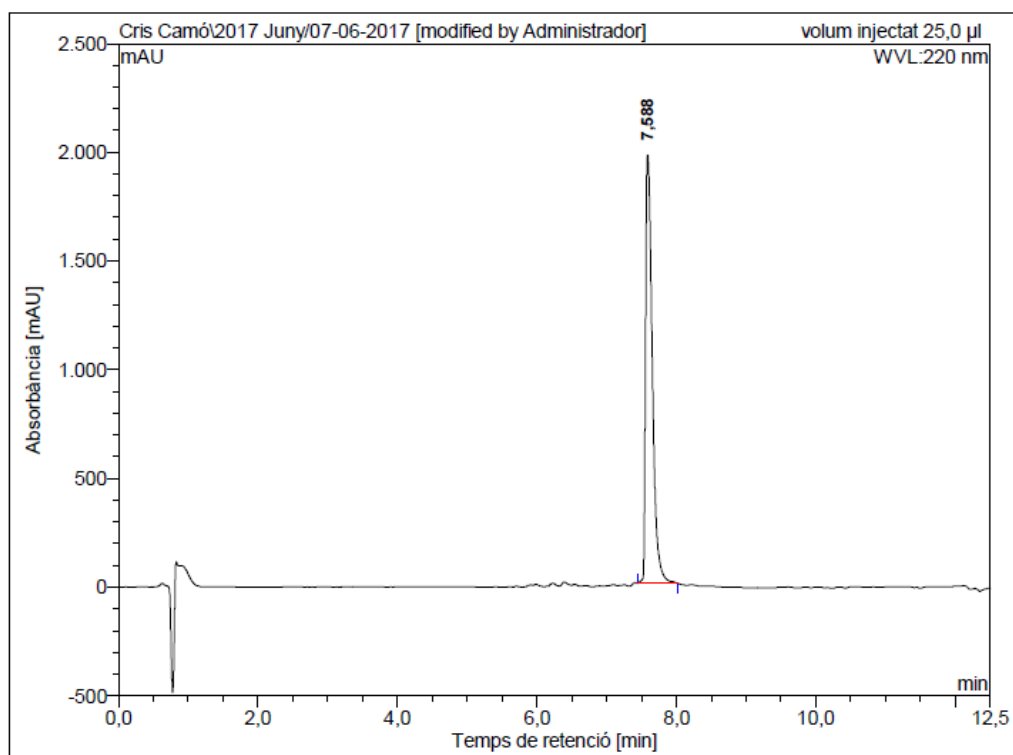
| |
|-------------------------|
| $[M+H]^+ = 1560.0$ |
| $[M+Na]^+ = 1581.9$ |
| $[M+2H]^{2+} = 781.0$ |
| $[M+H+Na]^{2+} = 792.0$ |
| $[M+2Na]^{2+} = 802.5$ |

Fmoc-Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OH

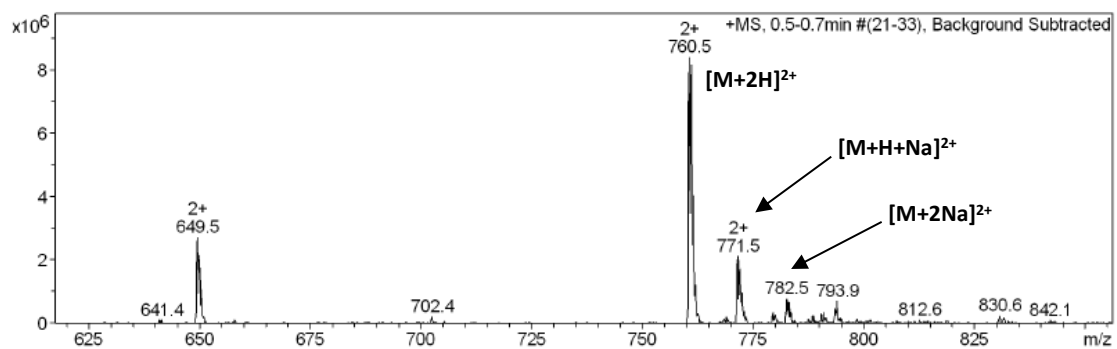
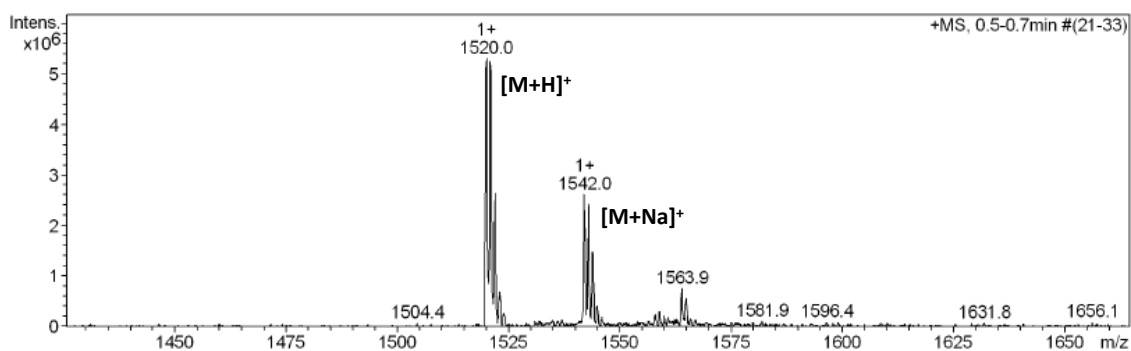
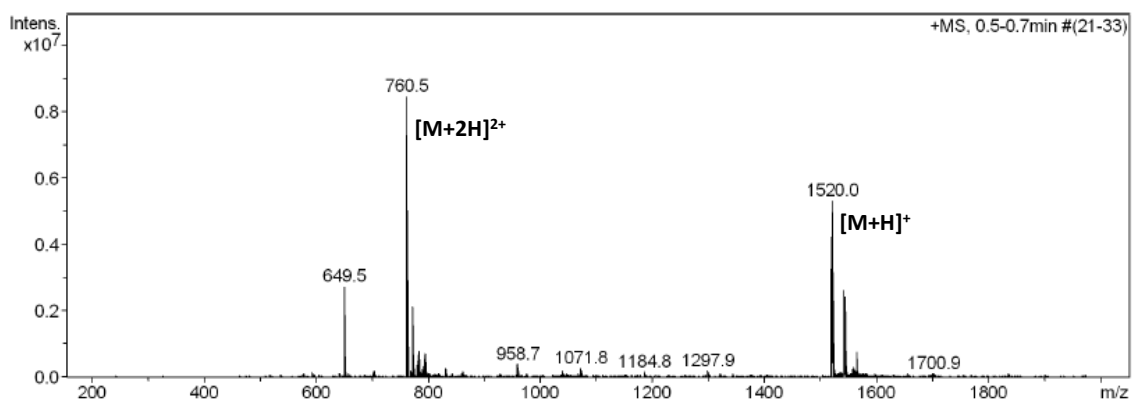
Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

Exact Mass: 1518,9326

Molecular Weight: 1519,9128

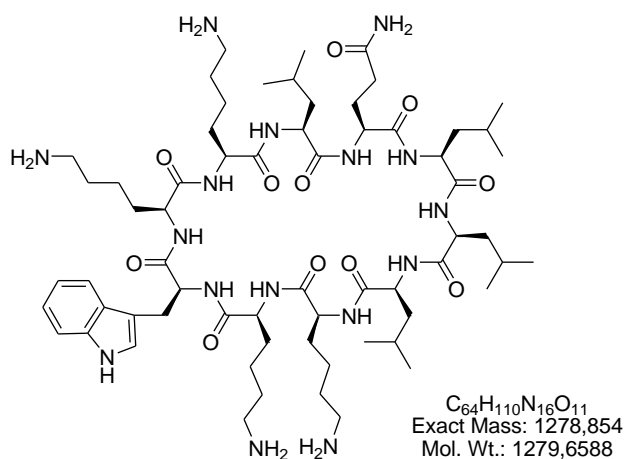
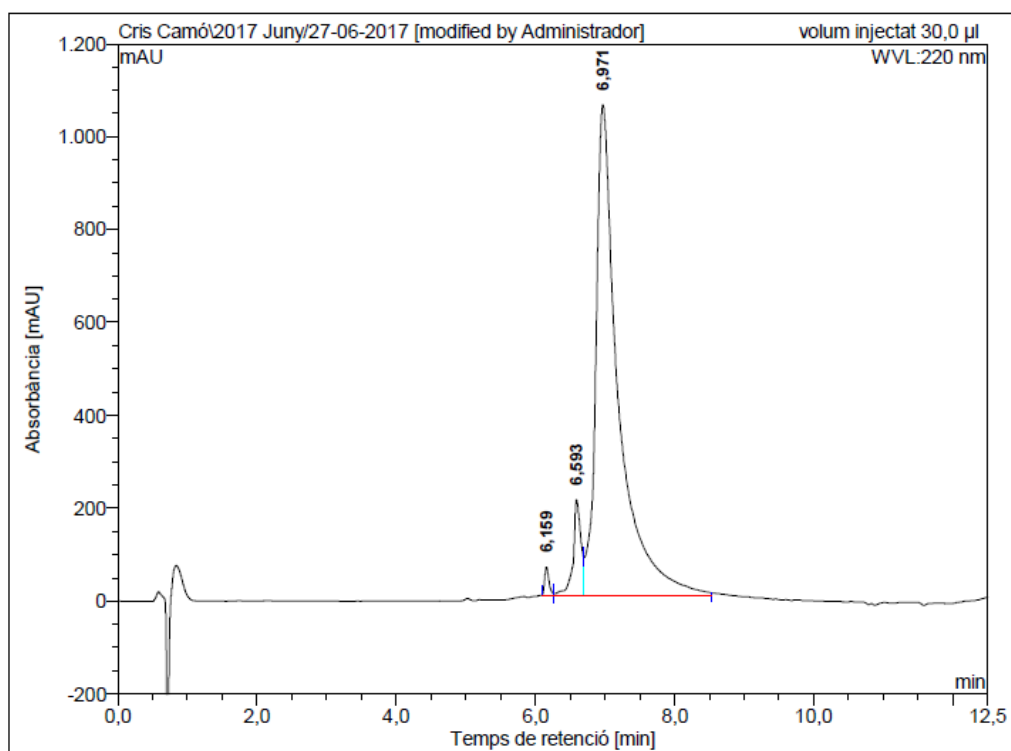
HPLC ($\lambda = 220$ nm) (BPC188W-1098)

| No. | Tempes retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|------------------------|---------------|-----------------|--------------------|
| 1 | 7,59 | 1968,704 | 221,455 | 100,00 |
| Total: | | 1968,704 | 221,455 | 100,00 |

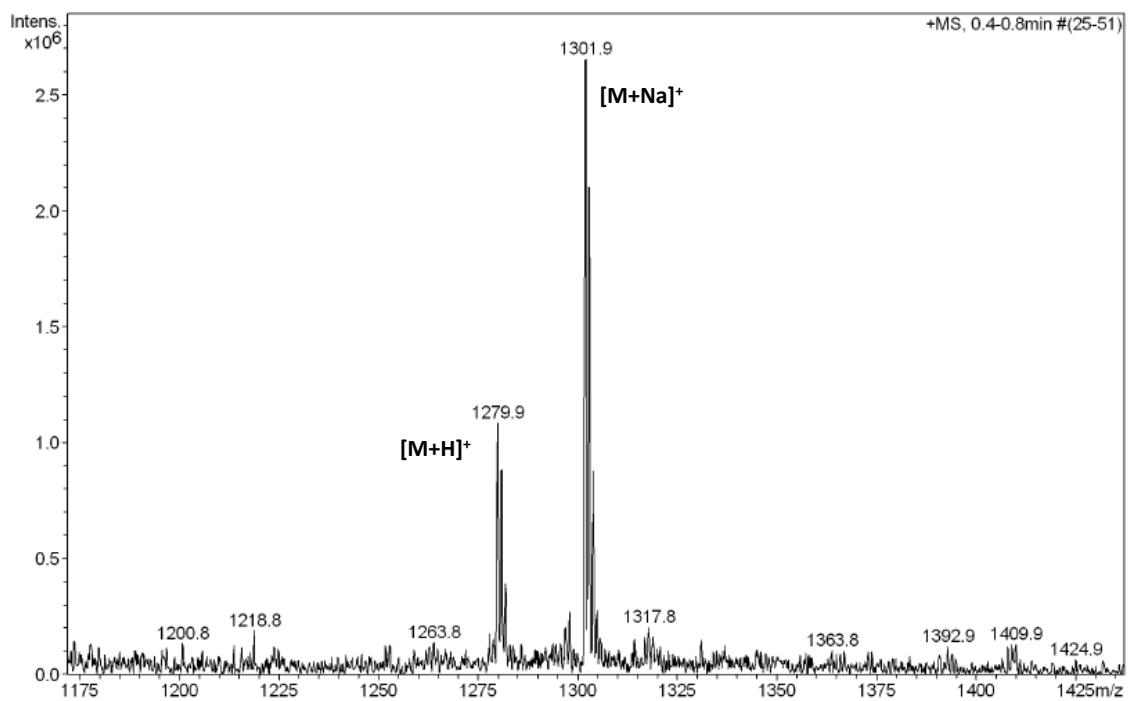
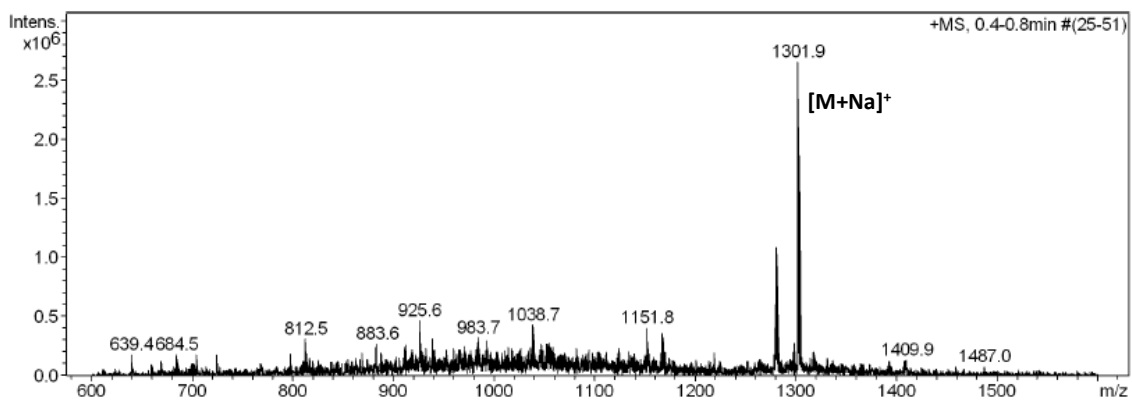
ESI-MS (m/z) (BPC188W sense al·lil)

| |
|-------------------------|
| $[M+H]^+ = 1520.0$ |
| $[M+Na]^+ = 1542.0$ |
| $[M+2H]^{2+} = 760.5$ |
| $[M+H+Na]^{2+} = 771.5$ |
| $[M+2Na]^{2+} = 782.5$ |

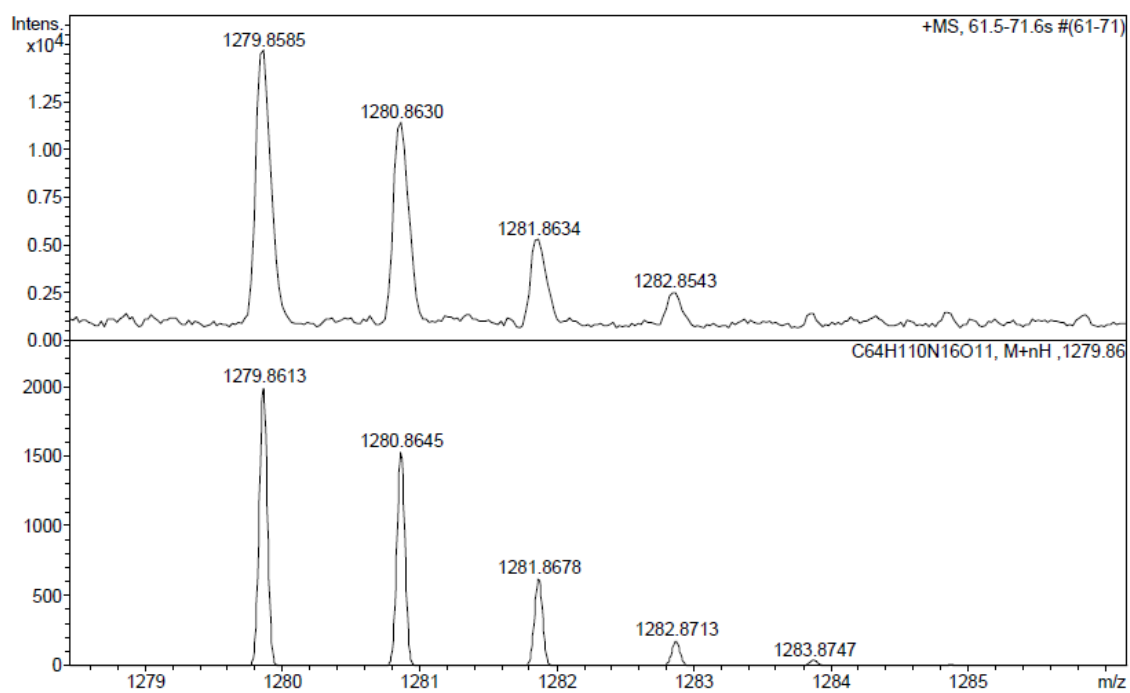
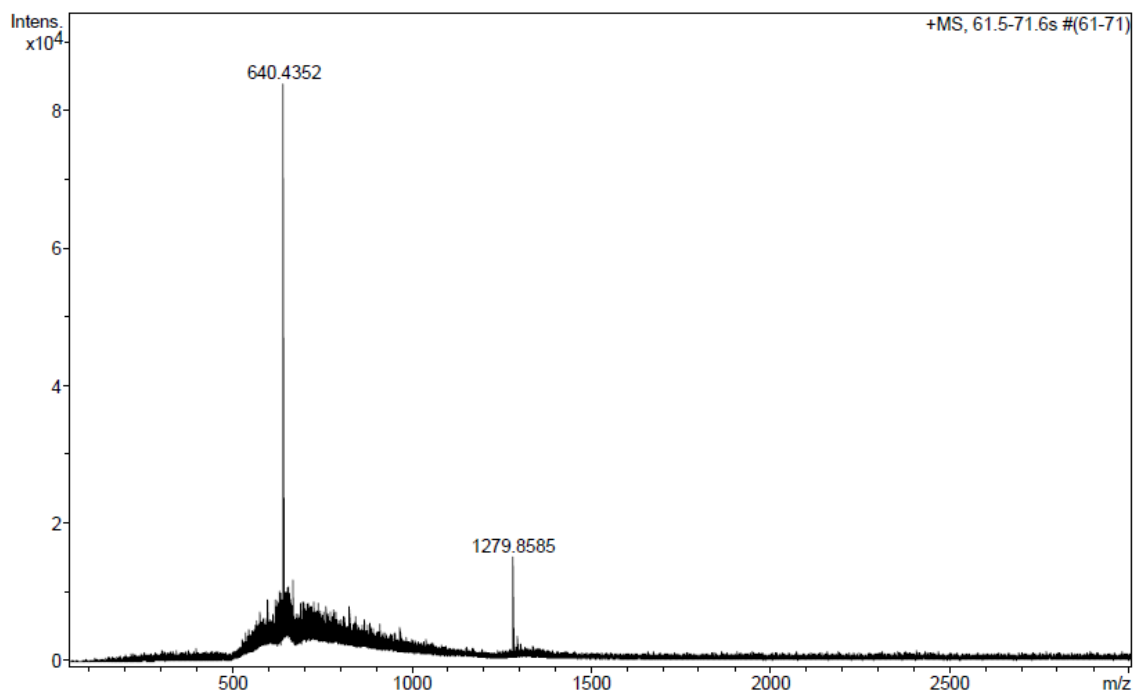
c(Leu-Leu-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln) (BPC188W)

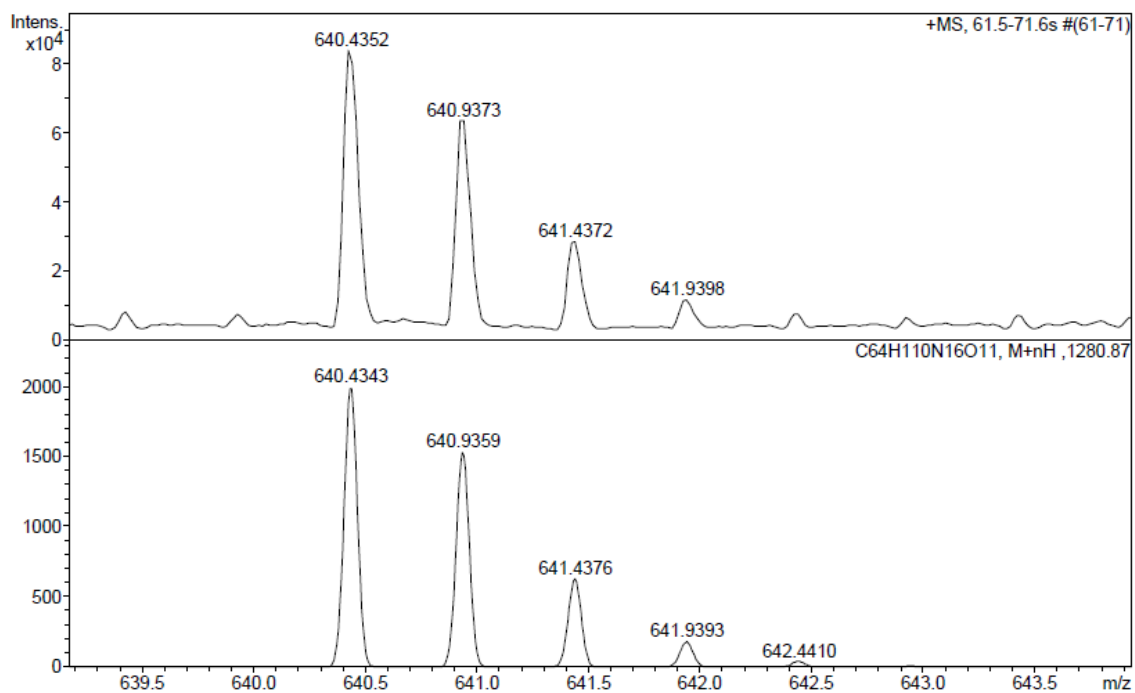
HPLC ($\lambda = 220$ nm) (BPC188W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,16 | 61,406 | 4,438 | 1,04 |
| 2 | 6,59 | 206,078 | 27,330 | 6,38 |
| 3 | 6,97 | 1056,566 | 396,782 | 92,59 |
| Total: | | 1324,050 | 428,550 | 100,00 |

ESI-MS (m/z) (BPC188W-1104)

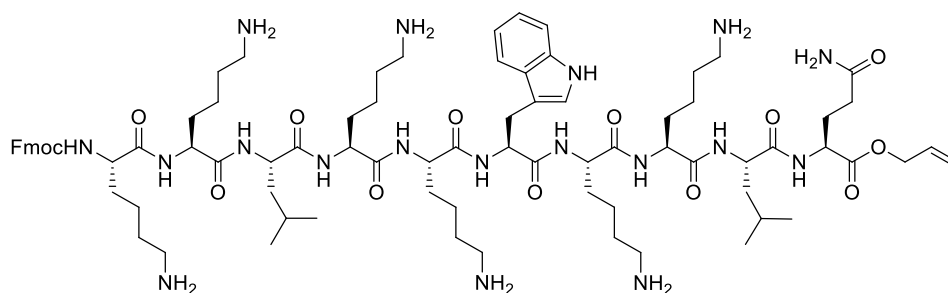
| |
|------------------------------|
| [M+H] ⁺ = 1279.9 |
| [M+Na] ⁺ = 1301.9 |

HRMS (ESI) (m/z) (BPC188W)



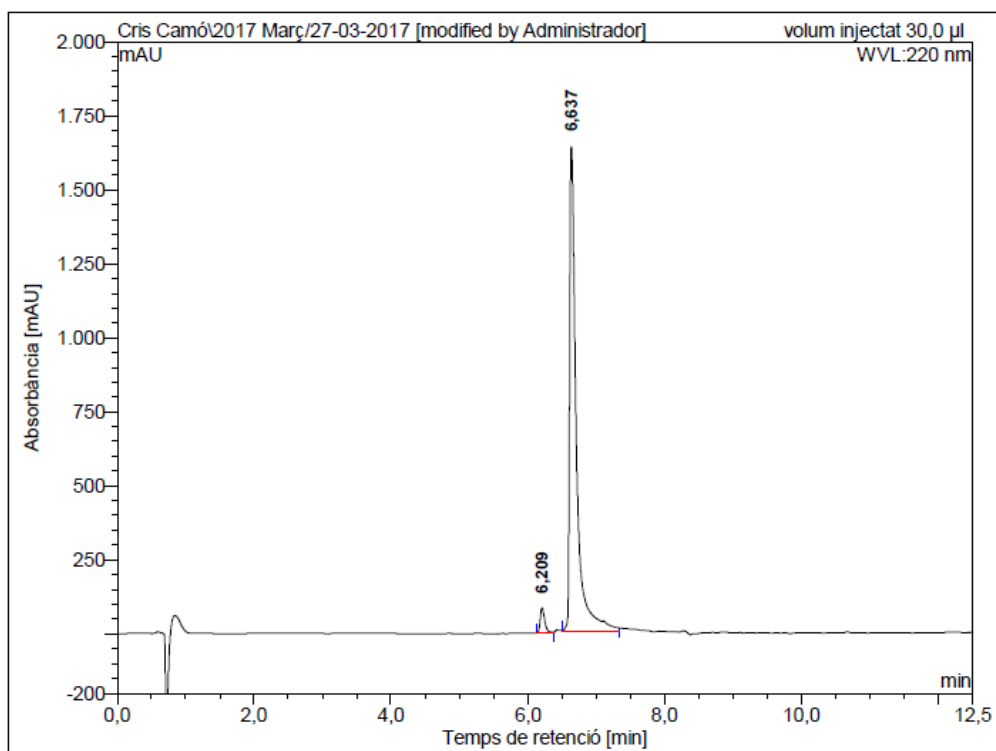
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{111}N_{16}O_{11}$ | 1279.8613 | 1279.8585 |
| $[M+2H]^{2+}$ | $C_{64}H_{112}N_{16}O_{11}$ | 640.4343 | 640.4352 |

Fmoc-Lys-Lys-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OAll

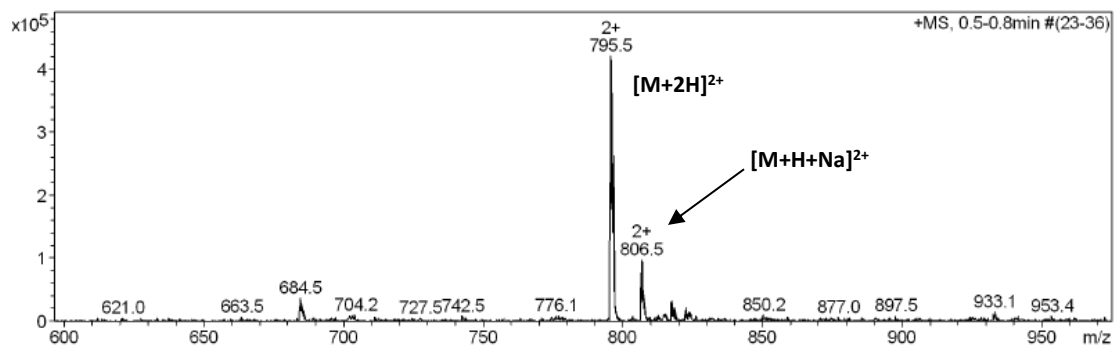
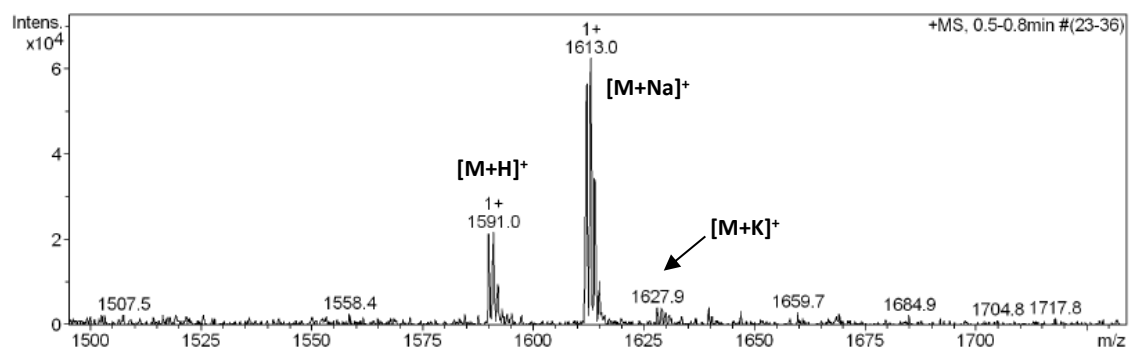
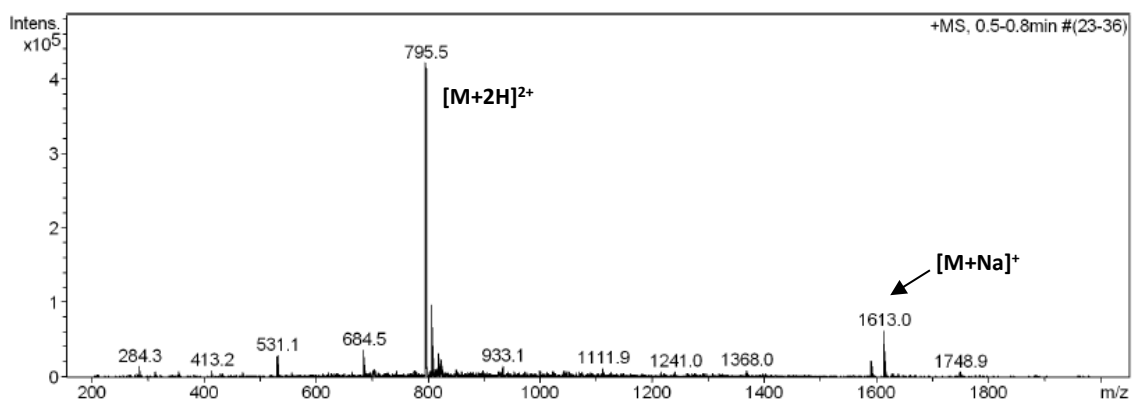
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

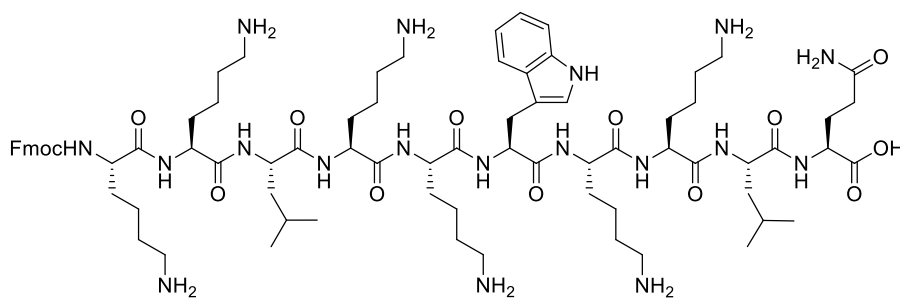
HPLC ($\lambda = 220$ nm) (BPC194W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 86,423 | 6,824 | 3,51 |
| 2 | 6,64 | 1636,697 | 187,600 | 96,49 |
| Total: | | 1723,120 | 194,425 | 100,00 |

ESI-MS (m/z) (BPC194W-1002)

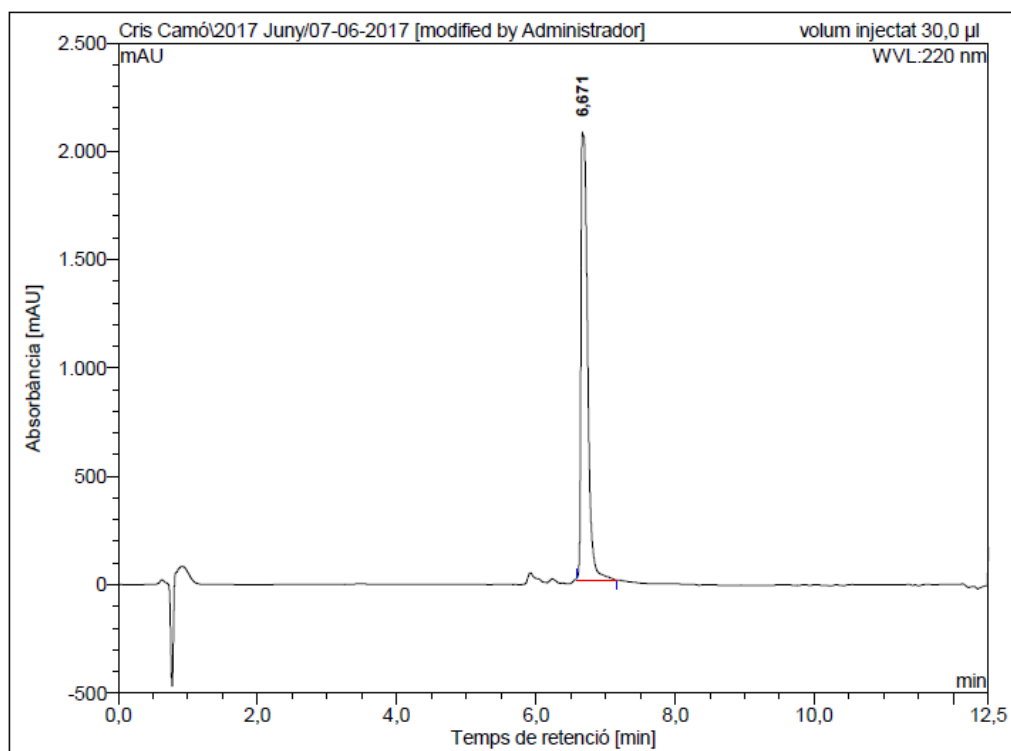
| |
|-------------------------|
| $[M+H]^+ = 1590.0$ |
| $[M+Na]^+ = 1612.0$ |
| $[M+K]^+ = 1627.9$ |
| $[M+2H]^{2+} = 795.5$ |
| $[M+H+Na]^{2+} = 806.5$ |

Fmoc-Lys-Lys-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OH

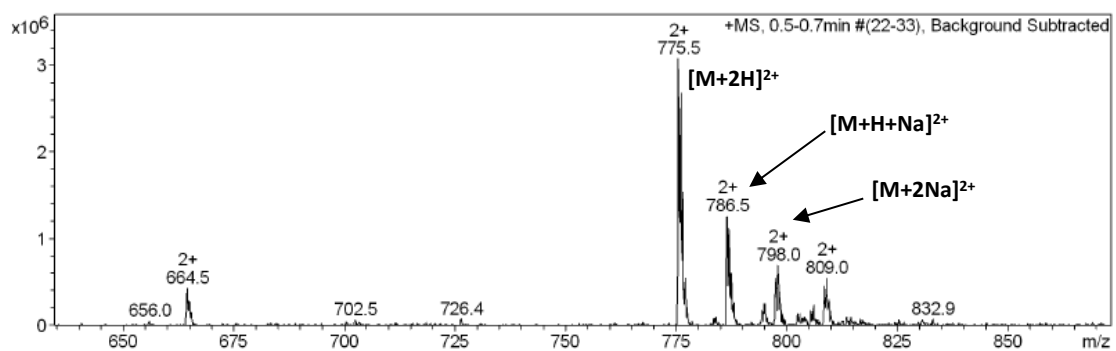
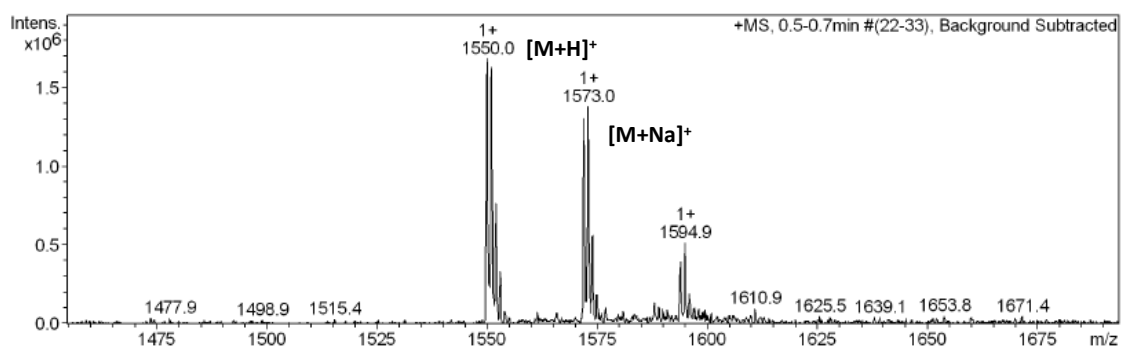
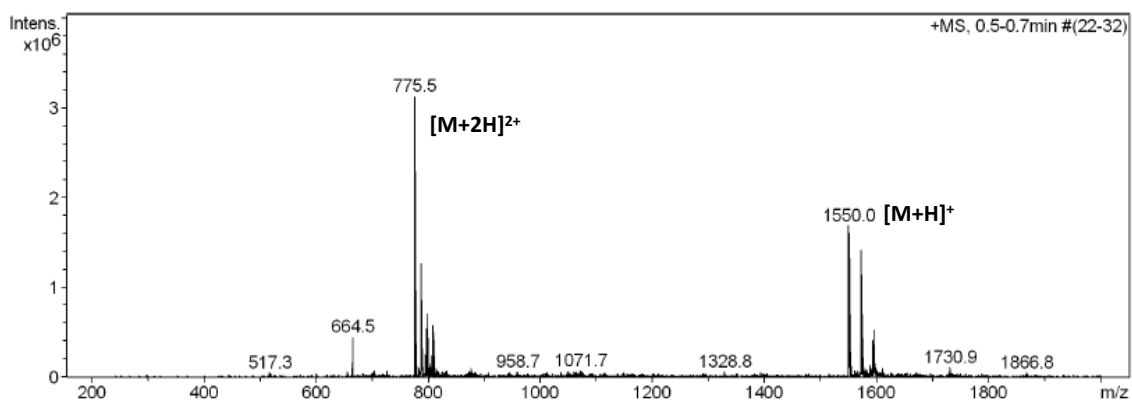
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

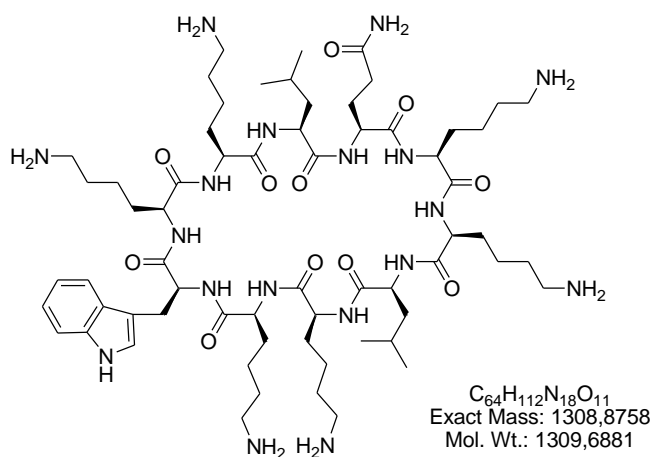
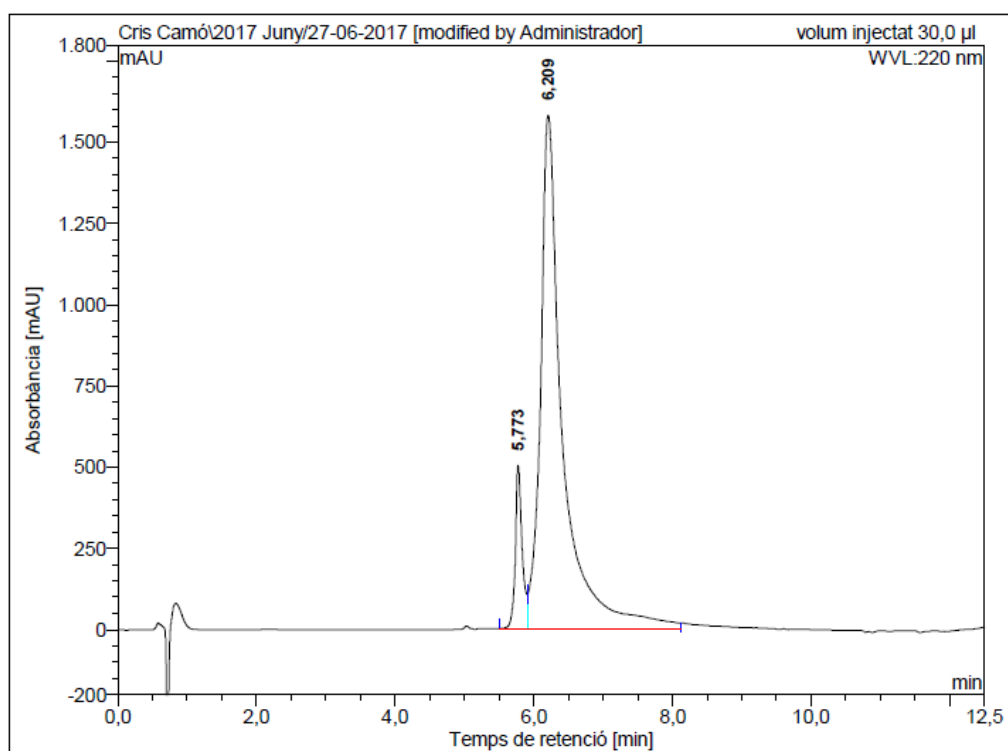
HPLC ($\lambda = 220$ nm) (BPC194W-1098)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,67 | 2065,947 | 230,464 | 100,00 |
| Total: | | 2065,947 | 230,464 | 100,00 |

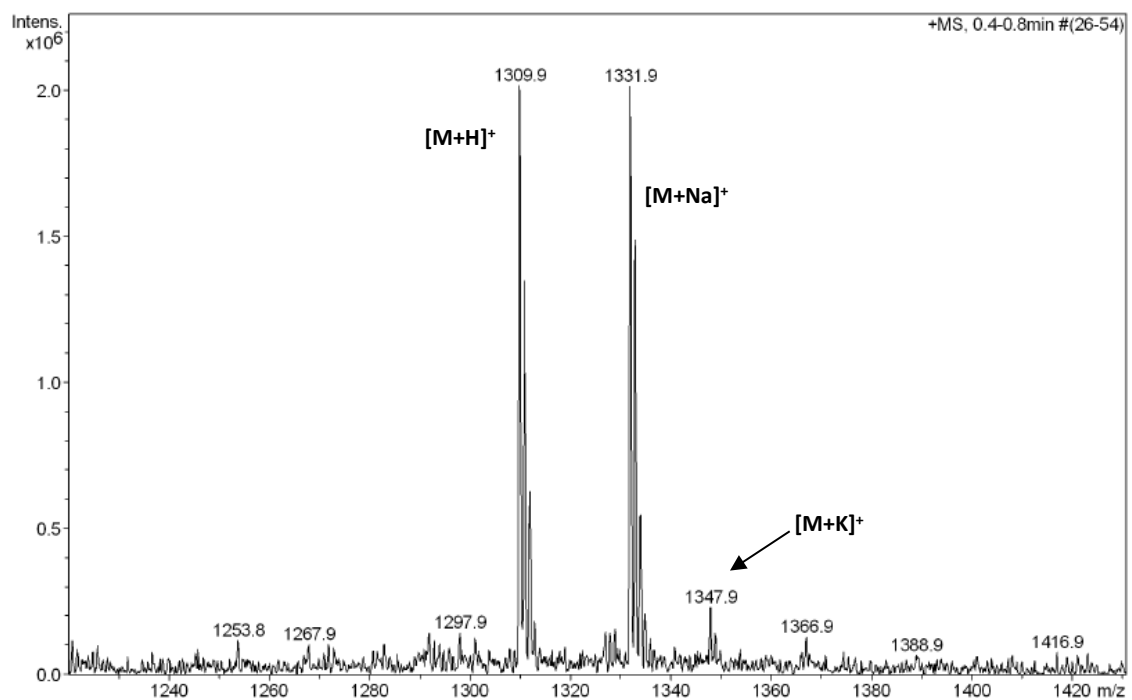
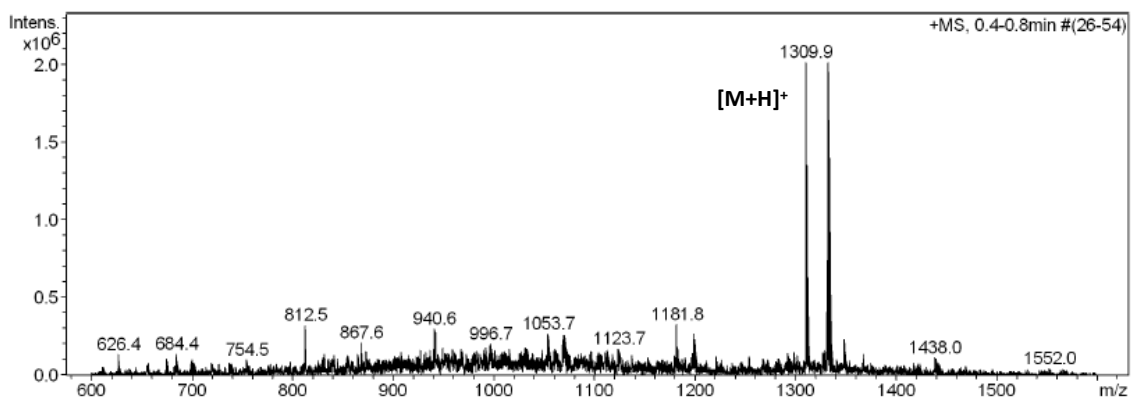
ESI-MS (m/z) (BPC194W-1098)

| |
|-------------------------|
| $[M+H]^+ = 1550.0$ |
| $[M+Na]^+ = 1572.0$ |
| $[M+2H]^{2+} = 775.5$ |
| $[M+H+Na]^{2+} = 786.5$ |
| $[M+2Na]^{2+} = 798.0$ |

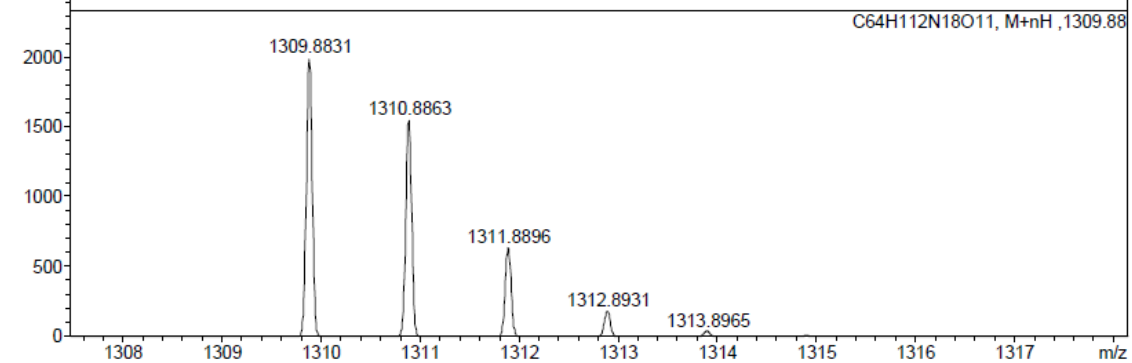
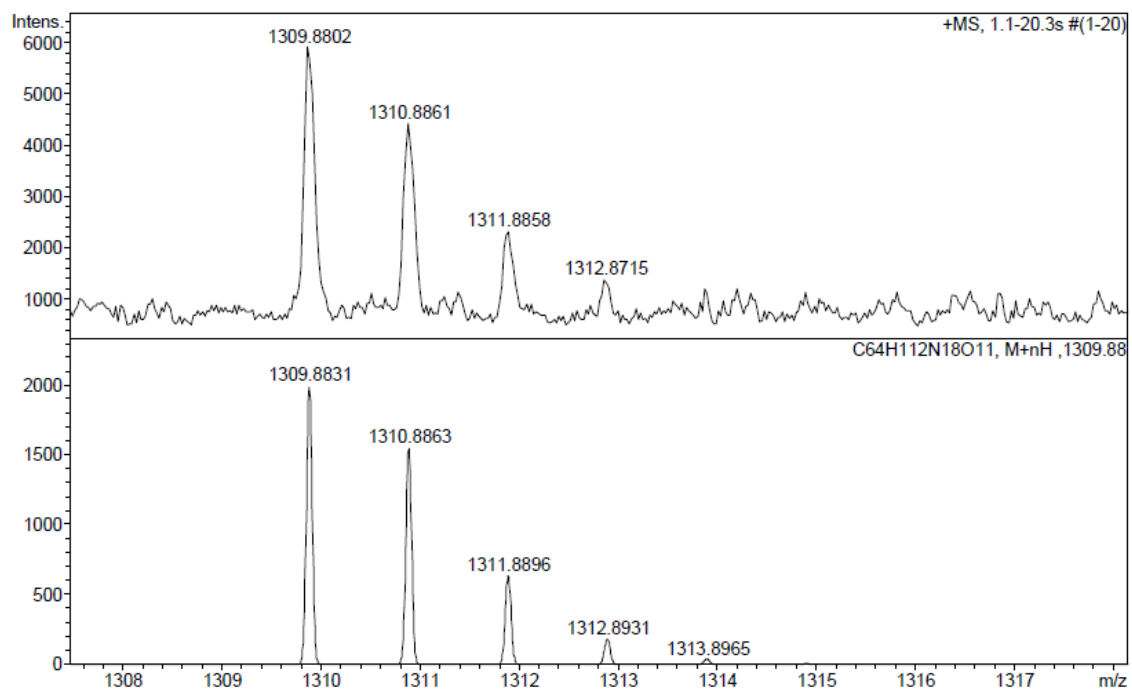
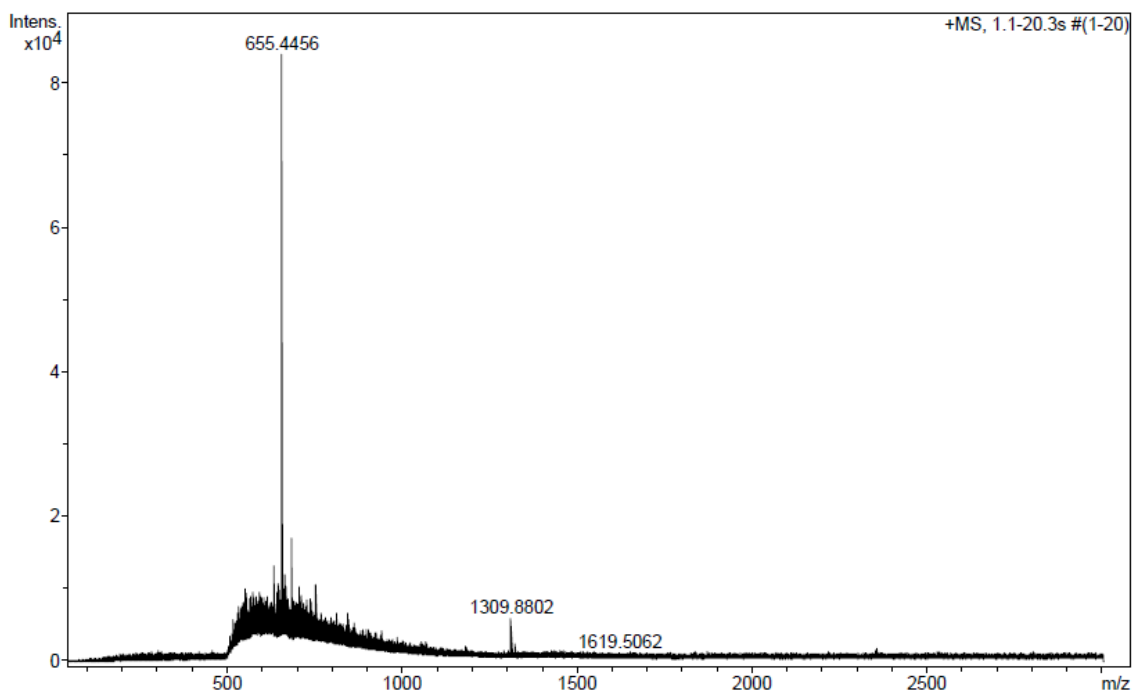
c(Lys-Lys-Leu-Lys-Lys-Trp-Lys-Lys-Leu-Gln) (BPC194W)

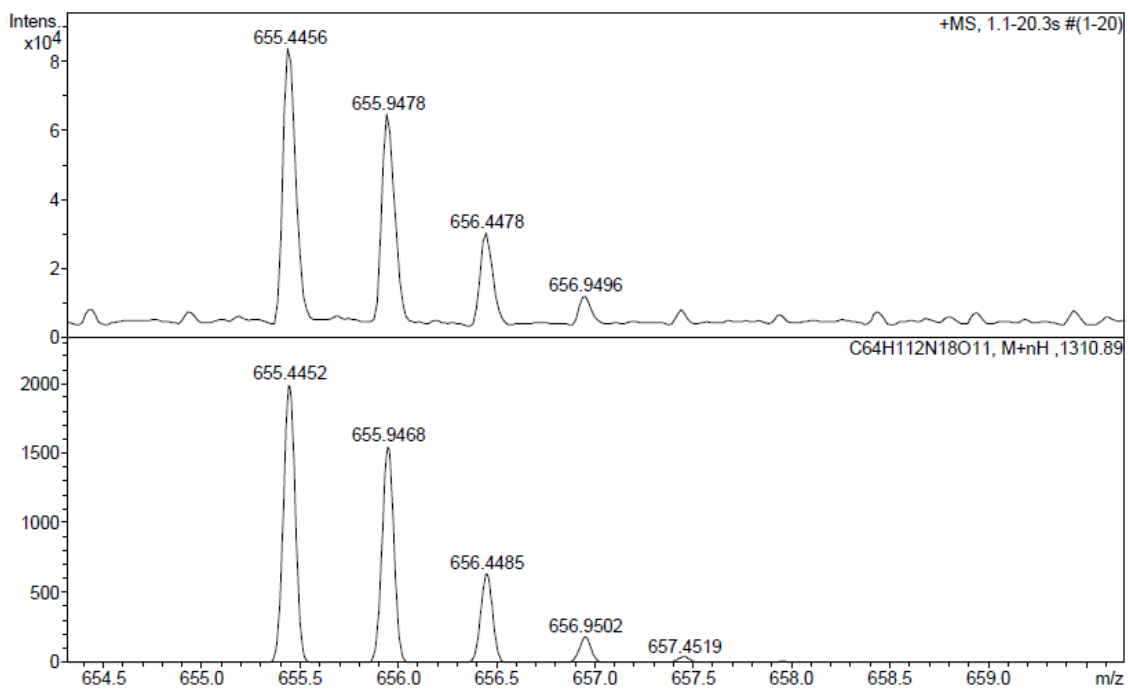
HPLC ($\lambda = 220$ nm) (BPC194W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,77 | 502,169 | 56,982 | 8,86 |
| 2 | 6,21 | 1579,125 | 586,019 | 91,14 |
| Total: | | 2081,294 | 643,001 | 100,00 |

ESI-MS (m/z) (BPC194W-1104)

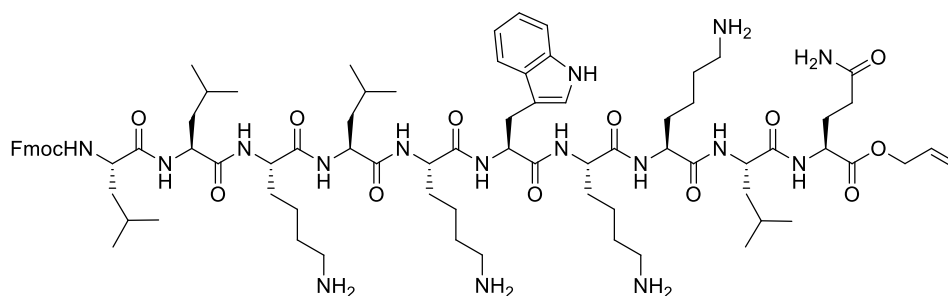
| |
|---------------------|
| $[M+H]^+ = 1309.9$ |
| $[M+Na]^+ = 1331.9$ |
| $[M+K]^+ = 1347.9$ |

HRMS (ESI) (m/z) (BPC194W)



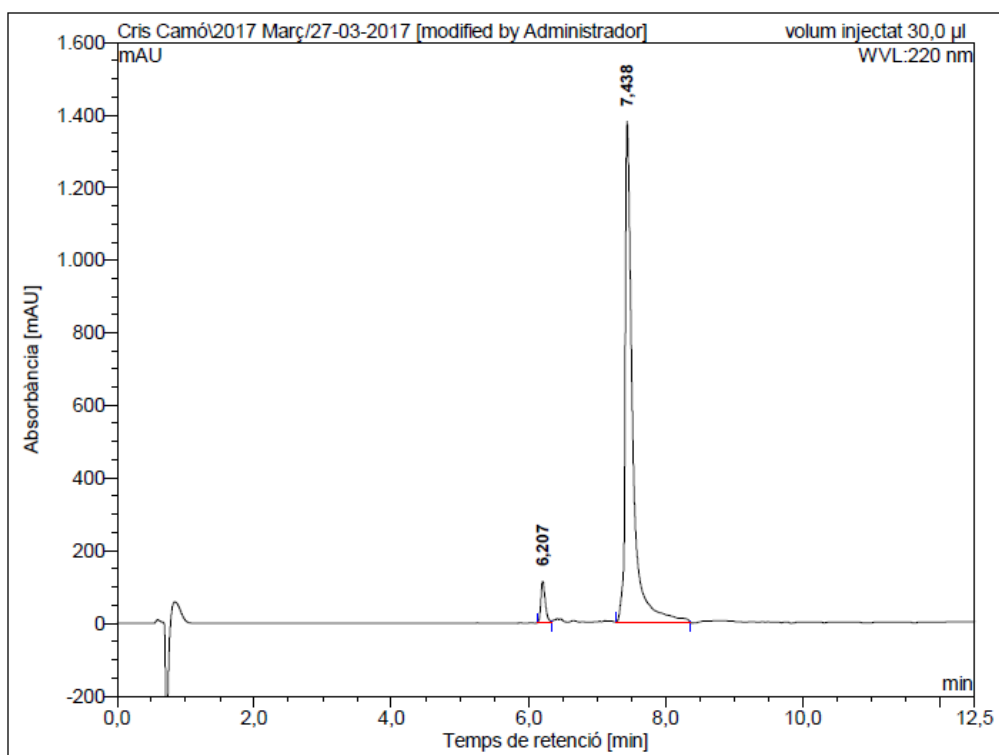
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8802 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4456 |

Fmoc-Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OAll

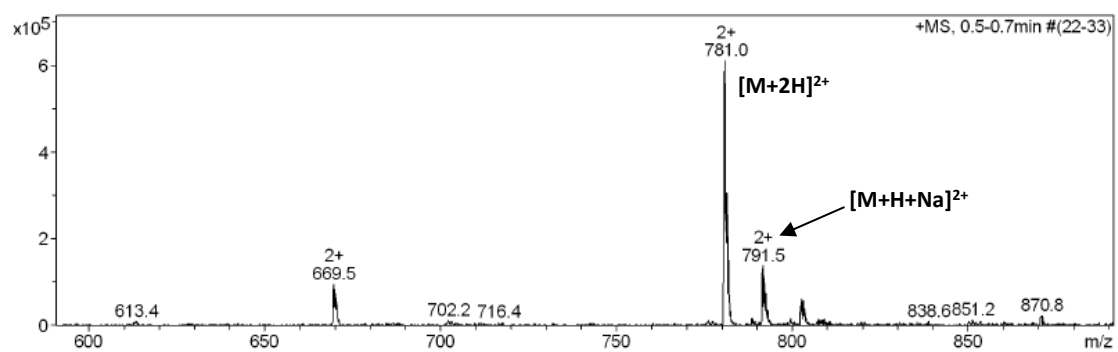
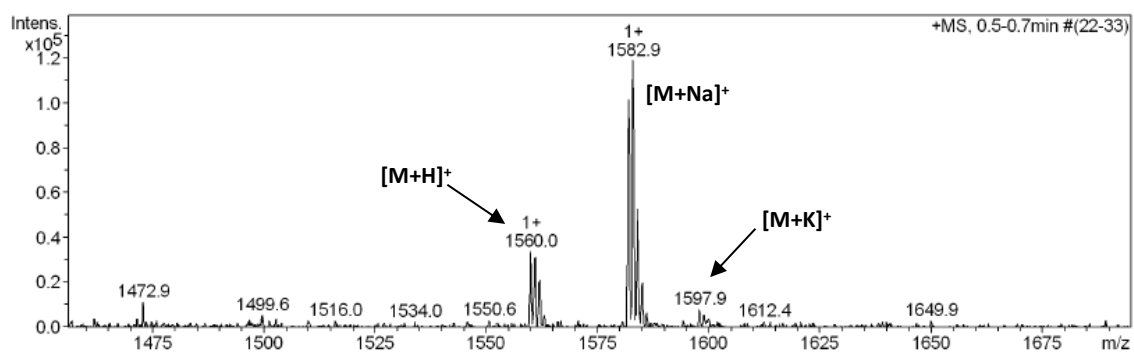
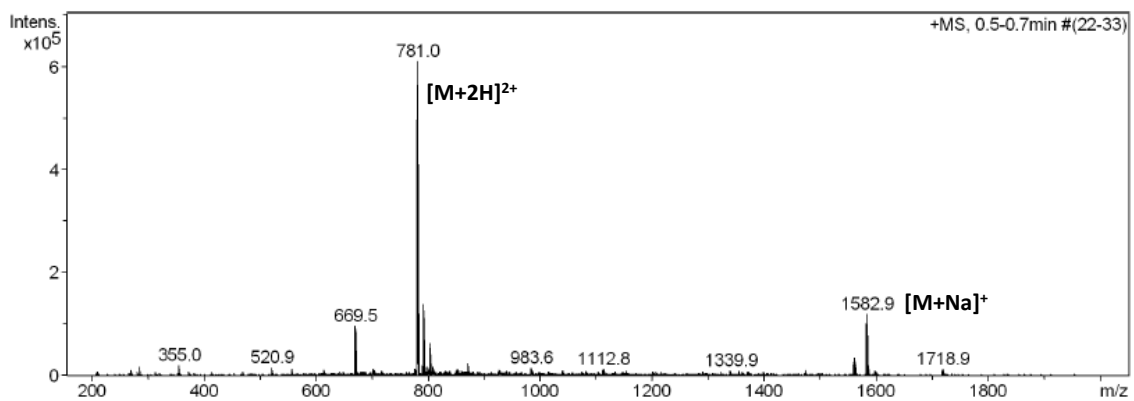
Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

Exact Mass: 1558,9639

Molecular Weight: 1559,9766

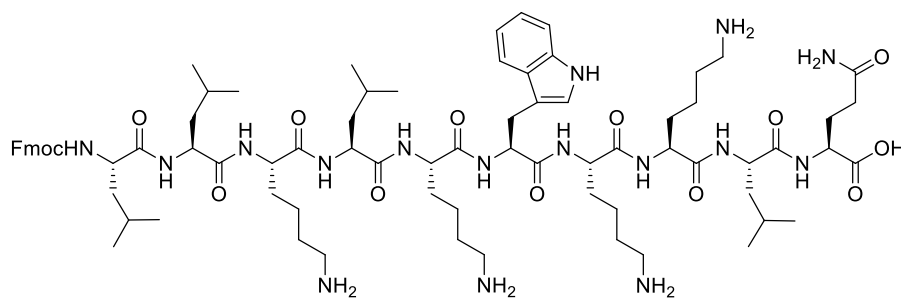
HPLC ($\lambda = 220$ nm) (BPC196W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 115,028 | 8,638 | 4,68 |
| 2 | 7,44 | 1378,969 | 175,795 | 95,32 |
| Total: | | 1493,997 | 184,433 | 100,00 |

ESI-MS (m/z) (BPC196W-1002)

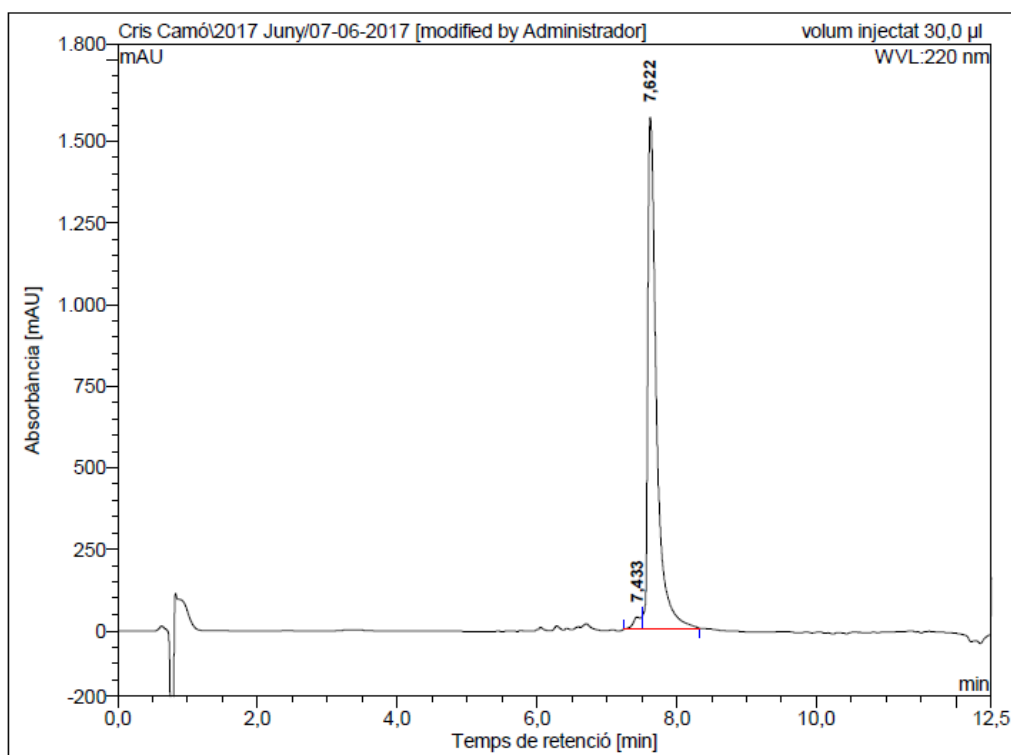
| |
|-------------------------|
| $[M+H]^+ = 1560.0$ |
| $[M+Na]^+ = 1581.9$ |
| $[M+K]^+ = 1597.9$ |
| $[M+2H]^{2+} = 781.0$ |
| $[M+H+Na]^{2+} = 791.5$ |

Fmoc-Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OH

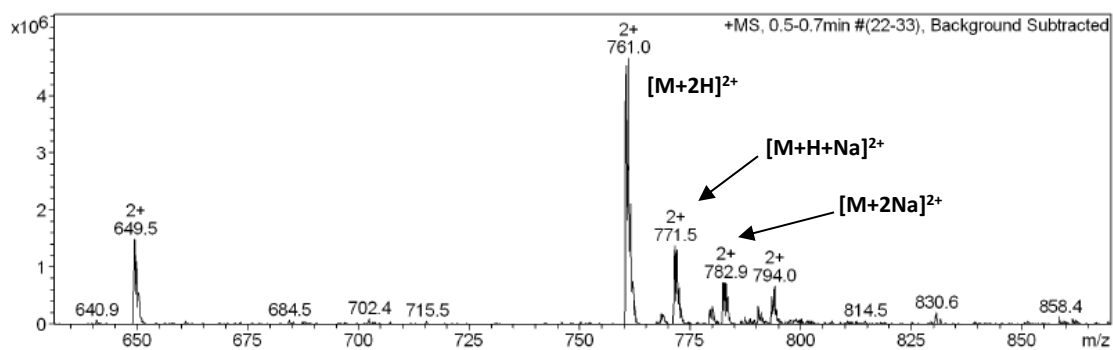
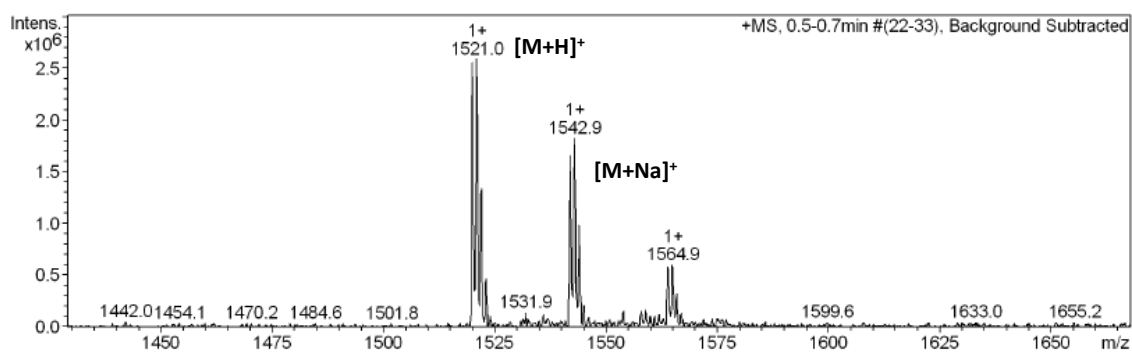
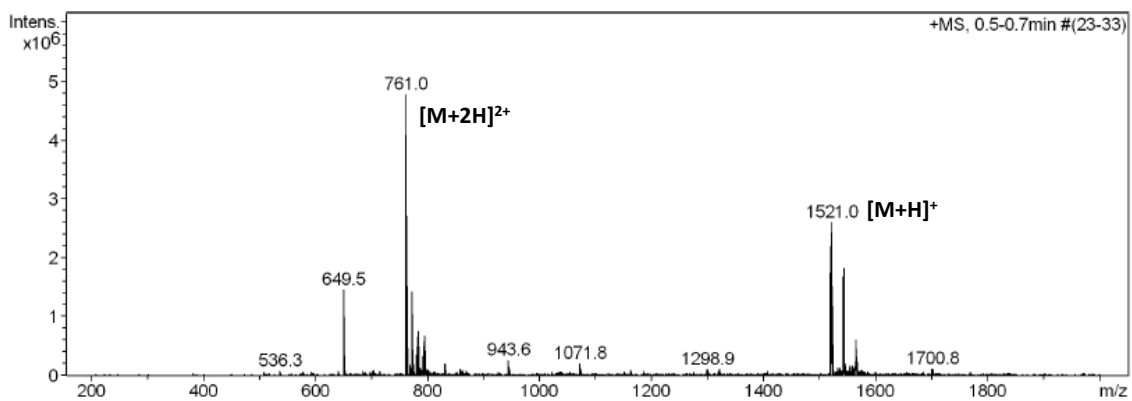
Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

Exact Mass: 1518,9326

Molecular Weight: 1519,9128

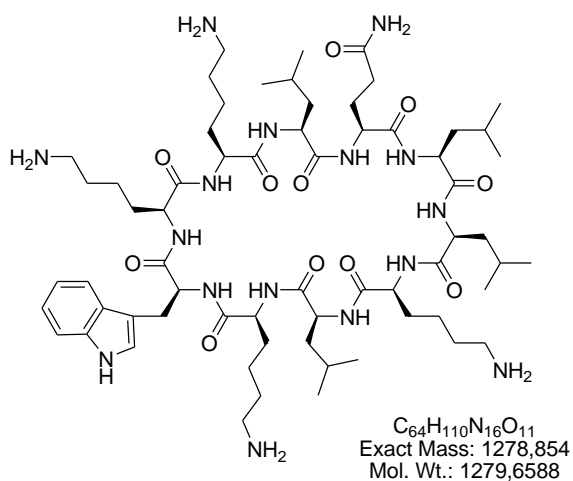
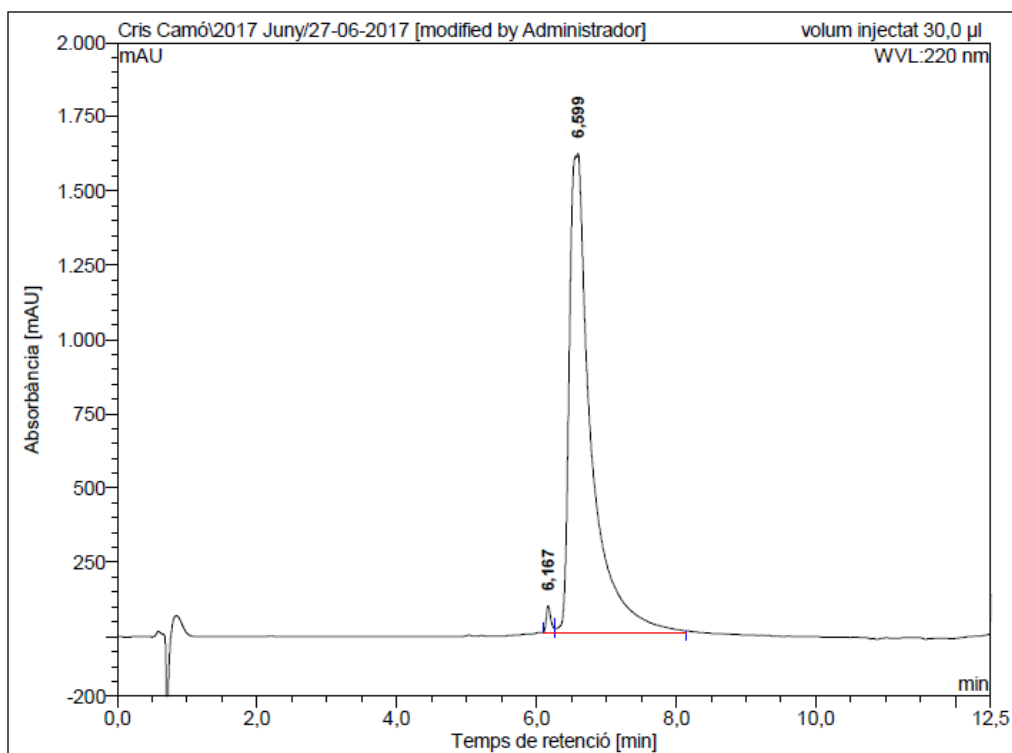
HPLC ($\lambda = 220$ nm) (BPC196W-1098)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,43 | 37,888 | 4,910 | 2,09 |
| 2 | 7,62 | 1568,599 | 230,042 | 97,91 |
| Total: | | 1606,487 | 234,952 | 100,00 |

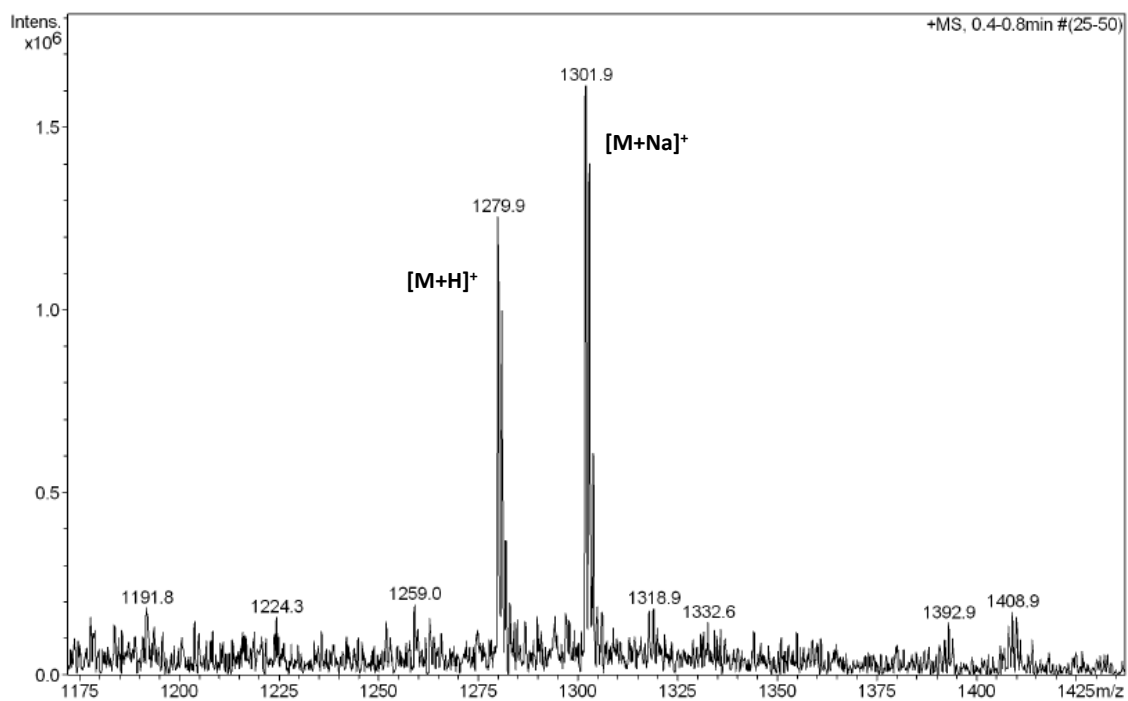
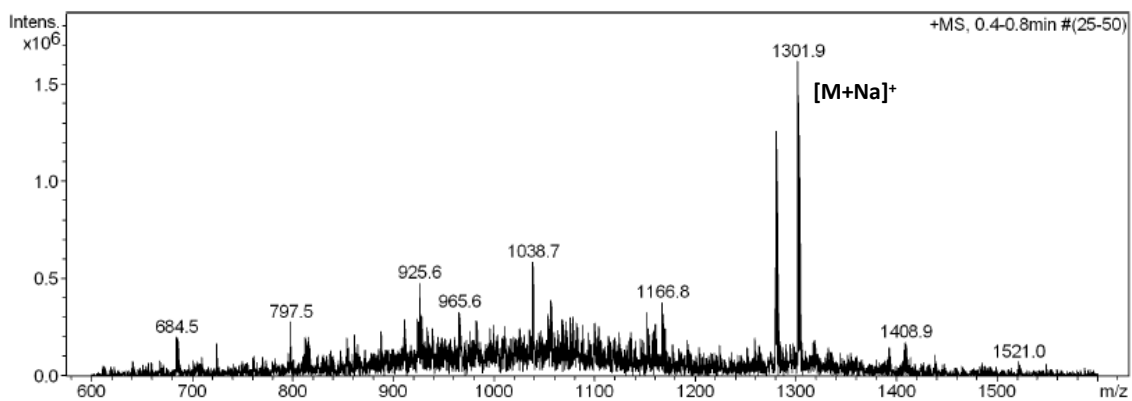
ESI-MS (m/z) (BPC196W sense al-lil)

| |
|-------------------------|
| $[M+H]^+ = 1520.0$ |
| $[M+Na]^+ = 1541.9$ |
| $[M+2H]^{2+} = 761.0$ |
| $[M+H+Na]^{2+} = 771.5$ |
| $[M+2Na]^{2+} = 782.9$ |

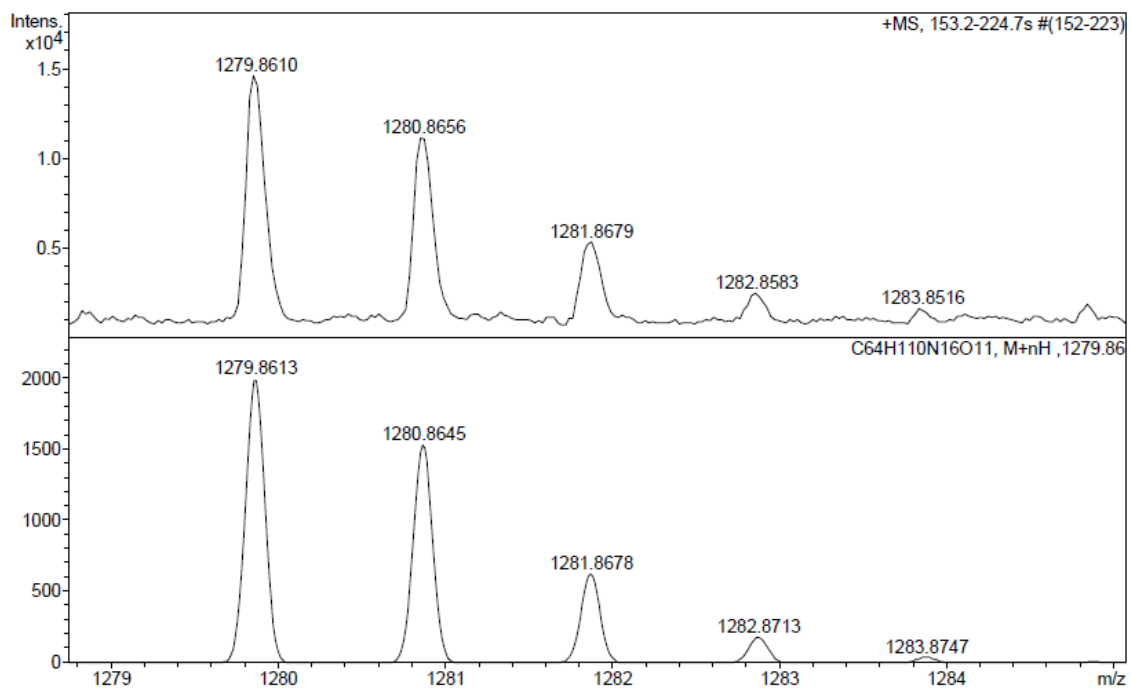
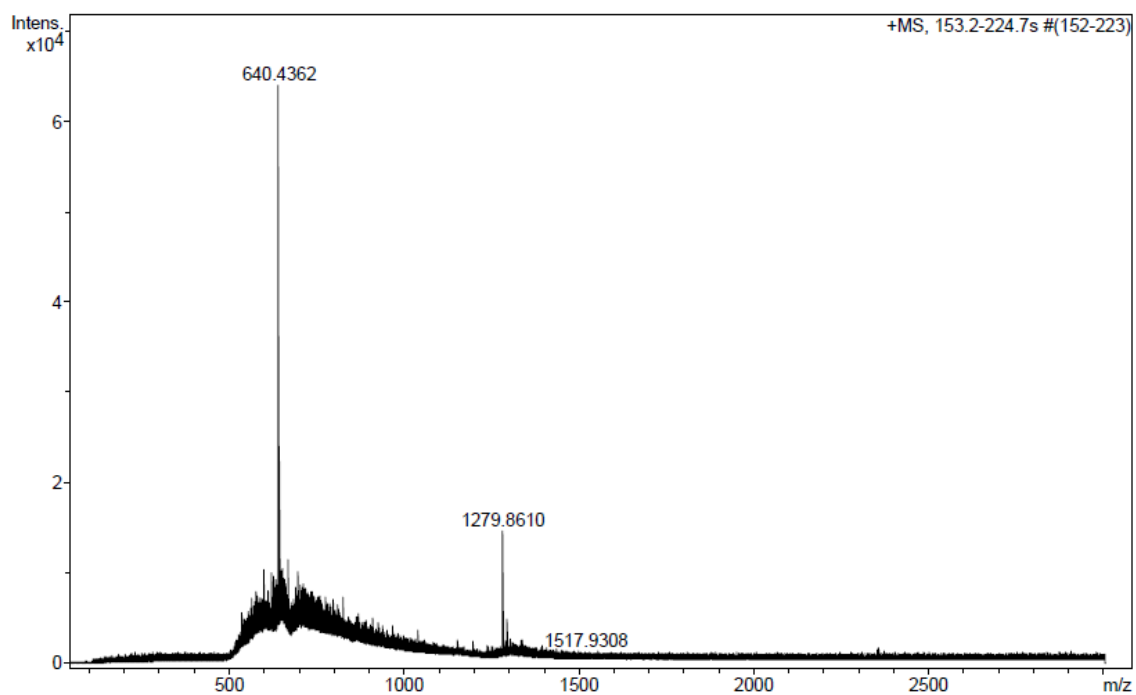
c(Leu-Leu-Lys-Leu-Lys-Trp-Lys-Lys-Leu-Gln) (BPC196W)

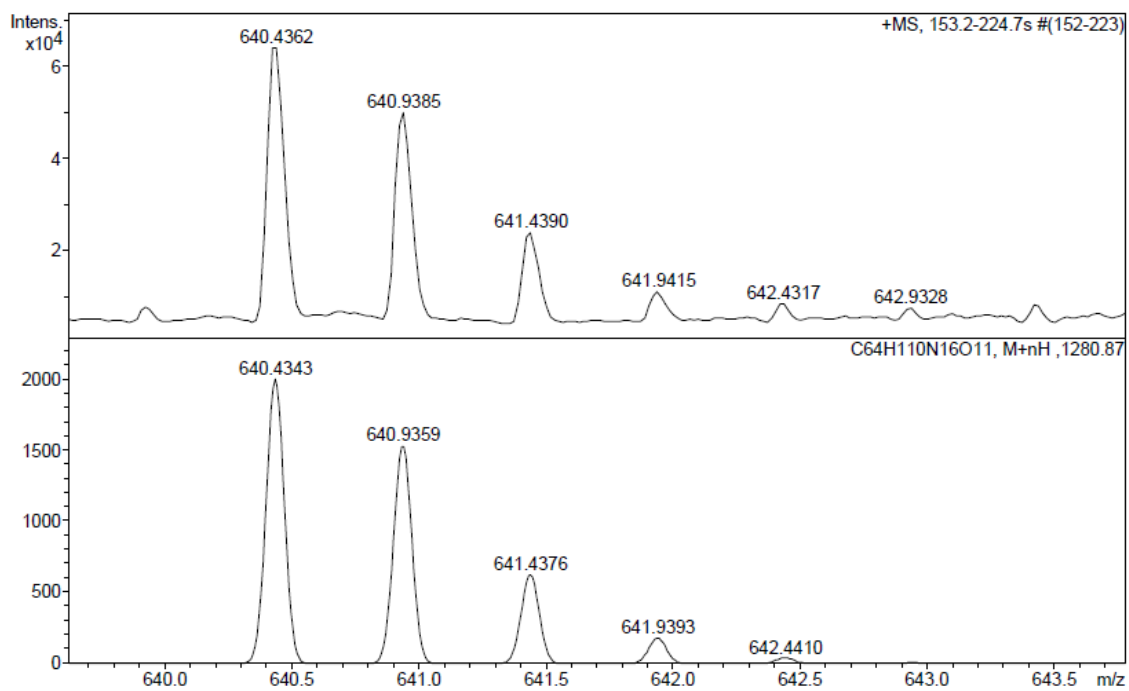
HPLC ($\lambda = 220$ nm) (BPC196W-1104)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,17 | 89,533 | 6,912 | 1,18 |
| 2 | 6,60 | 1612,183 | 580,270 | 98,82 |
| Total: | | 1701,716 | 587,182 | 100,00 |

ESI-MS (m/z) (BPC196W-1104)

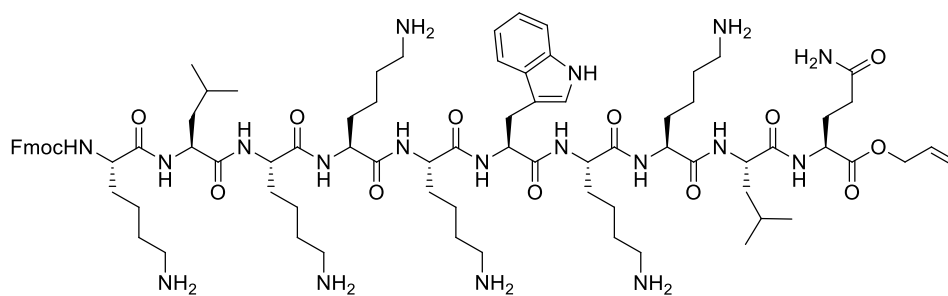
| |
|------------------------------|
| [M+H] ⁺ = 1279.9 |
| [M+Na] ⁺ = 1301.9 |

HRMS (ESI) (m/z) (BPC196W)



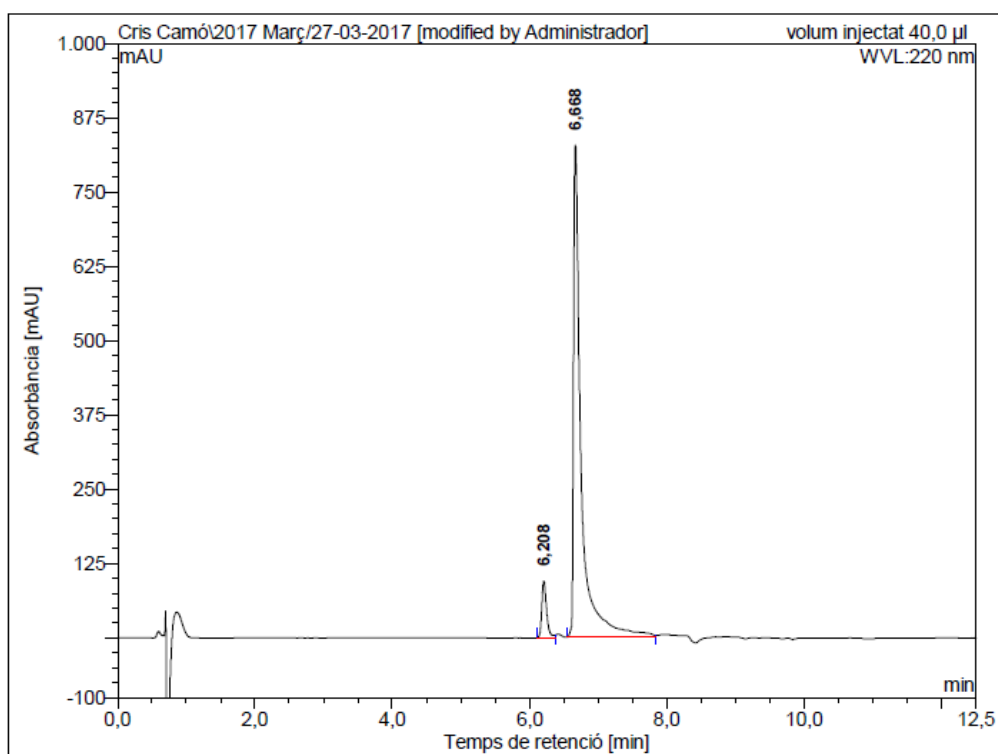
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{111}N_{16}O_{11}$ | 1279.8613 | 1279.8610 |
| $[M+2H]^{2+}$ | $C_{64}H_{112}N_{16}O_{11}$ | 640.4343 | 640.4362 |

Fmoc-Lys-Leu-Lys-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OAll

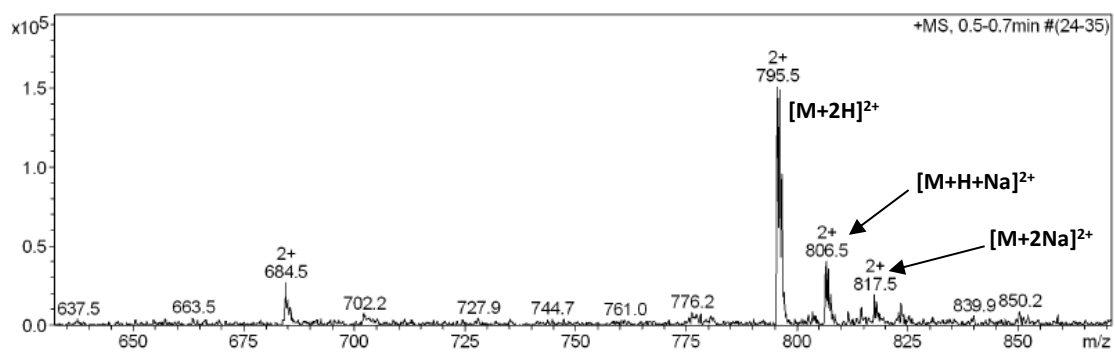
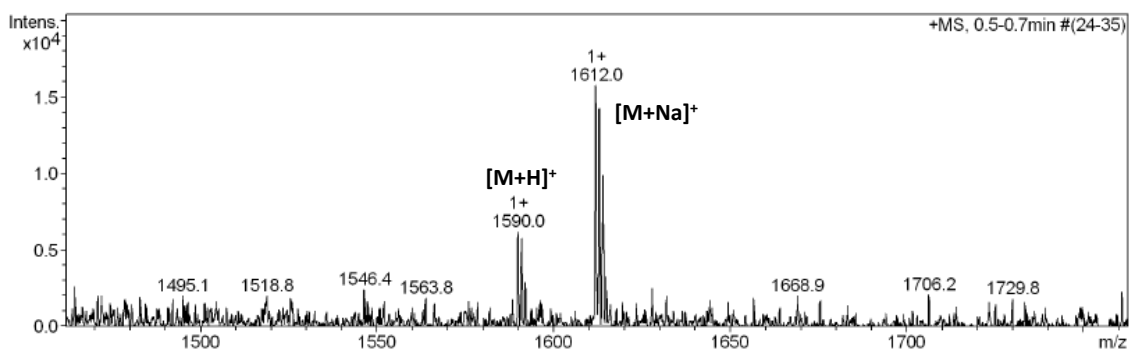
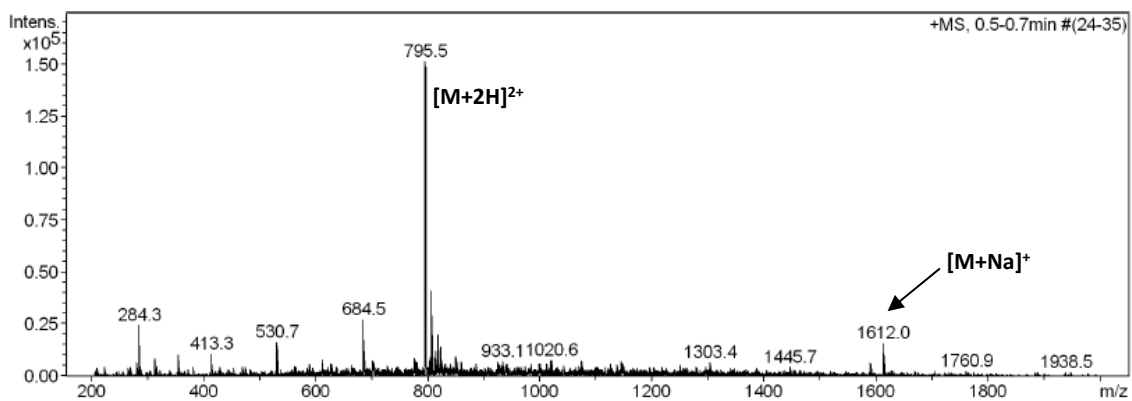
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

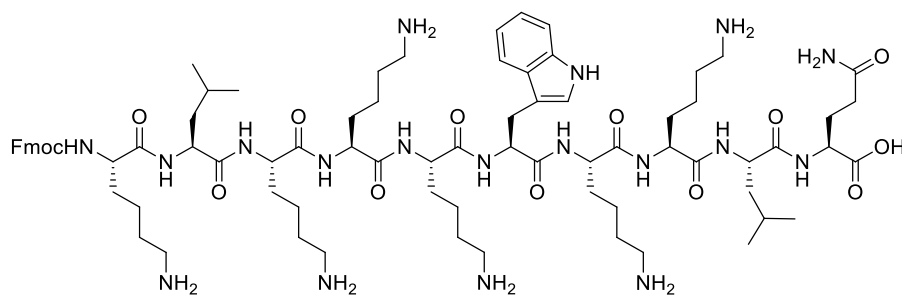
HPLC ($\lambda = 220$ nm) (BPC198W-1002)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 95,965 | 7,947 | 6,84 |
| 2 | 6,67 | 828,868 | 108,247 | 93,16 |
| Total: | | 924,833 | 116,194 | 100,00 |

ESI-MS (m/z) (BPC198W-1002)

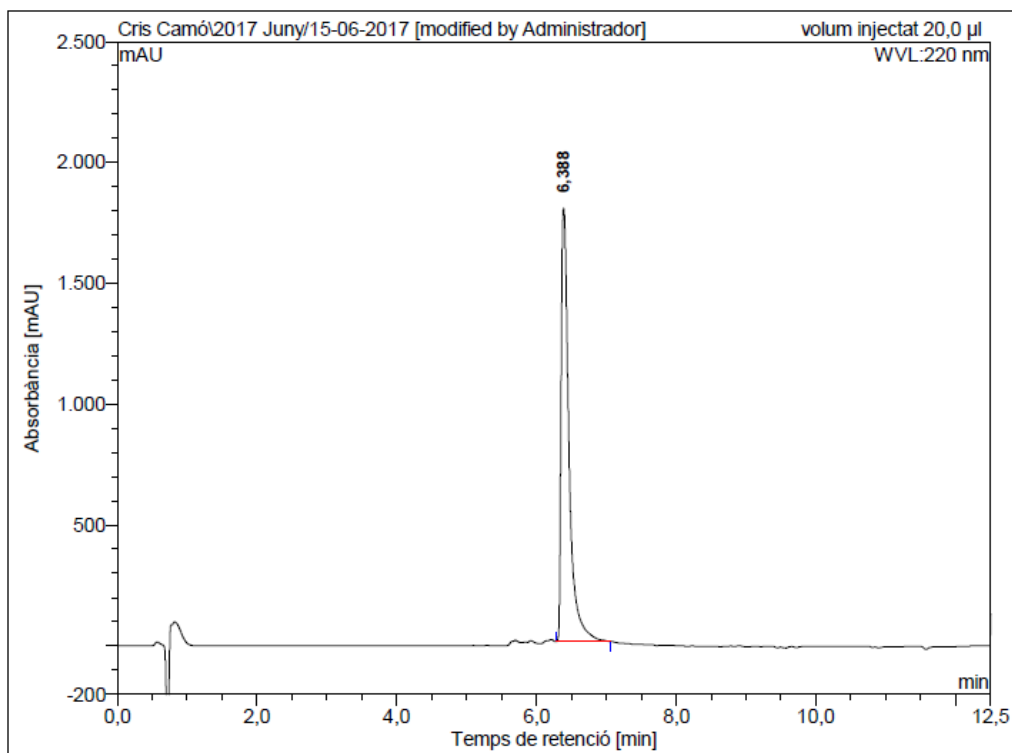
| |
|-------------------------|
| $[M+H]^+ = 1590.0$ |
| $[M+Na]^+ = 1612.0$ |
| $[M+2H]^{2+} = 795.5$ |
| $[M+H+Na]^{2+} = 806.5$ |
| $[M+2Na]^{2+} = 817.5$ |

Fmoc-Lys-Leu-Lys-Lys-Lys-Trp-Lys-Lys-Leu-Gln-OH

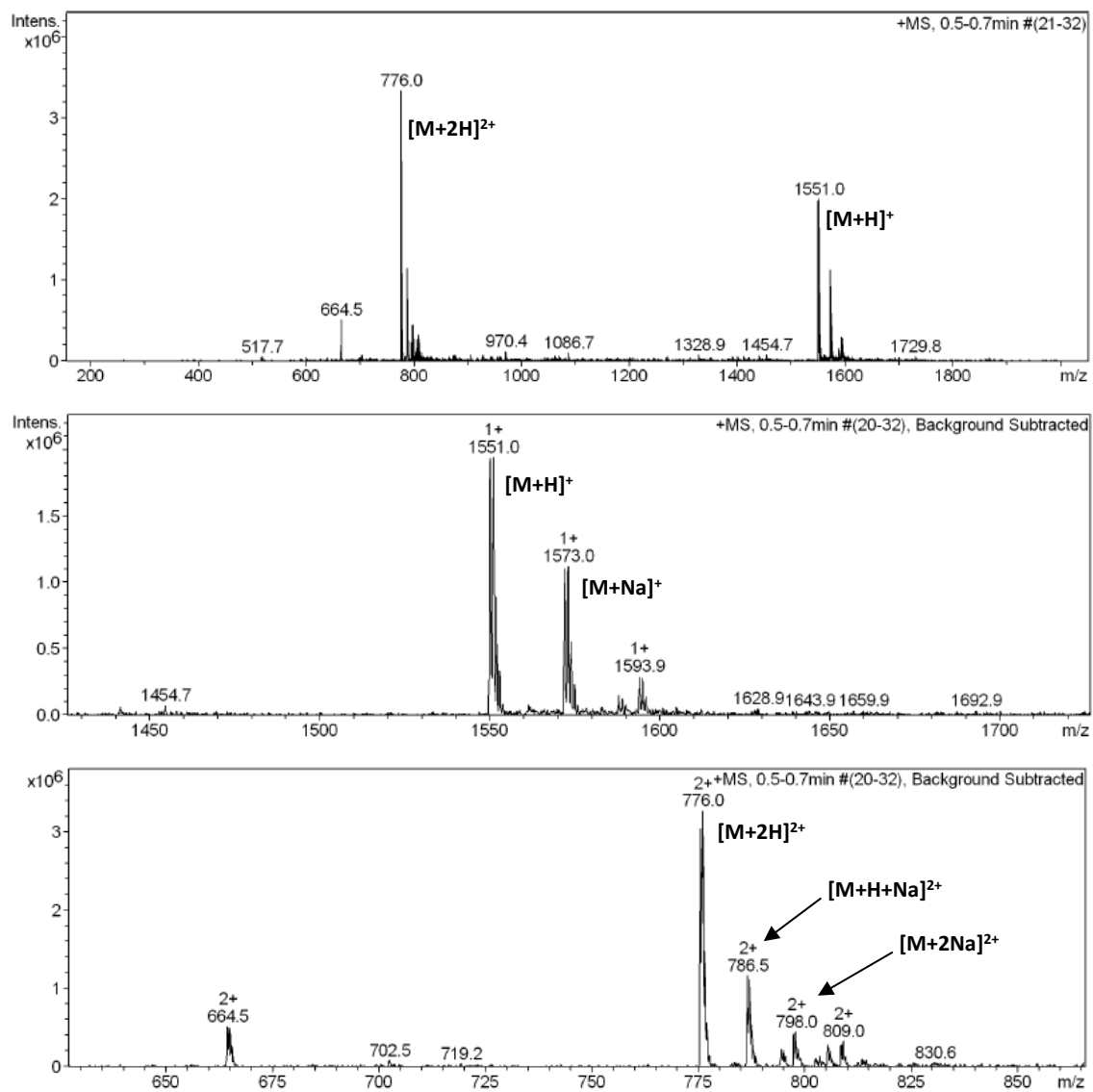
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

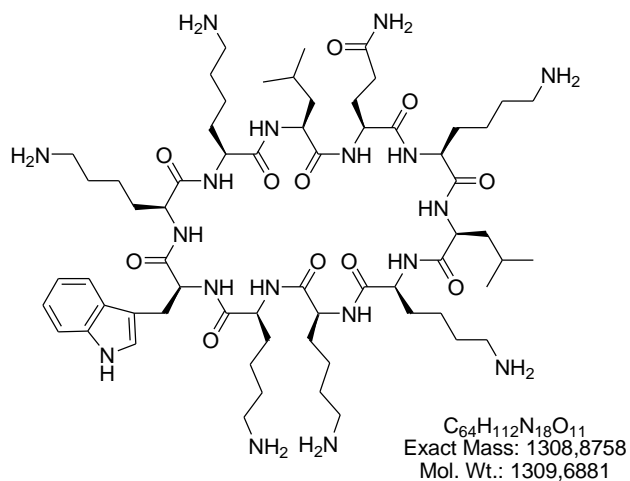
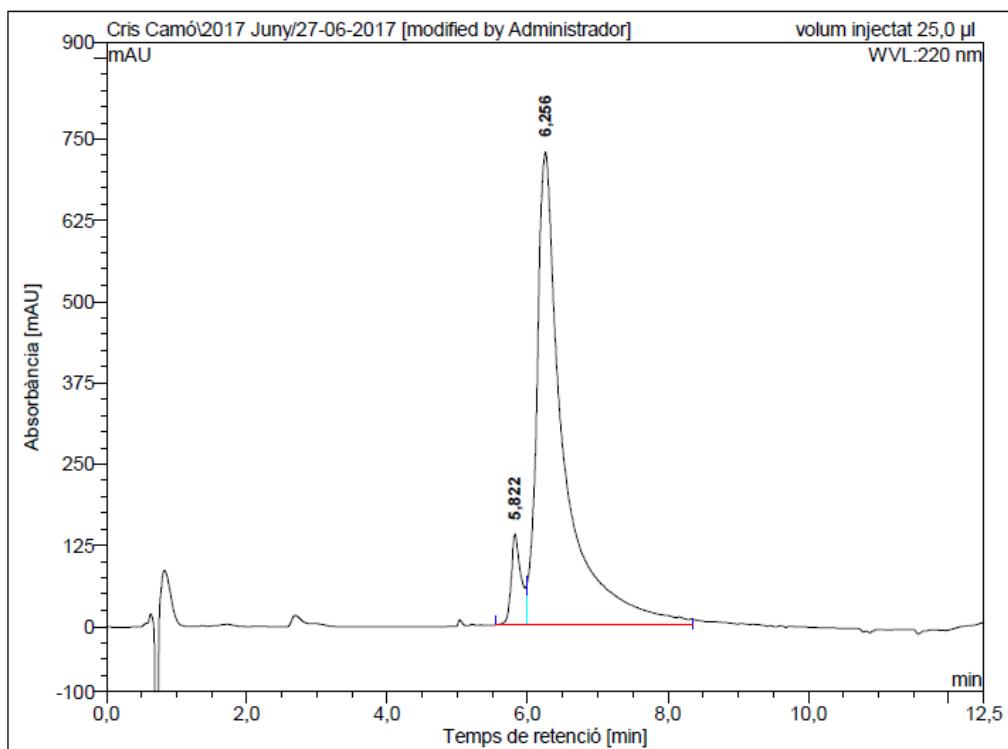
HPLC ($\lambda = 220$ nm) (BPC198W-1098)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,39 | 1794,077 | 236,352 | 100,00 |
| Total: | | 1794,077 | 236,352 | 100,00 |

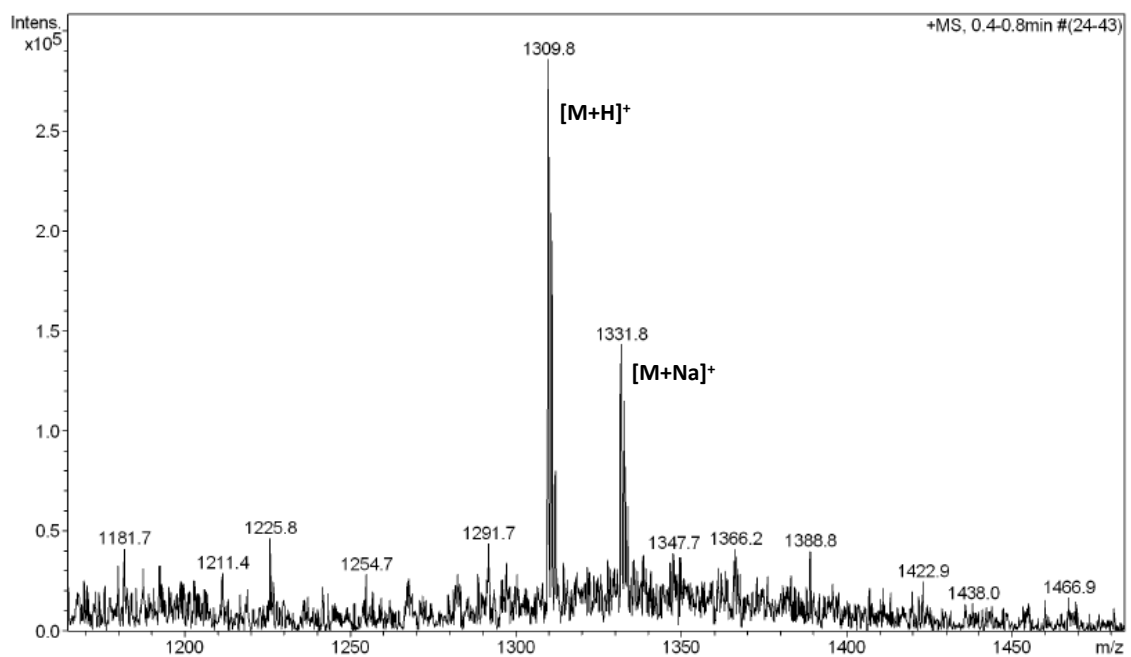
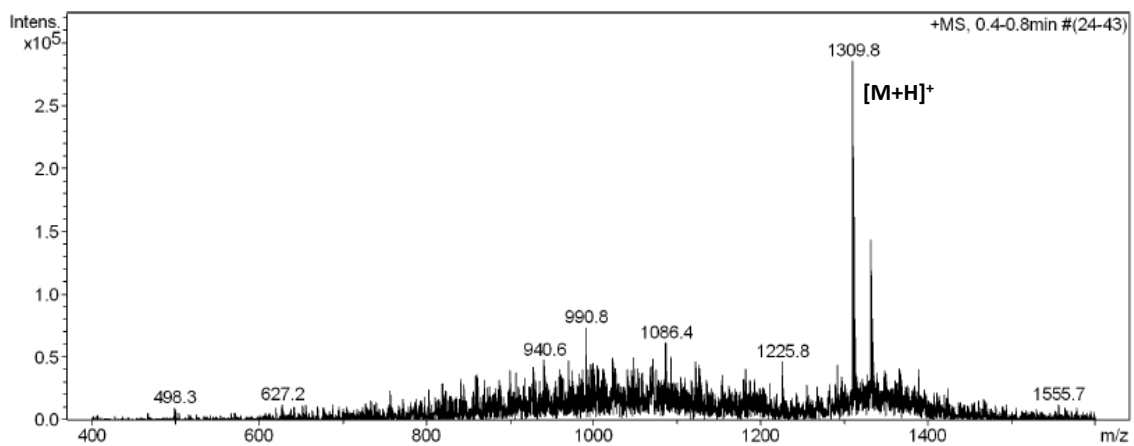
ESI-MS (m/z) (BPC198W sense al·lil)

| |
|-------------------------|
| $[M+H]^+ = 1550.0$ |
| $[M+Na]^+ = 1572.0$ |
| $[M+2H]^{2+} = 776.0$ |
| $[M+H+Na]^{2+} = 786.5$ |
| $[M+2Na]^{2+} = 798.0$ |

c(Lys-Leu-Lys-Lys-Lys-Trp-Lys-Lys-Leu-Gln) (BPC198W)

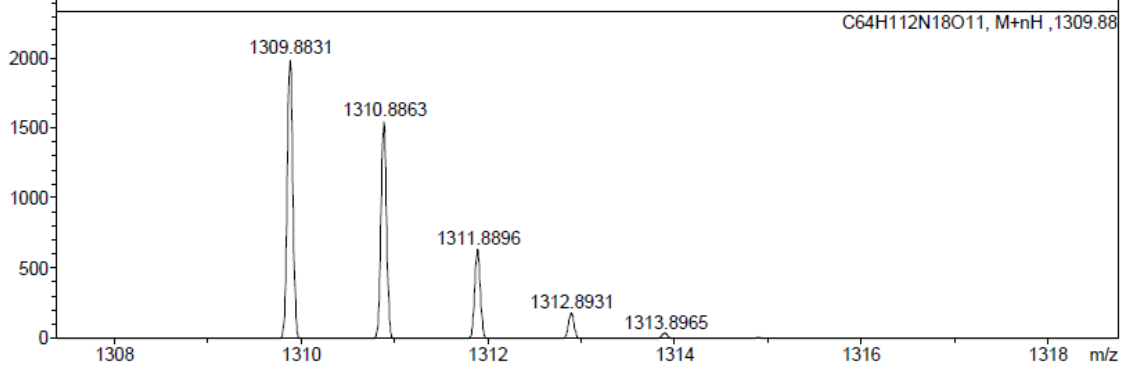
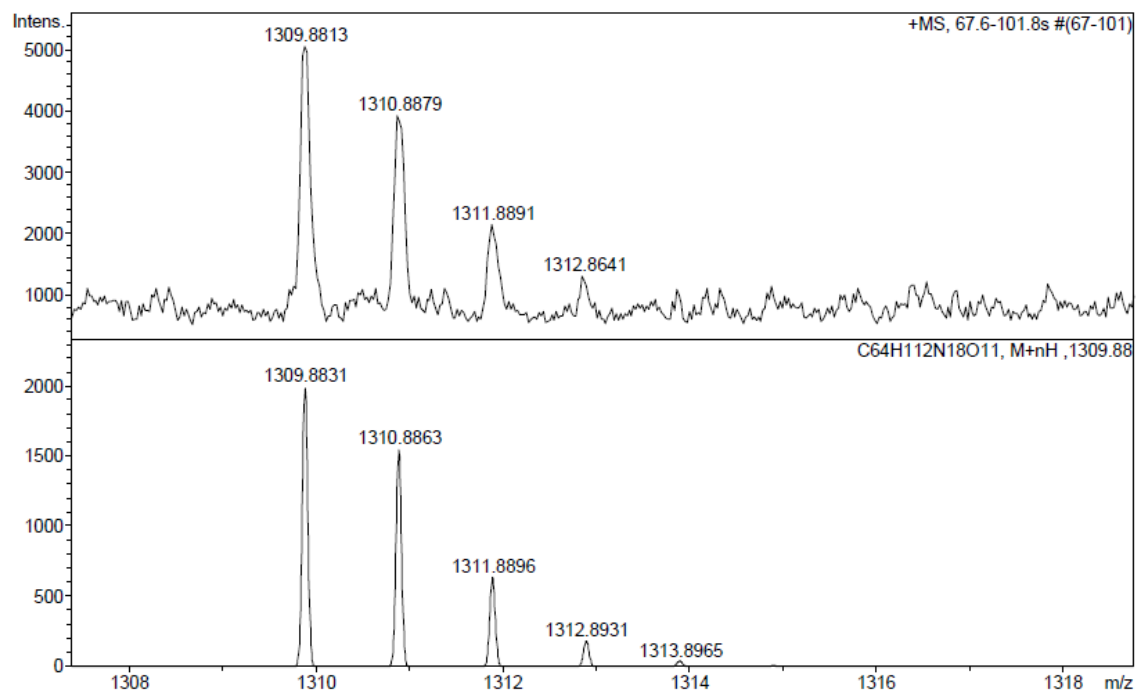
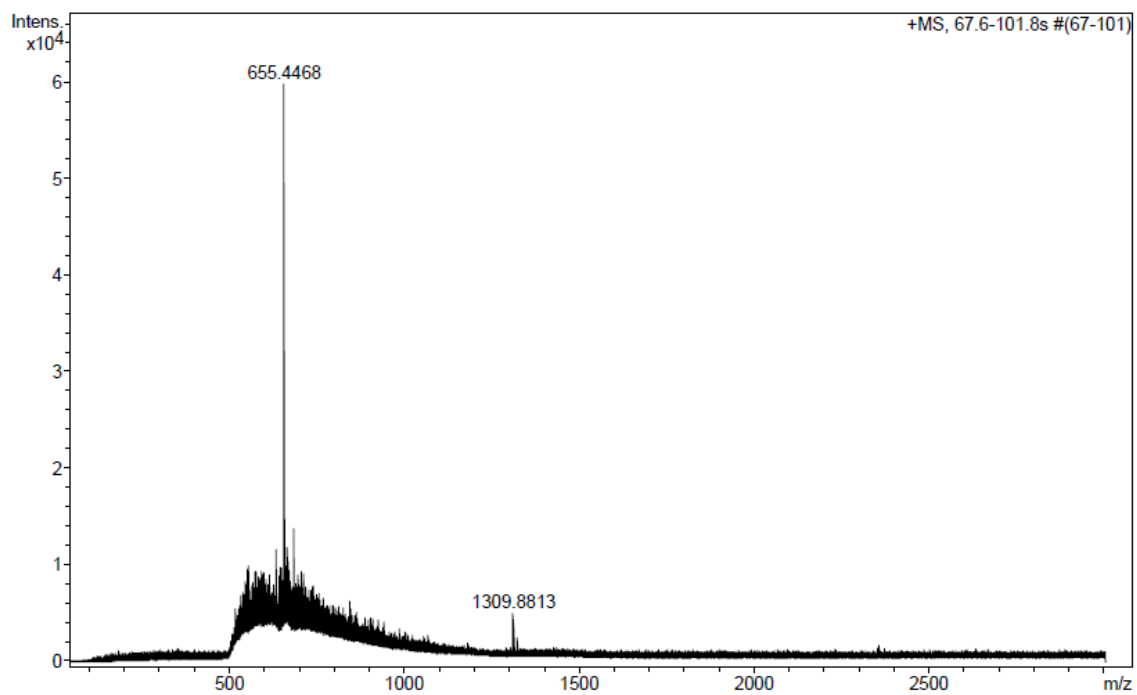
HPLC ($\lambda = 220$ nm) (BPC198W-1104)

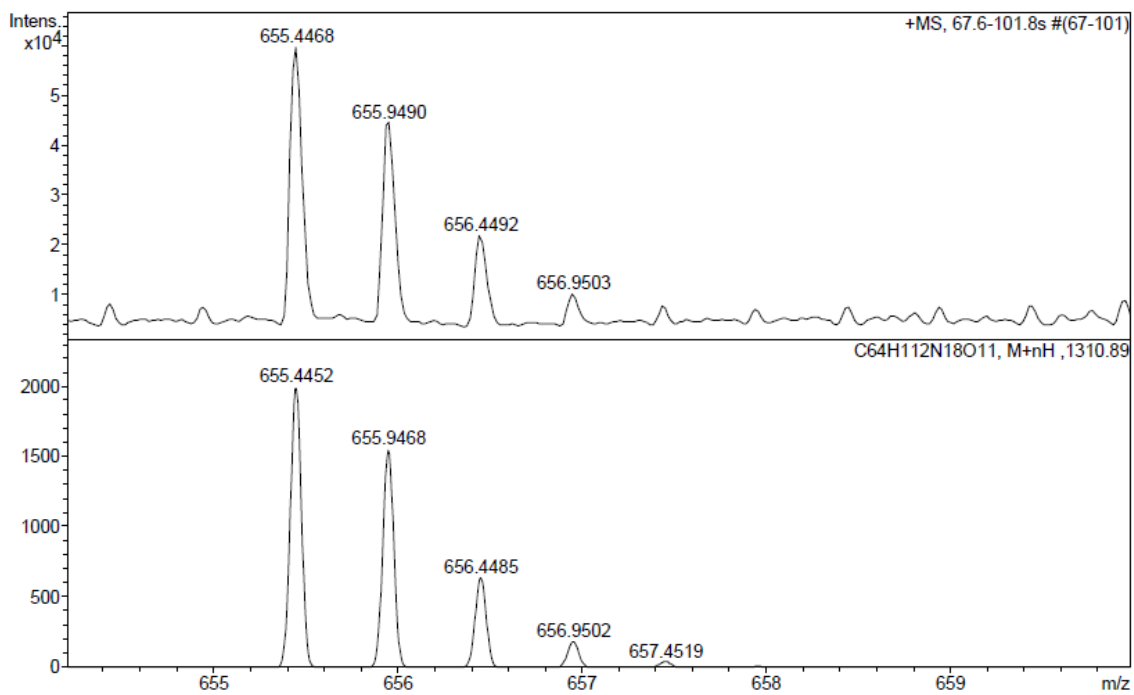
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,82 | 140,066 | 22,829 | 6,60 |
| 2 | 6,26 | 727,766 | 323,092 | 93,40 |
| Total: | | 867,833 | 345,920 | 100,00 |

ESI-MS (m/z) (BPC198W-1104)

| |
|-----------------------------|
| [M+H] ⁺ = 1309.8 |
|-----------------------------|

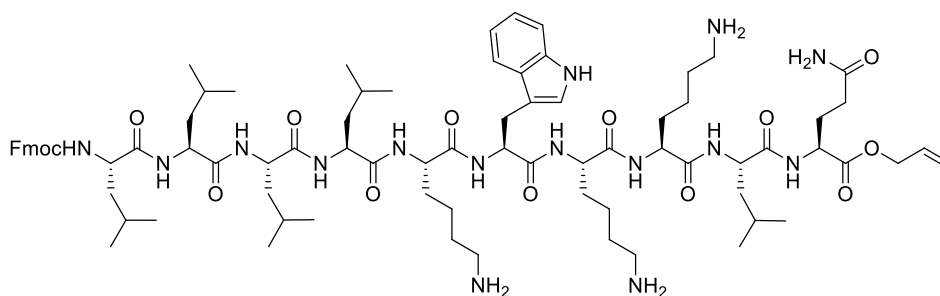
| |
|------------------------------|
| [M+Na] ⁺ = 1331.8 |
|------------------------------|

HRMS (ESI) (m/z) (BPC198W)



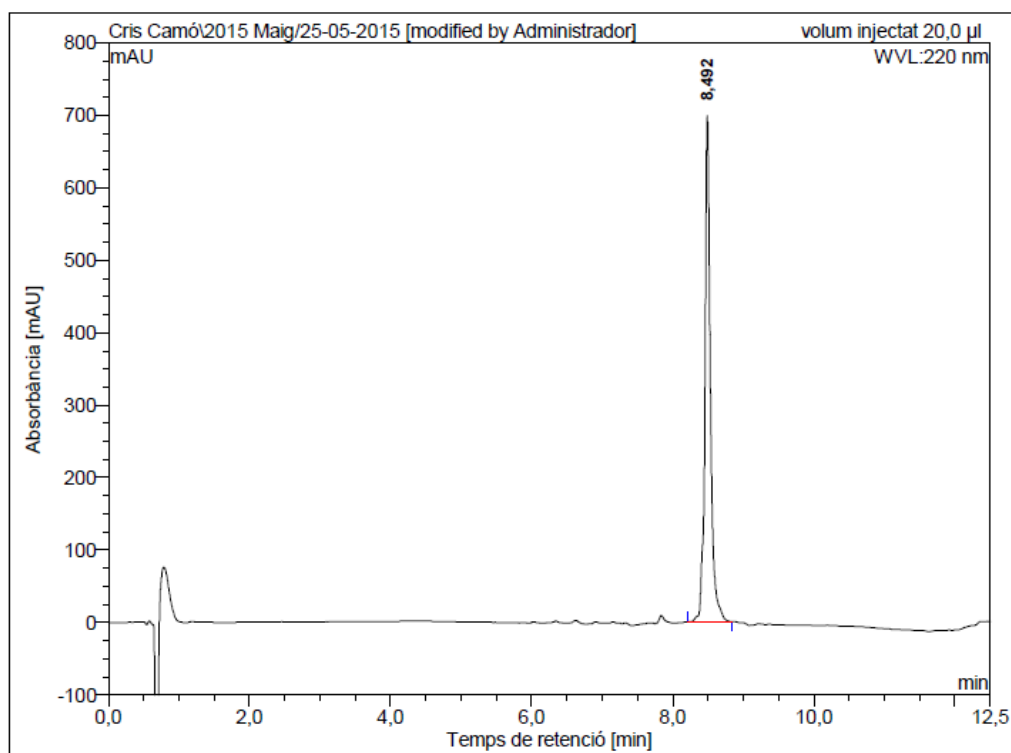
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8813 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4468 |

Fmoc-Leu-Leu-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OAll

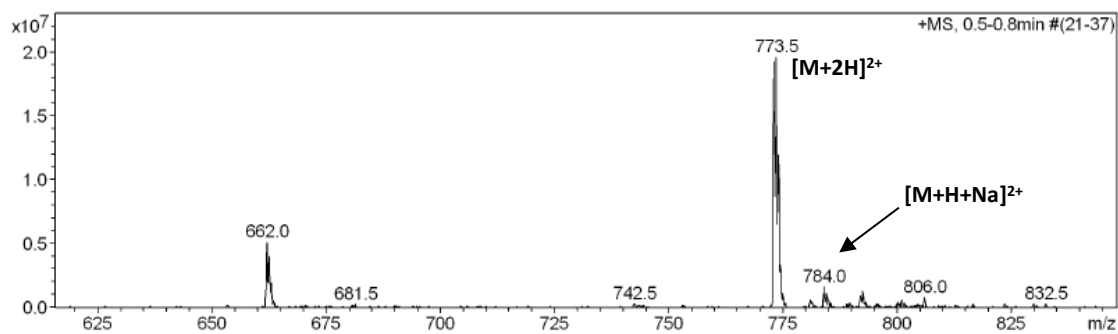
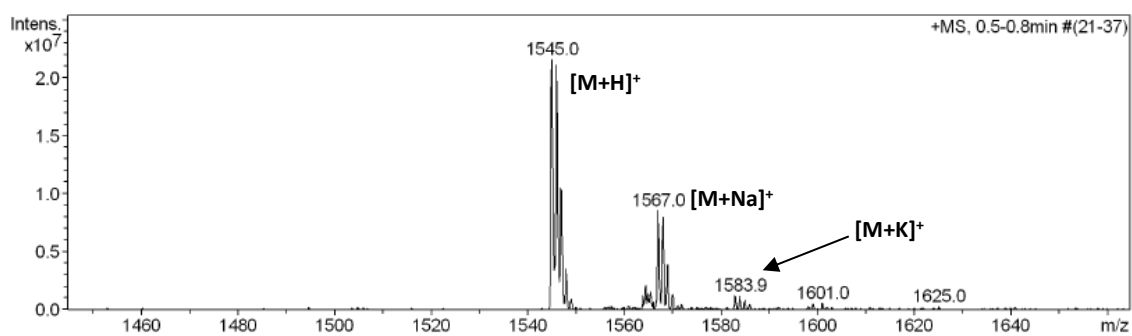
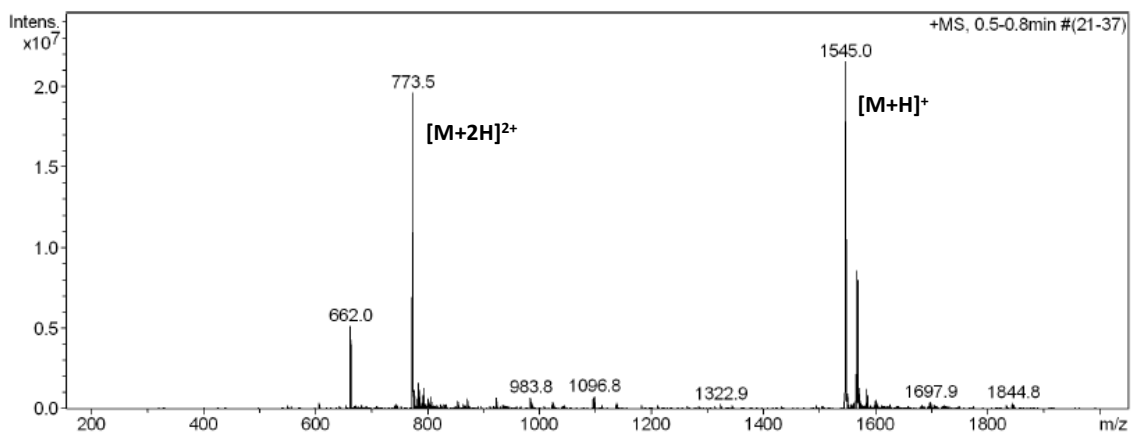
Chemical Formula: $C_{82}H_{125}N_{15}O_{14}$

Exact Mass: 1543,9530

Molecular Weight: 1544,9620

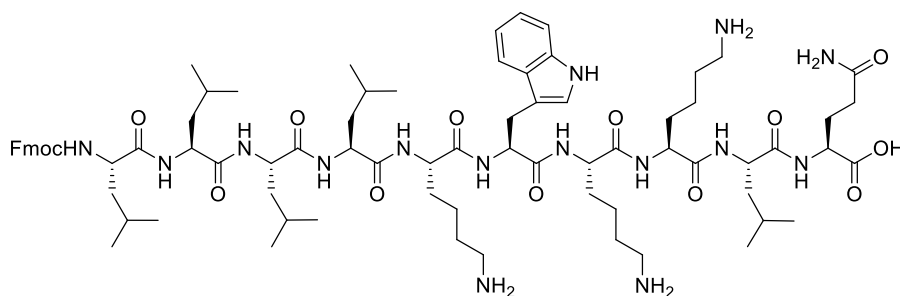
HPLC ($\lambda = 220 \text{ nm}$) (BPC200W-4-256)

| No. | Tempes retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|------------------------|---------------|-----------------|--------------------|
| 1 | 8,49 | 699,366 | 64,272 | 100,00 |
| Total: | | 699,366 | 64,272 | 100,00 |

ESI-MS (m/z) (BPC200W-4-256)

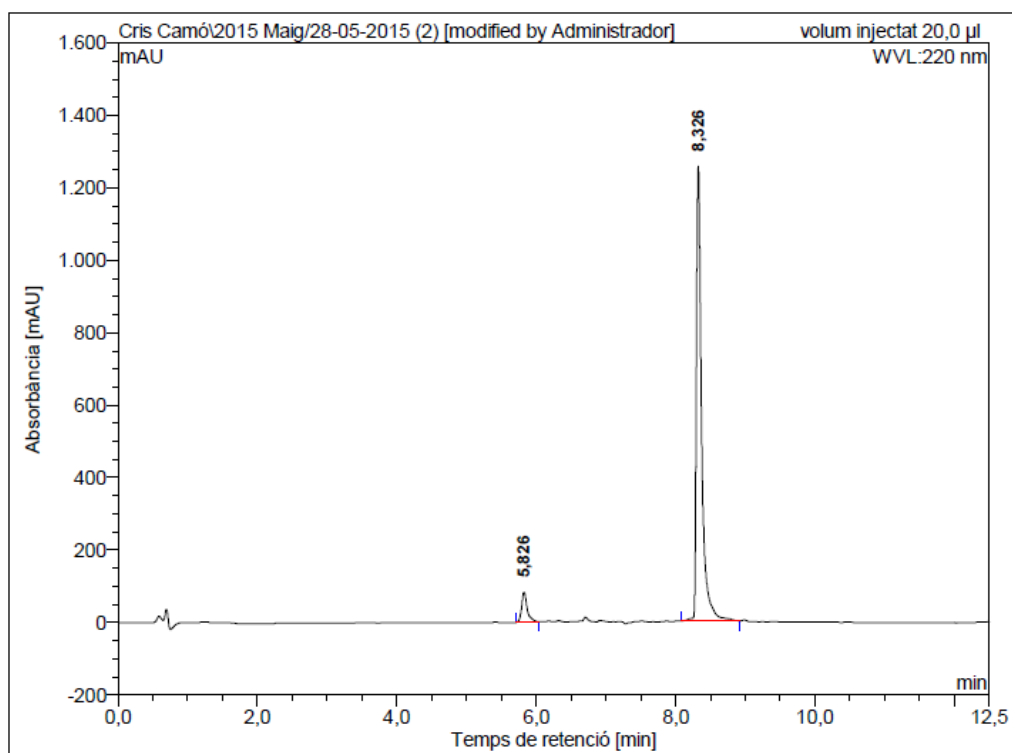
| |
|-------------------------|
| $[M+H]^+ = 1545.0$ |
| $[M+Na]^+ = 1567.0$ |
| $[M+K]^+ = 1583.9$ |
| $[M+2H]^{2+} = 773.5$ |
| $[M+H+Na]^{2+} = 784.0$ |

Fmoc-Leu-Leu-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln-OH

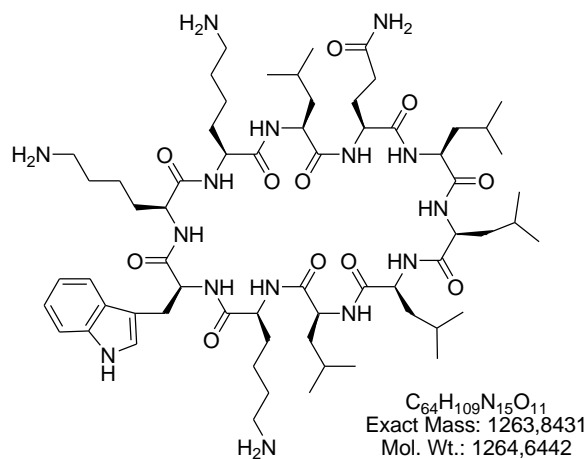
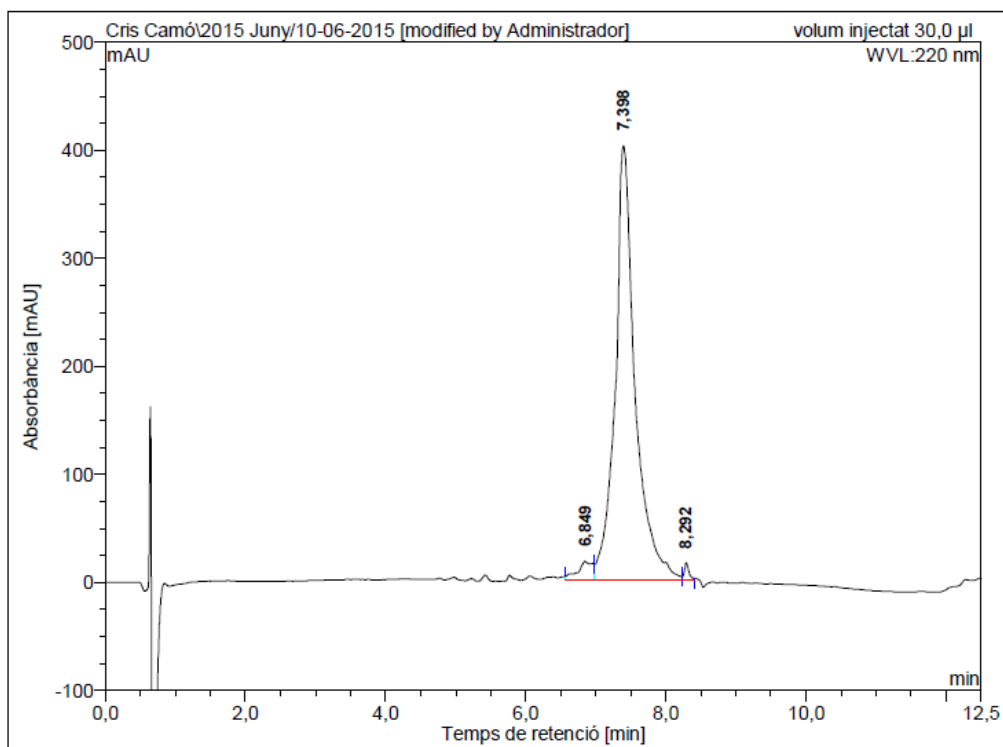
Chemical Formula: $C_{79}H_{121}N_{15}O_{14}$

Exact Mass: 1503,9217

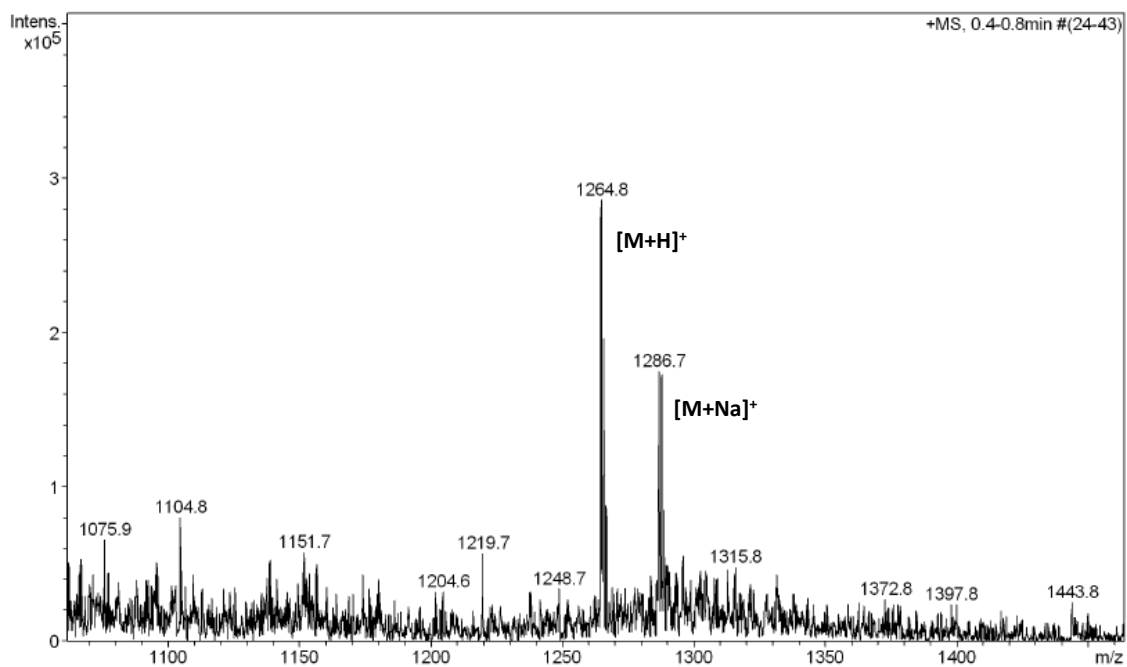
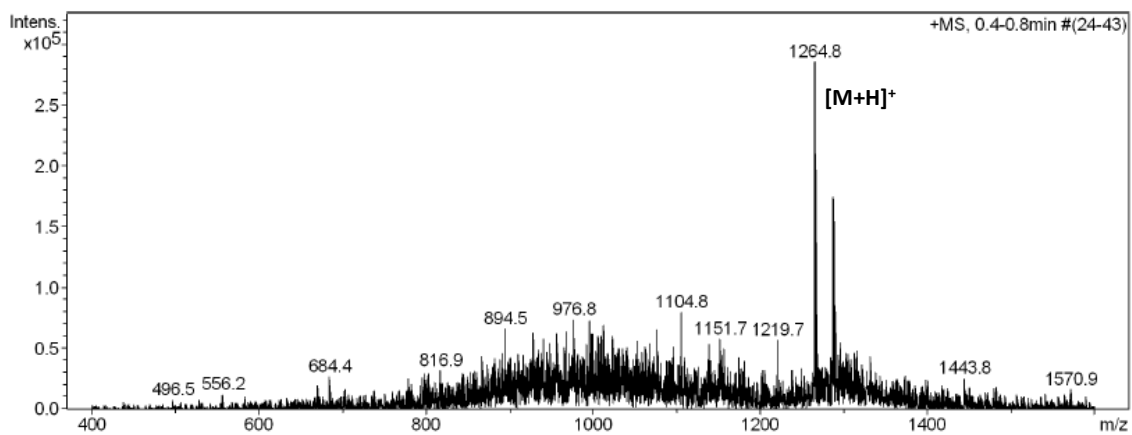
Molecular Weight: 1504,8981

HPLC ($\lambda = 220$ nm) (BPC200W-1 sense al·lil)

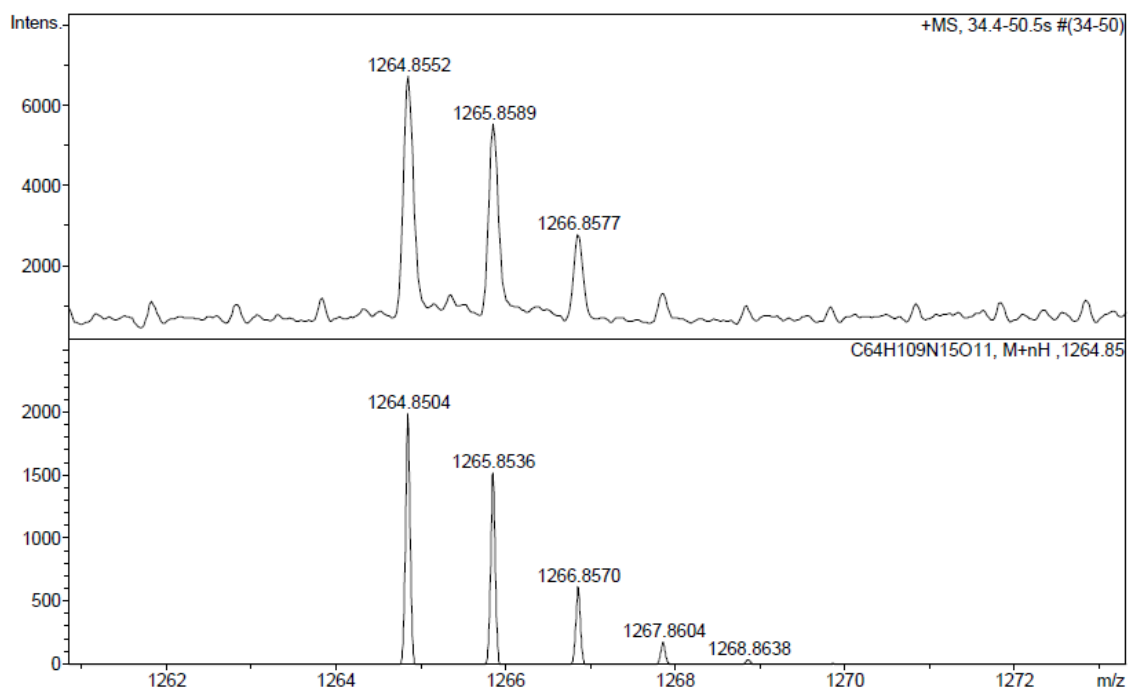
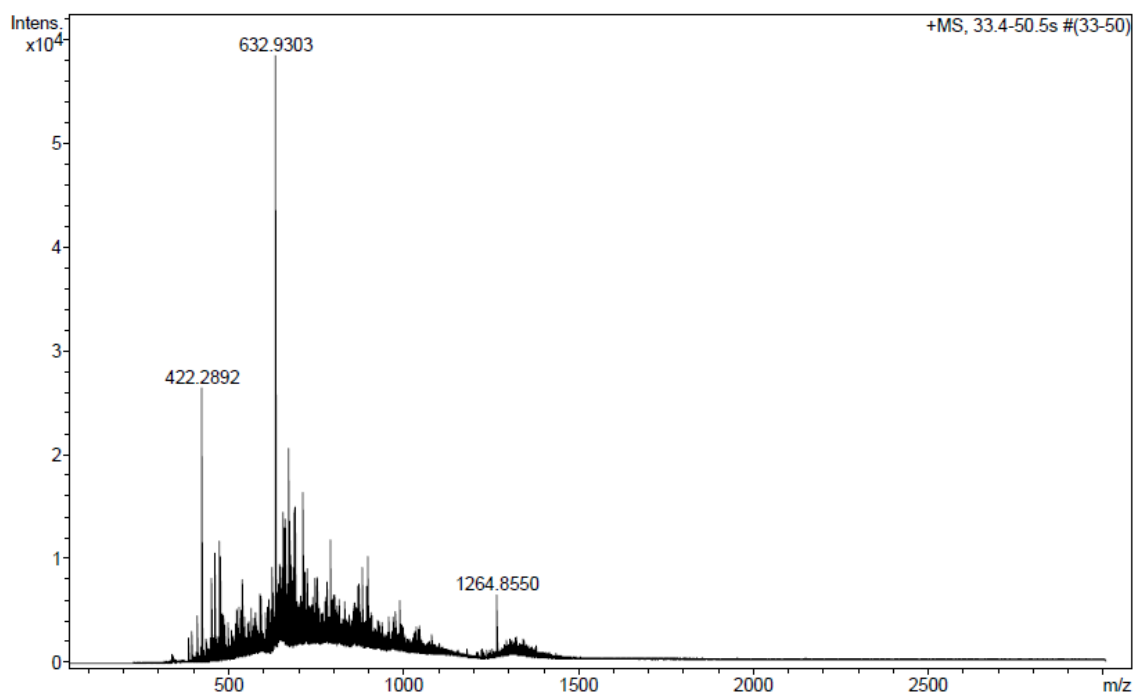
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,83 | 83,778 | 7,992 | 6,76 |
| 2 | 8,33 | 1257,531 | 110,275 | 93,24 |
| Total: | | 1341,310 | 118,267 | 100,00 |

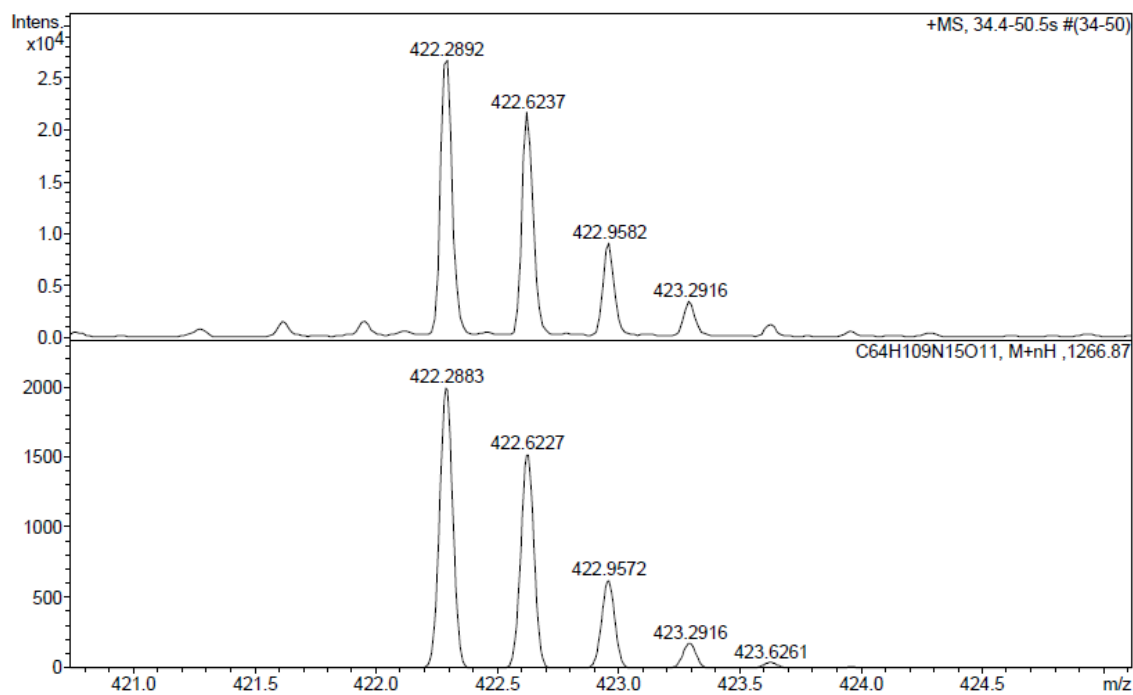
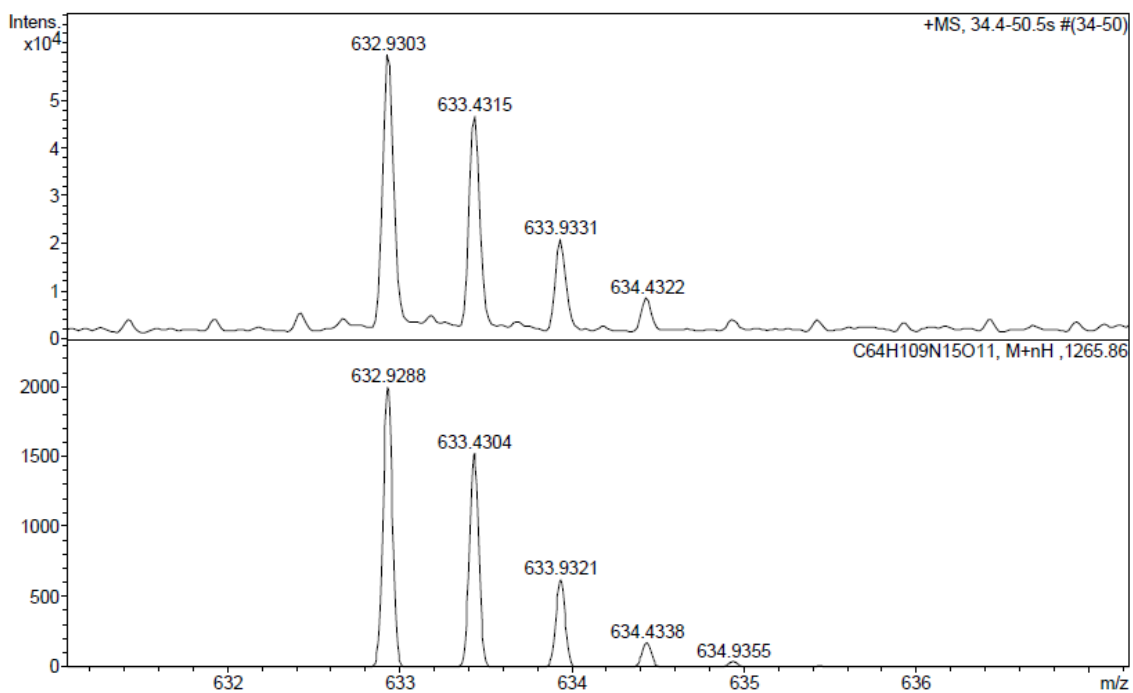
c(Leu-Leu-Leu-Leu-Lys-Trp-Lys-Lys-Leu-Gln) (**BPC200W**)HPLC ($\lambda = 220$ nm)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,85 | 16,741 | 4,177 | 3,05 |
| 2 | 7,40 | 401,377 | 131,557 | 96,12 |
| 3 | 8,29 | 15,325 | 1,138 | 0,83 |
| Total: | | 433,443 | 136,872 | 100,00 |

ESI-MS (m/z) (BPC200W)

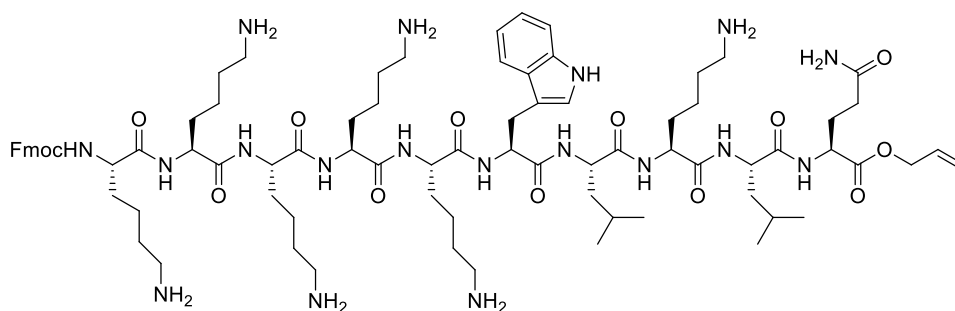
| |
|-------------------------|
| $[M+H]^+ = 1545.0$ |
| $[M+Na]^+ = 1567.0$ |
| $[M+K]^+ = 1583.9$ |
| $[M+2H]^{2+} = 773.5$ |
| $[M+H+Na]^{2+} = 784.0$ |

HRMS (ESI) (m/z) (BPC200W-2-277)



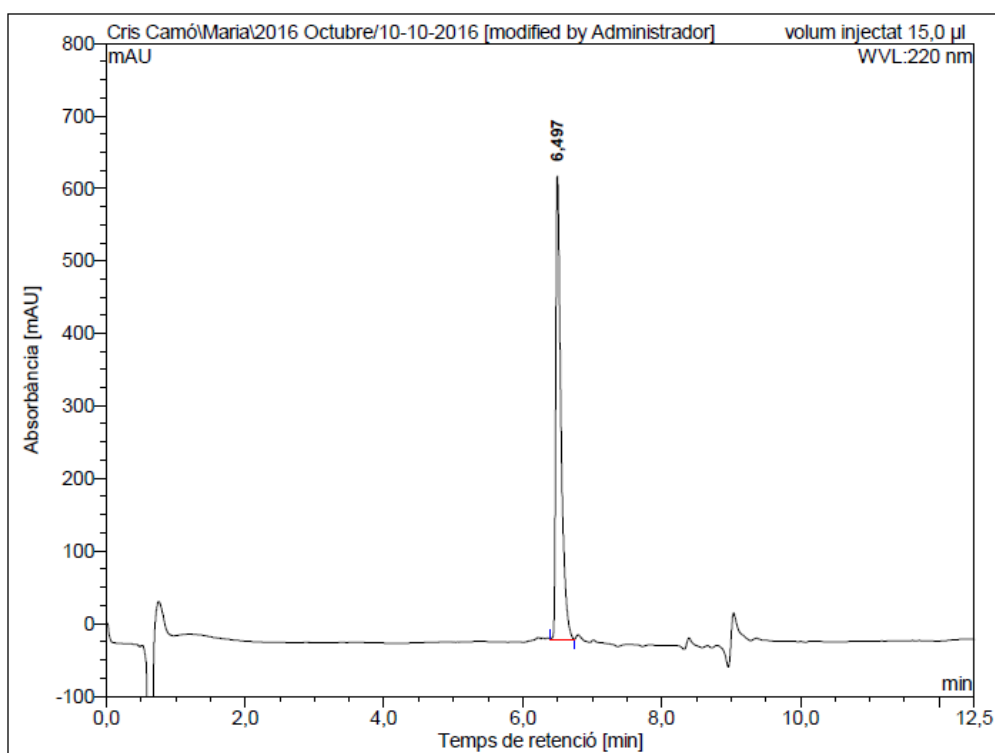
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₀ N ₁₅ O ₁₁ | 1264.8504 | 1264.8552 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₁ N ₁₅ O ₁₁ | 632.9288 | 632.9303 |
| [M+3H] ³⁺ | C ₆₄ H ₁₁₂ N ₁₅ O ₁₁ | 422.2883 | 422.2892 |

Fmoc-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Leu-Gln-OAll

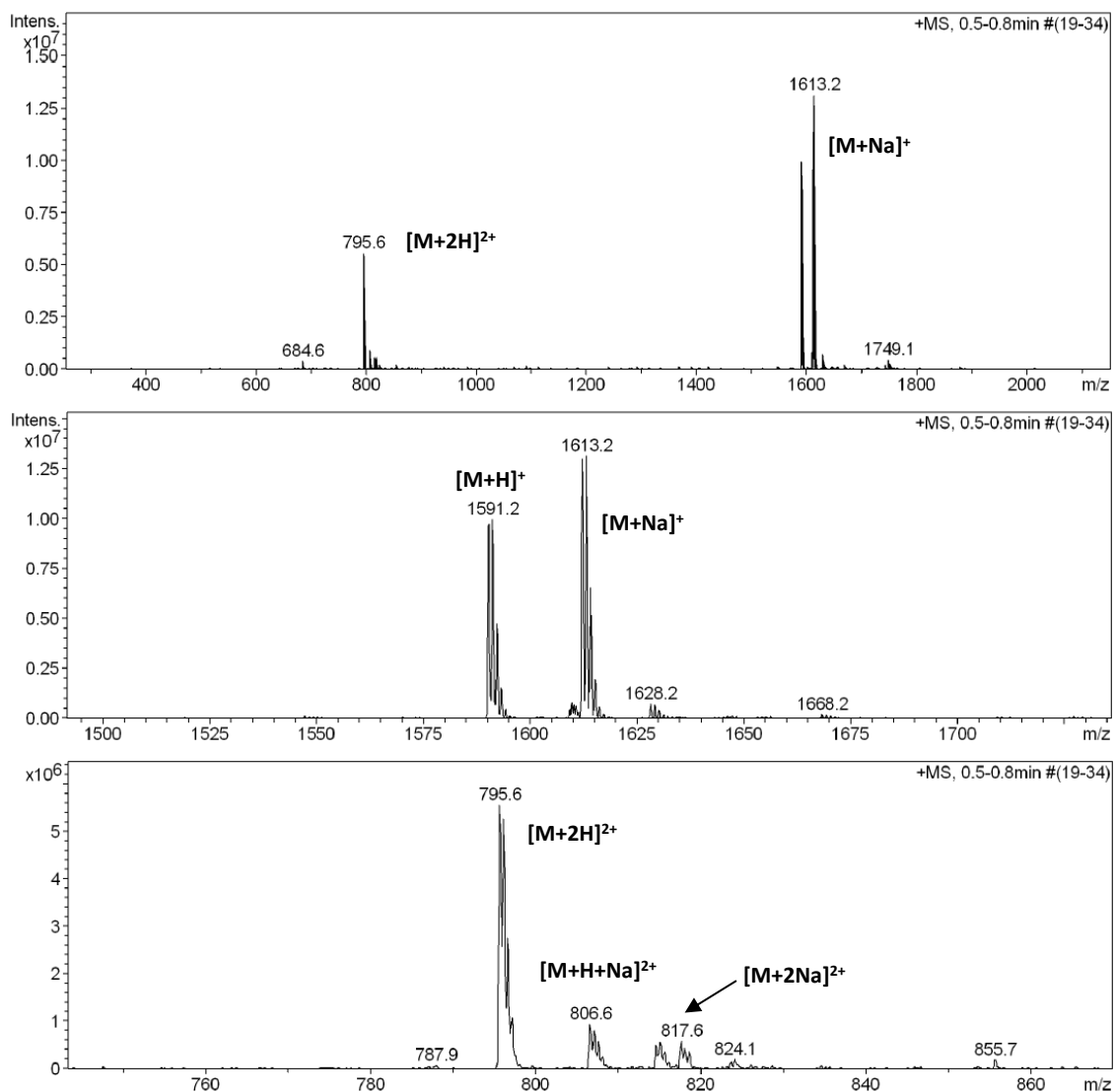
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

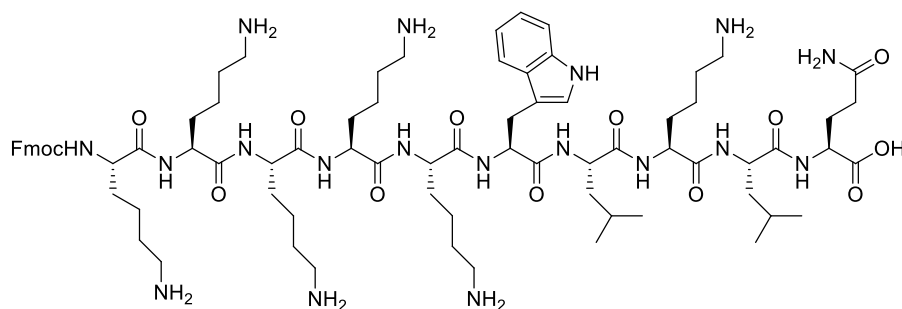
HPLC ($\lambda = 220$ nm) (MT-A18)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,50 | 639,325 | 55,085 | 100,00 |
| Total: | | 639,325 | 55,085 | 100,00 |

ESI-MS (m/z) (MT-A18)

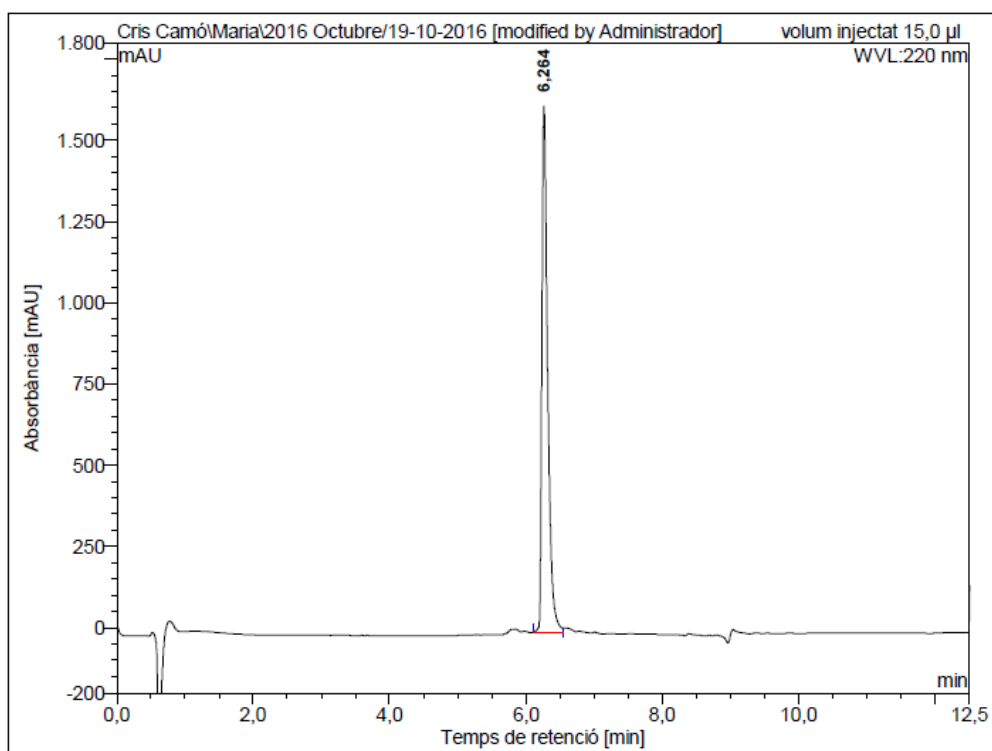
| |
|-------------------------|
| $[M+H]^+ = 1590.2$ |
| $[M+Na]^+ = 1612.2$ |
| $[M+2H]^{2+} = 795.6$ |
| $[M+H+Na]^{2+} = 806.6$ |
| $[M+2Na]^{2+} = 817.6$ |

Fmoc-Lys-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

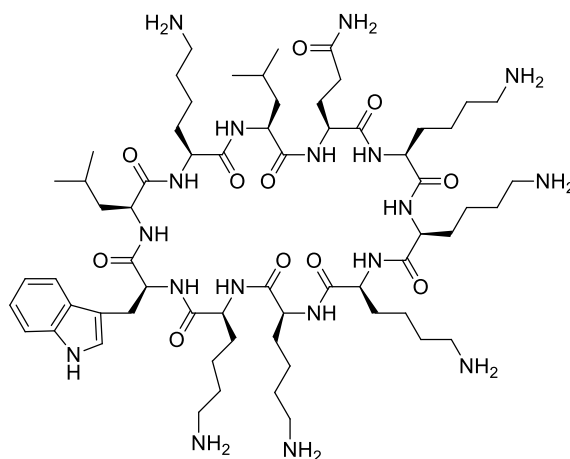
Exact Mass: 1548,9544

Molecular Weight: 1549,9421

HPLC ($\lambda = 220 \text{ nm}$) (MT-A24)

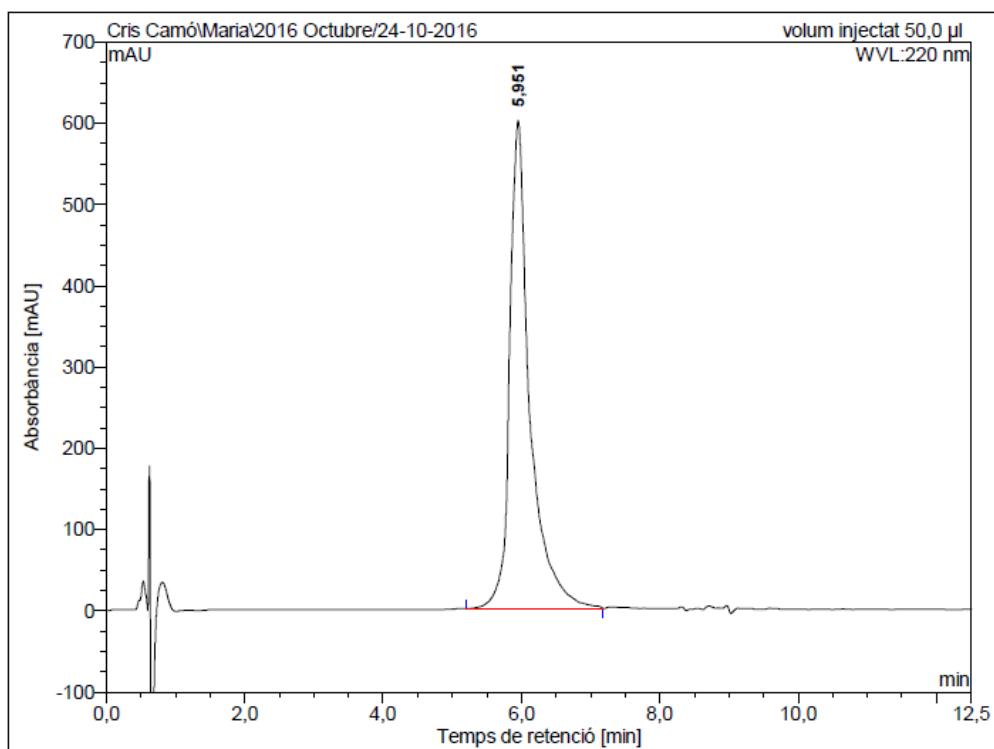
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,26 | 1620,502 | 159,965 | 100,00 |
| Total: | | 1620,502 | 159,965 | 100,00 |

c(Lys-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Leu-Gln) (BPC870W)

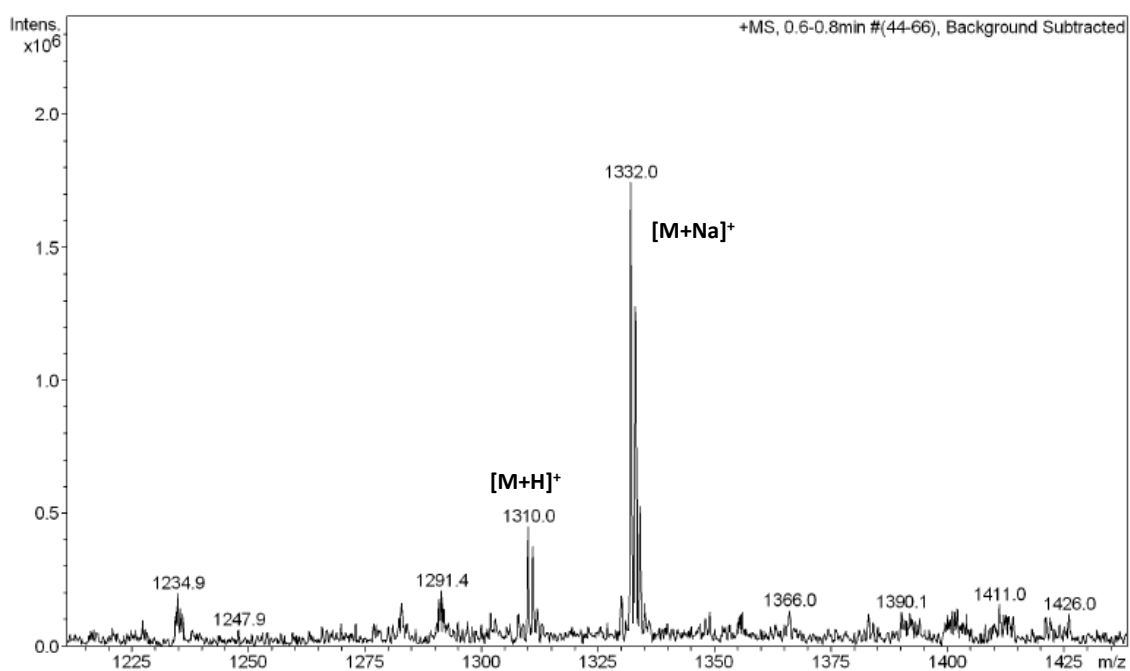
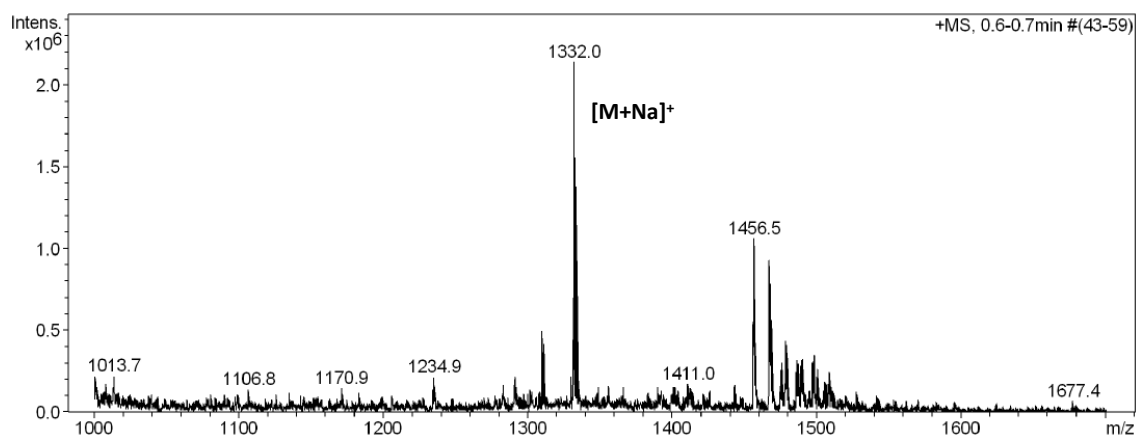
Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

Exact Mass: 1308,8758

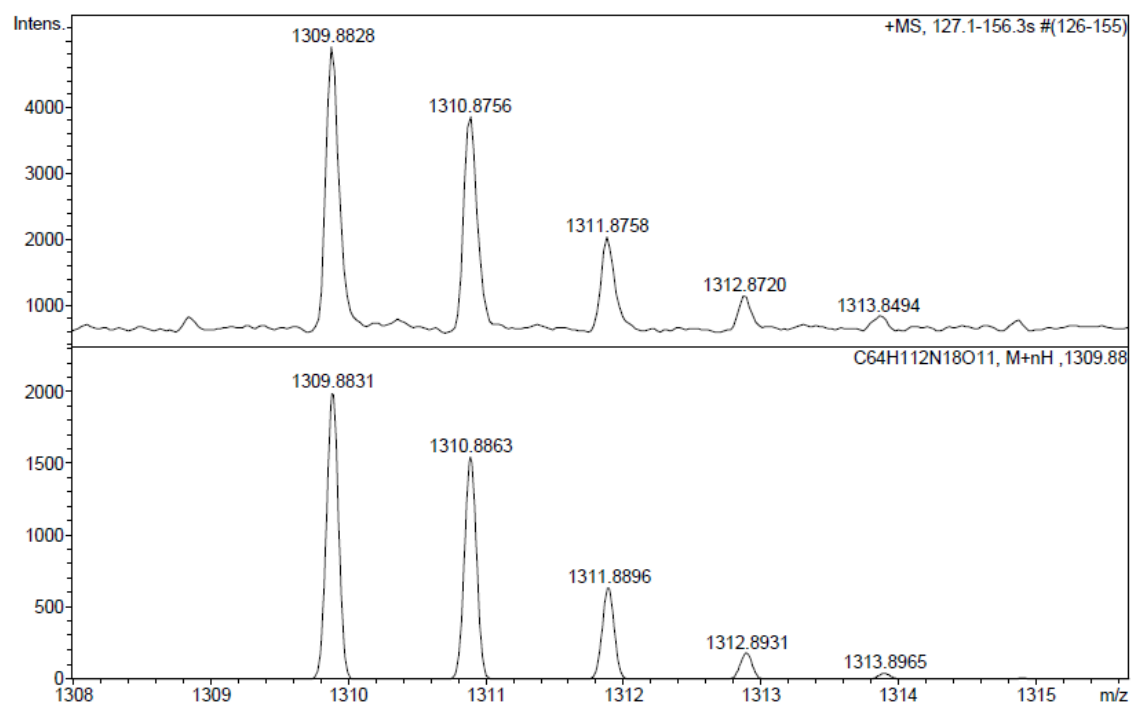
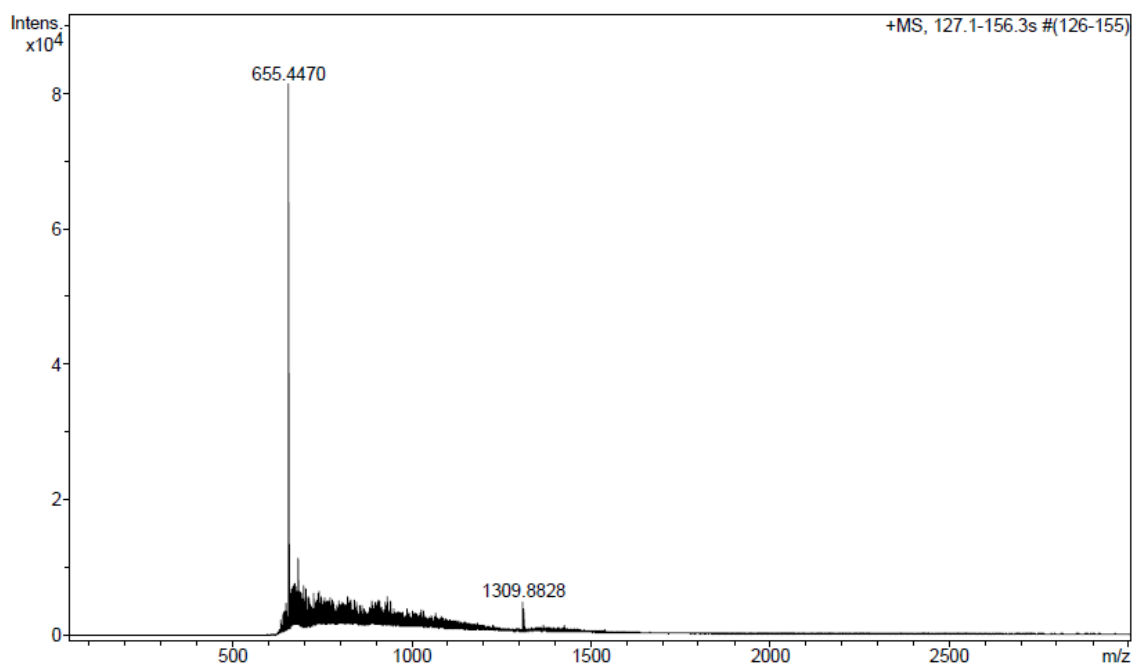
Molecular Weight: 1309,6881

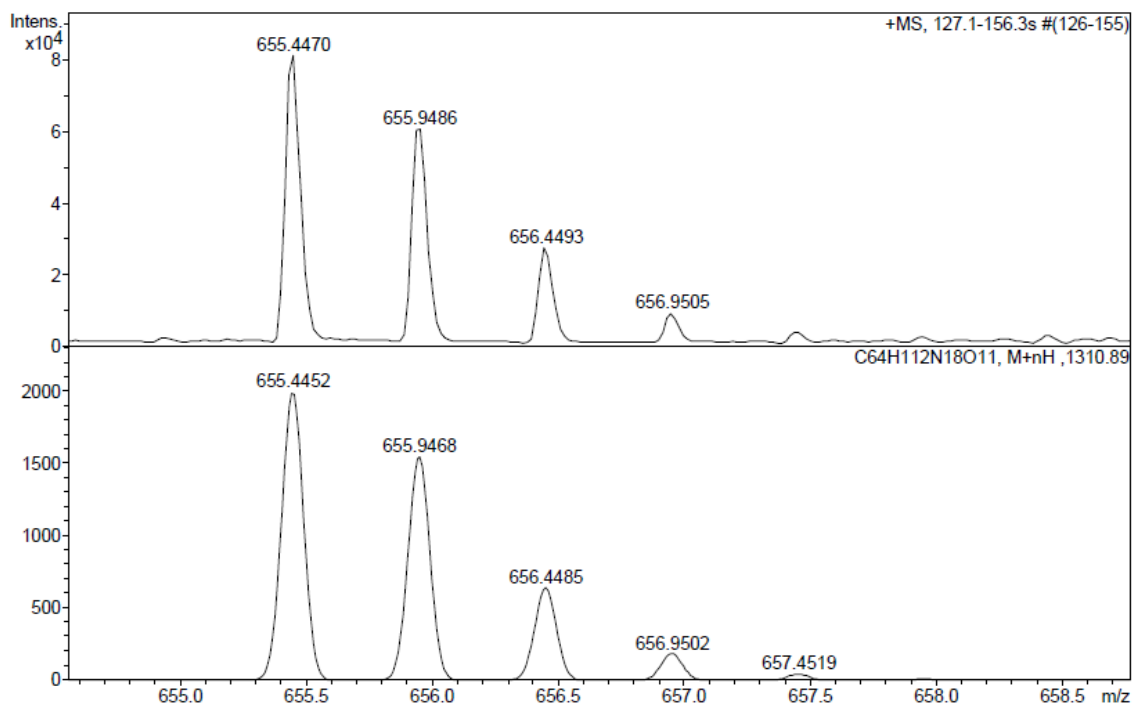
HPLC ($\lambda = 220 \text{ nm}$) (MT-A25)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,95 | 600,767 | 202,525 | 100,00 |
| Total: | | 600,767 | 202,525 | 100,00 |

ESI-MS (m/z) (MT-A18)

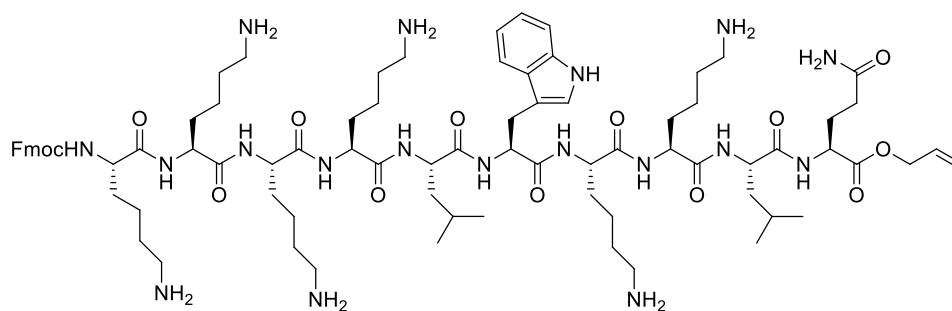
| |
|---------------------|
| $[M+H]^+ = 1310.0$ |
| $[M+Na]^+ = 1332.0$ |

HRMS (ESI) (m/z) (MT-A)



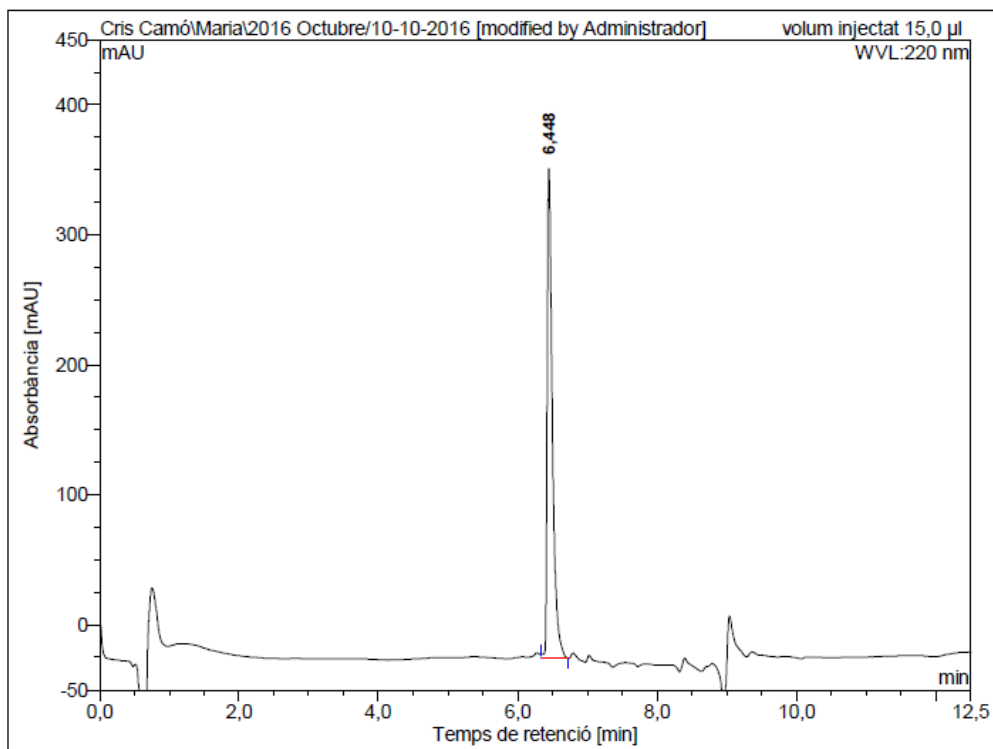
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8828 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4470 |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Leu-Gln-OAll

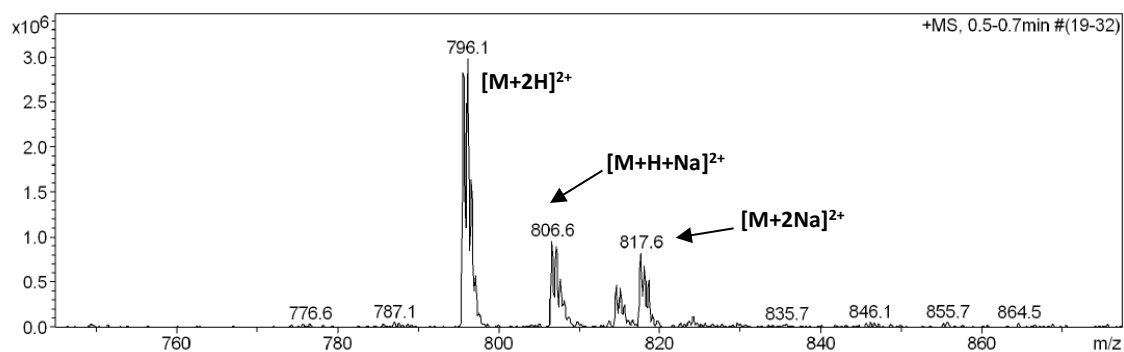
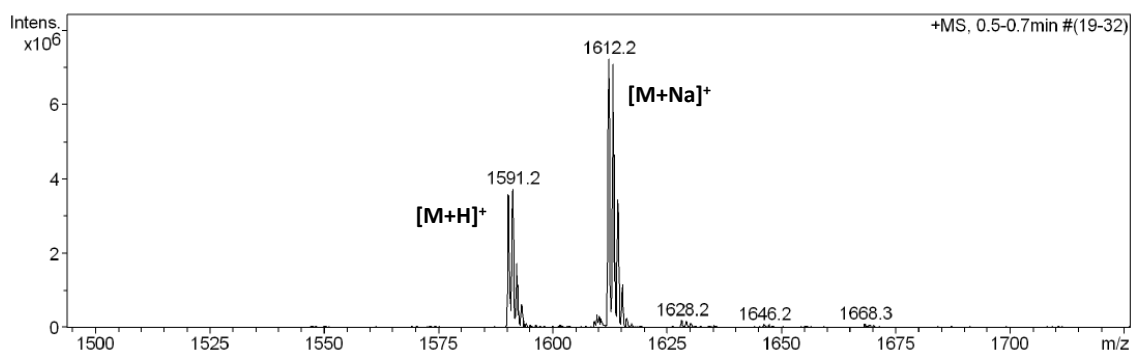
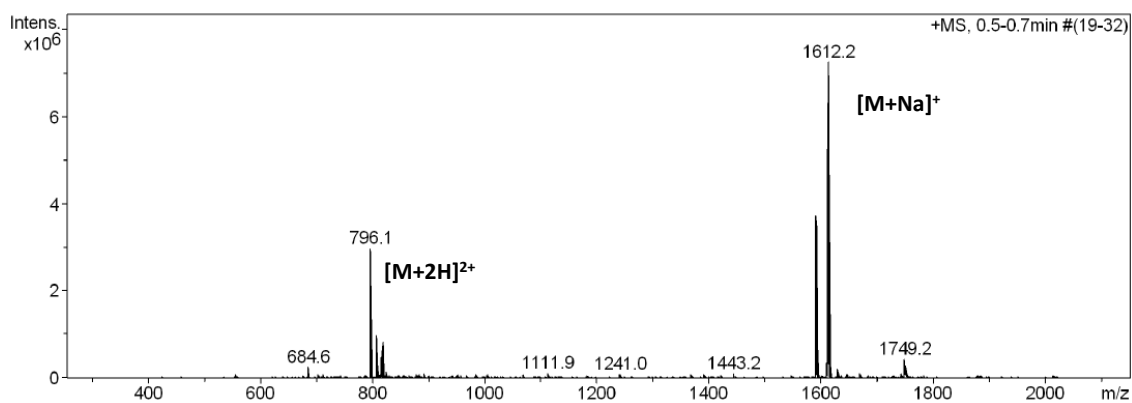
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

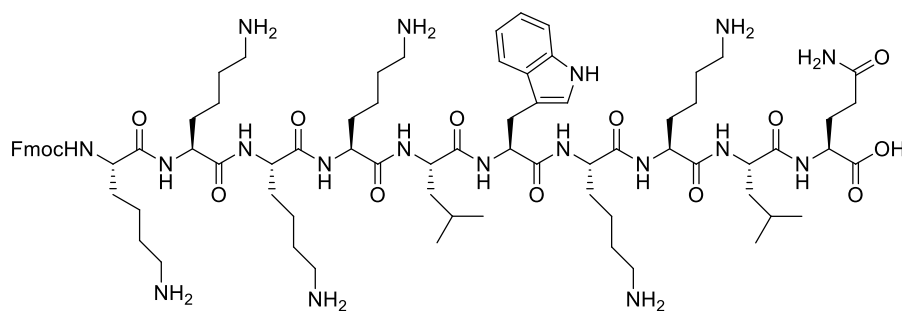
HPLC ($\lambda = 220$ nm) (MT-B18)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,45 | 376,462 | 32,282 | 100,00 |
| Total: | | 376,462 | 32,282 | 100,00 |

ESI-MS (m/z) (MT-B18)

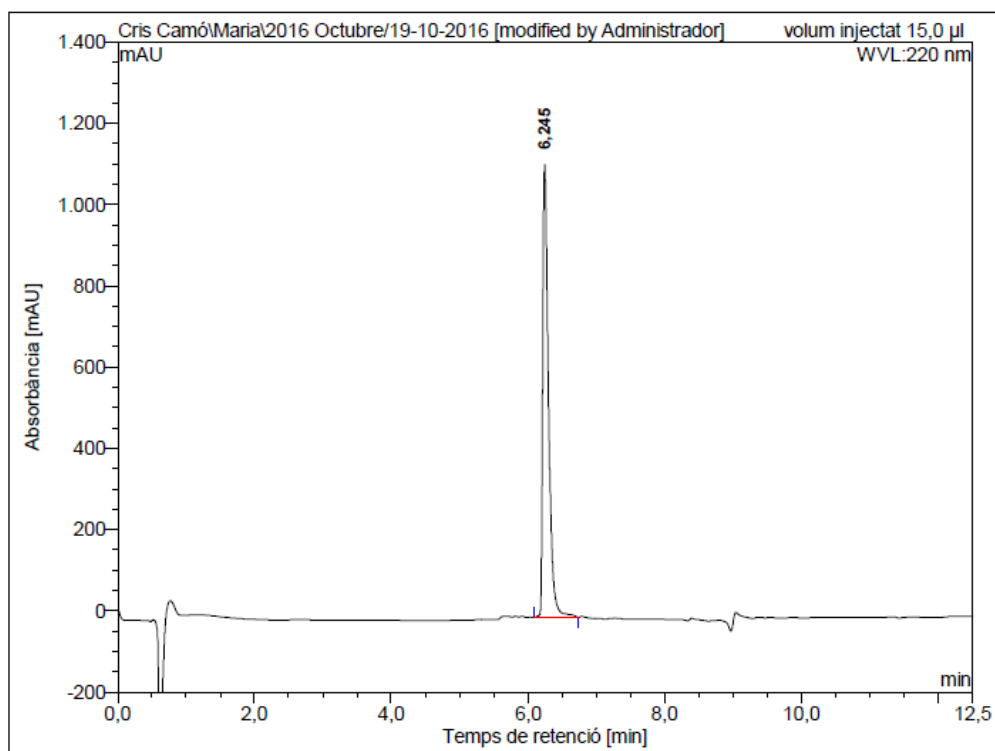
| |
|-------------------------|
| $[M+H]^+ = 1590.2$ |
| $[M+Na]^+ = 1612.2$ |
| $[M+2H]^{2+} = 796.1$ |
| $[M+H+Na]^{2+} = 806.6$ |
| $[M+2Na]^{2+} = 817.6$ |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Leu-Gln-OH

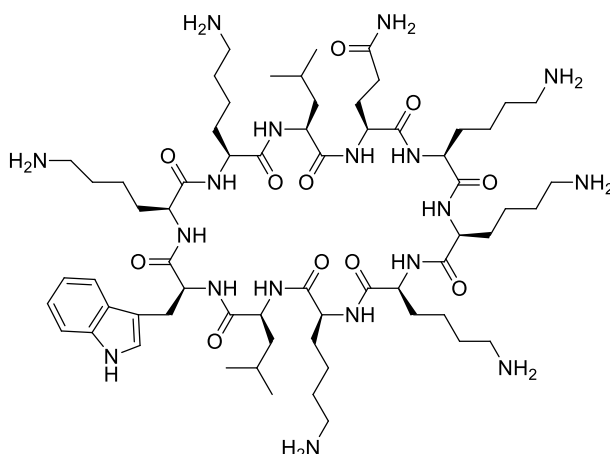
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

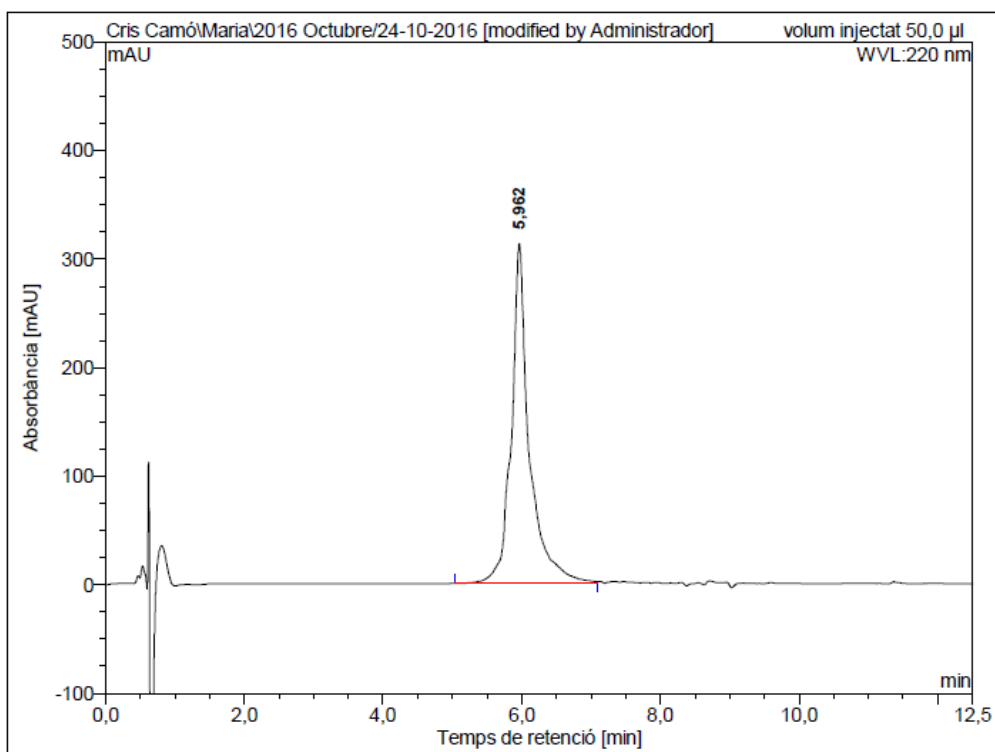
HPLC ($\lambda = 220 \text{ nm}$) (MT-B24)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,24 | 1114,791 | 108,006 | 100,00 |
| Total: | | 1114,791 | 108,006 | 100,00 |

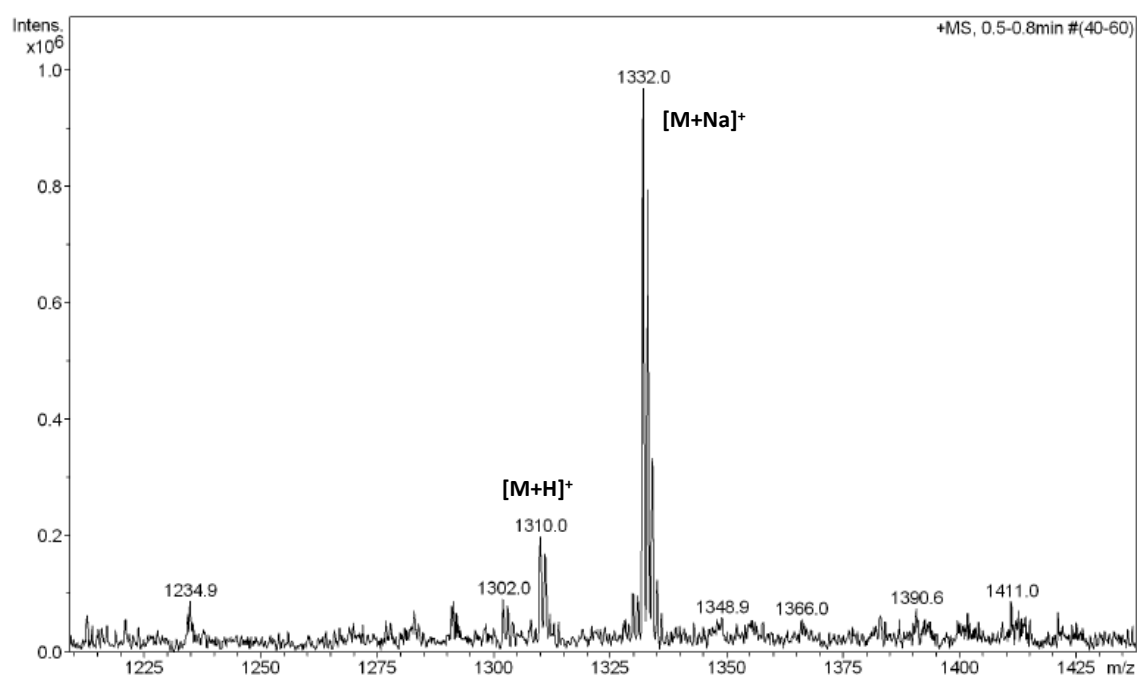
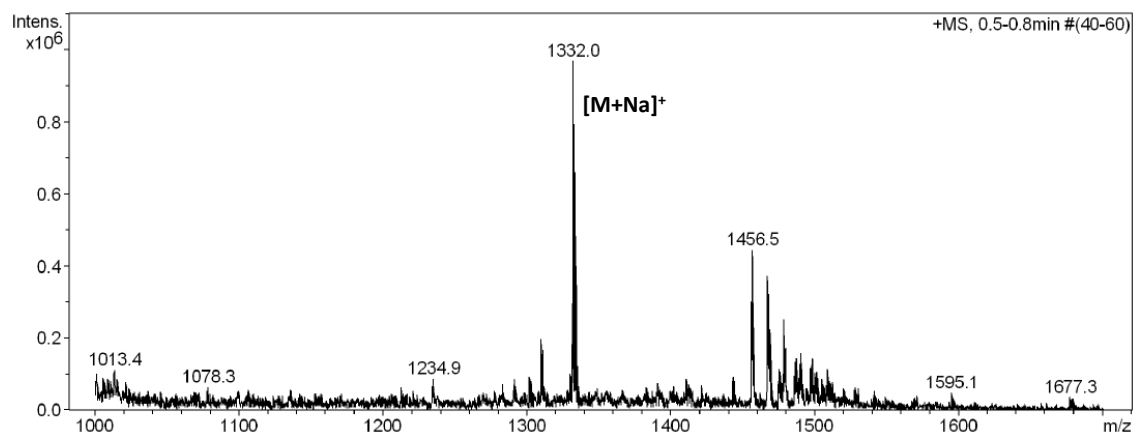
c(Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Leu-Gln) (**BPC872W**)Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

Exact Mass: 1308,8758

Molecular Weight: 1309,6881

HPLC ($\lambda = 220 \text{ nm}$) (MT-B25)

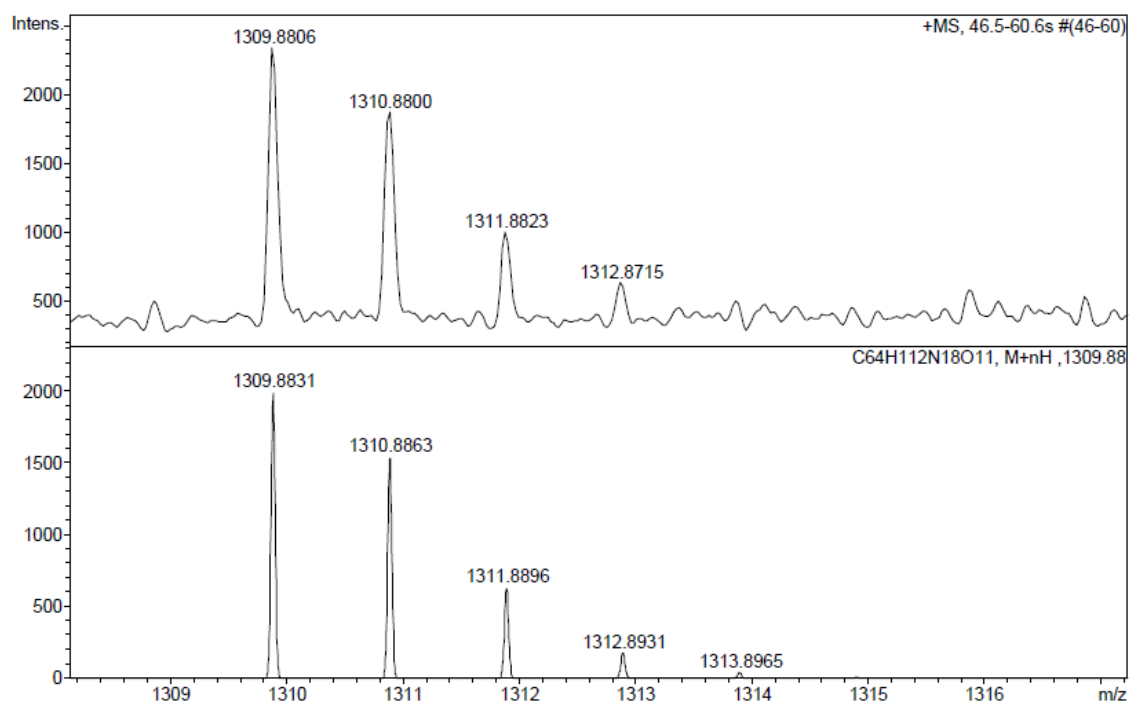
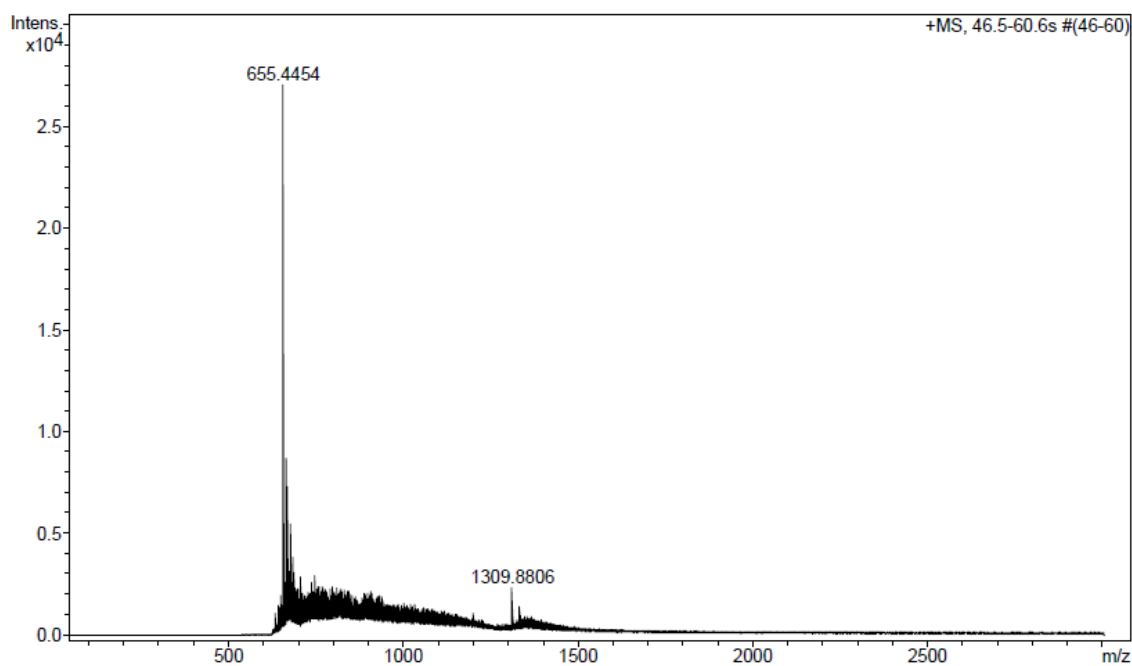
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 5,96 | 312,910 | 93,865 | 100,00 |
| Total: | | 312,910 | 93,865 | 100,00 |

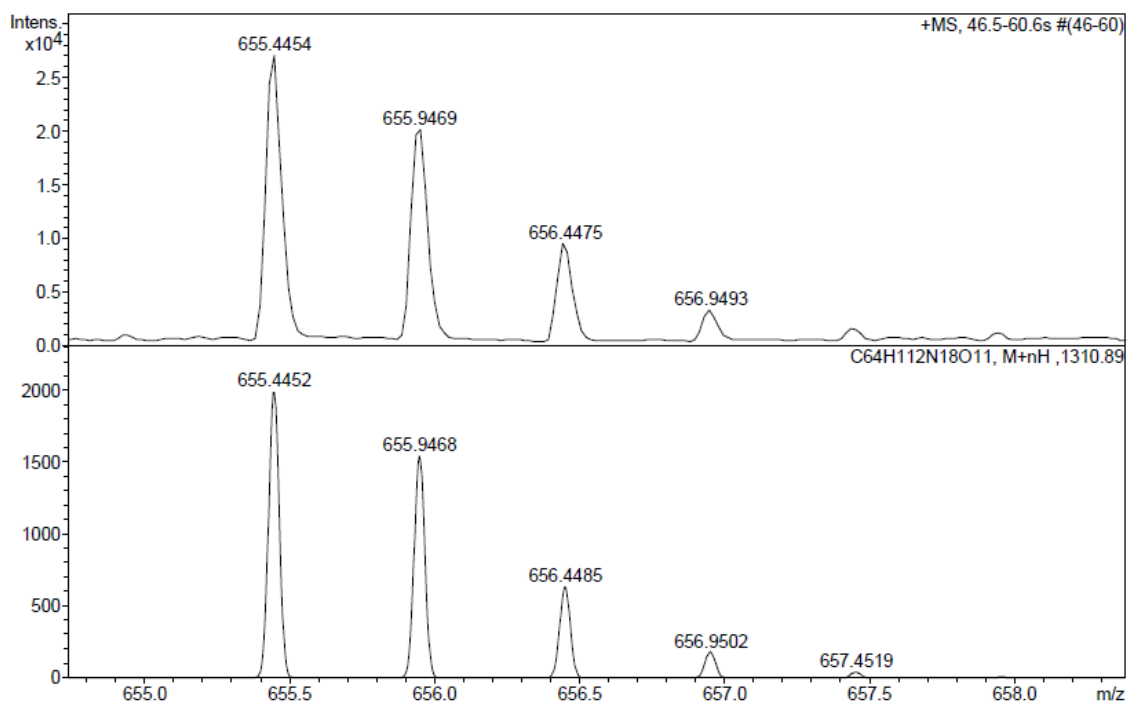
ESI-MS (m/z) (MT-B25)

| |
|--------------------|
| $[M+H]^+ = 1310.0$ |
|--------------------|

| |
|---------------------|
| $[M+Na]^+ = 1332.0$ |
|---------------------|

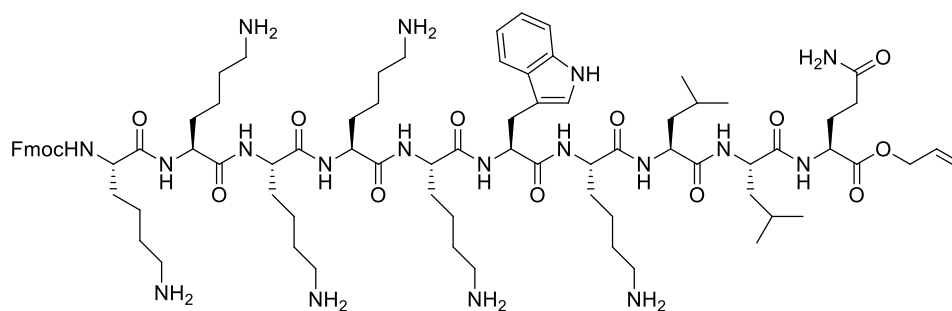
HRMS (ESI) (m/z)





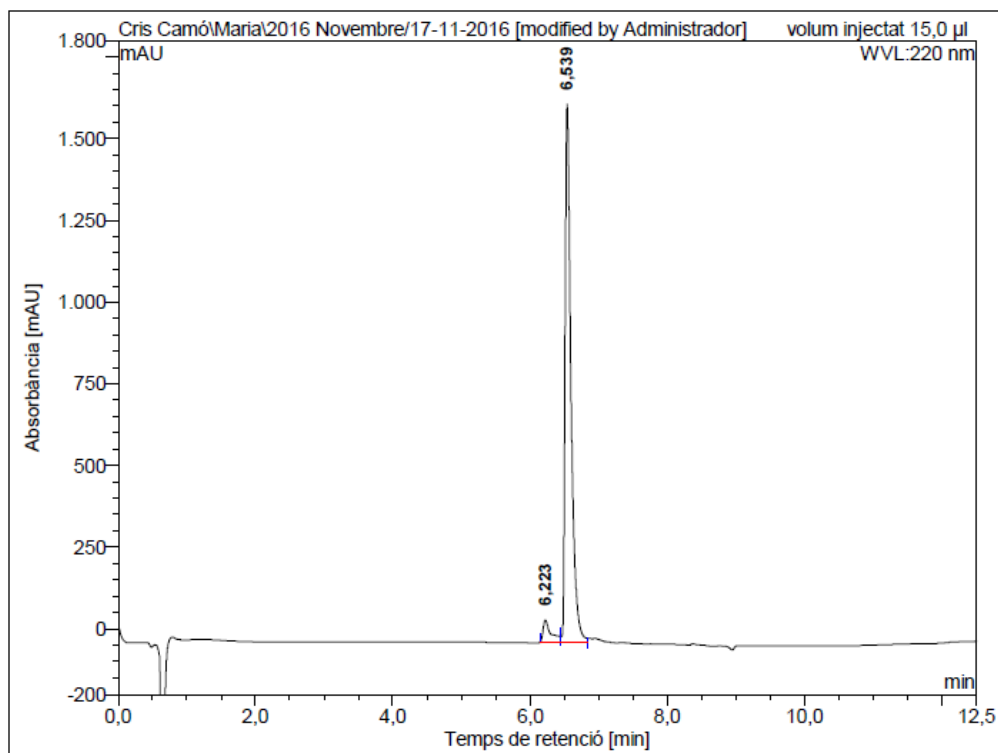
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8806 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4454 |

Fmoc-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

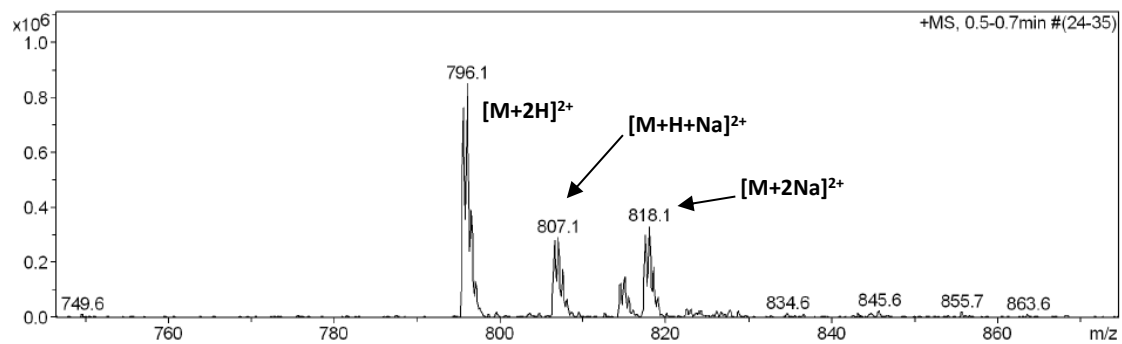
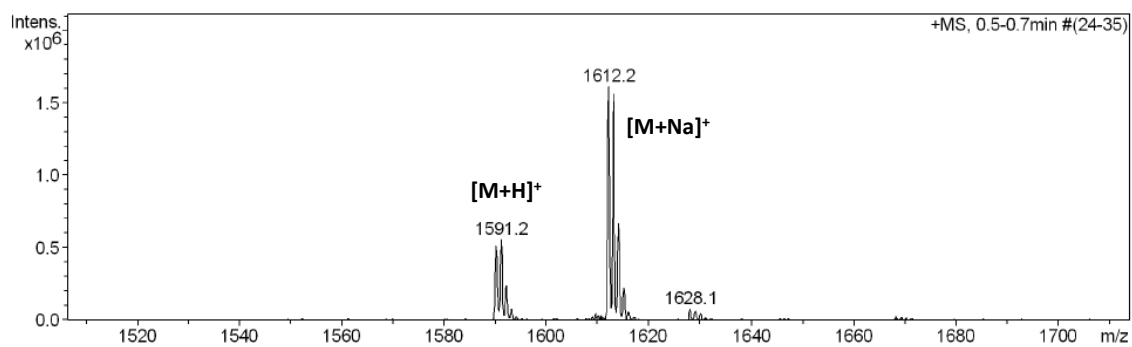
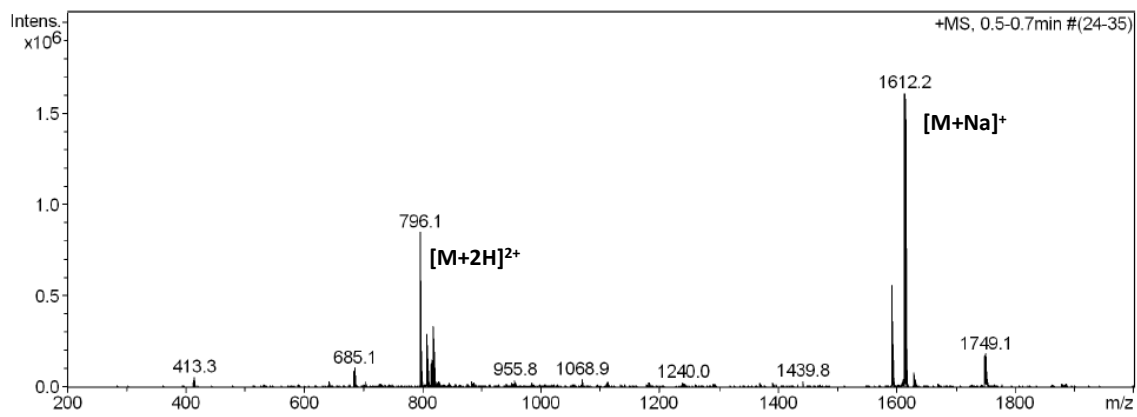
Exact Mass: 1588,9857

Molecular Weight: 1590,0059

HPLC ($\lambda = 220$ nm) (MT-C35)

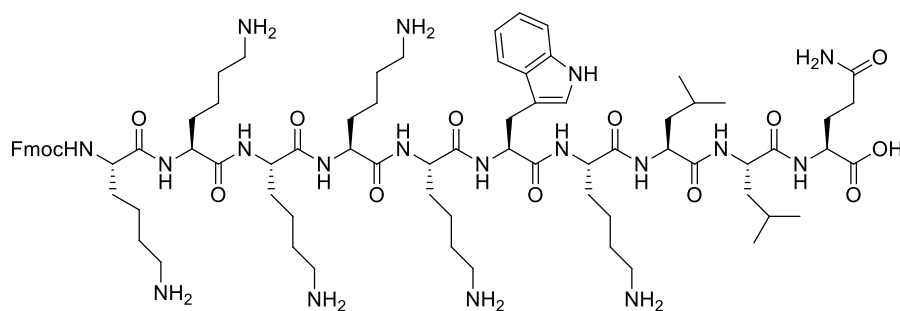
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,22 | 67,509 | 9,262 | 5,38 |
| 2 | 6,54 | 1645,863 | 163,040 | 94,62 |
| Total: | | 1713,372 | 172,302 | 100,00 |

ESI (m/z) (MT-C35)



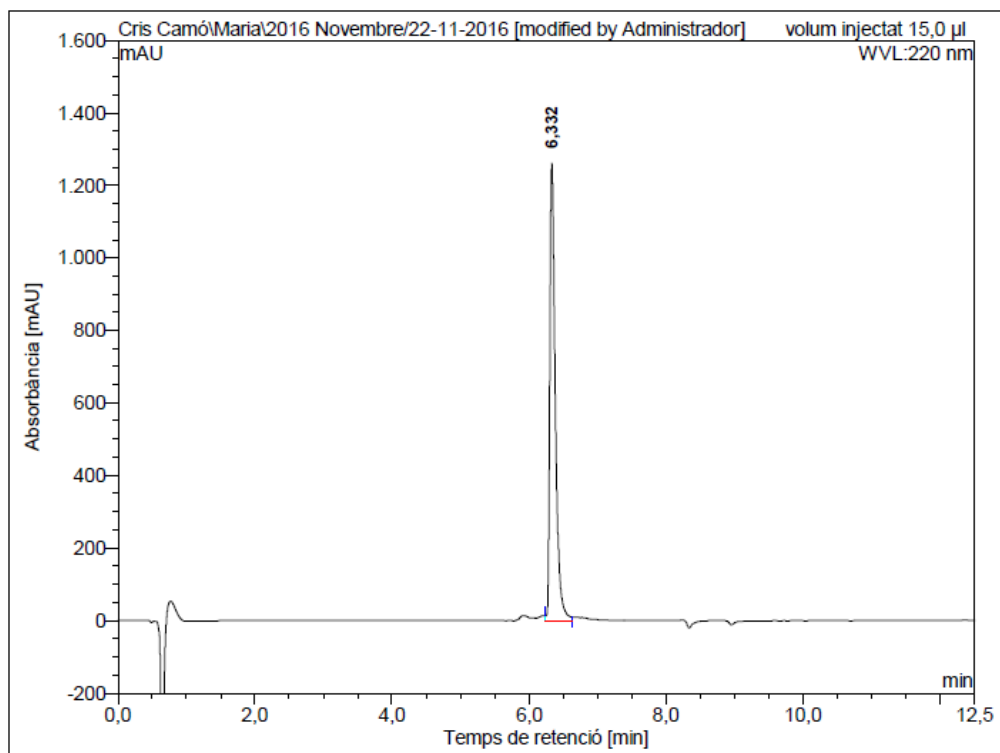
| |
|--------------------------------|
| [M+H] ⁺ = 1590.2 |
| [M+Na] ⁺ = 1612.2 |
| [M+2H] ²⁺ = 796.1 |
| [M+H+Na] ²⁺ = 807.1 |
| [M+2Na] ²⁺ = 818.1 |

Fmoc-Lys-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Leu-Gln-OH

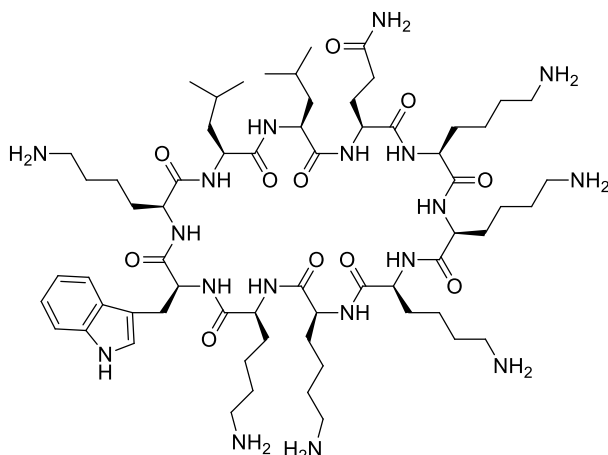
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

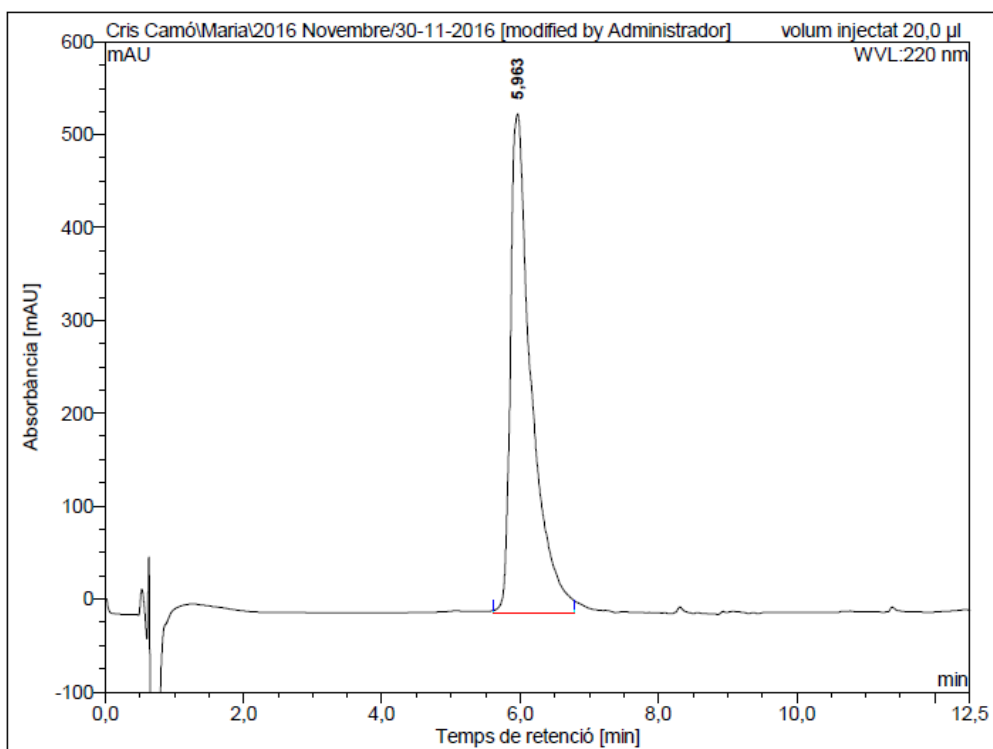
HPLC ($\lambda = 220 \text{ nm}$) (MT-C37)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,33 | 1264,009 | 118,229 | 100,00 |
| Total: | | 1264,009 | 118,229 | 100,00 |

c(Lys-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Leu-Gln) (**BPC874W**)Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

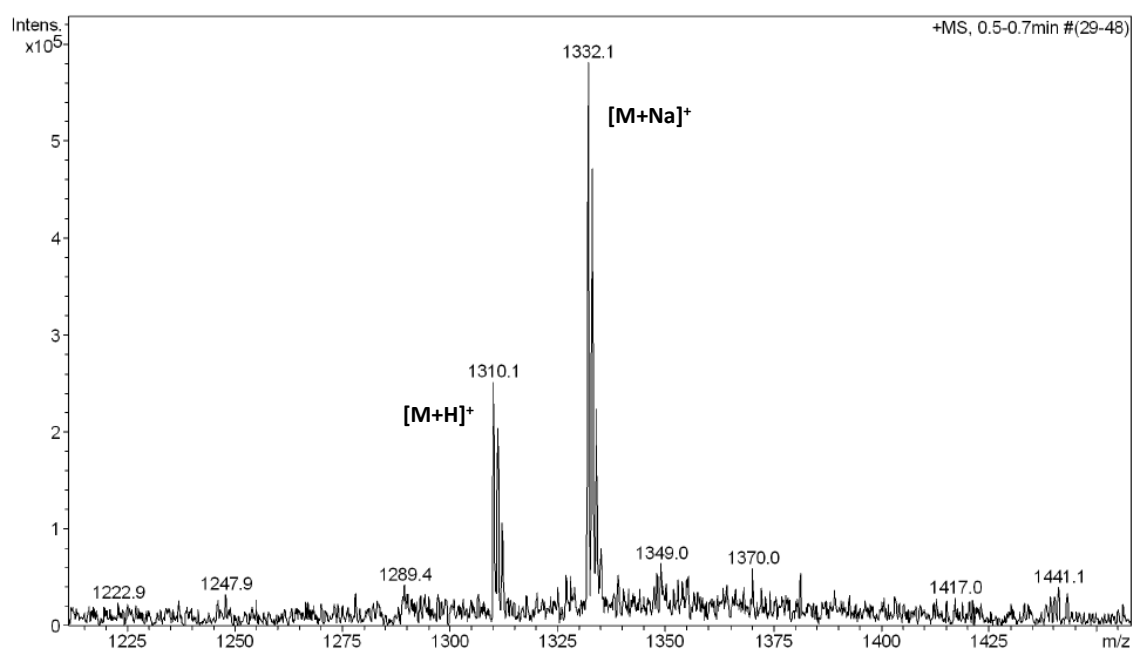
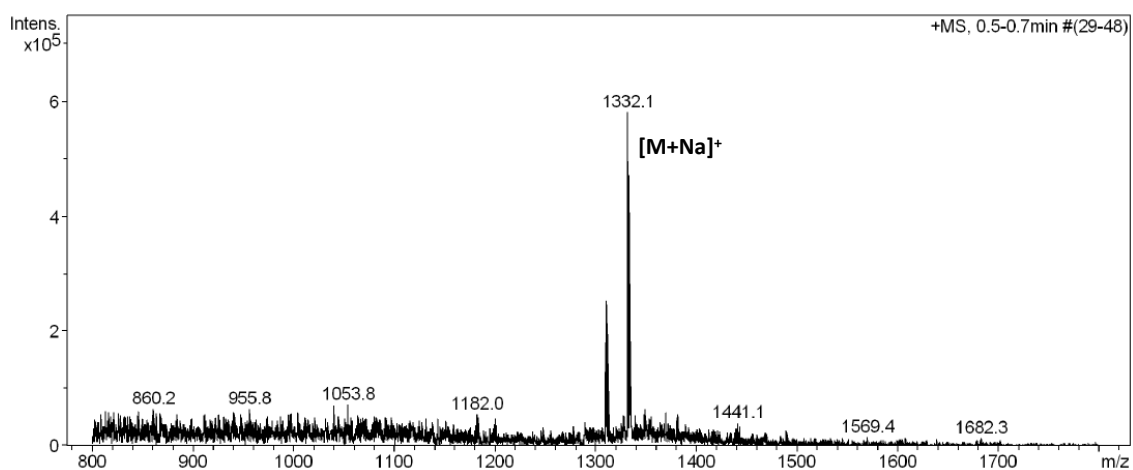
Exact Mass: 1308,8758

Molecular Weight: 1309,6881

HPLC ($\lambda = 220$ nm) (MT-C38)

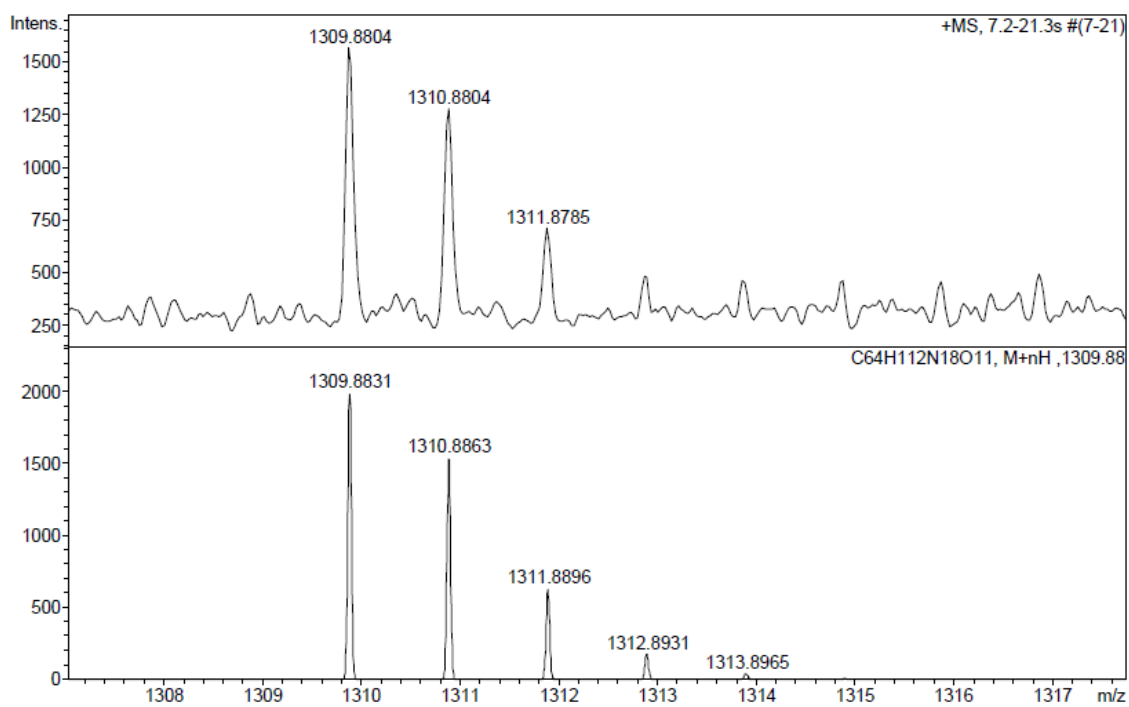
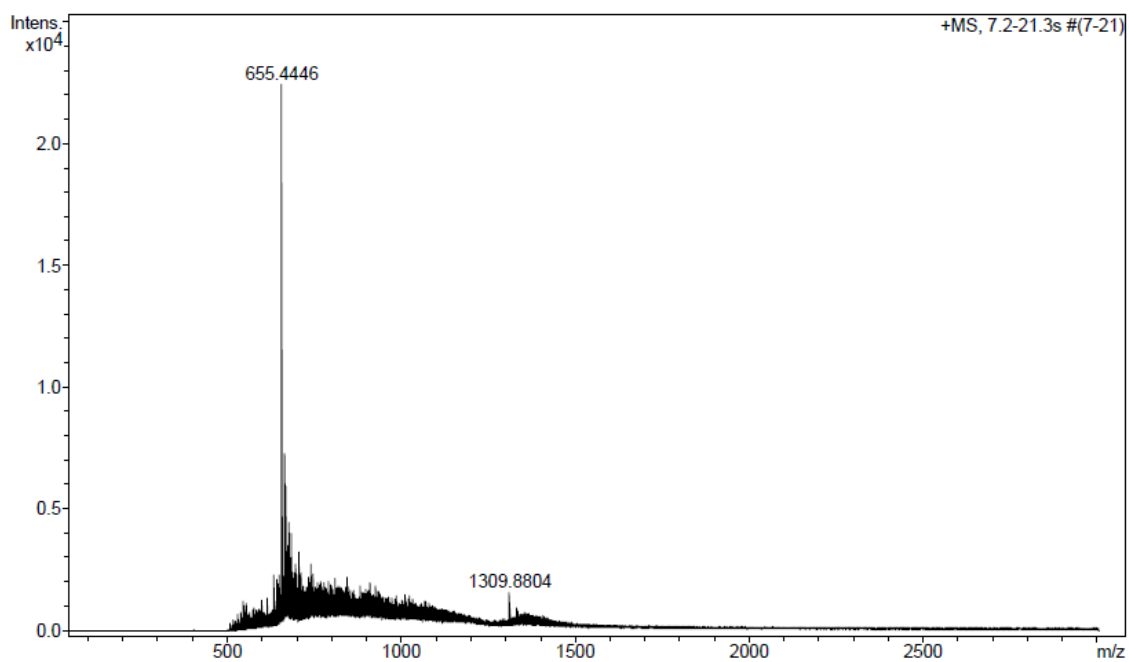
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,96 | 537,058 | 186,669 | 100,00 |
| Total: | | 537,058 | 186,669 | 100,00 |

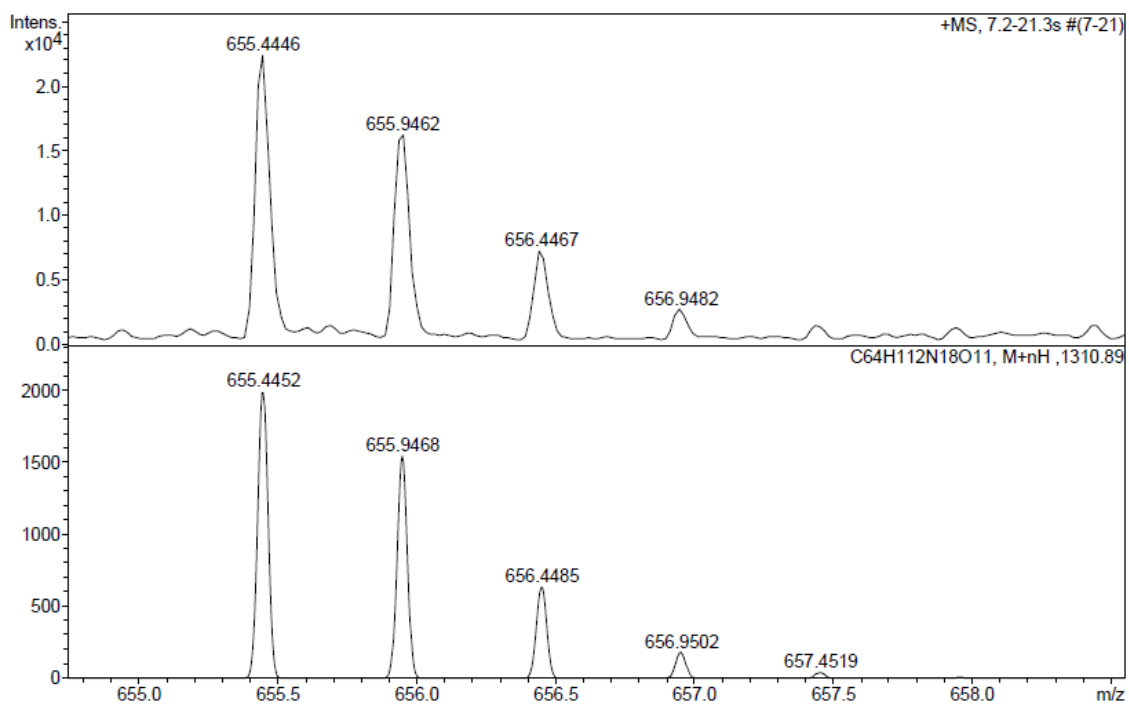
ESI (m/z) (MT-C38)



| |
|--------------------|
| $[M+H]^+ = 1310.1$ |
|--------------------|

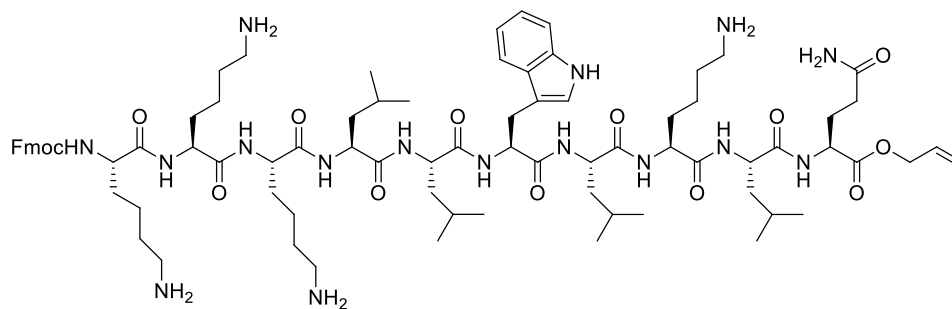
| |
|---------------------|
| $[M+Na]^+ = 1332.1$ |
|---------------------|

HRMS (ESI) (m/z) (MT-C)



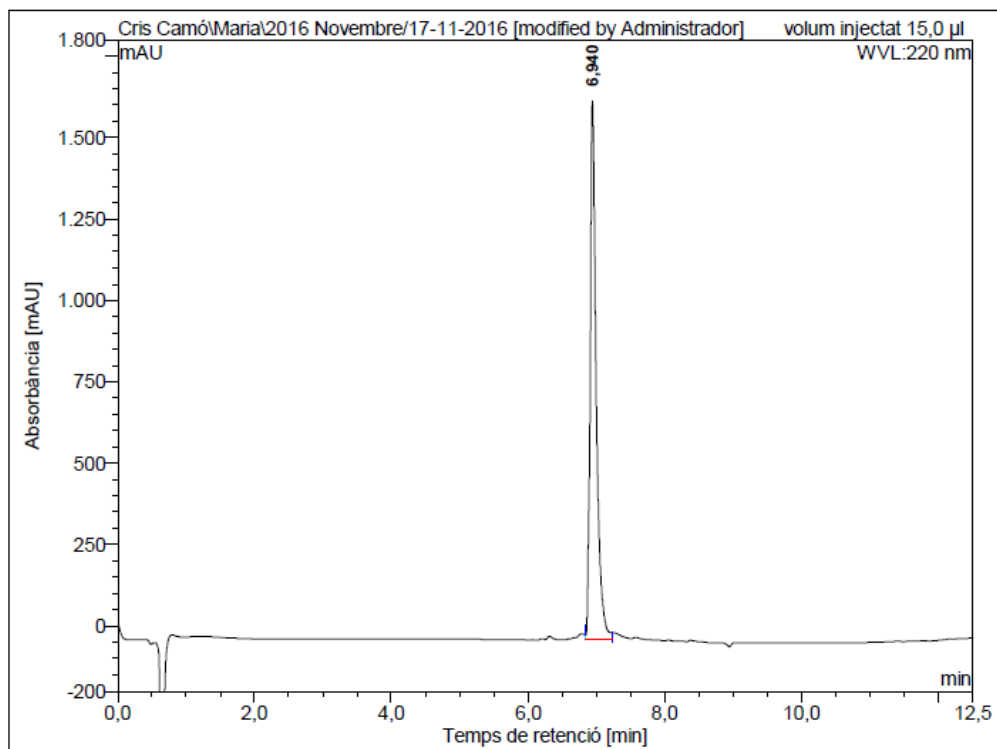
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8804 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4446 |

Fmoc-Lys-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OAll

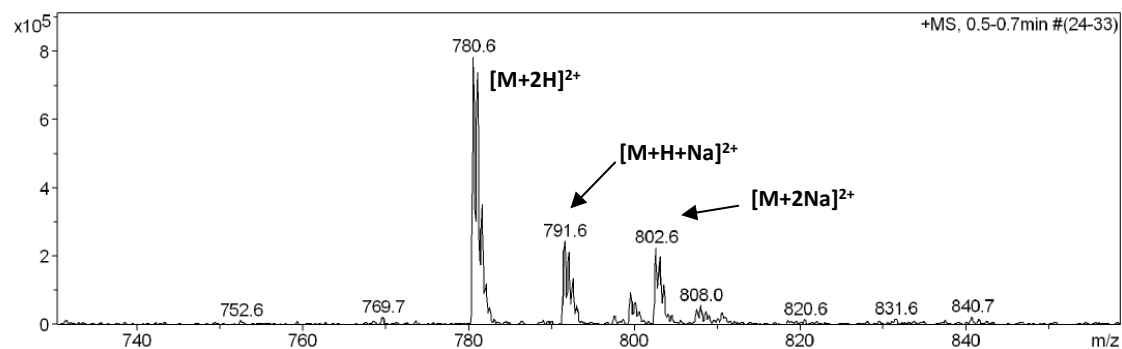
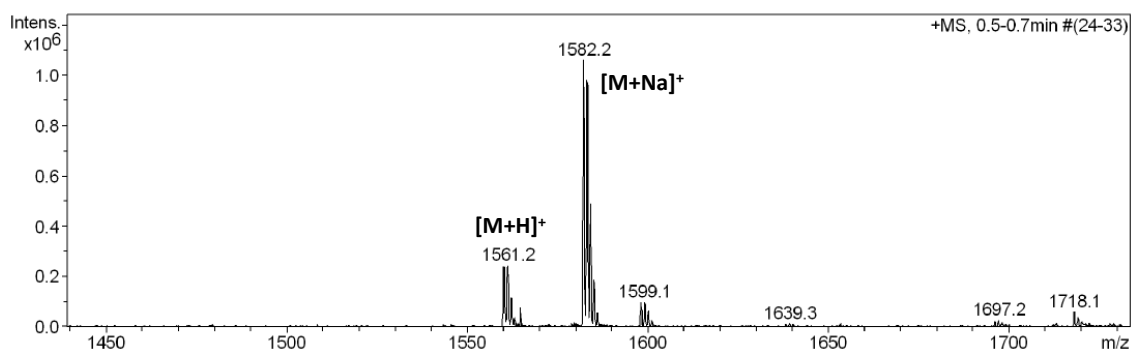
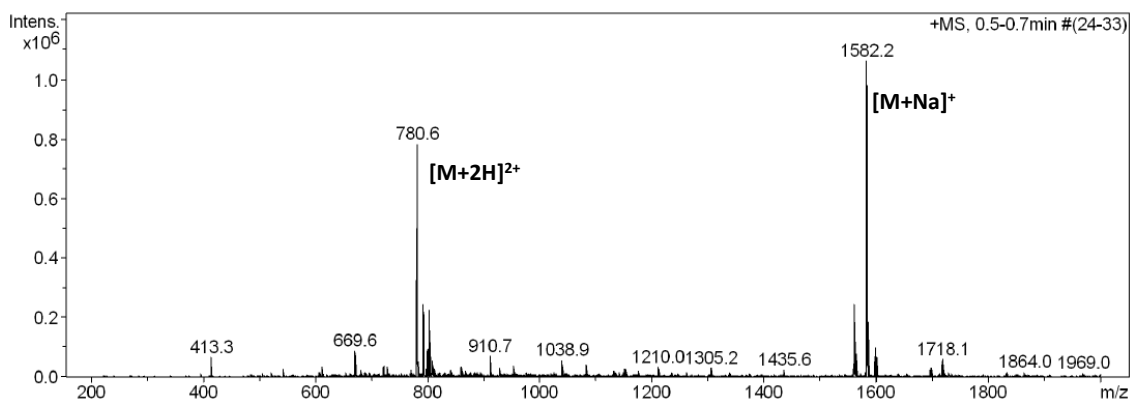
Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

Exact Mass: 1558,9639

Molecular Weight: 1559,9766

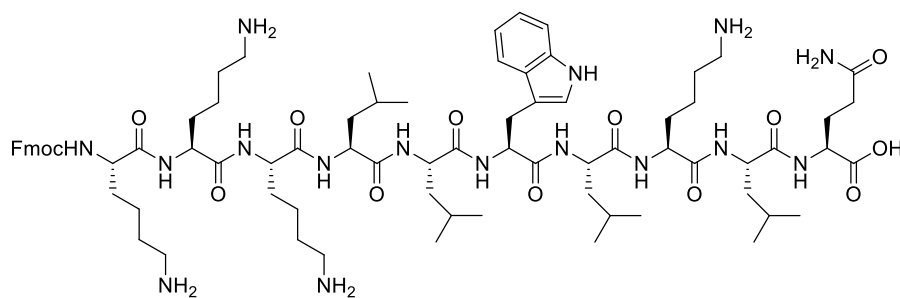
HPLC ($\lambda = 220 \text{ nm}$) (MT-D35)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,94 | 1653,872 | 170,658 | 100,00 |
| Total: | | 1653,872 | 170,658 | 100,00 |

ESI (m/z) (MT-D35)

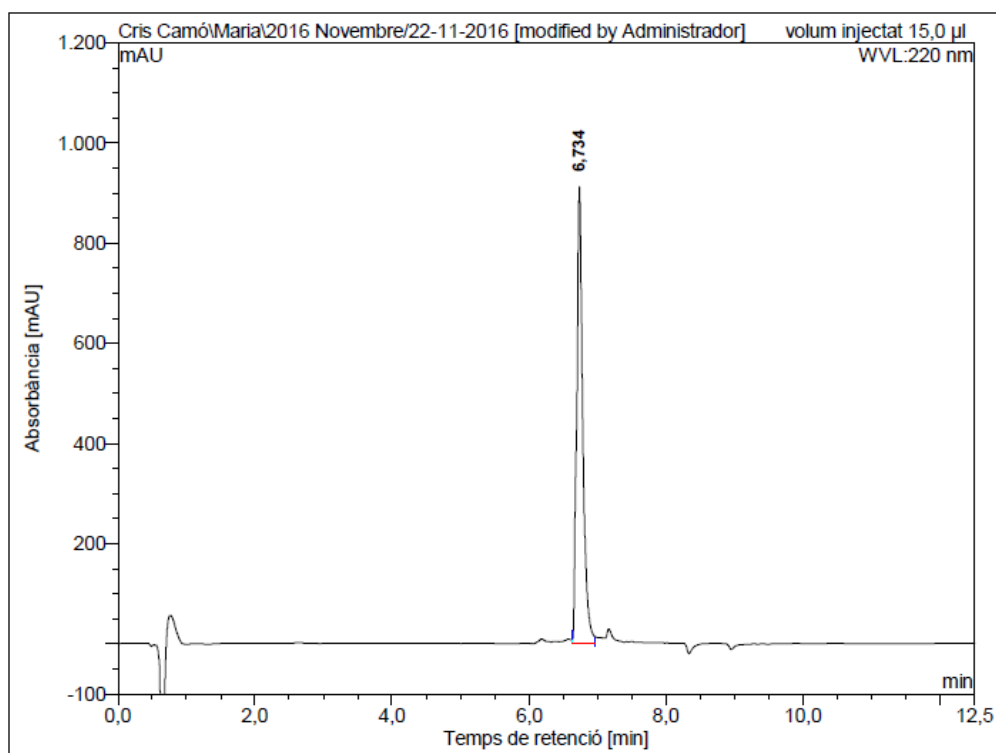
| |
|-------------------------|
| $[M+H]^+ = 1560.2$ |
| $[M+Na]^+ = 1582.2$ |
| $[M+2H]^{2+} = 780.6$ |
| $[M+H+Na]^{2+} = 791.6$ |
| $[M+2Na]^{2+} = 802.6$ |

Fmoc-Lys-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

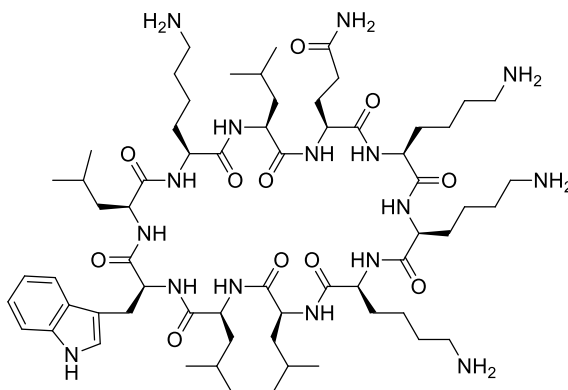
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220$ nm) (MT-D37)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,73 | 912,170 | 93,430 | 100,00 |
| Total: | | 912,170 | 93,430 | 100,00 |

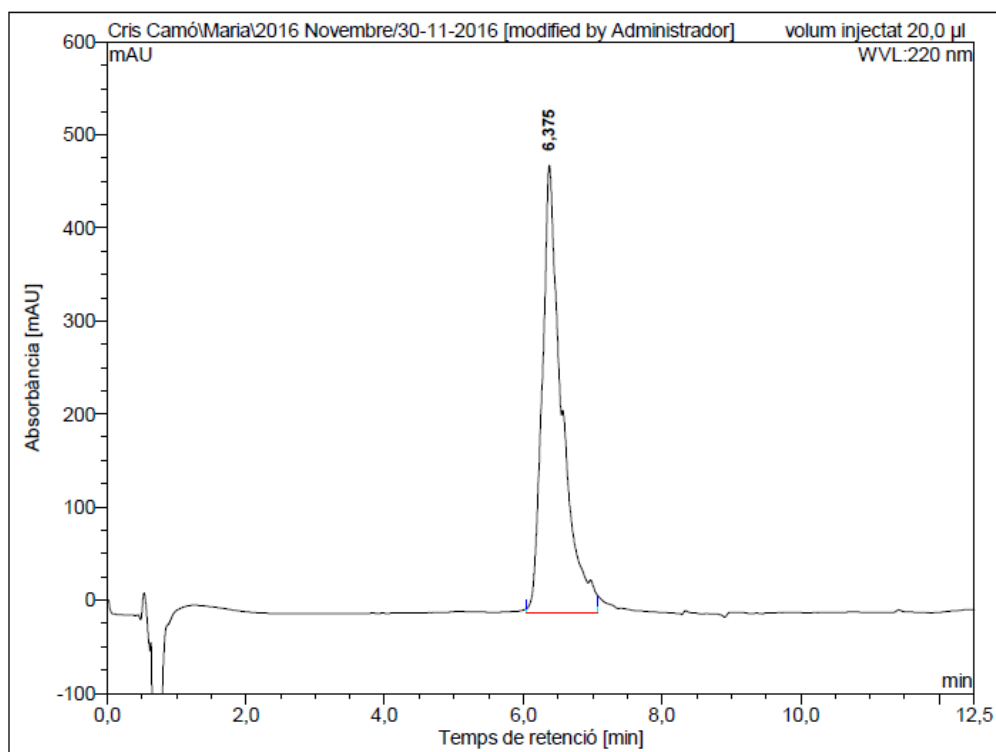
c(Lys-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln) (BPC876W)

Chemical Formula: C₆₄H₁₁₀N₁₆O₁₁

Exact Mass: 1278,8540

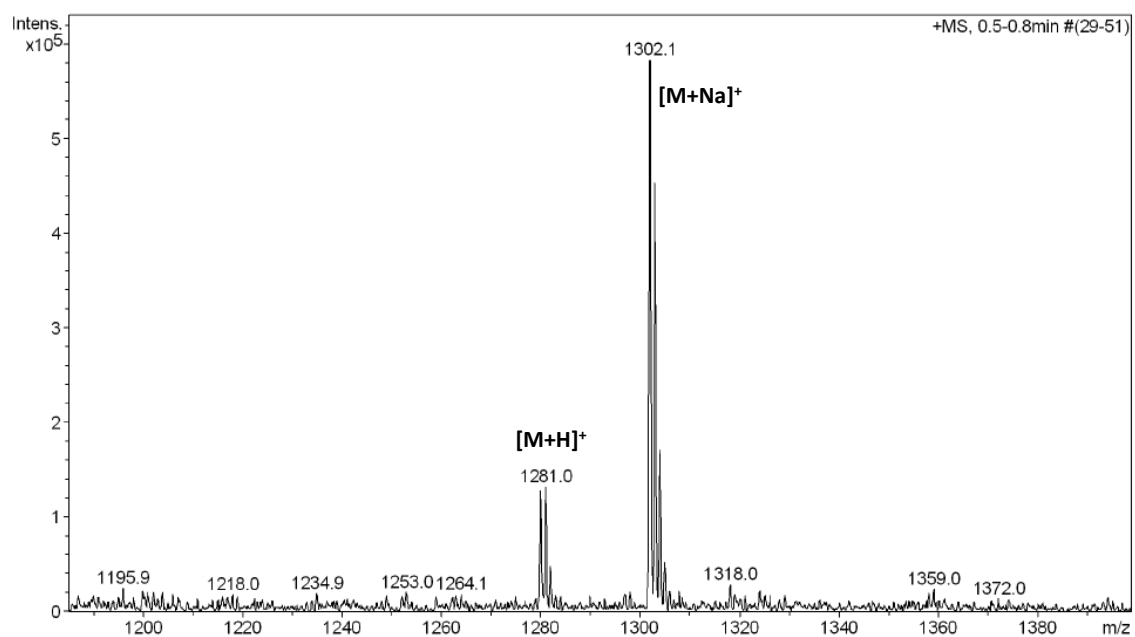
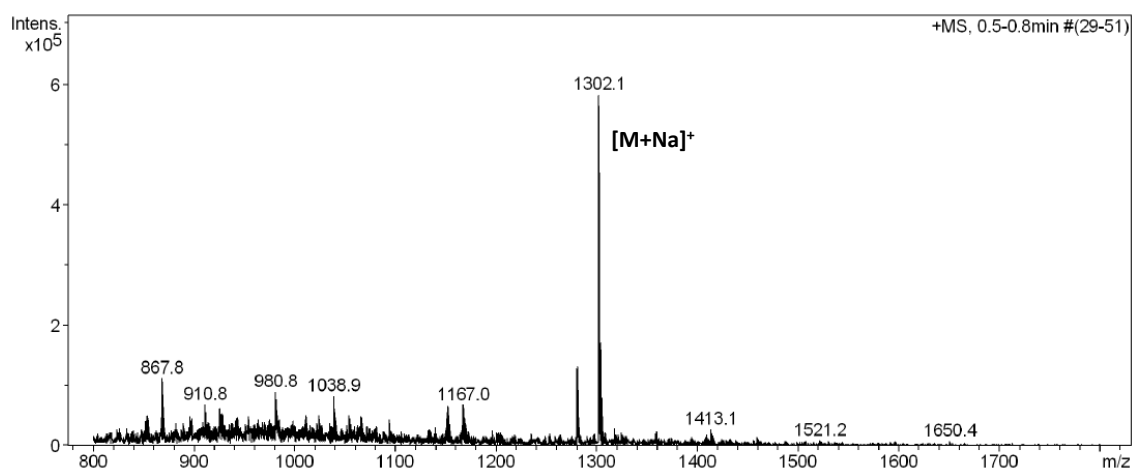
Molecular Weight: 1279,6588

HPLC (λ = 220 nm) (MT-D38)



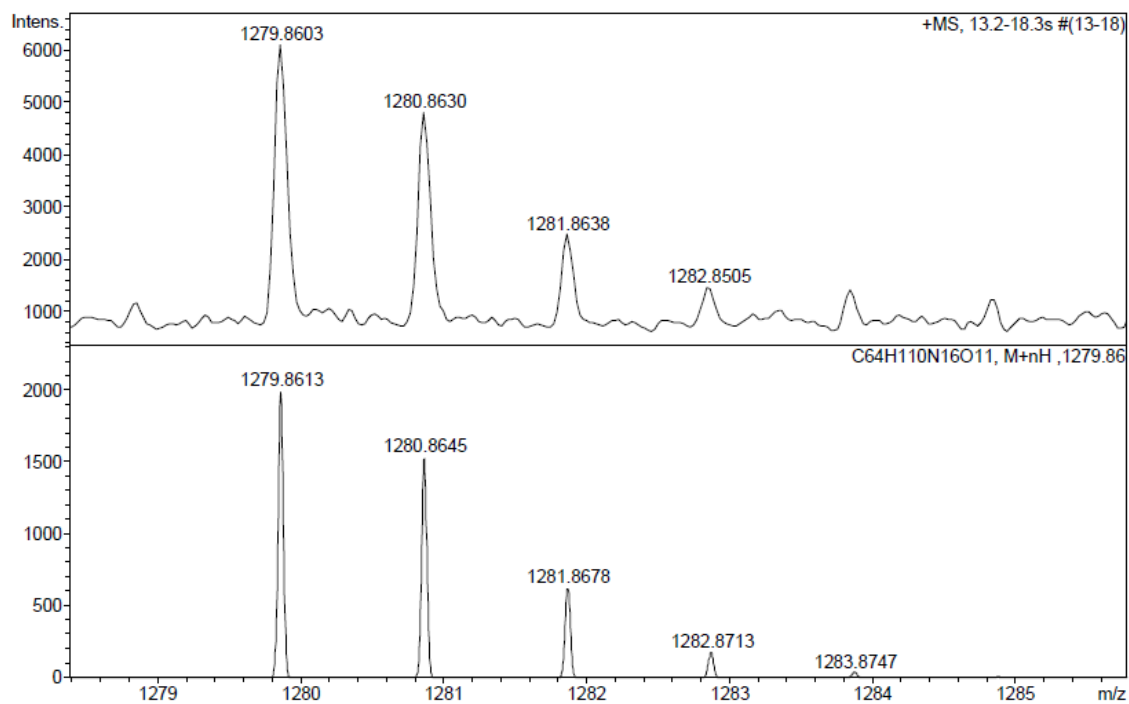
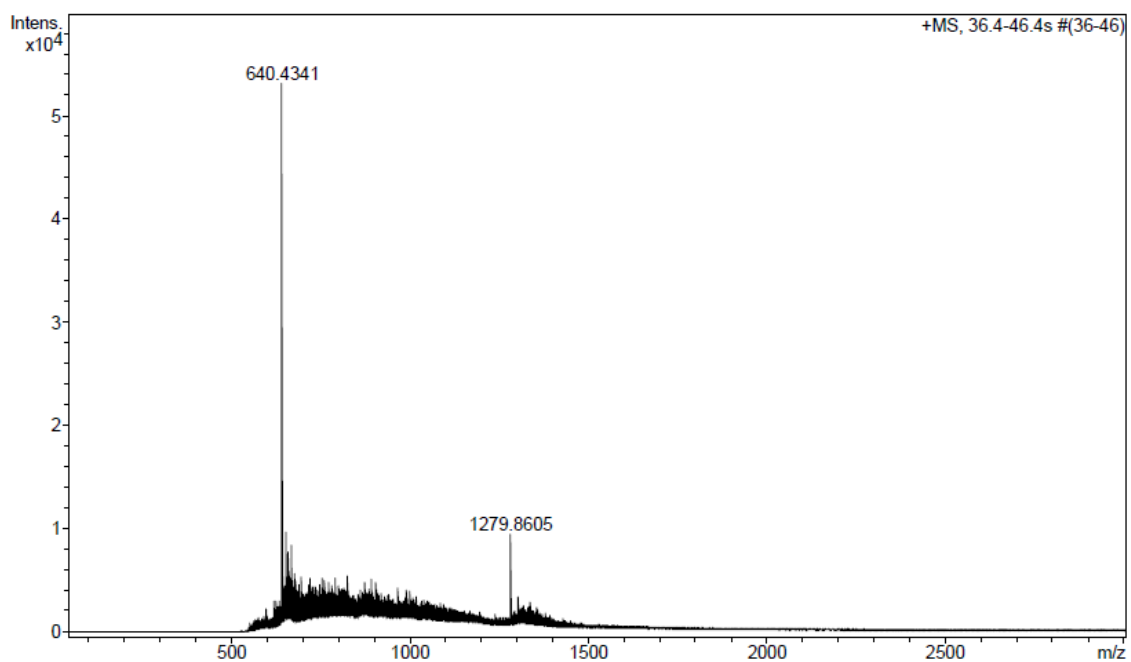
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,37 | 480,135 | 157,076 | 100,00 |
| Total: | | 480,135 | 157,076 | 100,00 |

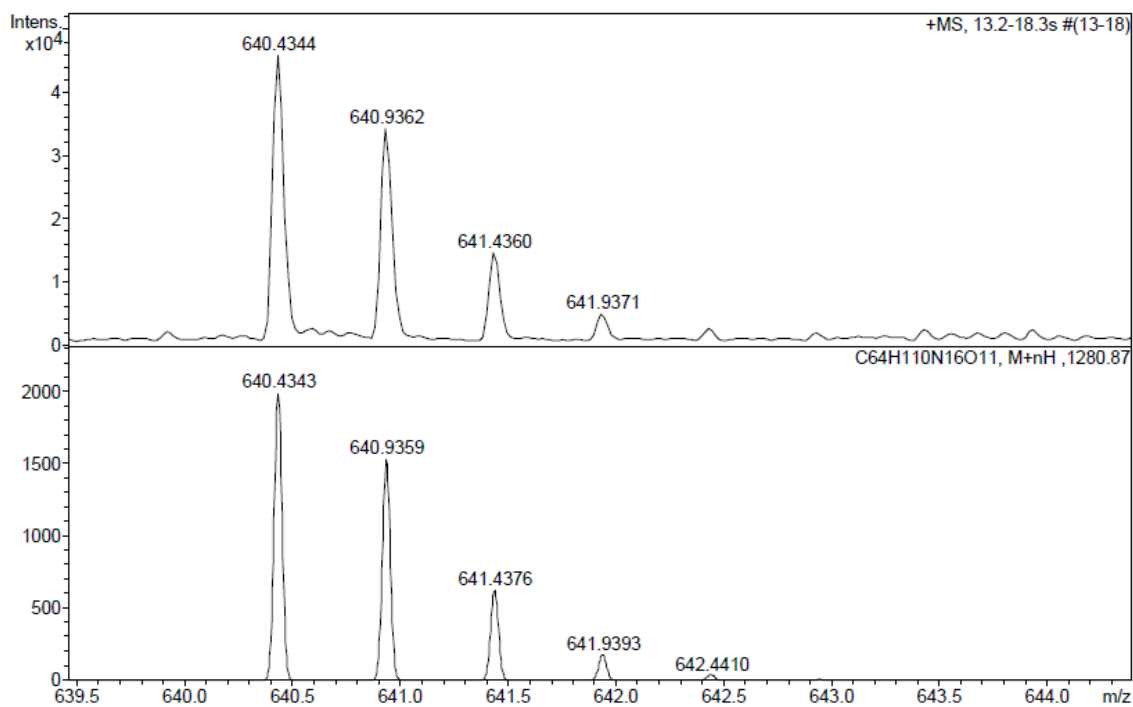
ESI (m/z) (MT-D38)



| |
|-----------------------------|
| [M+H] ⁺ = 1280.0 |
|-----------------------------|

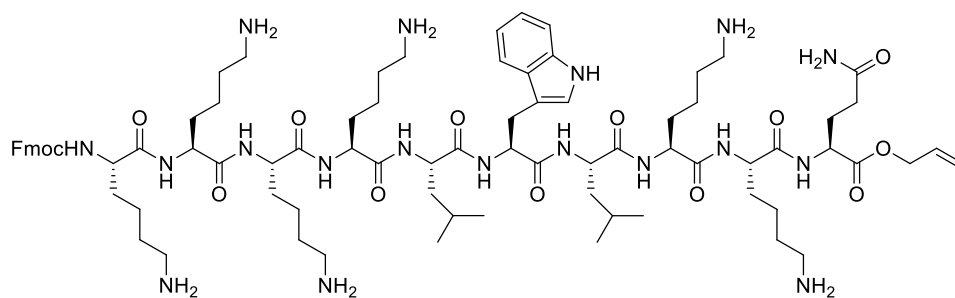
| |
|------------------------------|
| [M+Na] ⁺ = 1302.1 |
|------------------------------|

HRMS (ESI) (m/z) (MT-D)



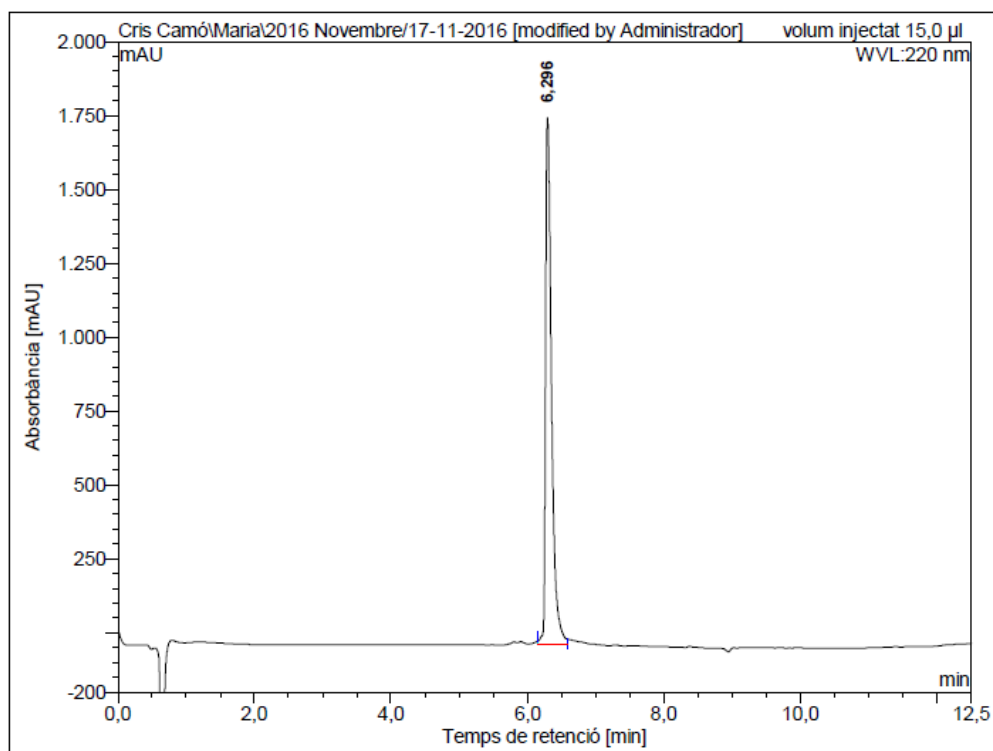
| | Molecular formula | Calculated | Found |
|----------------------------|--|-------------------|--------------|
| [M+H]⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8603 |
| [M+2H]²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4344 |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Lys-Gln-OAll

Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

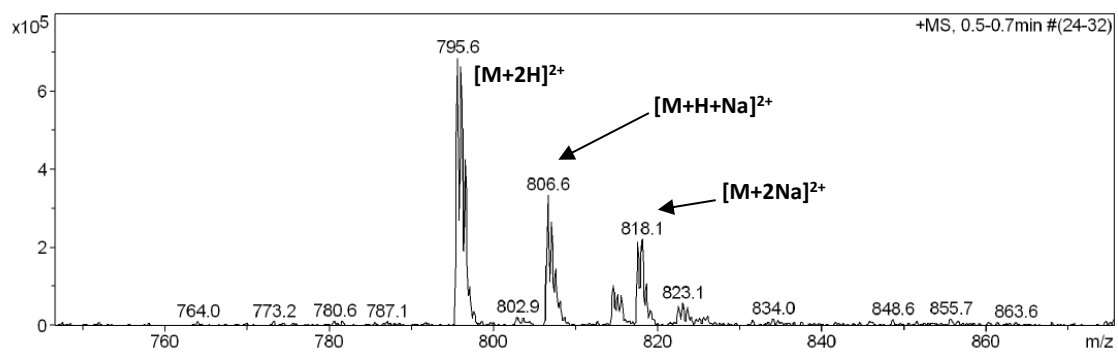
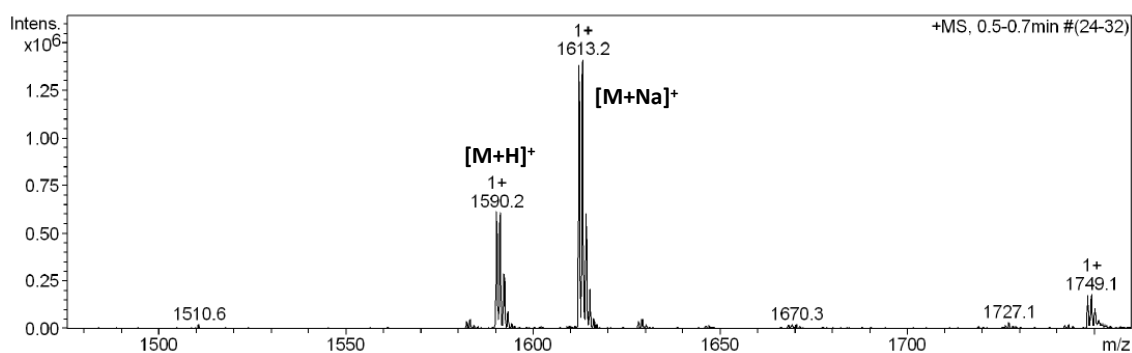
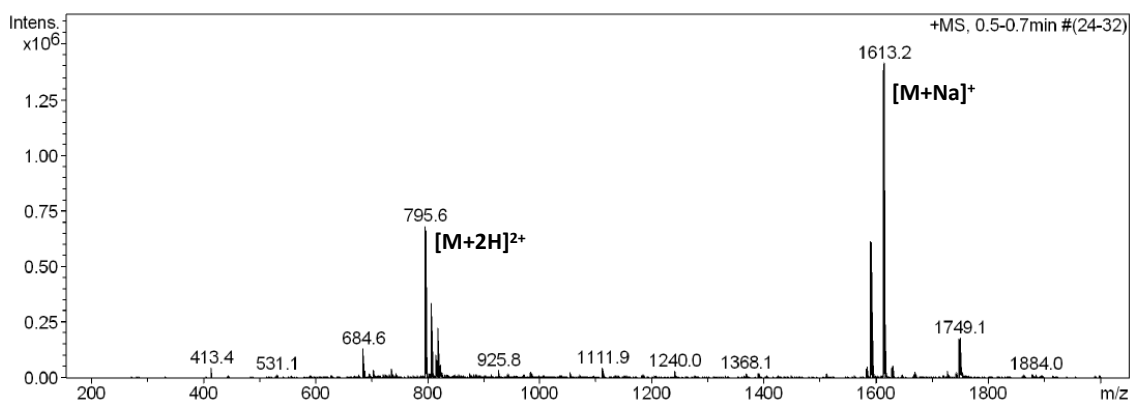
Exact Mass: 1588,9857

Molecular Weight: 1590,0059

HPLC ($\lambda = 220$ nm) (MT-E35)

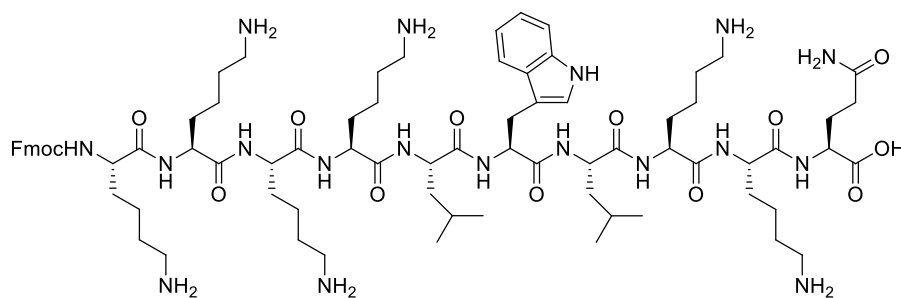
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,30 | 1781,048 | 181,296 | 100,00 |
| Total: | | 1781,048 | 181,296 | 100,00 |

ESI (m/z) (MT-E35)



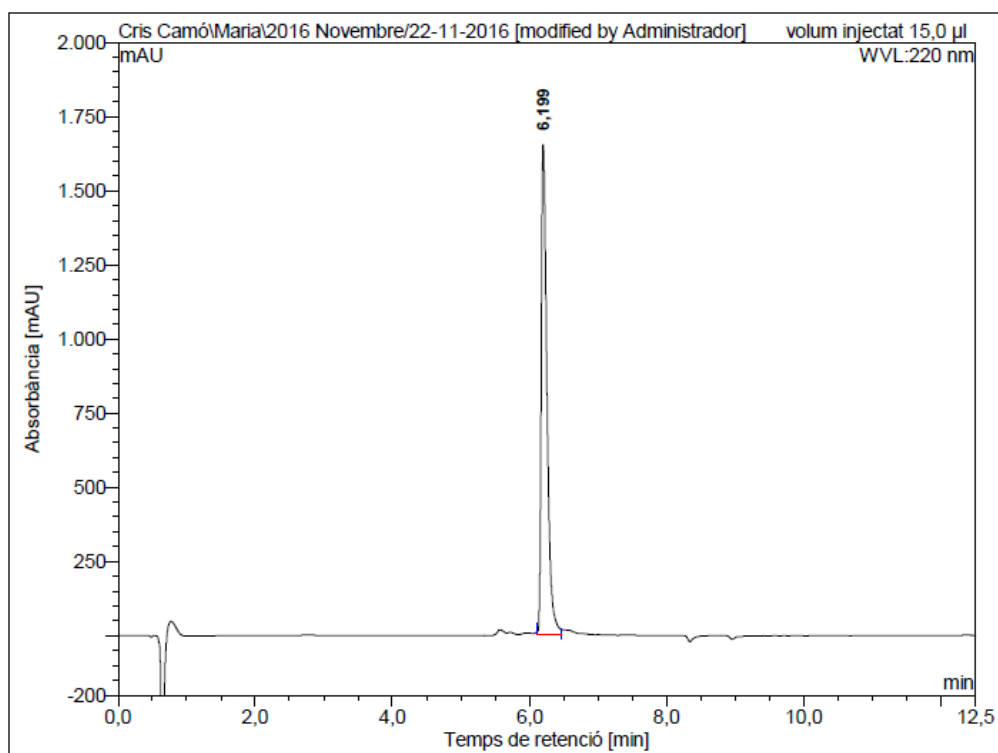
| |
|-------------------------|
| $[M+H]^+ = 1590.2$ |
| $[M+Na]^+ = 1612.2$ |
| $[M+2H]^{2+} = 795.6$ |
| $[M+H+Na]^{2+} = 806.6$ |
| $[M+2Na]^{2+} = 818.1$ |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

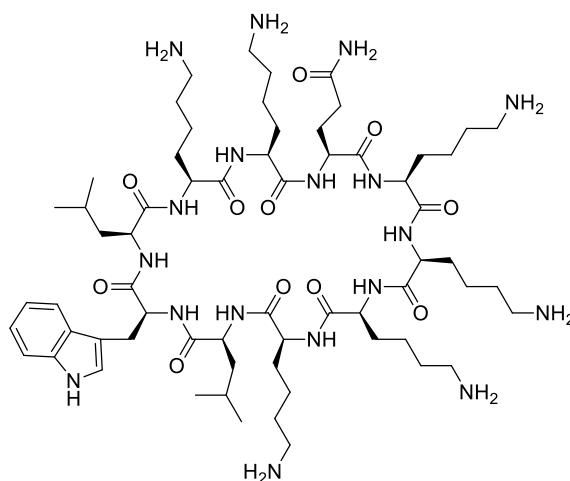
Exact Mass: 1548,9544

Molecular Weight: 1549,9421

HPLC ($\lambda = 220$ nm) (MT-E37)

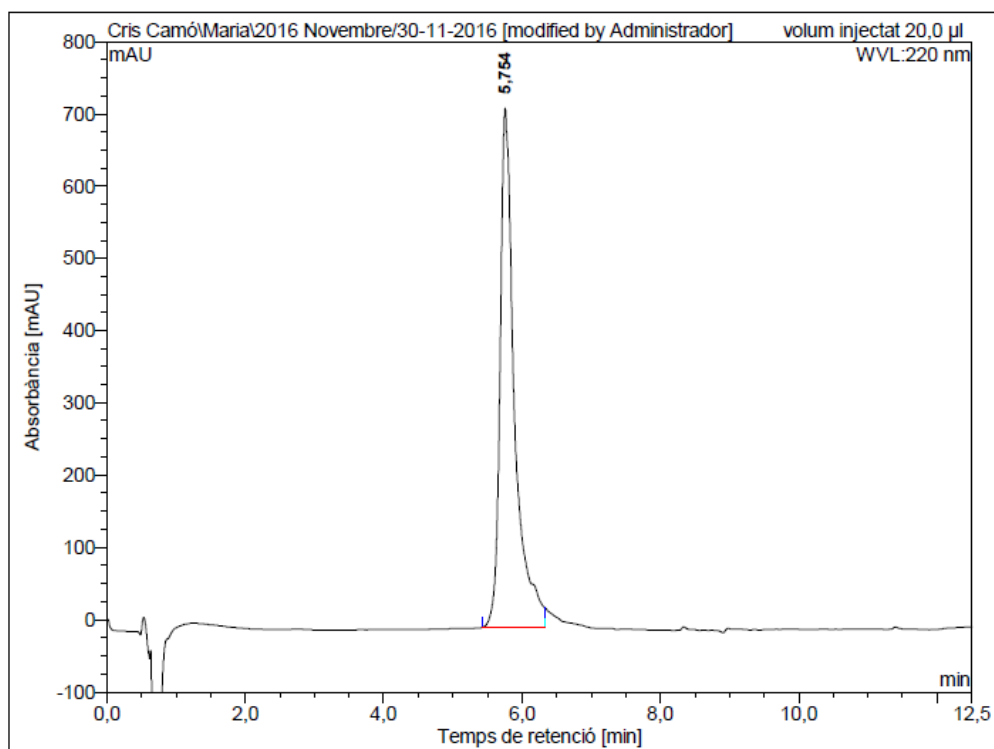
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,20 | 1653,099 | 161,122 | 100,00 |
| Total: | | 1653,099 | 161,122 | 100,00 |

c(Lys-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Lys-Gln) (BPC878W)

Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

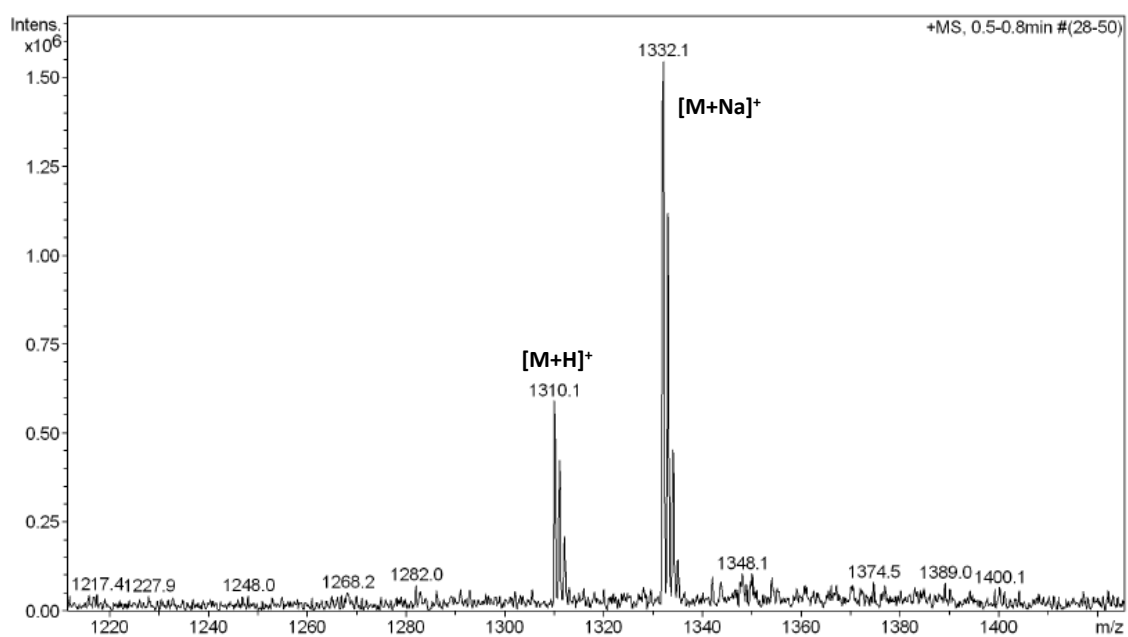
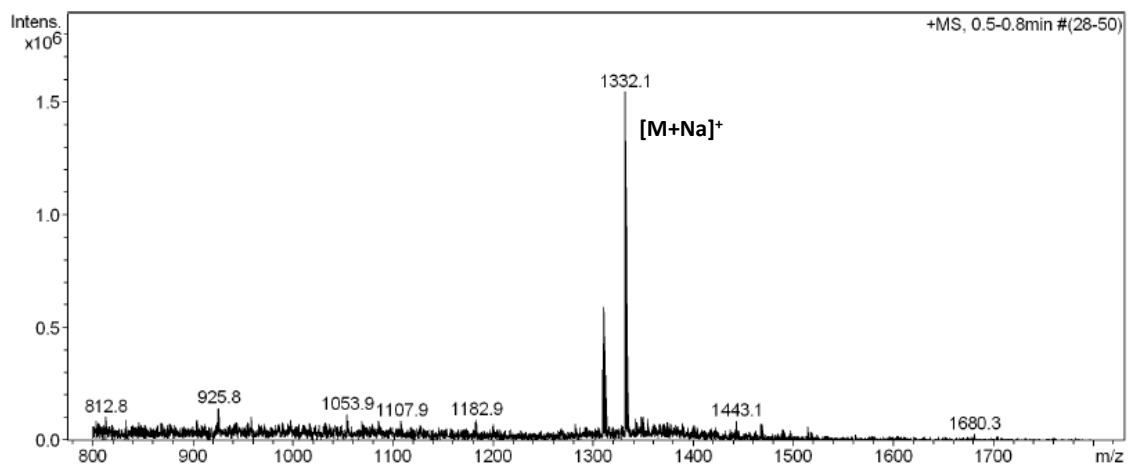
Exact Mass: 1308,8758

Molecular Weight: 1309,6881

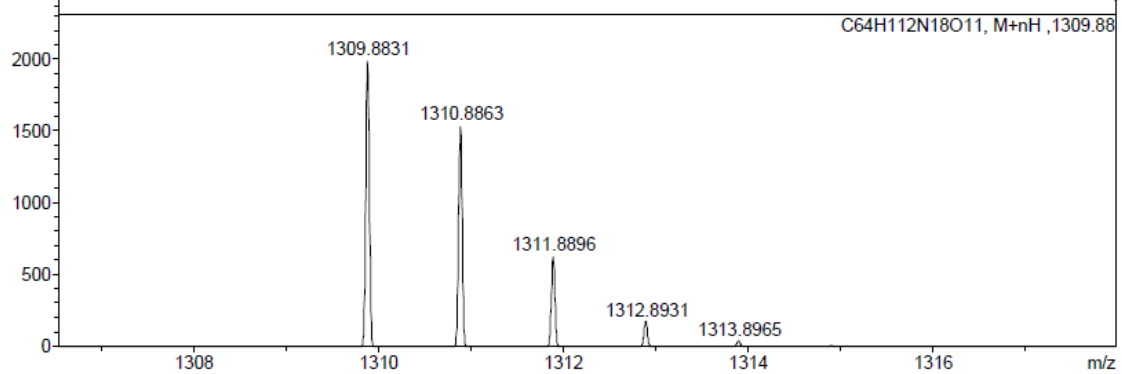
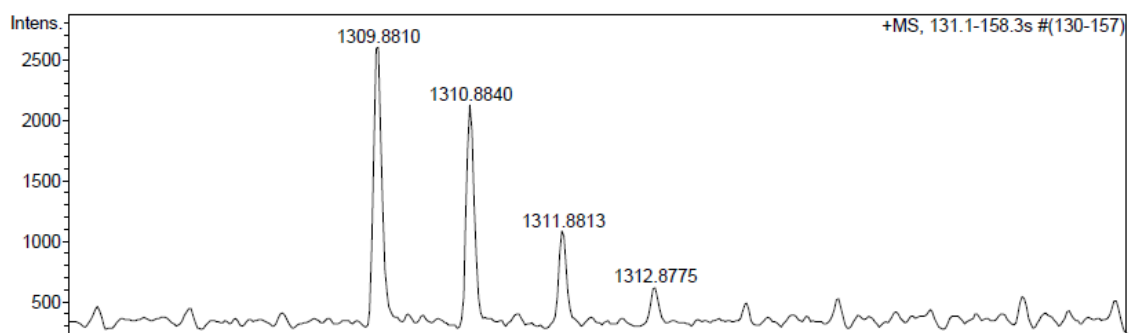
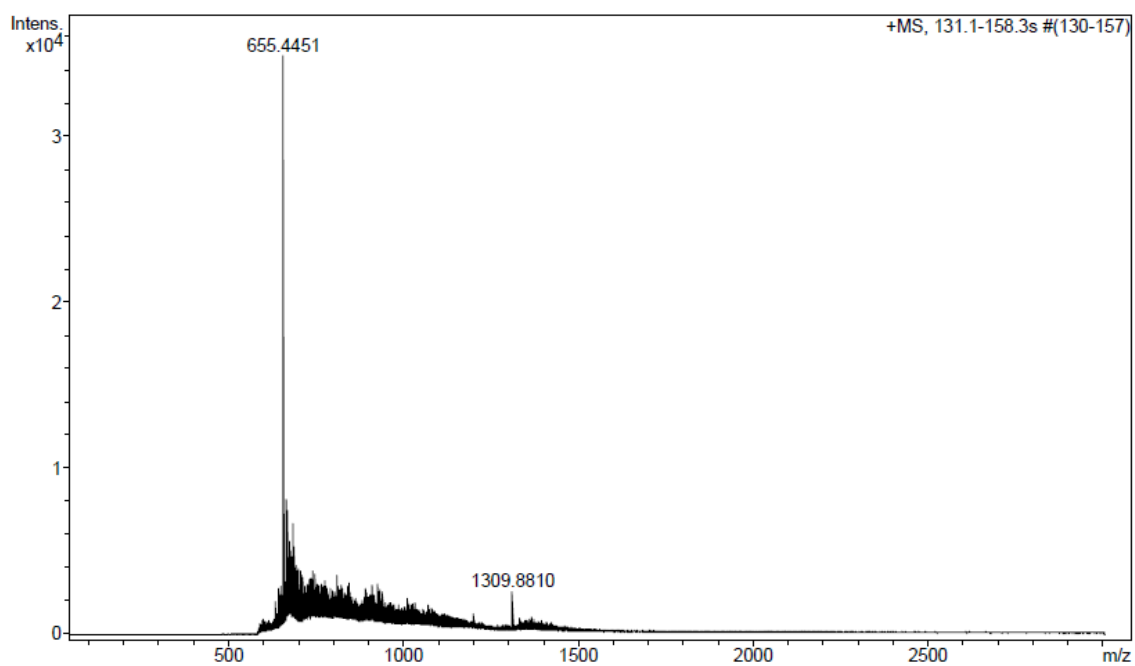
HPLC ($\lambda = 220 \text{ nm}$) (MT-E38)

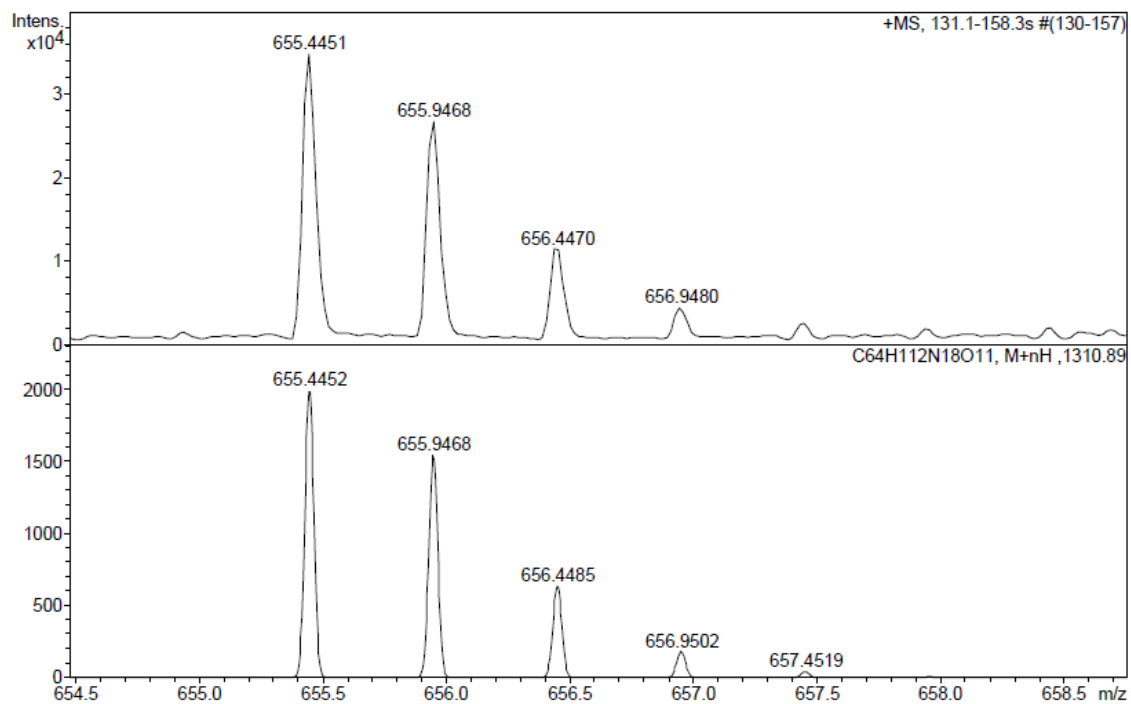
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,75 | 718,789 | 173,553 | 100,00 |
| Total: | | 718,789 | 173,553 | 100,00 |

ESI (m/z) (MT-E38)



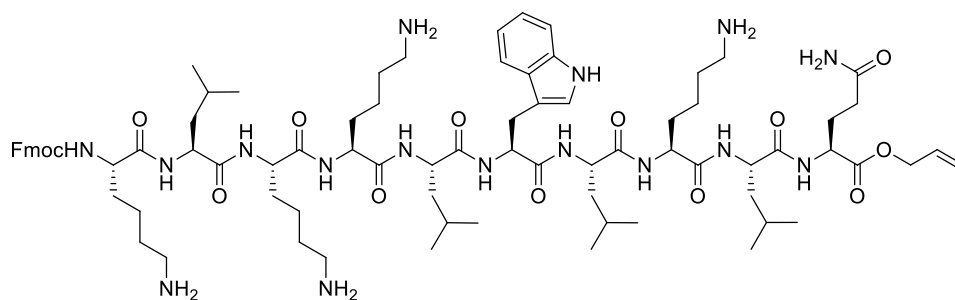
| |
|------------------------------|
| [M+H] ⁺ = 1310.1 |
| [M+Na] ⁺ = 1332.1 |

HRMS (ESI) (m/z) (MT-E)



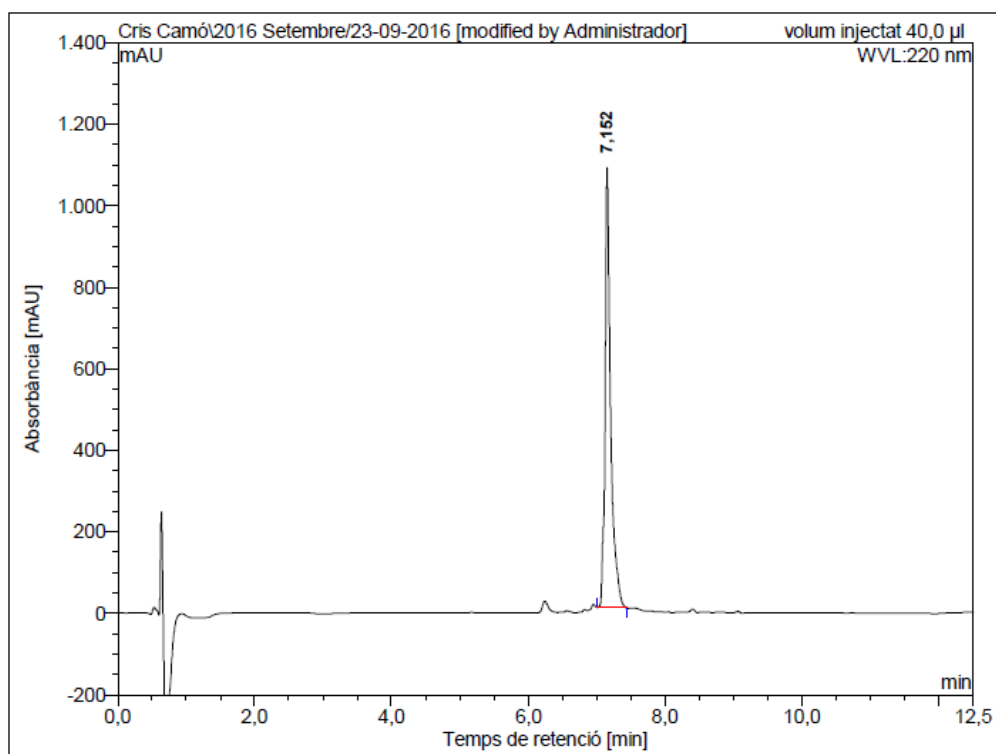
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8810 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4451 |

Fmoc-Lys-Leu-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

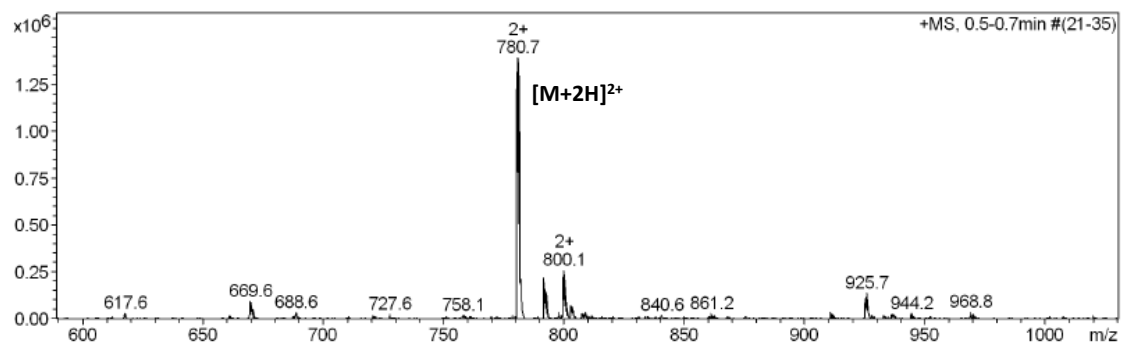
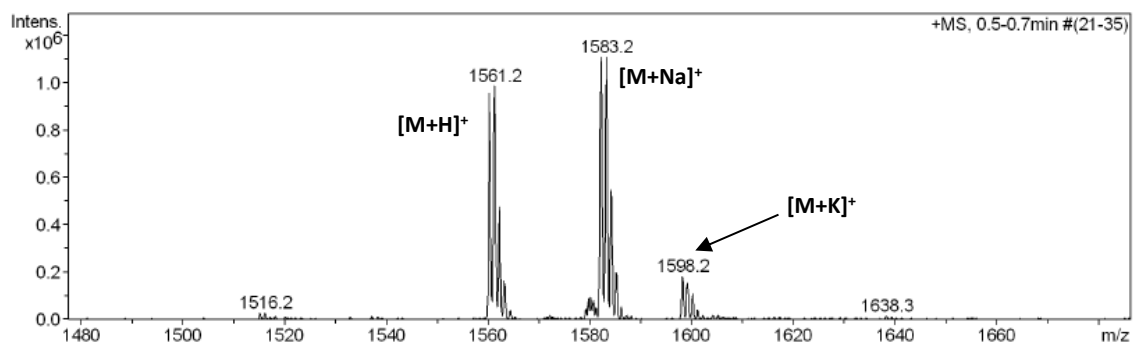
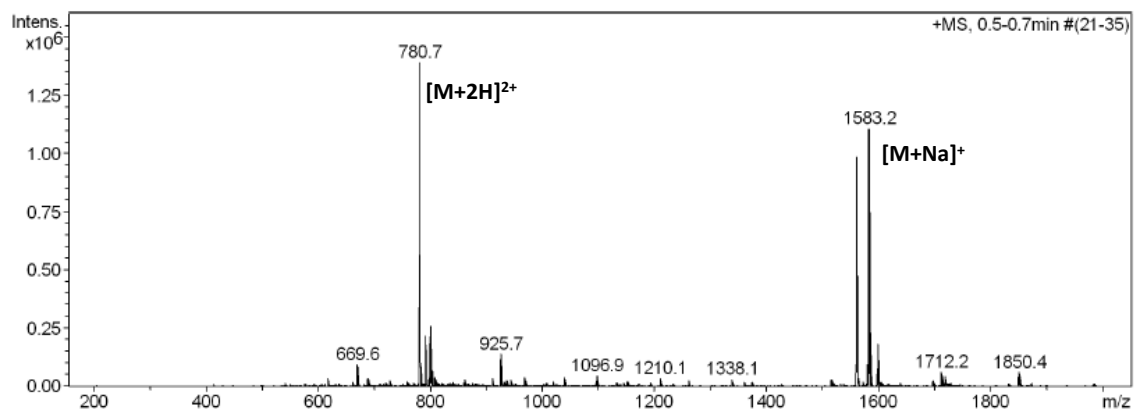
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-19-781)

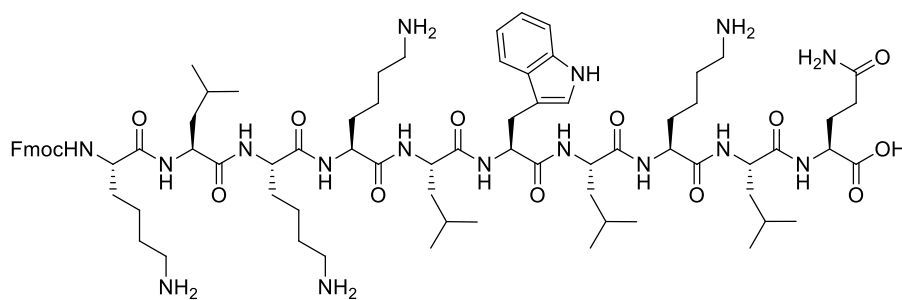
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,15 | 1079,210 | 101,647 | 100,00 |
| Total: | | 1079,210 | 101,647 | 100,00 |

ESI (m/z) (CC-19-781)



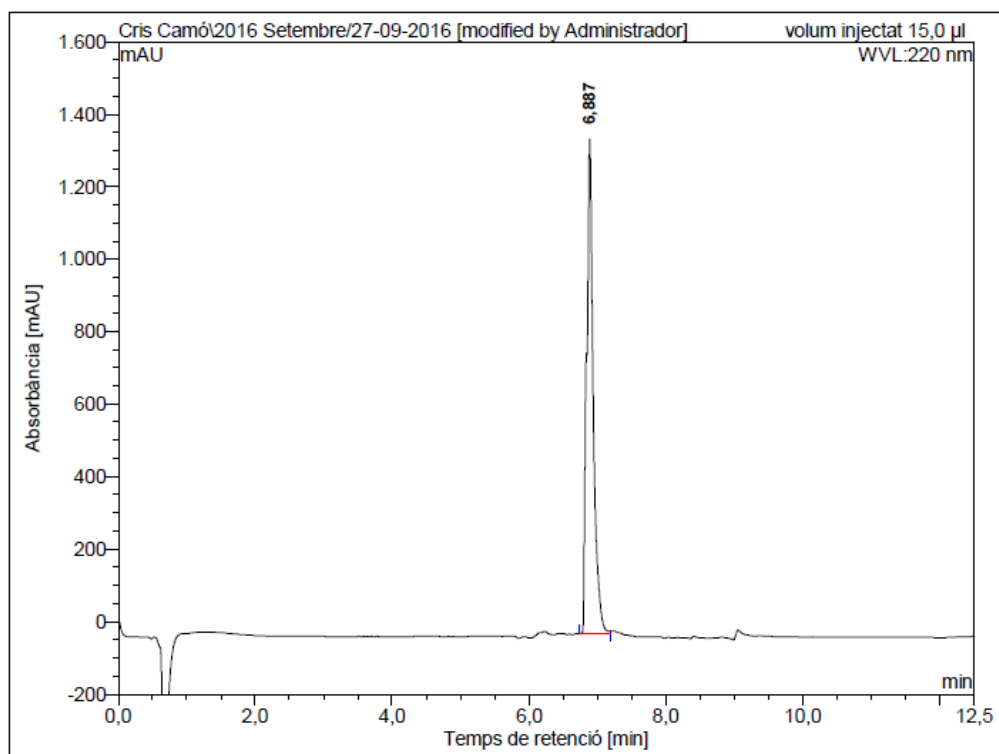
| |
|------------------------------|
| [M+H] ⁺ = 1560.2 |
| [M+Na] ⁺ = 1582.2 |
| [M+K] ⁺ = 1598.2 |
| [M+2H] ²⁺ = 780.7 |

Fmoc-Lys-Leu-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

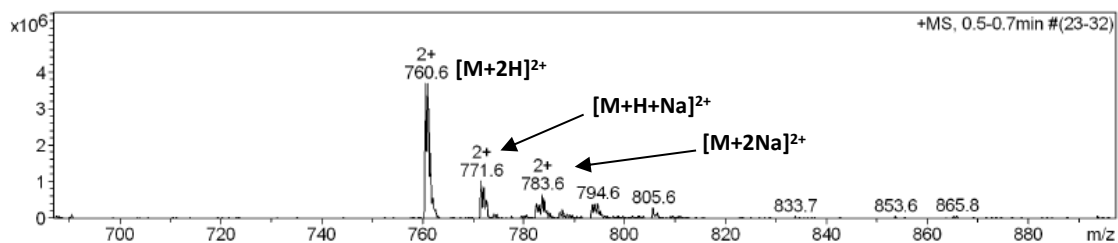
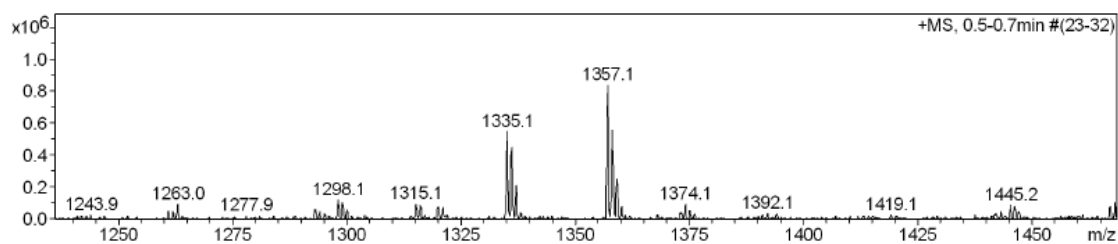
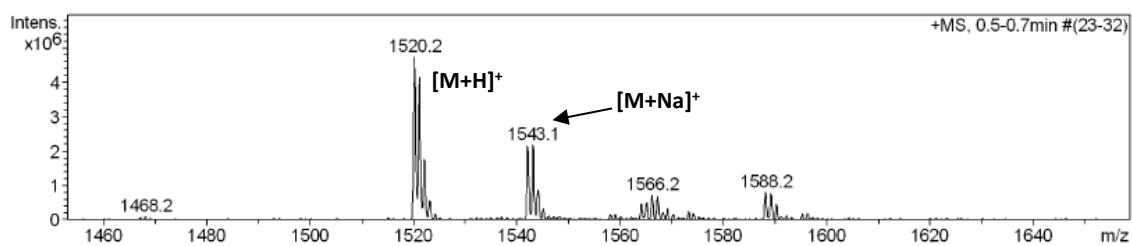
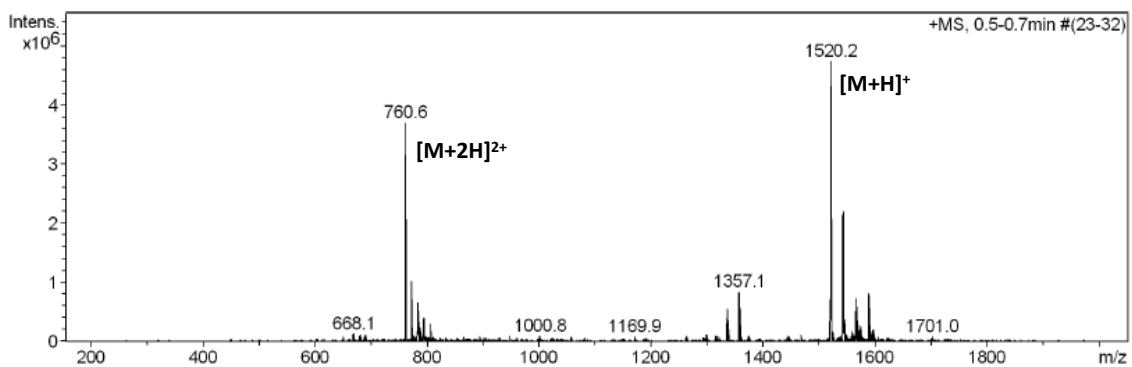
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220 \text{ nm}$) (CC-19-788)

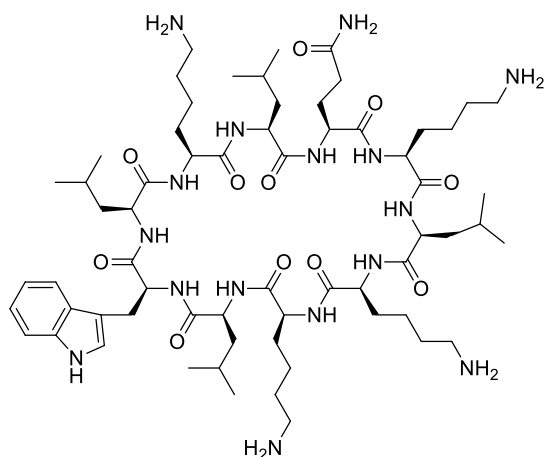
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,89 | 1366,541 | 153,712 | 100,00 |
| Total: | | 1366,541 | 153,712 | 100,00 |

ESI (m/z) (CC-19-788)



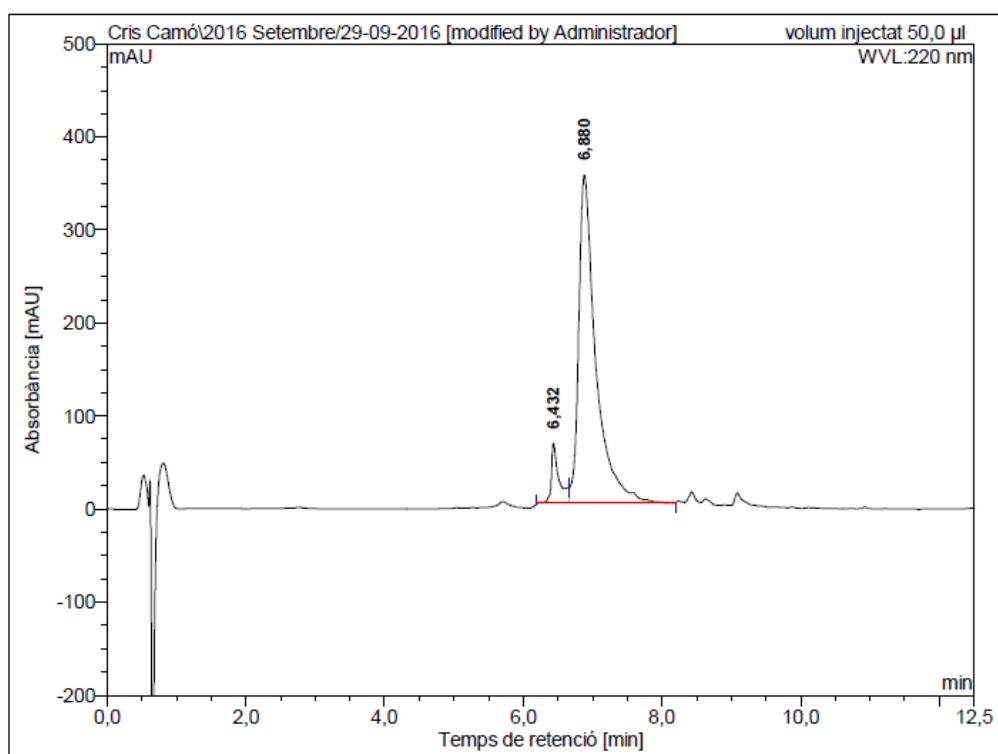
| |
|--------------------------------|
| [M+H] ⁺ = 1520.2 |
| [M+Na] ⁺ = 1542.1 |
| [M+2H] ²⁺ = 760.6 |
| [M+H+Na] ²⁺ = 771.6 |
| [M+2Na] ²⁺ = 783.6 |

c(Lys-Leu-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln) (BPC880W)

Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

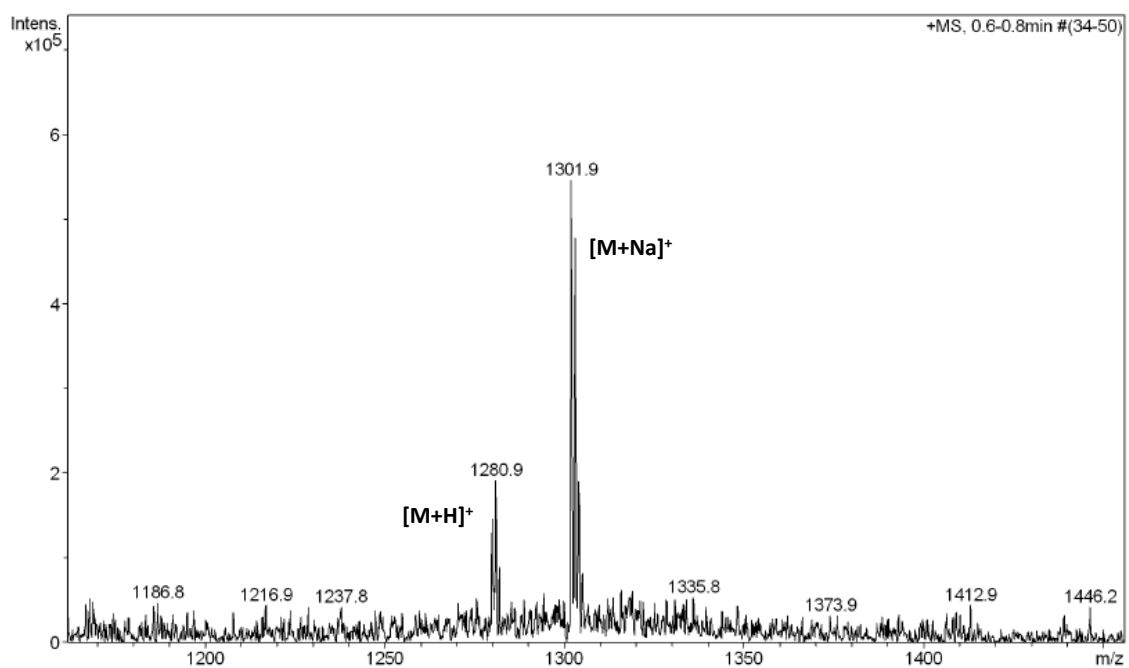
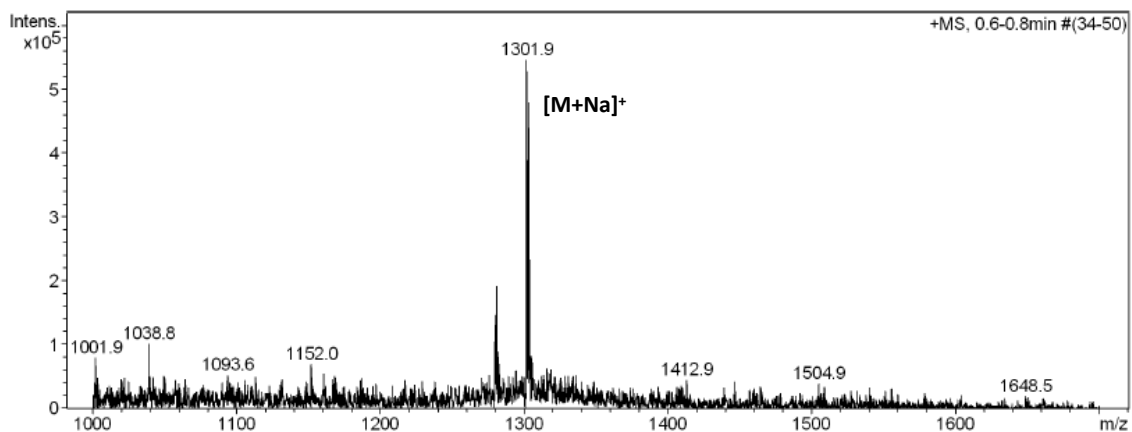
Exact Mass: 1278,8540

Molecular Weight: 1279,6588

HPLC ($\lambda = 220 \text{ nm}$) (CC-19-792)

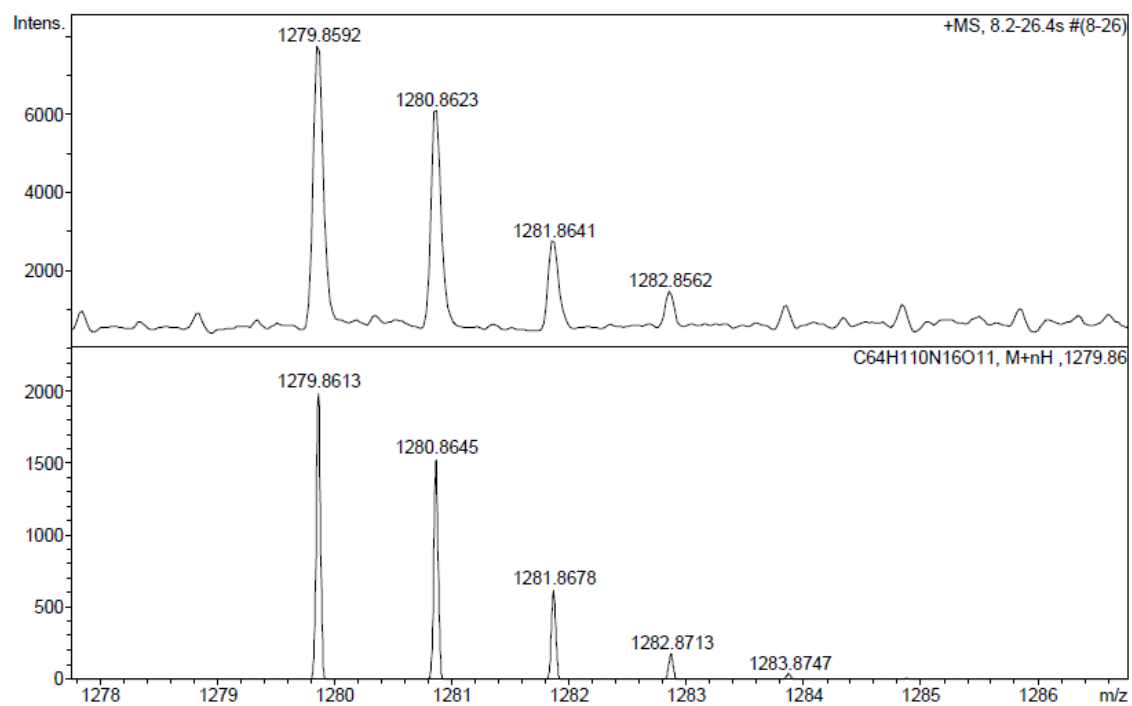
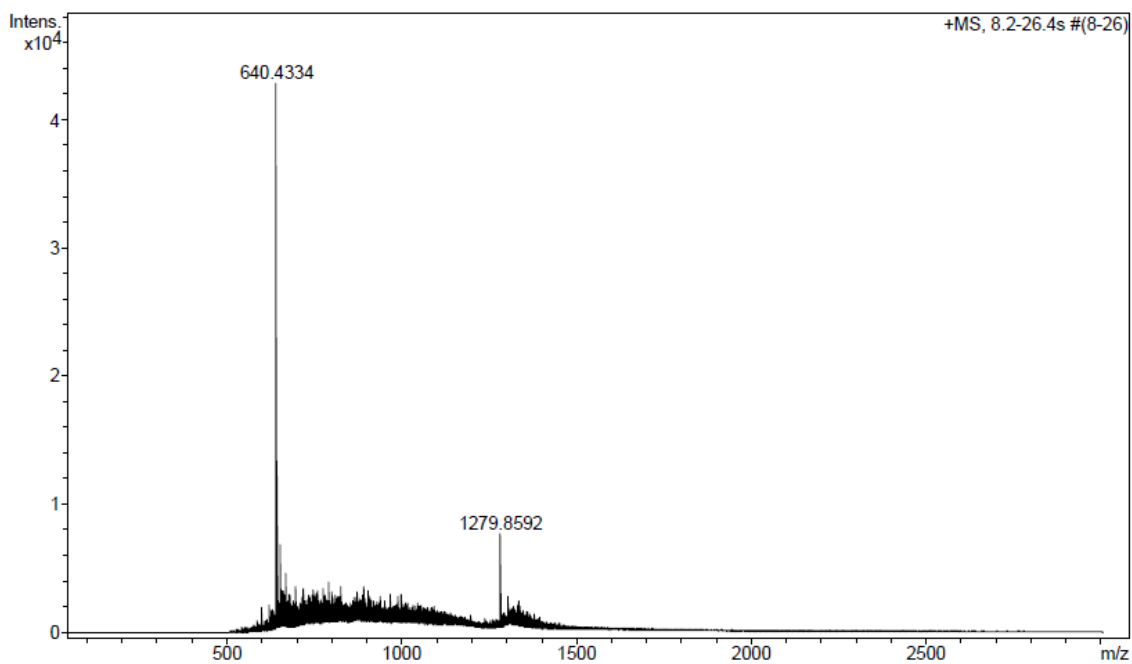
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,43 | 64,350 | 8,166 | 7,50 |
| 2 | 6,88 | 352,329 | 100,700 | 92,50 |
| Total: | | 416,680 | 108,867 | 100,00 |

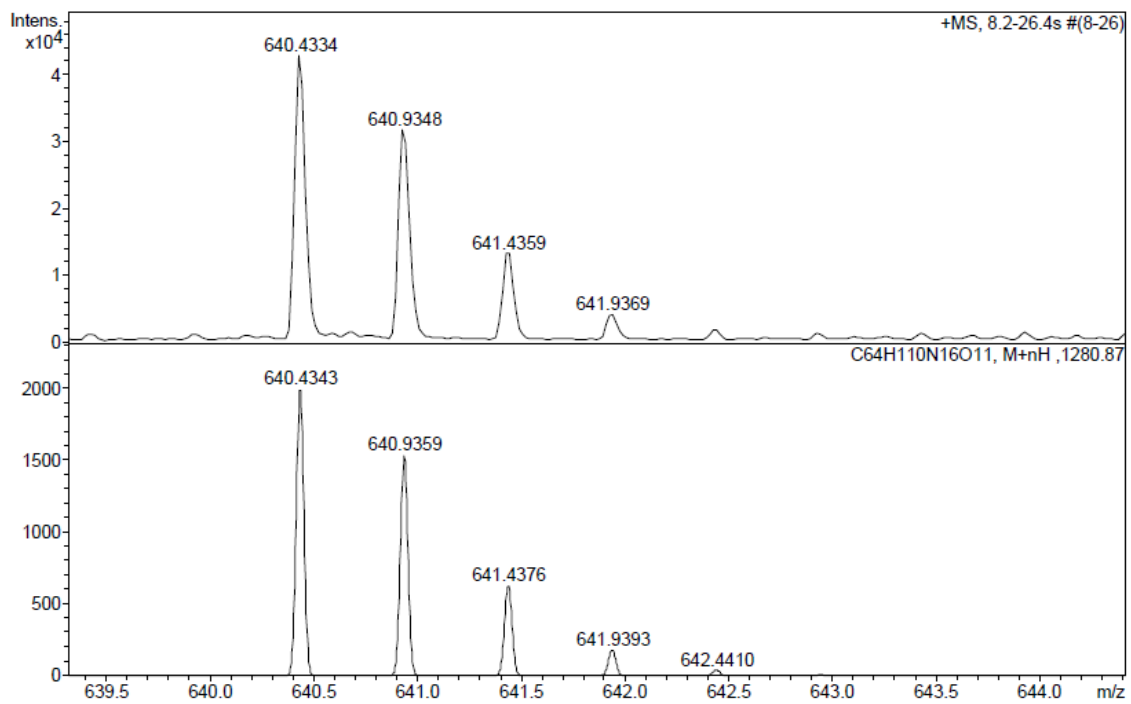
ESI (m/z) (CC-19-792)



| |
|------------------------------|
| [M+H] ⁺ = 1279.9 |
| [M+Na] ⁺ = 1301.9 |

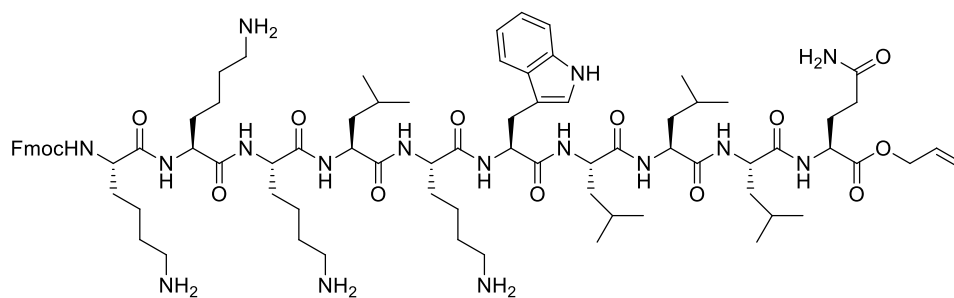
HRMS (ESI) (m/z) (CC-19)





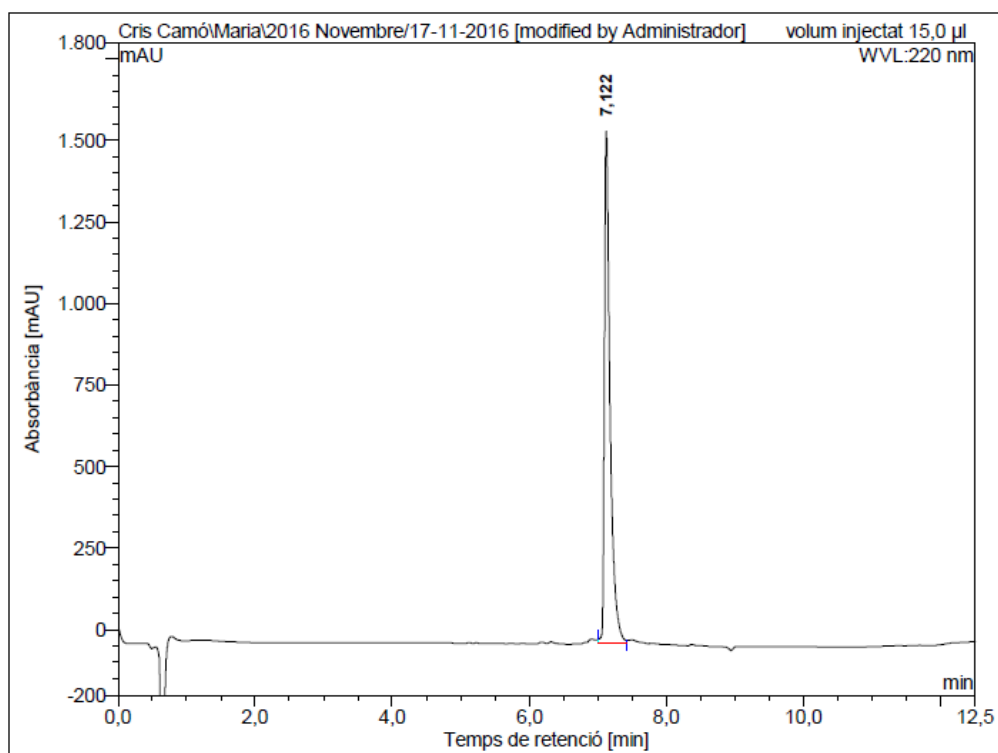
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8592 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4334 |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OAll

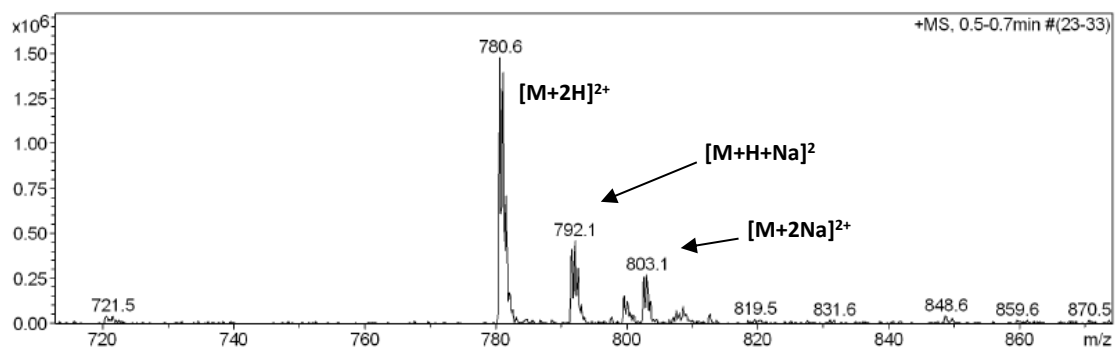
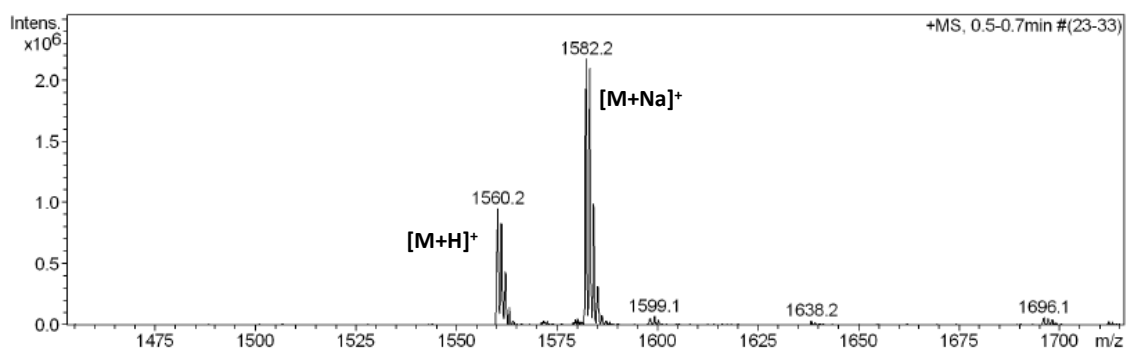
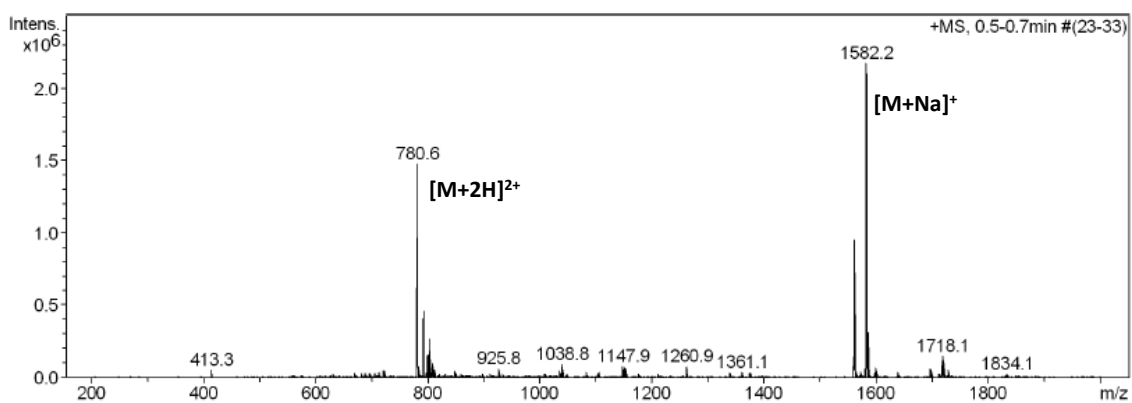
Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

Exact Mass: 1558,9639

Molecular Weight: 1559,9766

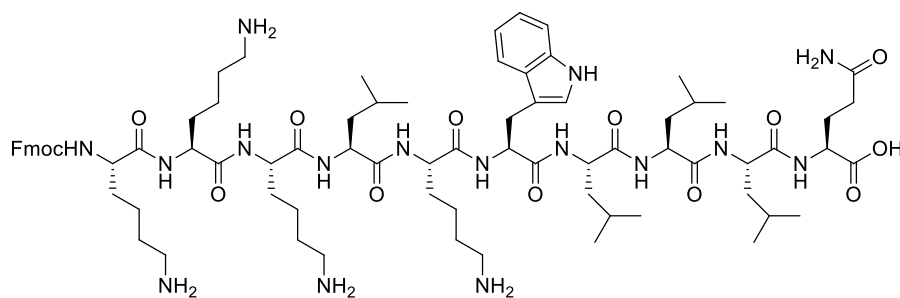
HPLC ($\lambda = 220 \text{ nm}$) (MT-F35)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,12 | 1571,239 | 150,573 | 100,00 |
| Total: | | 1571,239 | 150,573 | 100,00 |

ESI (m/z) (MT-F35)

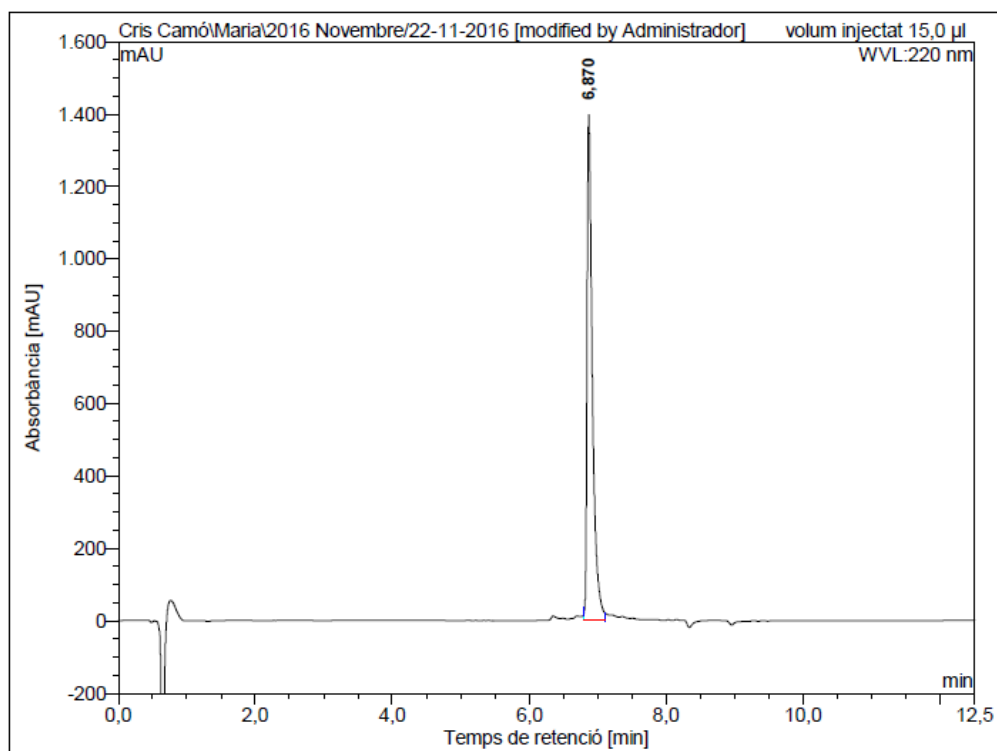
| |
|-------------------------|
| $[M+H]^+ = 1560.2$ |
| $[M+Na]^+ = 1582.2$ |
| $[M+2H]^{2+} = 780.6$ |
| $[M+H+Na]^{2+} = 792.1$ |
| $[M+2Na]^{2+} = 803.1$ |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

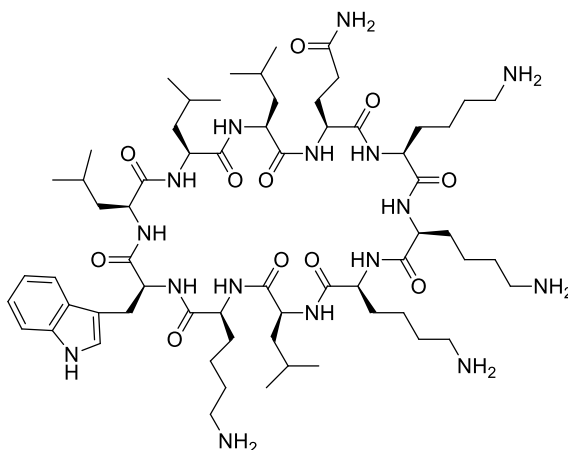
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220 \text{ nm}$) (MT-F37)

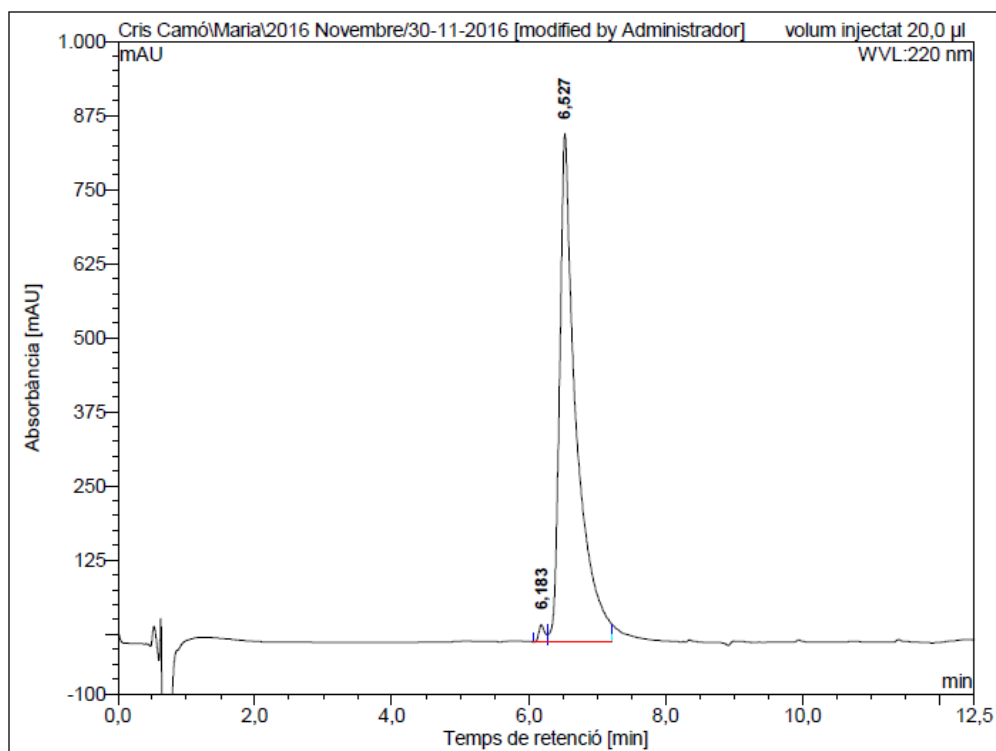
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,87 | 1398,454 | 127,172 | 100,00 |
| Total: | | 1398,454 | 127,172 | 100,00 |

c(Lys-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln) (BPC882W)

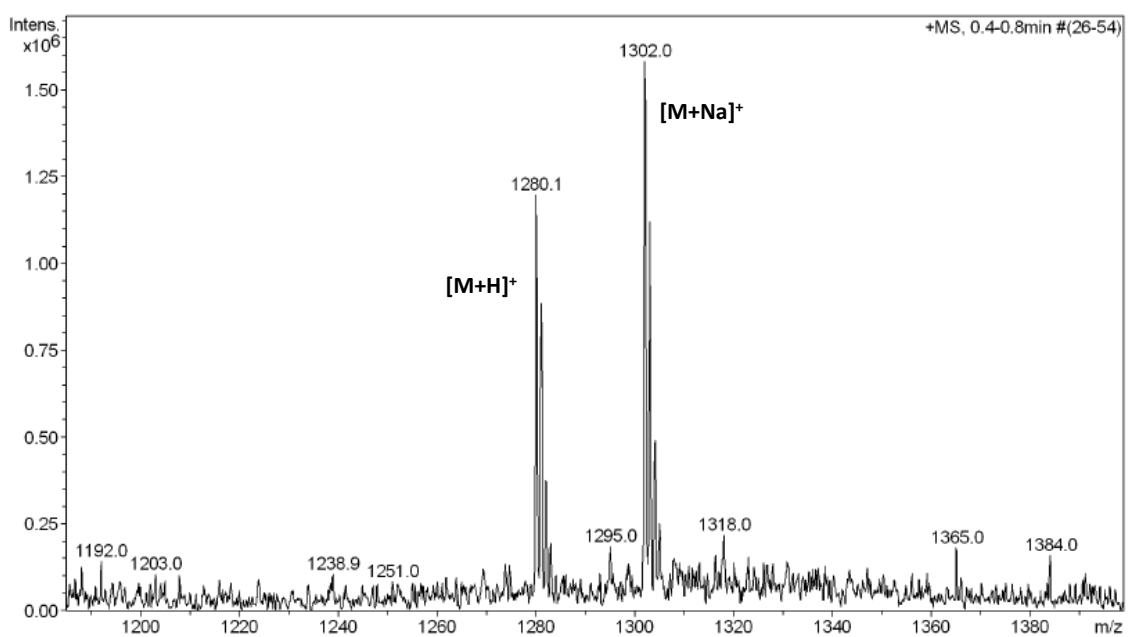
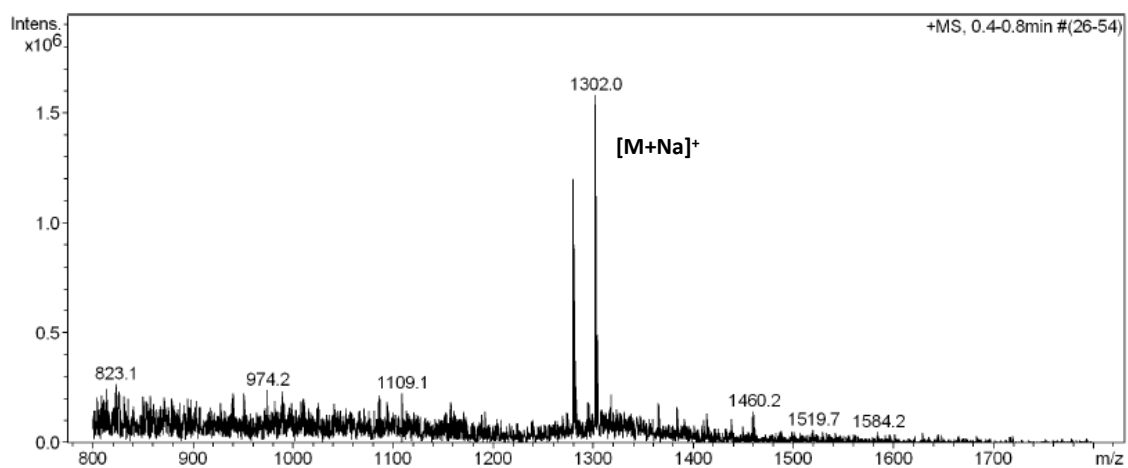
Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

Exact Mass: 1278,8540

Molecular Weight: 1279,6588

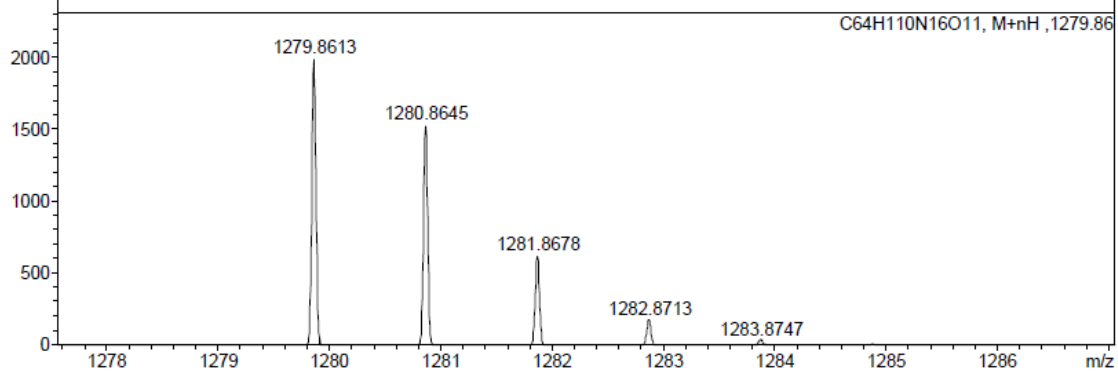
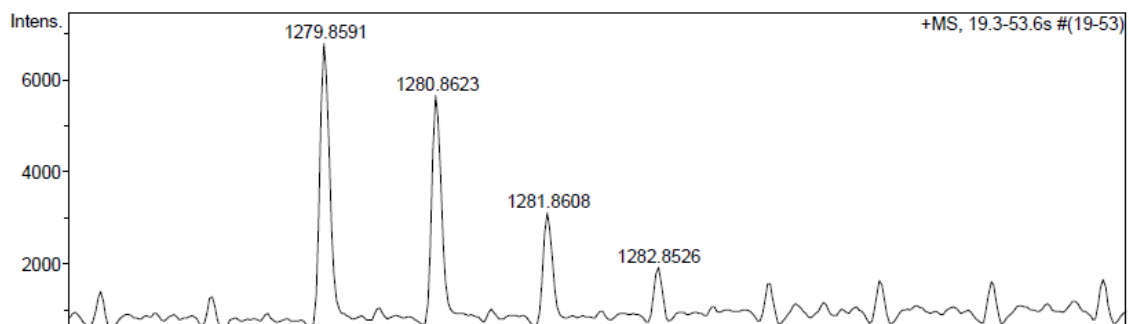
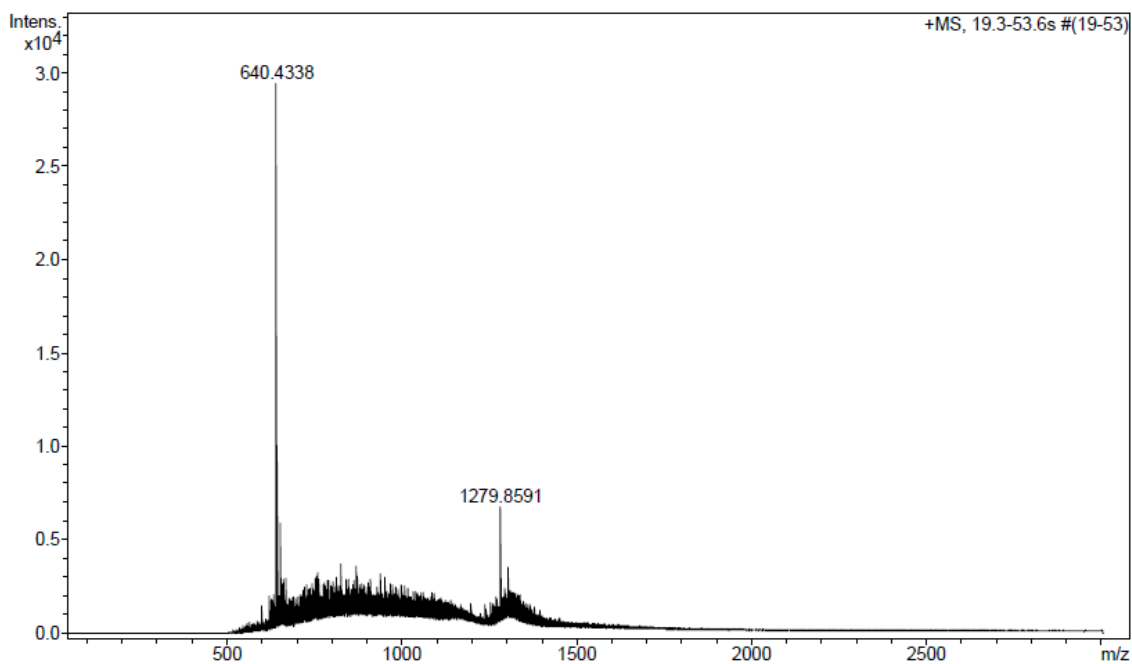
HPLC ($\lambda = 220$ nm) (MT-F38)

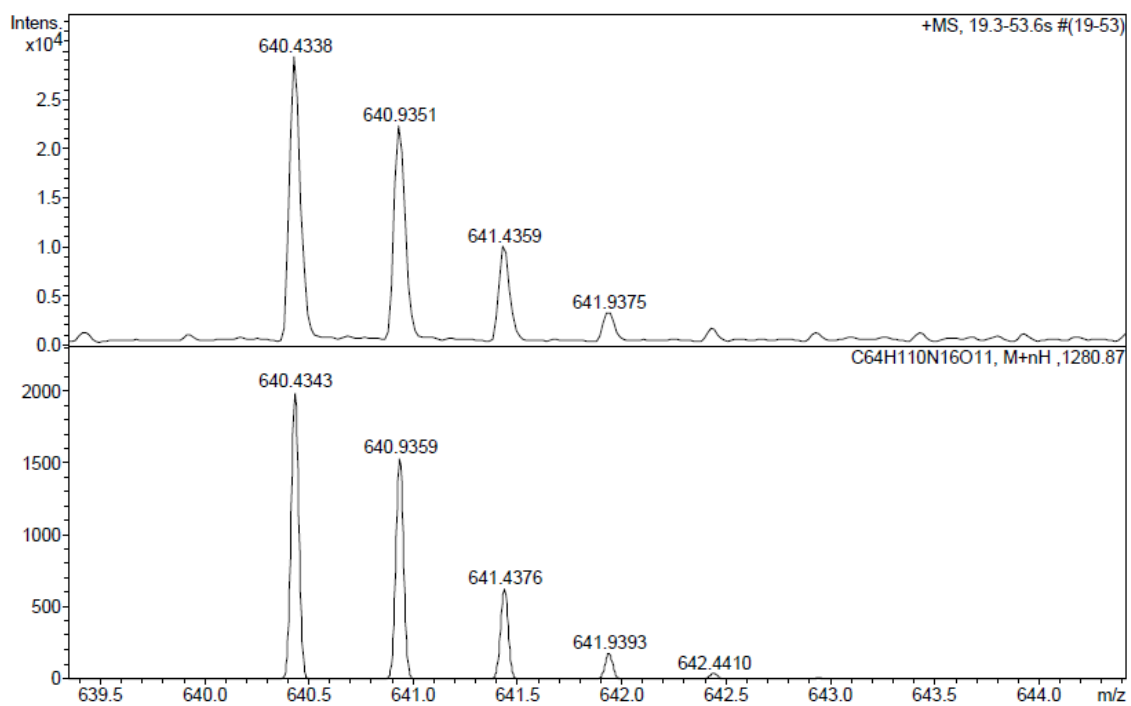
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,18 | 28,812 | 2,859 | 1,18 |
| 2 | 6,53 | 857,529 | 240,339 | 98,82 |
| Total: | | 886,341 | 243,199 | 100,00 |

ESI (m/z) (MT-F38)

| |
|--------------------|
| $[M+H]^+ = 1280.1$ |
|--------------------|

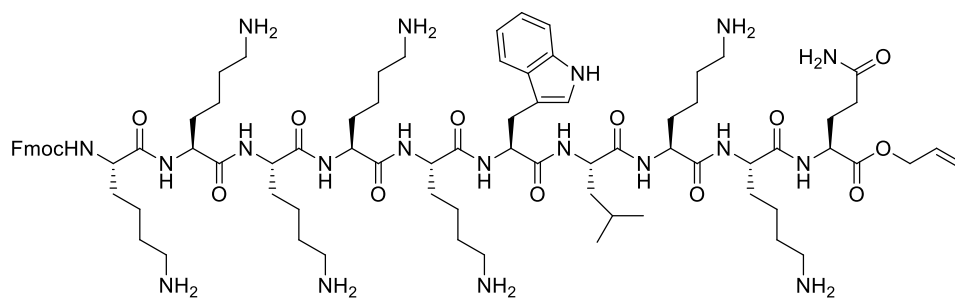
| |
|---------------------|
| $[M+Na]^+ = 1302.0$ |
|---------------------|

HRMS (ESI) (m/z) (MT-F)



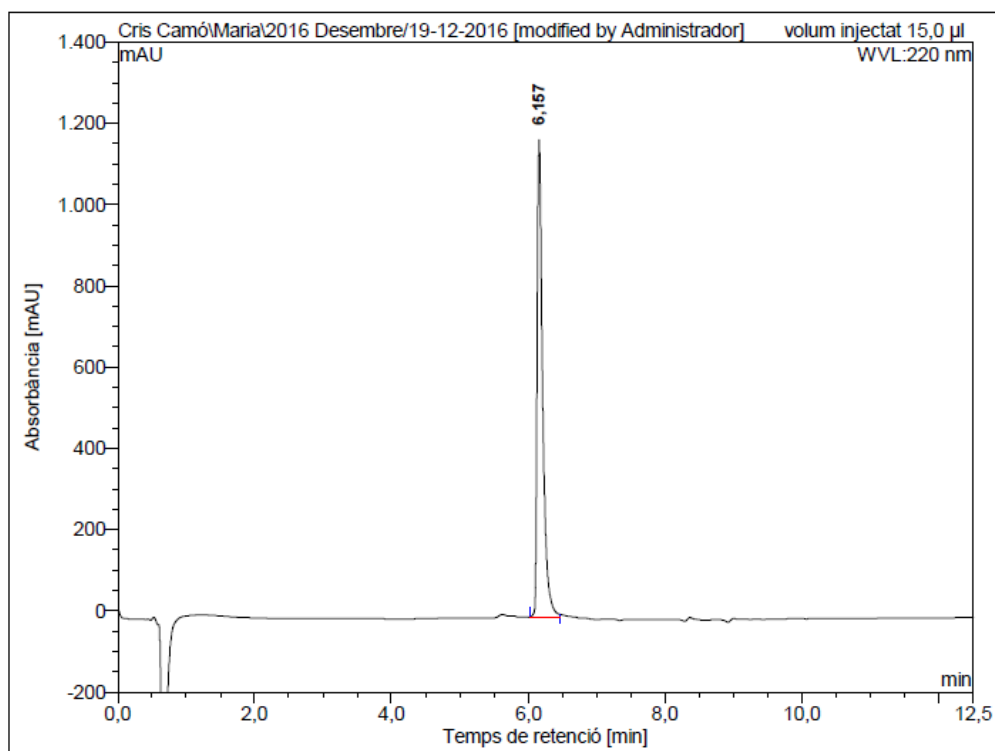
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8591 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4338 |

Fmoc-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OAll

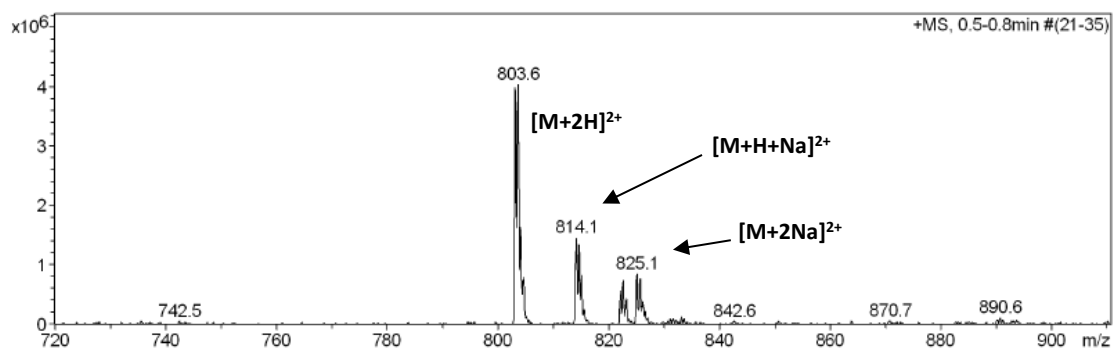
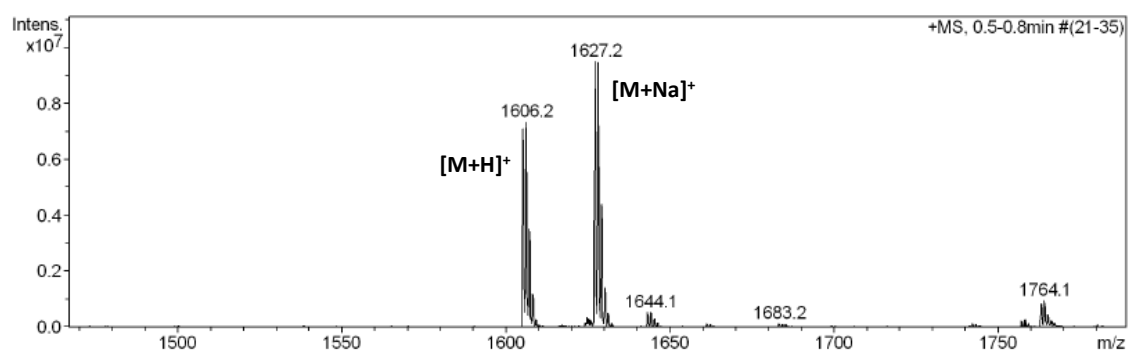
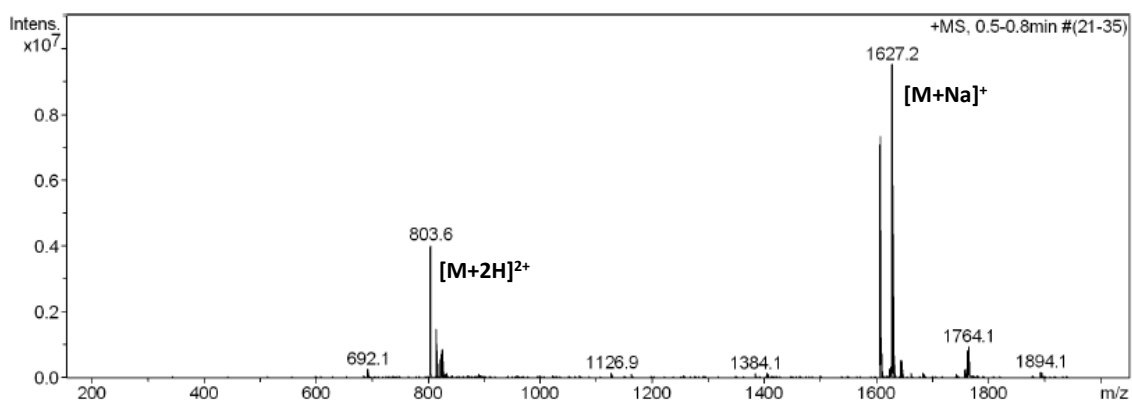
Chemical Formula: $C_{82}H_{129}N_{19}O_{14}$

Exact Mass: 1603,9966

Molecular Weight: 1605,0206

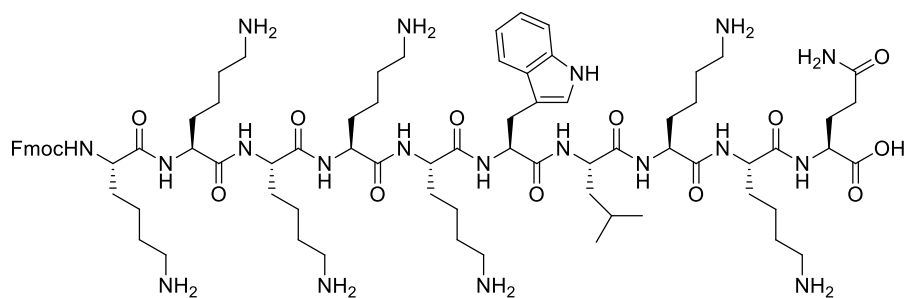
HPLC ($\lambda = 220 \text{ nm}$) (MT-G43)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,16 | 1175,760 | 110,085 | 100,00 |
| Total: | | 1175,760 | 110,085 | 100,00 |

ESI (m/z) (MT-G43)

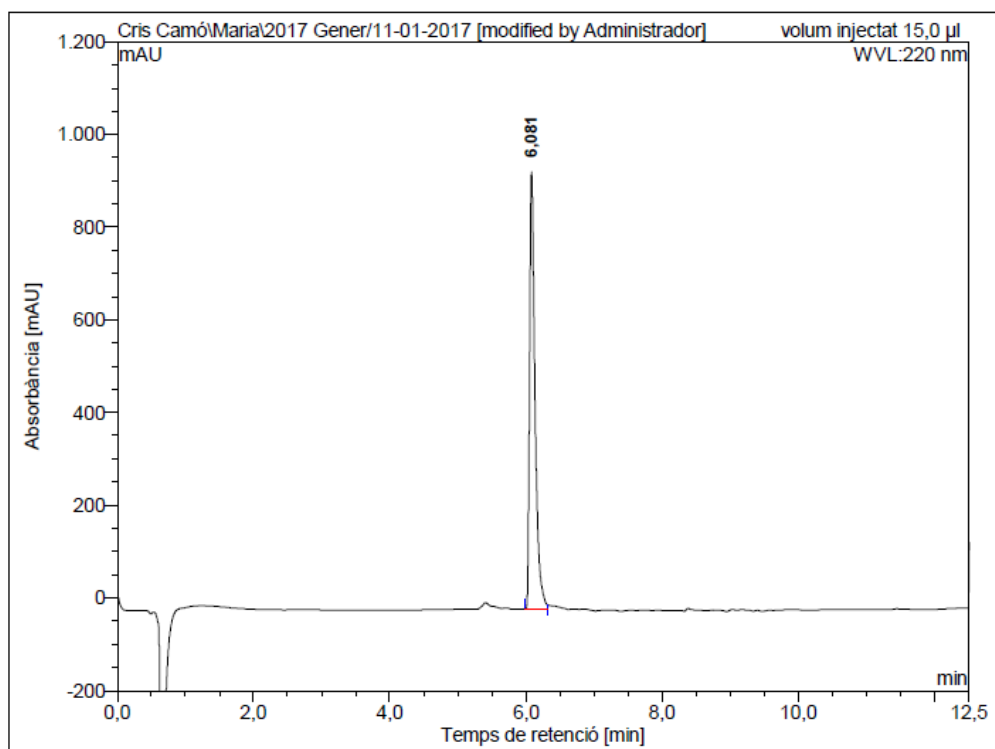
| |
|-------------------------|
| $[M+H]^+ = 1605.2$ |
| $[M+Na]^+ = 1627.2$ |
| $[M+2H]^{2+} = 803.6$ |
| $[M+H+Na]^{2+} = 814.1$ |
| $[M+2Na]^{2+} = 825.1$ |

Fmoc-Lys-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{125}N_{19}O_{14}$

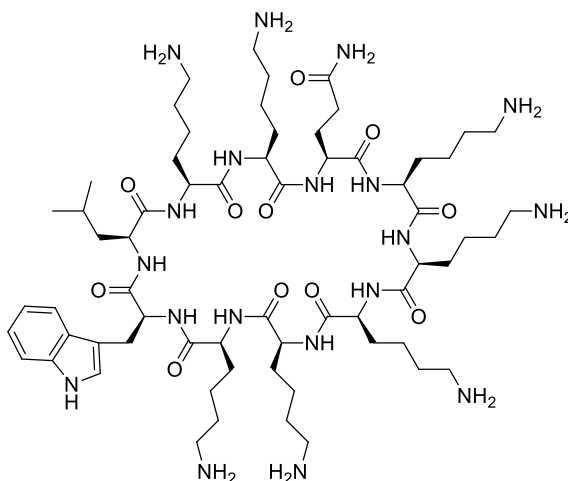
Exact Mass: 1563,9653

Molecular Weight: 1564,9567

HPLC ($\lambda = 220 \text{ nm}$) (MT-G44)

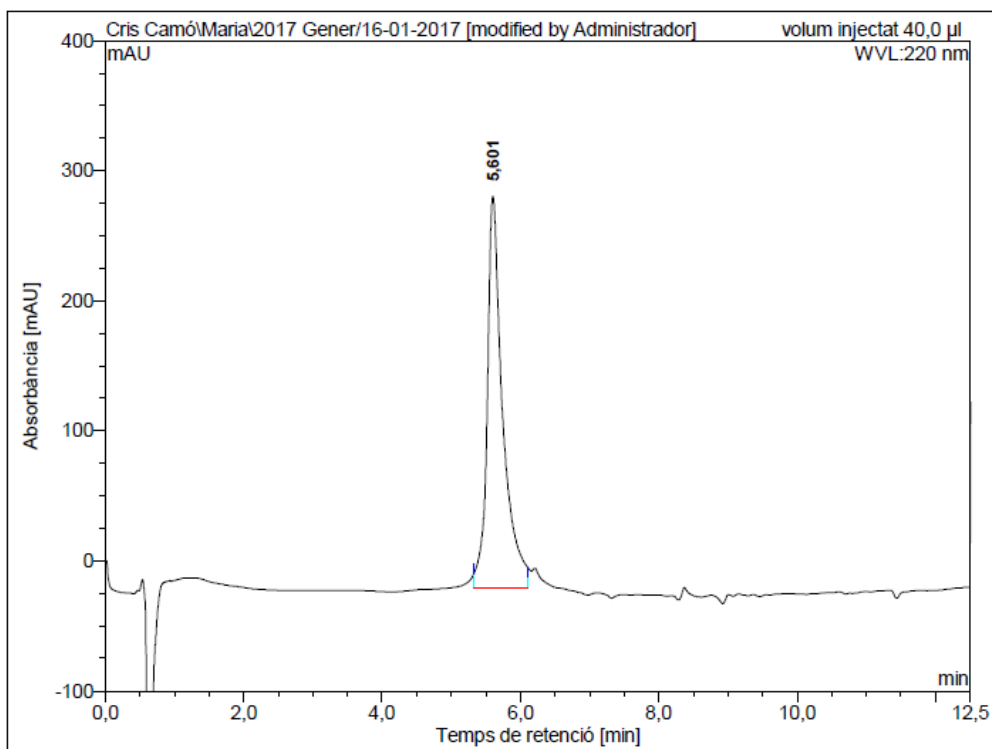
| No. | Temps retenci3 min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,08 | 945,271 | 88,290 | 100,00 |
| Total: | | 945,271 | 88,290 | 100,00 |

c(Lys-Lys-Lys-Lys-Lys-Trp-Leu-Lys-Lys-Gln) (BPC884W)

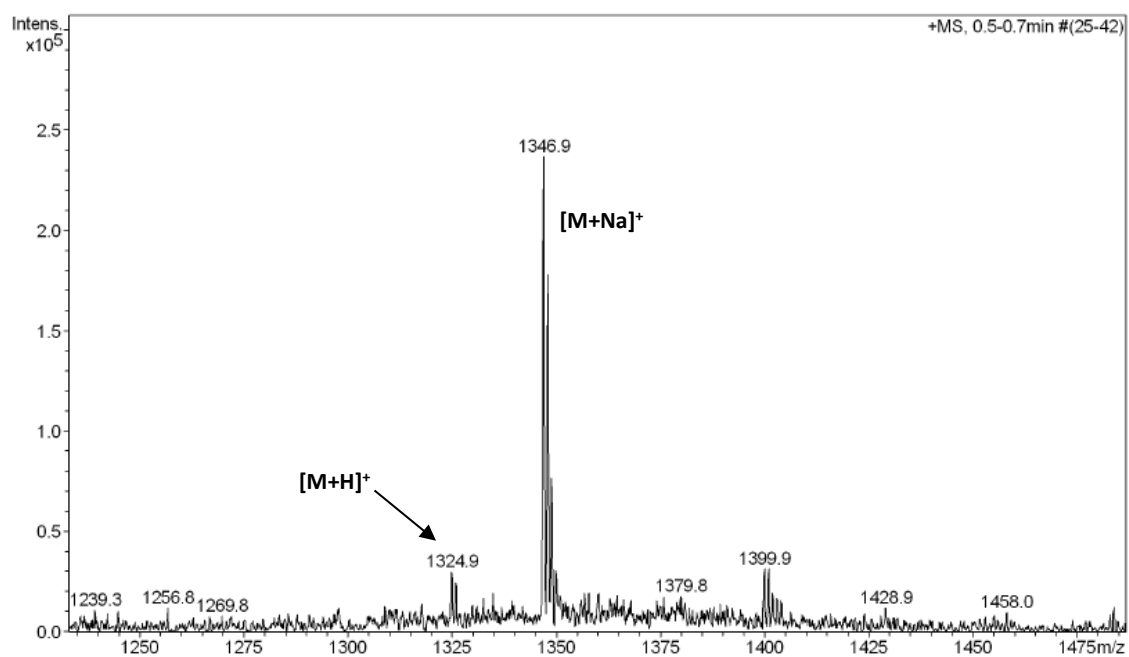
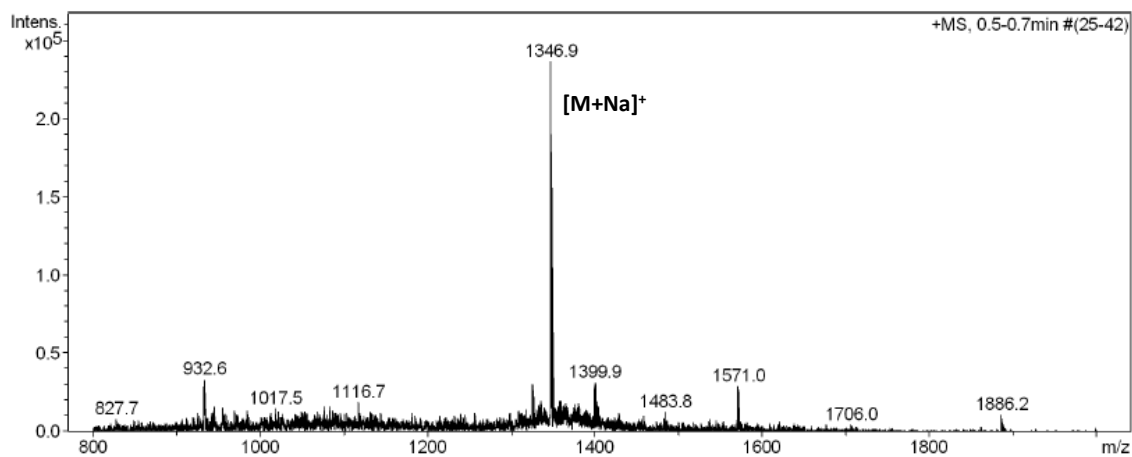
Chemical Formula: $C_{64}H_{113}N_{19}O_{11}$

Exact Mass: 1323,8867

Molecular Weight: 1324,7027

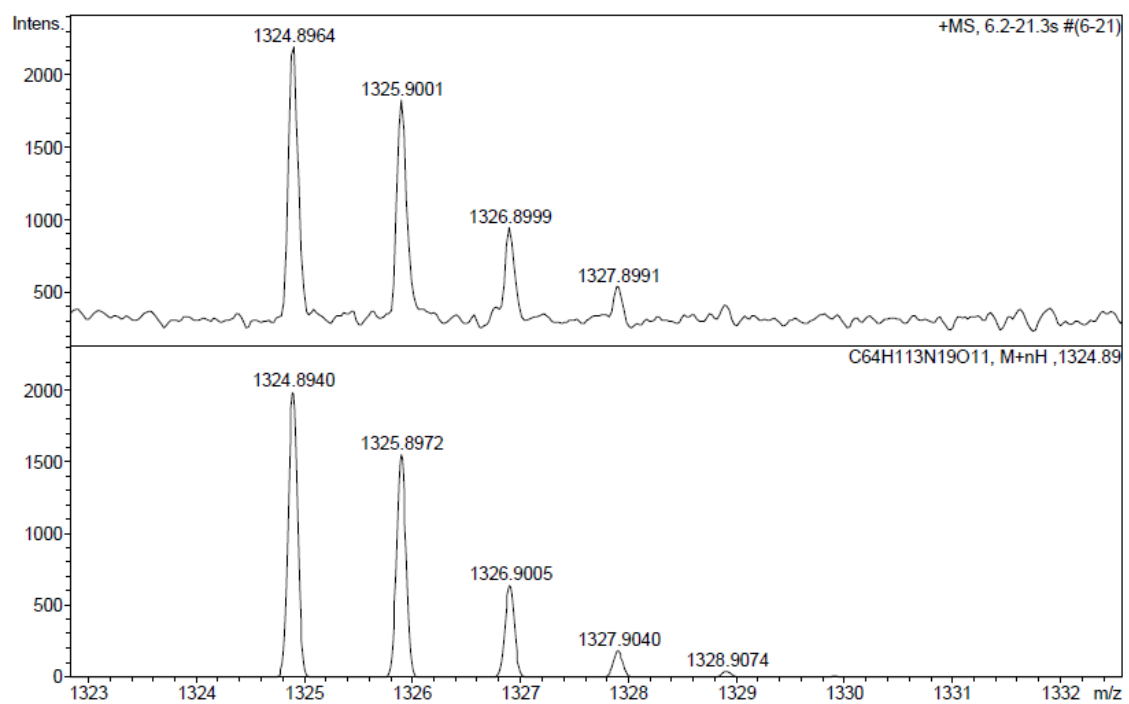
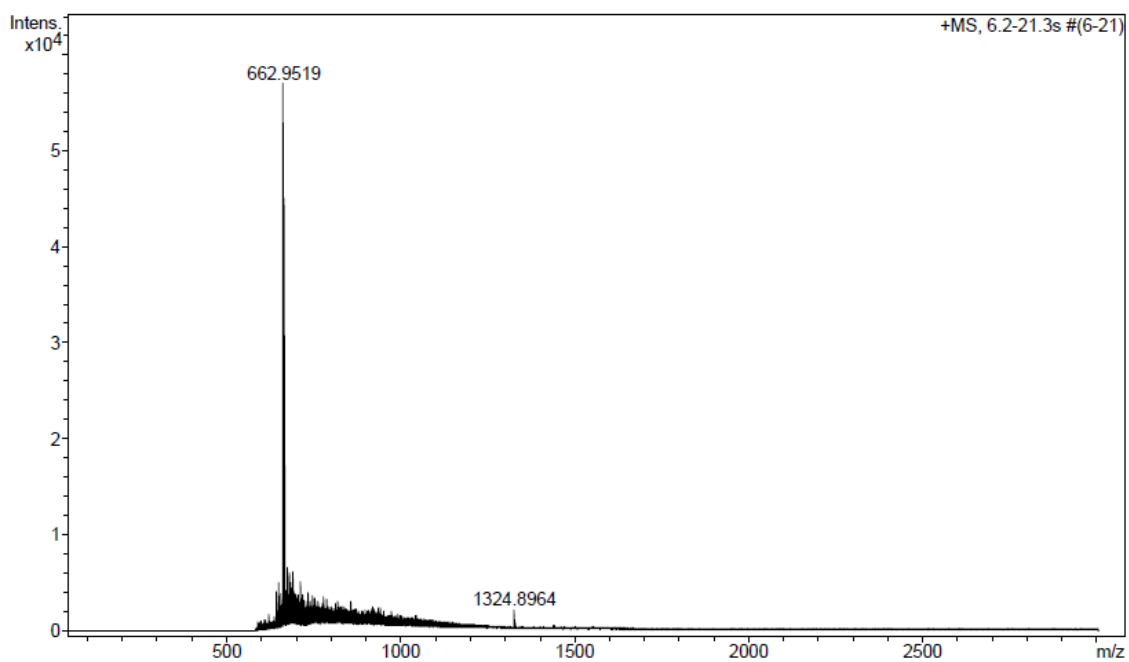
HPLC ($\lambda = 220 \text{ nm}$) (MT-G45)

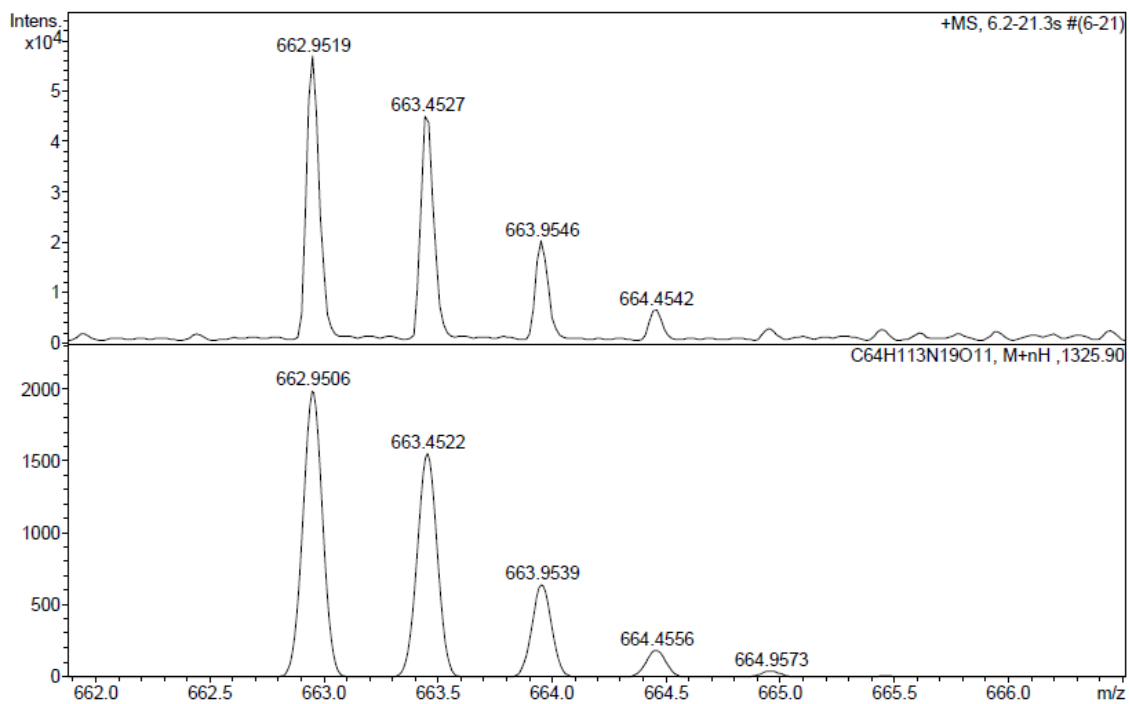
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,60 | 301,598 | 77,961 | 100,00 |
| Total: | | 301,598 | 77,961 | 100,00 |

ESI (m/z) (MT-G45)

| |
|--------------------|
| $[M+H]^+ = 1324.9$ |
|--------------------|

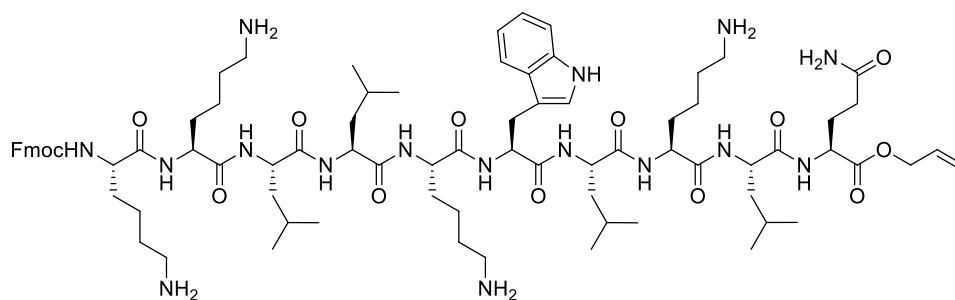
| |
|---------------------|
| $[M+Na]^+ = 1346.9$ |
|---------------------|

HRMS (ESI) (m/z) (MT-G)



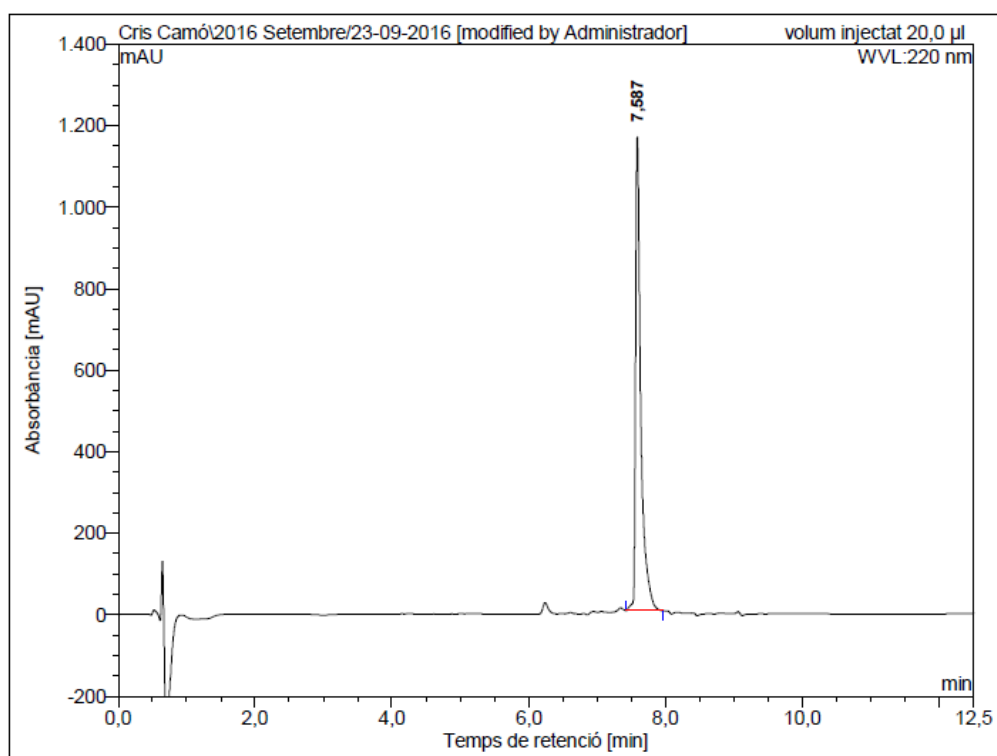
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₄ N ₁₉ O ₁₁ | 1324.8940 | 1324.8964 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₅ N ₁₉ O ₁₁ | 662.9506 | 662.9519 |

Fmoc-Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

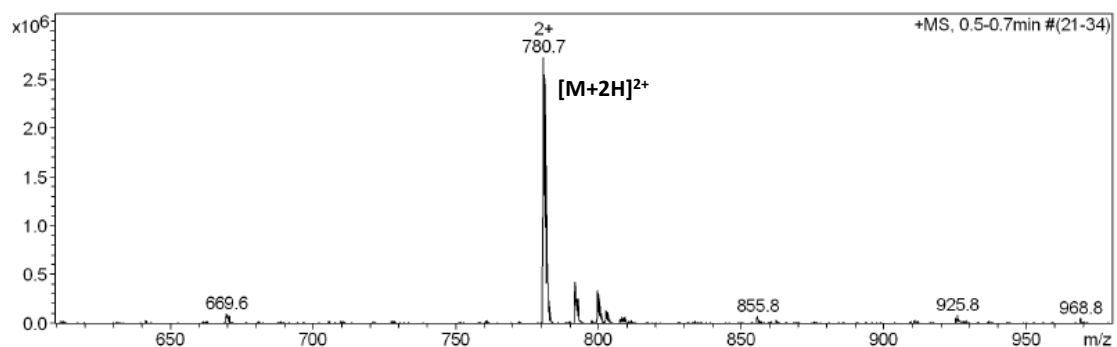
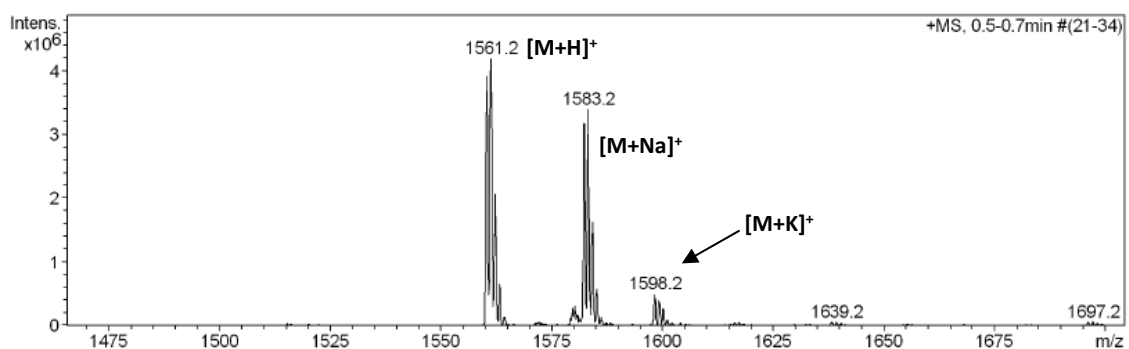
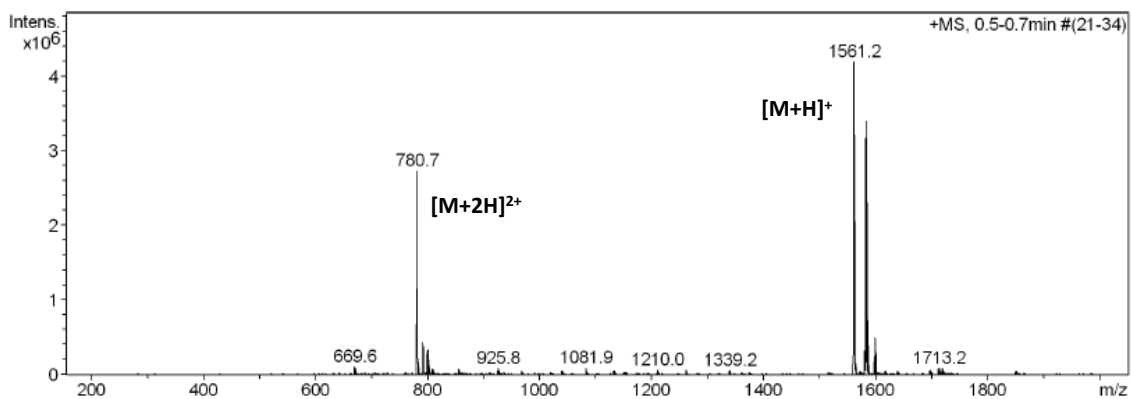
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-20-781)

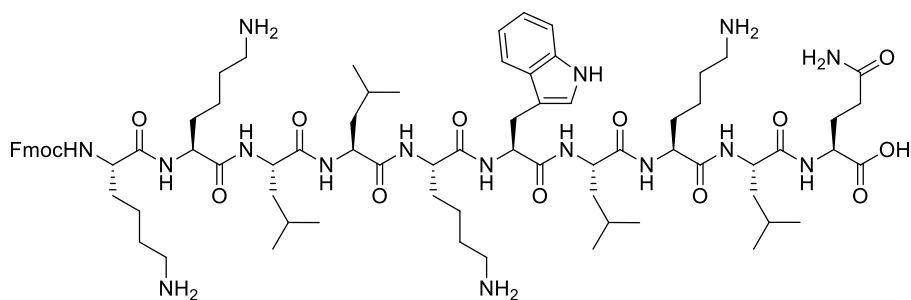
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,59 | 1162,973 | 102,798 | 100,00 |
| Total: | | 1162,973 | 102,798 | 100,00 |

ESI (m/z) (CC-20-781)



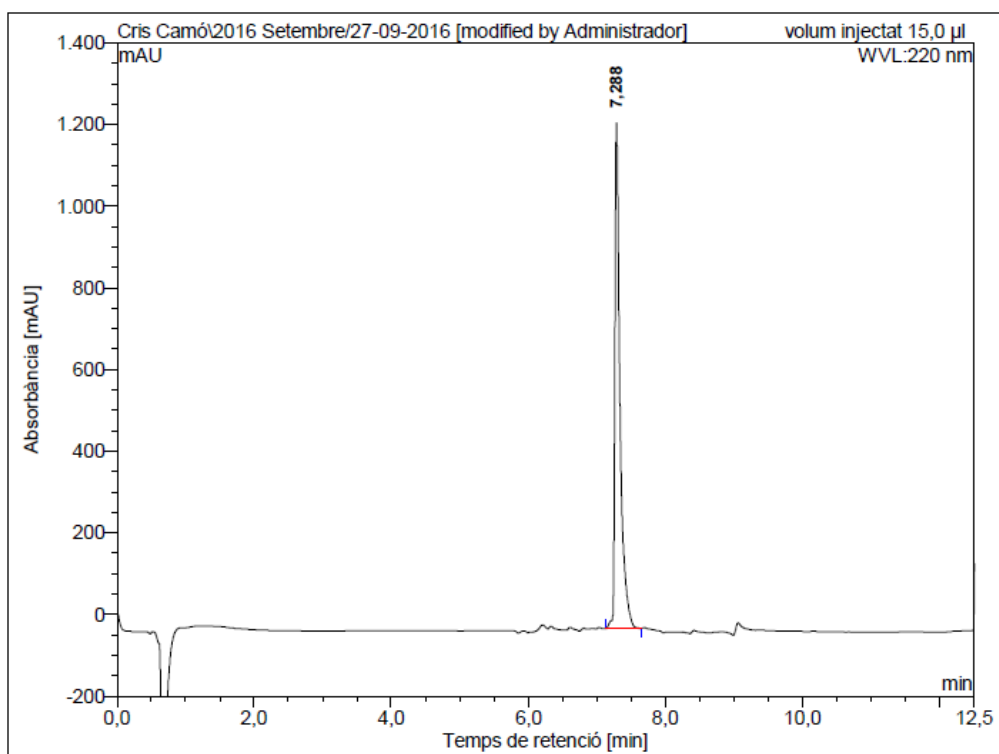
| |
|-----------------------|
| $[M+H]^+ = 1560.2$ |
| $[M+Na]^+ = 1582.2$ |
| $[M+K]^+ = 1598.2$ |
| $[M+2H]^{2+} = 780.7$ |

Fmoc-Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

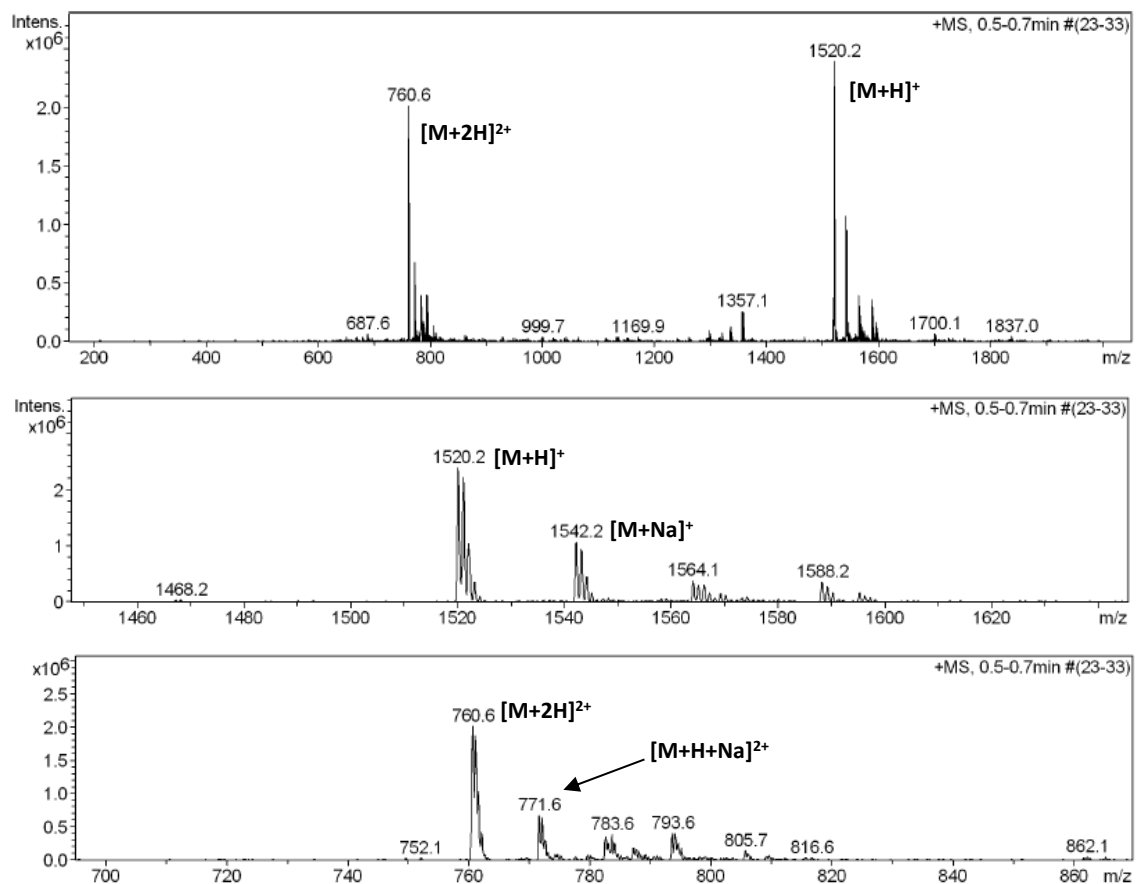
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220$ nm) (CC-20-788)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,29 | 1238,745 | 107,877 | 100,00 |
| Total: | | 1238,745 | 107,877 | 100,00 |

ESI (m/z) (CC-20-788)



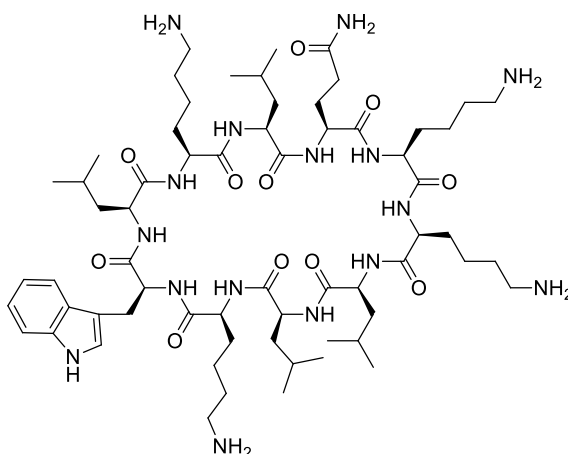
| |
|-----------------------------|
| [M+H] ⁺ = 1520.2 |
|-----------------------------|

| |
|------------------------------|
| [M+Na] ⁺ = 1542.2 |
|------------------------------|

| |
|------------------------------|
| [M+2H] ²⁺ = 760.6 |
|------------------------------|

| |
|--------------------------------|
| [M+H+Na] ²⁺ = 771.6 |
|--------------------------------|

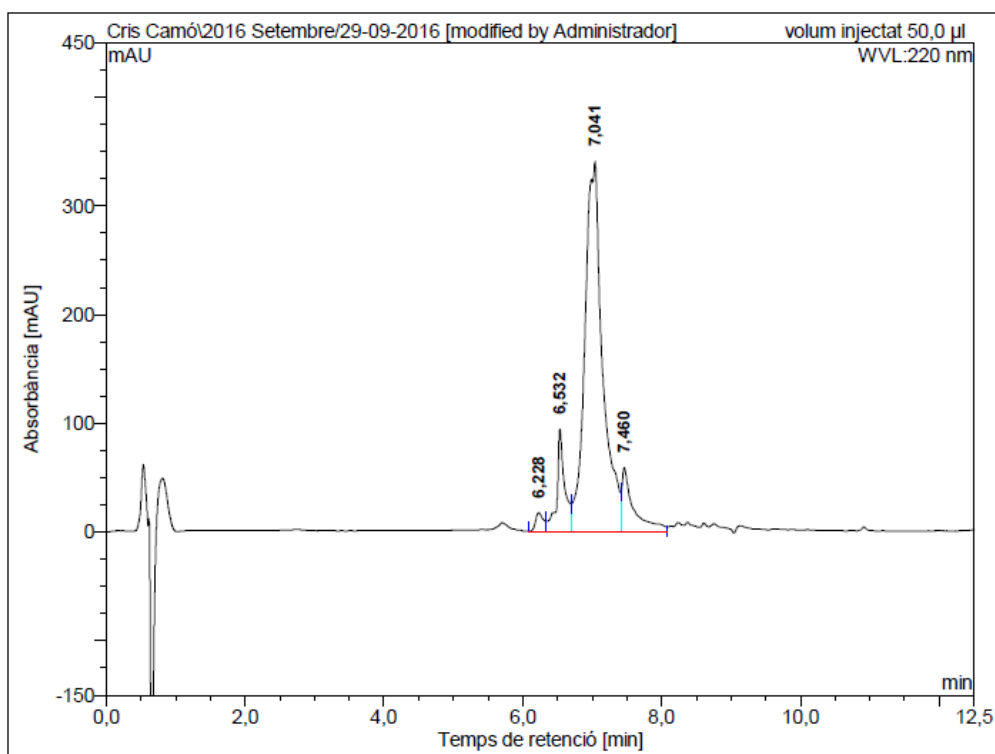
c(Lys-Lys-Leu-Leu-Lys-Trp-Leu-Lys-Leu-Gln) (BPC886W)

Chemical Formula: C₆₄H₁₁₀N₁₆O₁₁

Exact Mass: 1278,8540

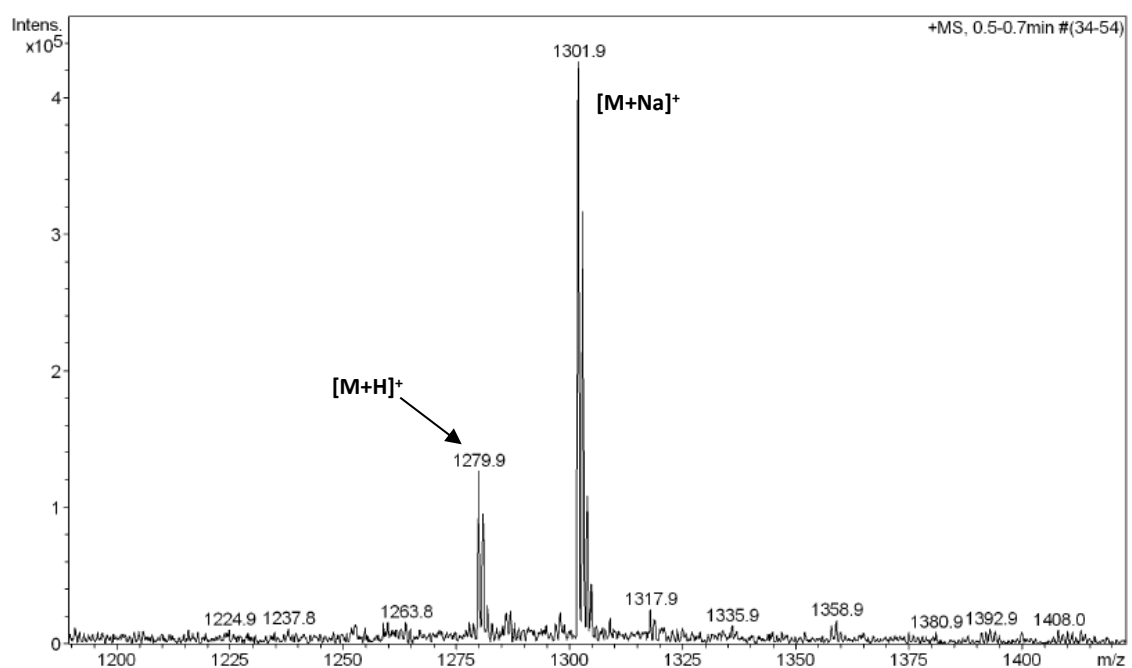
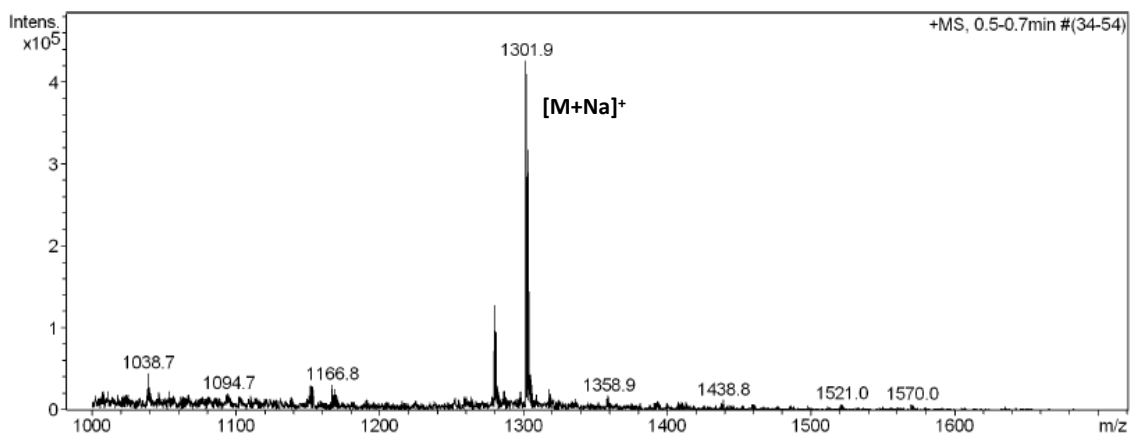
Molecular Weight: 1279,6588

HPLC (λ = 220 nm) (CC-20-792)

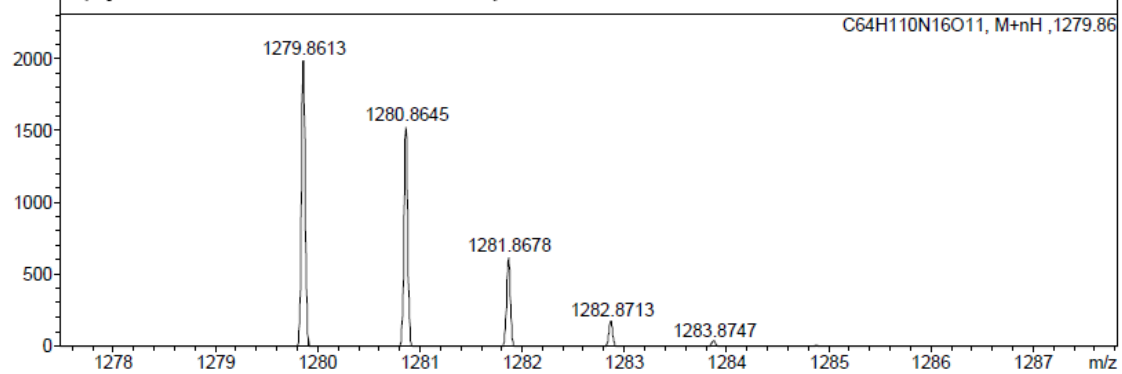
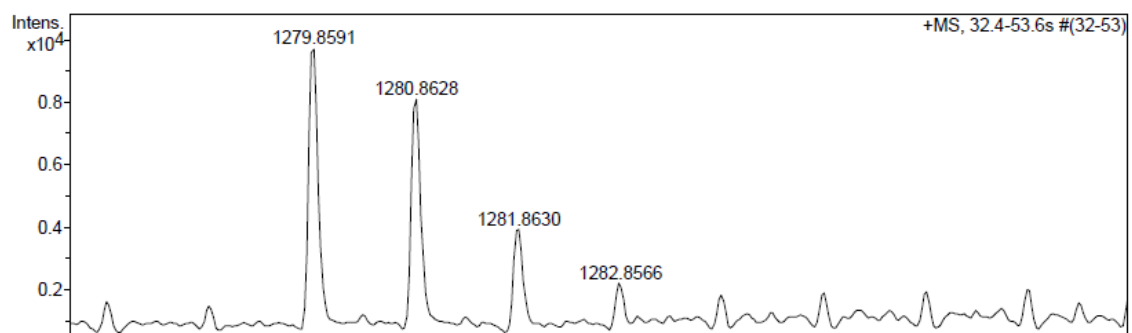
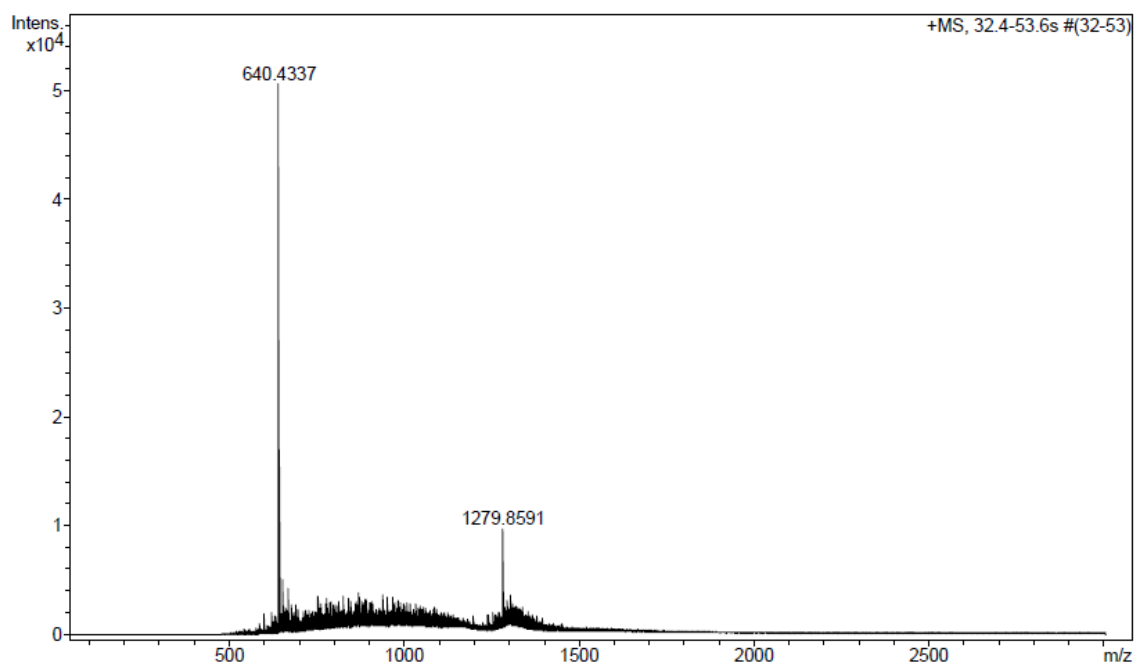


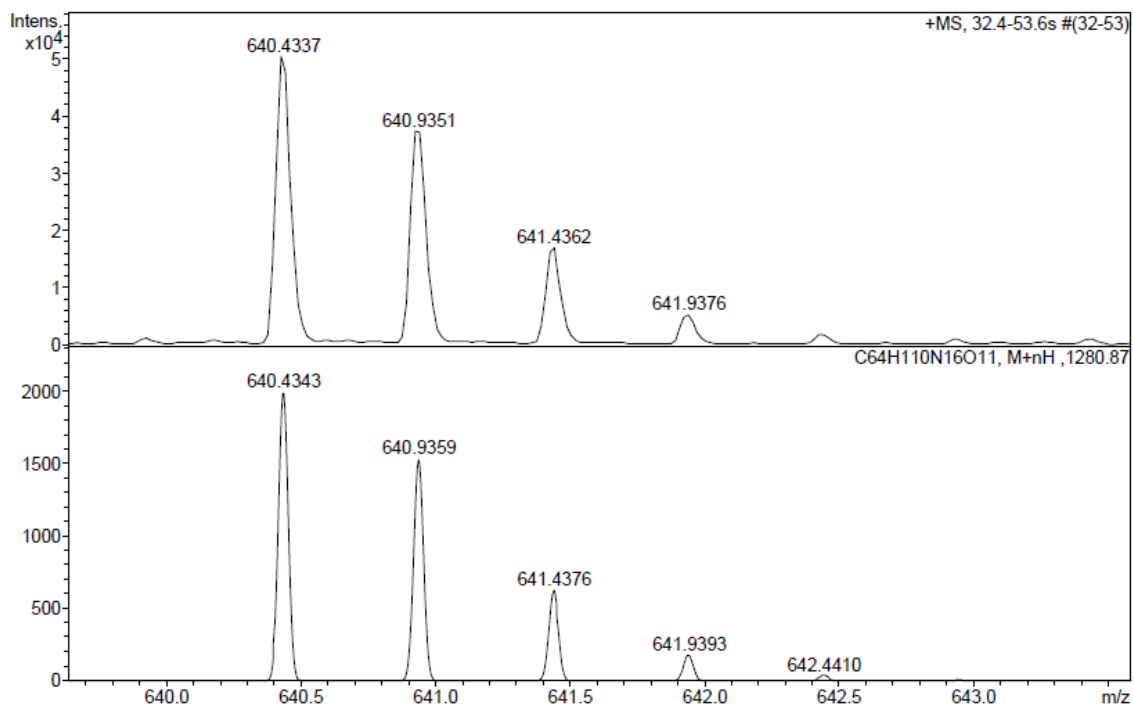
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,23 | 17,136 | 2,209 | 1,74 |
| 2 | 6,53 | 94,072 | 12,337 | 9,70 |
| 3 | 7,04 | 340,053 | 101,101 | 79,52 |
| 4 | 7,46 | 58,373 | 11,492 | 9,04 |
| Total: | | 509,634 | 127,138 | 100,00 |

ESI (m/z) (CC-20-792)



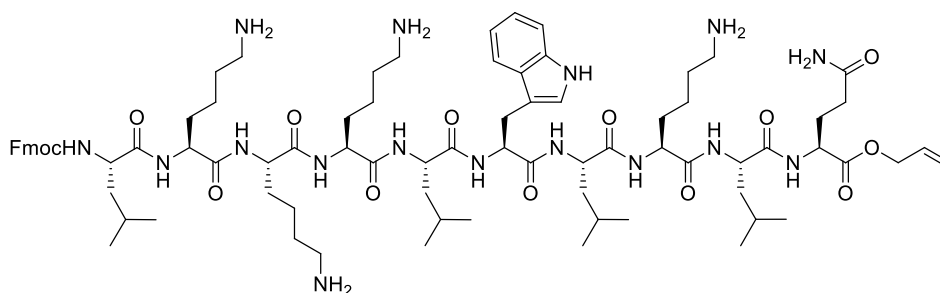
| |
|------------------------------|
| [M+H] ⁺ = 1279.9 |
| [M+Na] ⁺ = 1301.9 |

HRMS (ESI) (m/z) (CC-20)



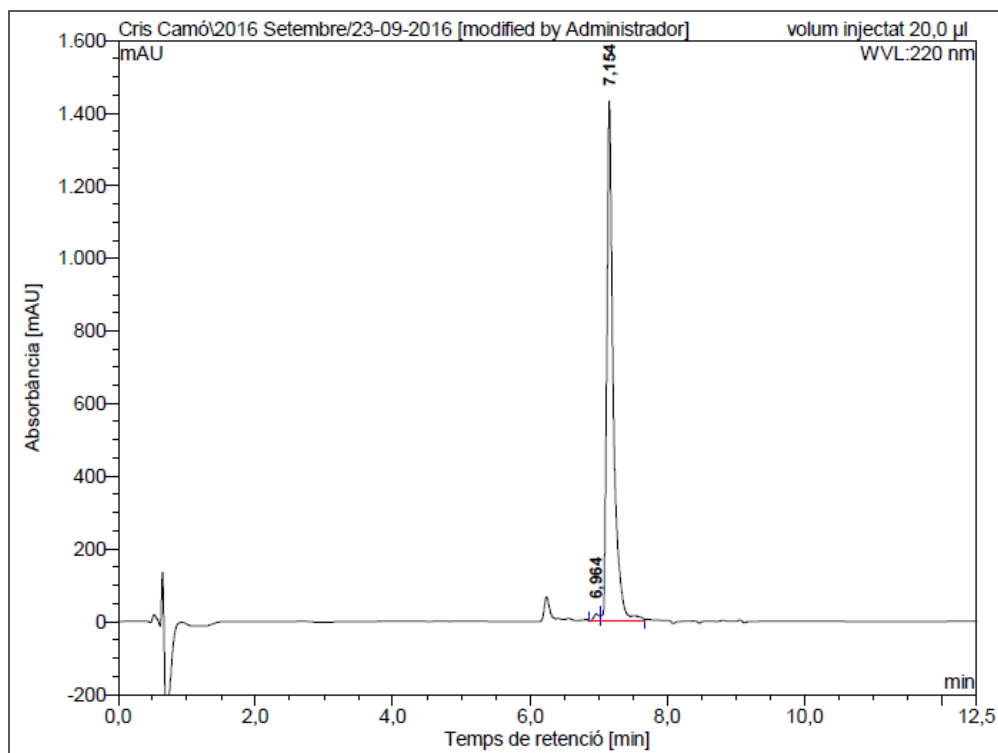
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8591 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4337 |

Fmoc-Leu-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

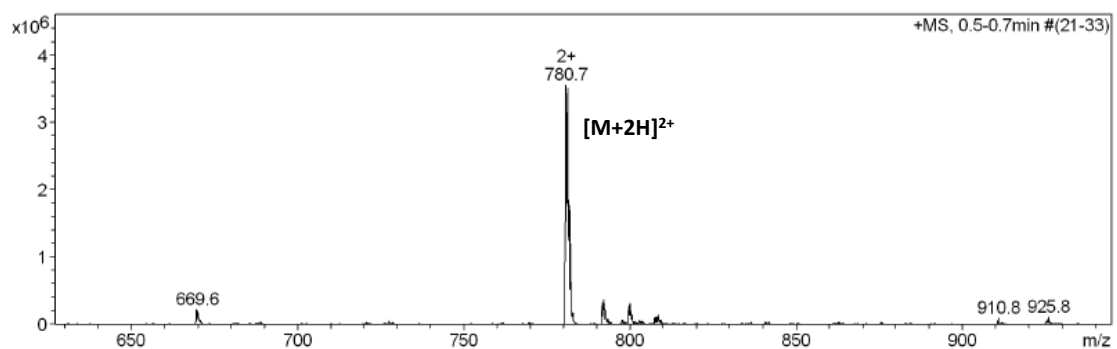
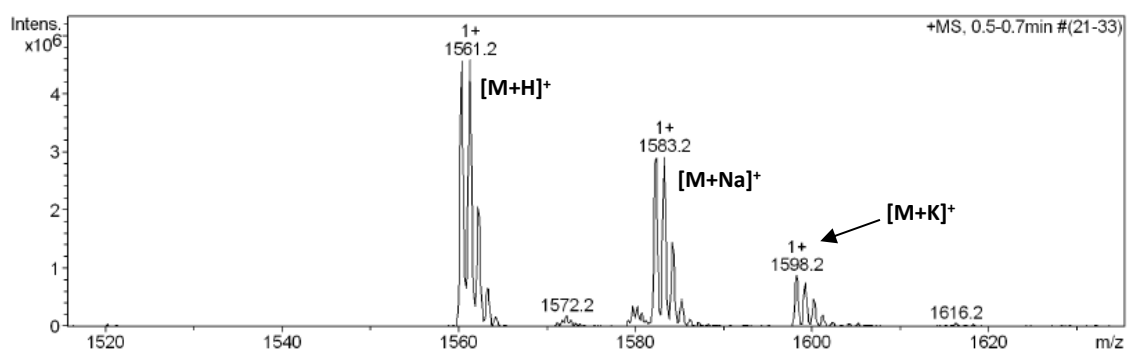
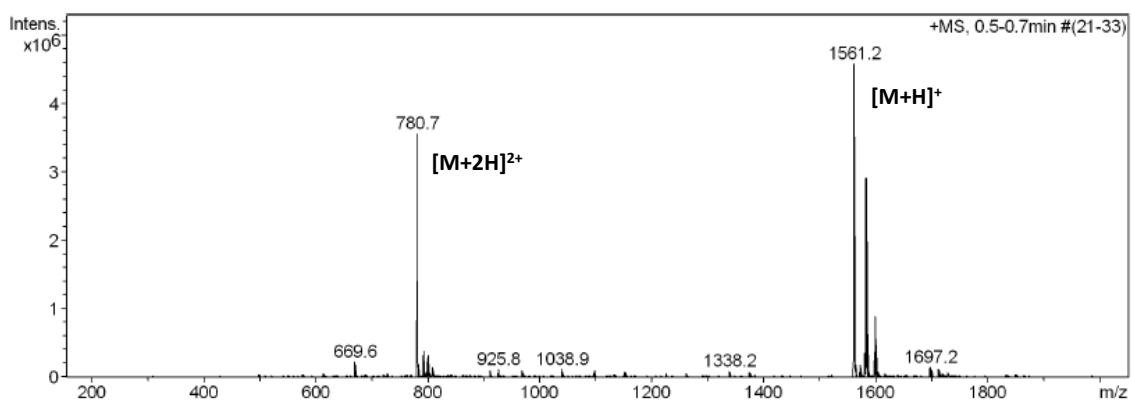
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-21-781)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,96 | 19,724 | 1,697 | 1,07 |
| 2 | 7,15 | 1432,961 | 157,103 | 98,93 |
| Total: | | 1452,686 | 158,801 | 100,00 |

ESI (m/z) (CC-21-781)



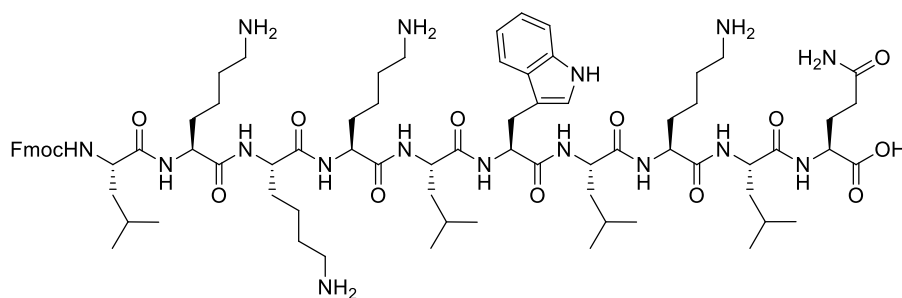
$$[M+H]^+ = 1560.2$$

$$[M+Na]^+ = 1582.2$$

$$[M+K]^+ = 1598.2$$

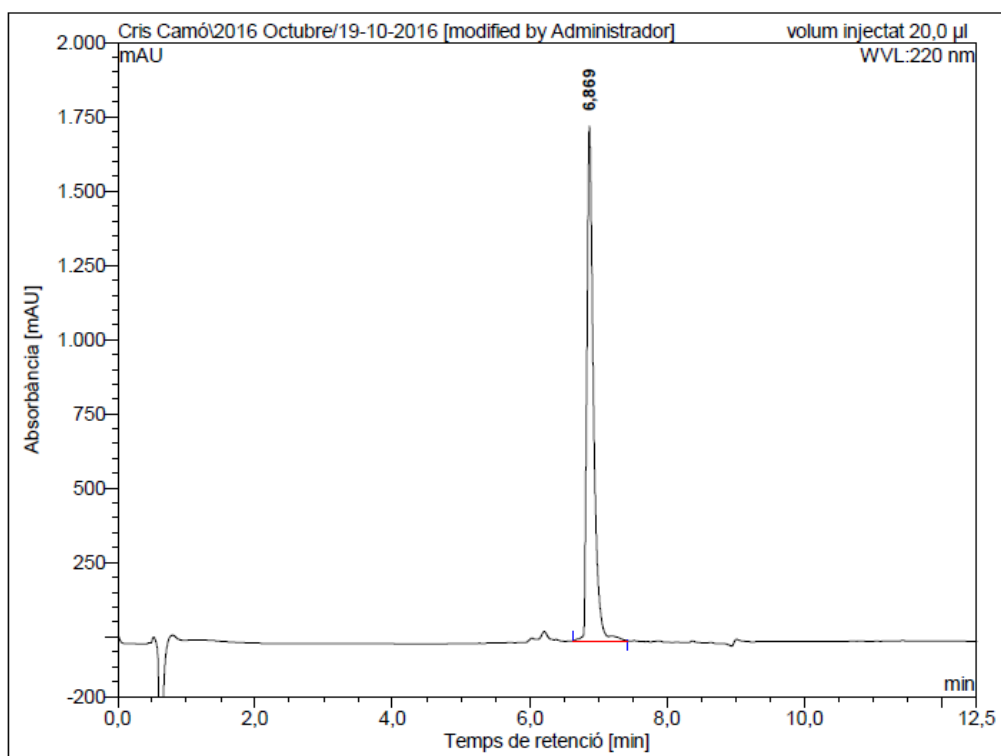
$$[M+2H]^{2+} = 780.7$$

Fmoc-Leu-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

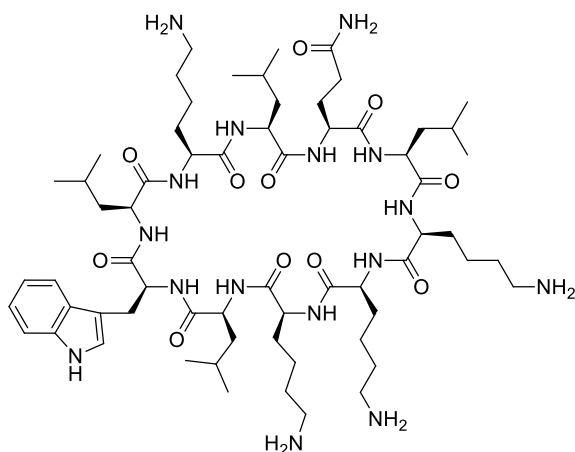
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220 \text{ nm}$) (CC-21-820)

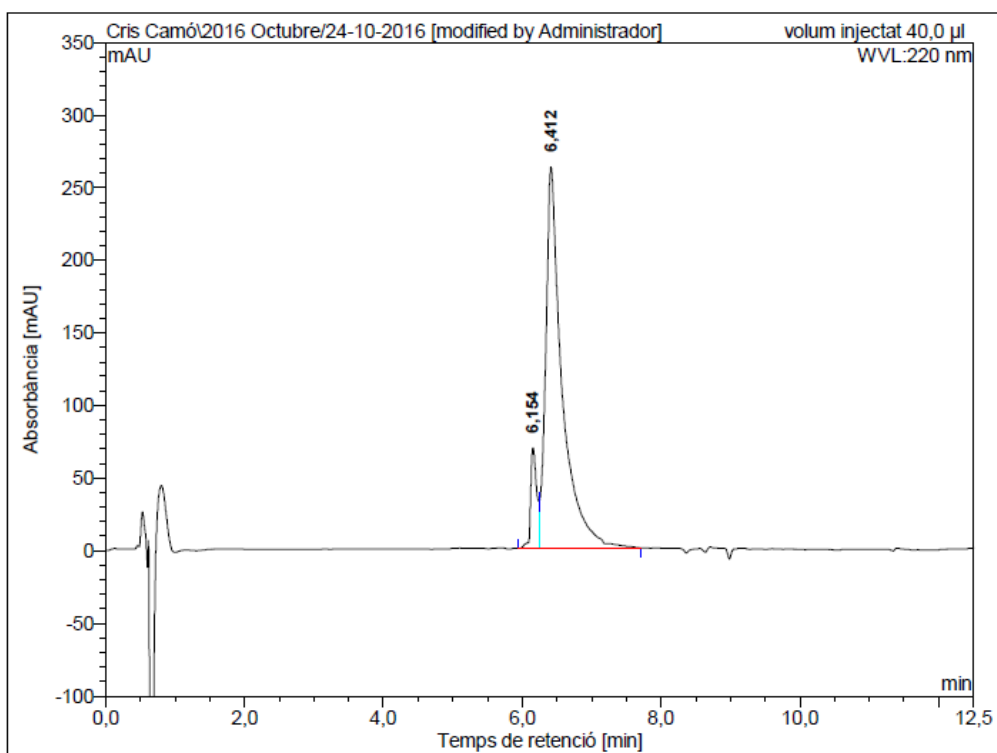
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,87 | 1732,102 | 193,465 | 100,00 |
| Total: | | 1732,102 | 193,465 | 100,00 |

c(Leu-Lys-Lys-Lys-Leu-Trp-Leu-Lys-Leu-Gln) (BPC888W)

Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

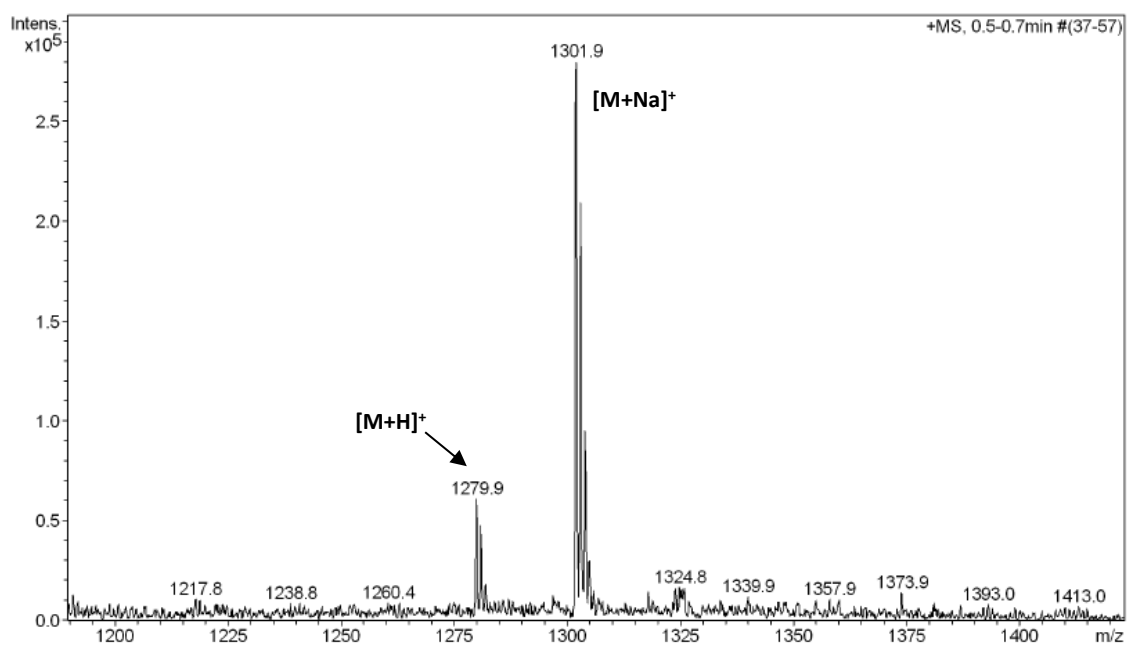
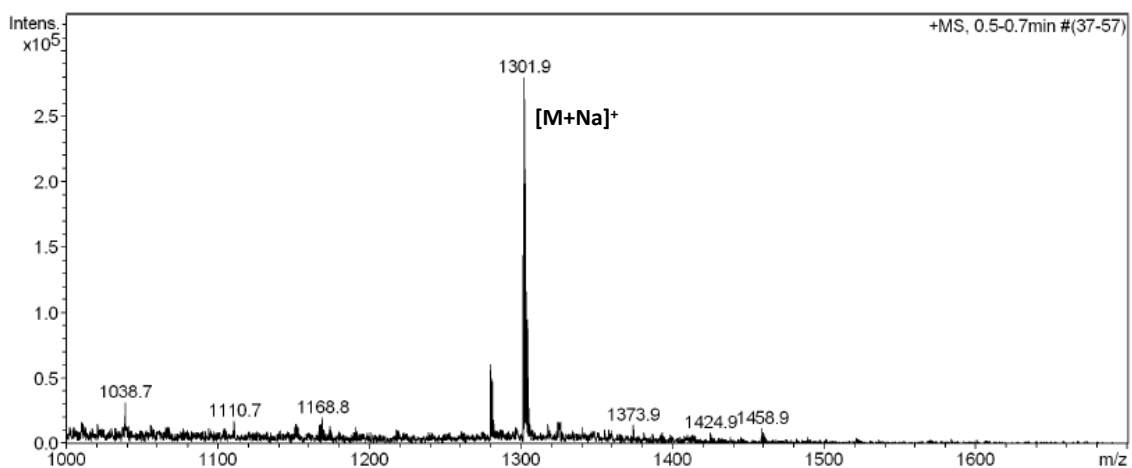
Exact Mass: 1278,8540

Molecular Weight: 1279,6588

HPLC ($\lambda = 220$ nm) (CC-21-829)

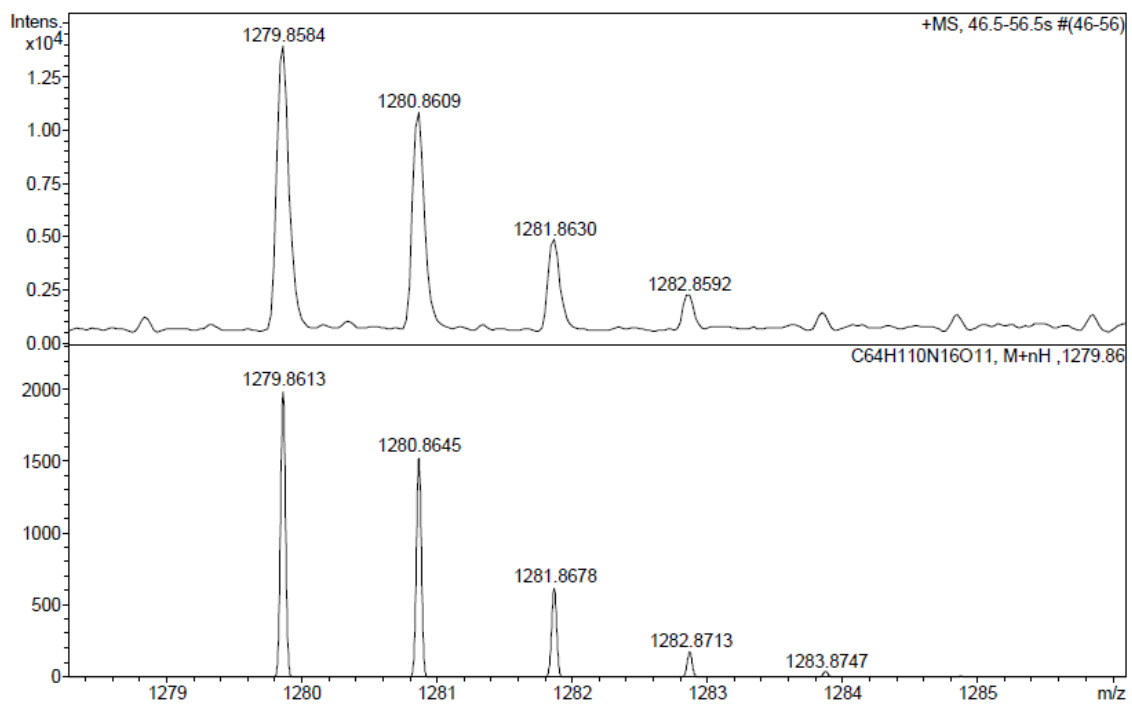
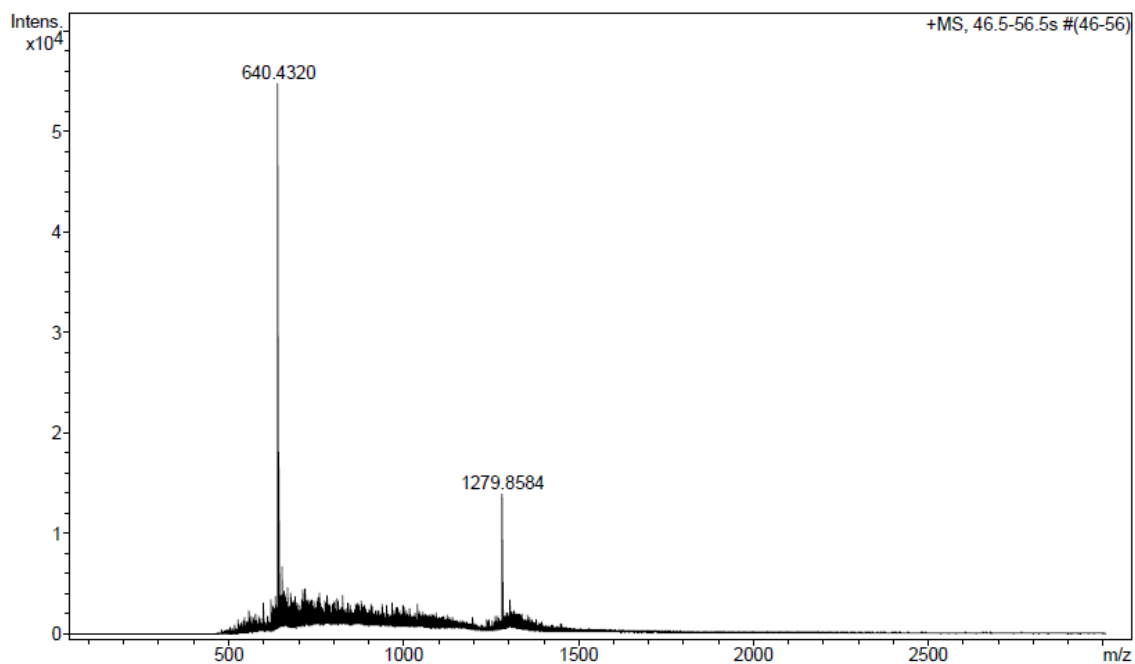
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,15 | 69,250 | 6,932 | 8,75 |
| 2 | 6,41 | 262,903 | 72,258 | 91,25 |
| Total: | | 332,153 | 79,190 | 100,00 |

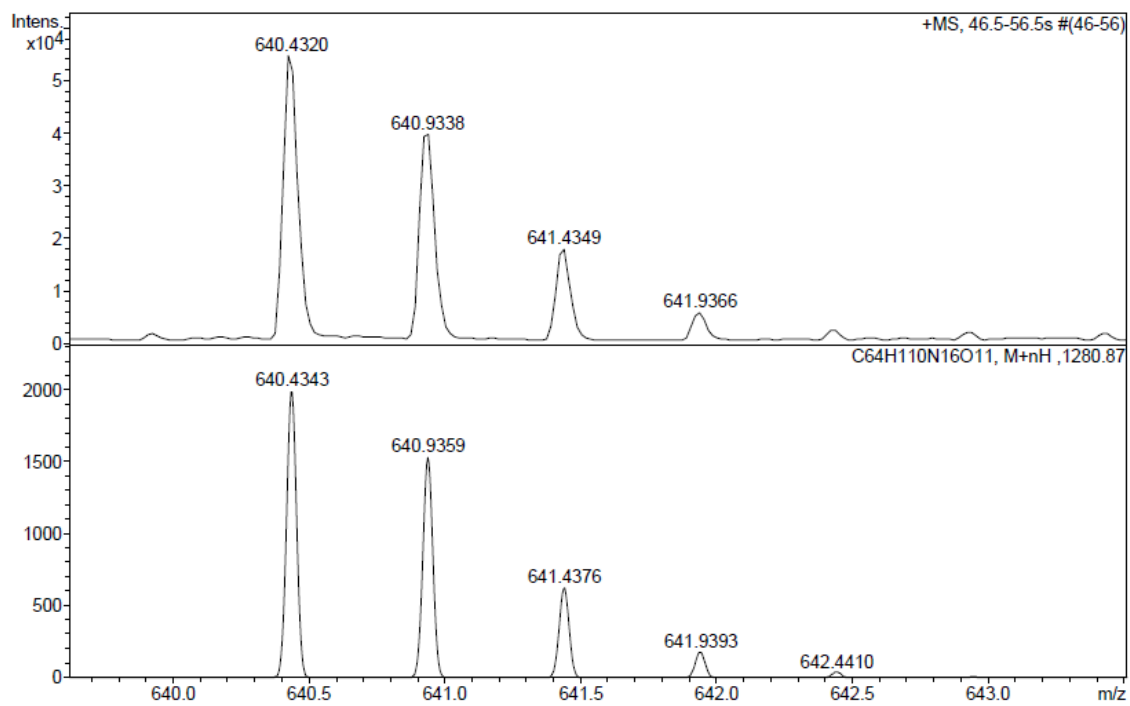
ESI (m/z) (CC-21-829)



| |
|--------------------|
| $[M+H]^+ = 1279.9$ |
|--------------------|

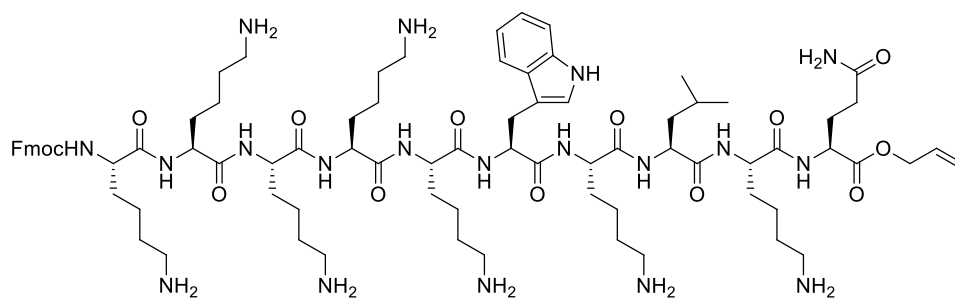
| |
|---------------------|
| $[M+Na]^+ = 1301.9$ |
|---------------------|

HRMS (ESI) (m/z) (CC-21)



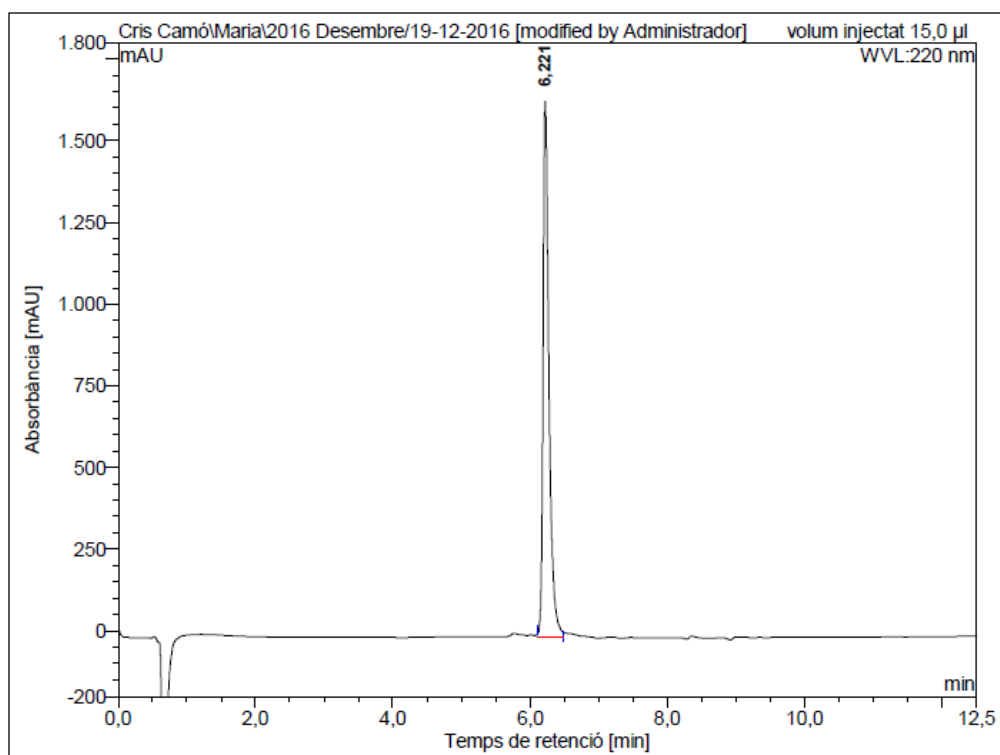
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8584 |
| [M+2H]²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4320 |

Fmoc-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Lys-Gln-OAll

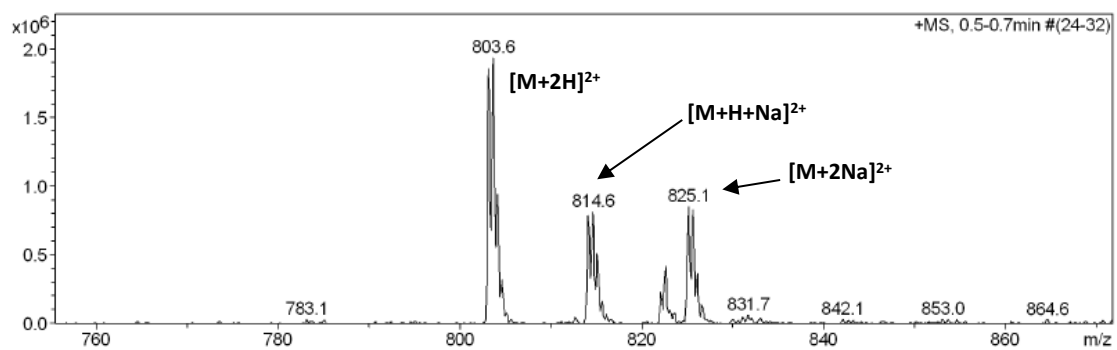
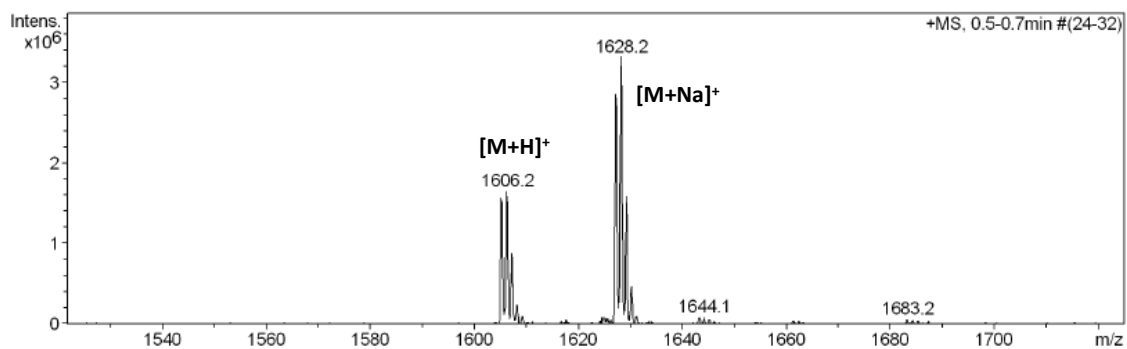
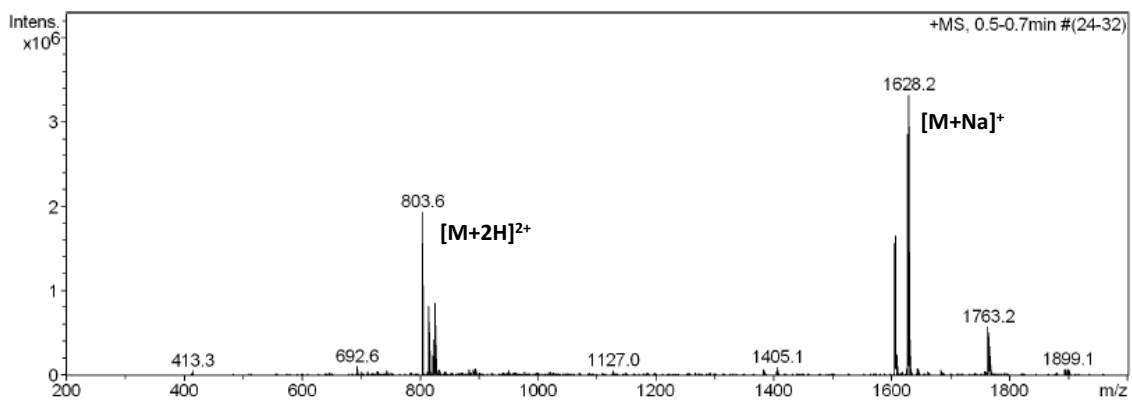
Chemical Formula: $C_{82}H_{129}N_{19}O_{14}$

Exact Mass: 1603,9966

Molecular Weight: 1605,0206

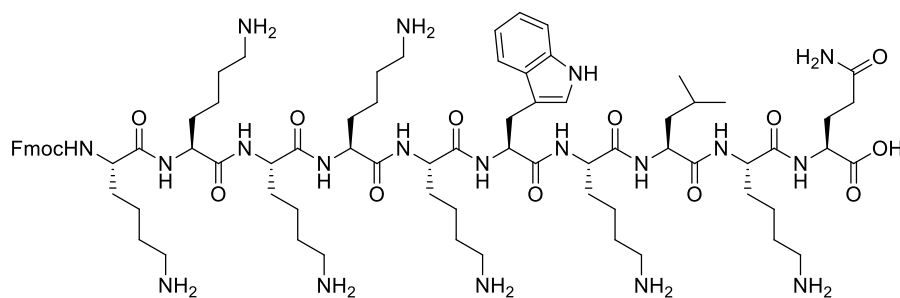
HPLC ($\lambda = 220 \text{ nm}$) (MT-H43)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,22 | 1637,712 | 162,360 | 100,00 |
| Total: | | 1637,712 | 162,360 | 100,00 |

ESI (m/z) (MT-H43)

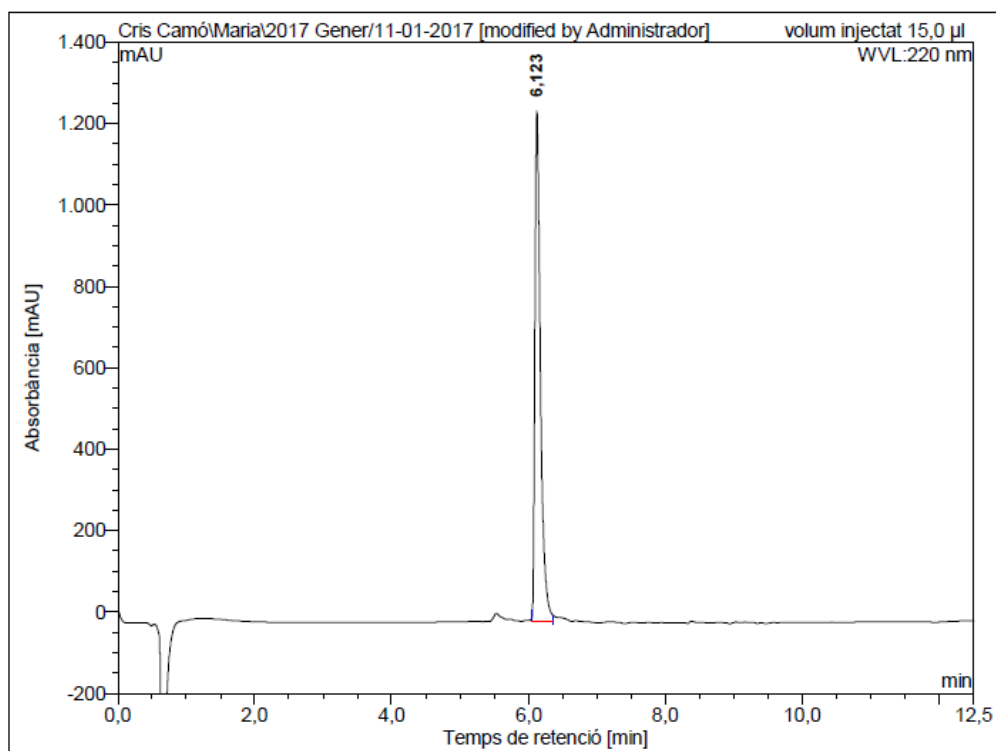
| |
|-------------------------|
| $[M+H]^+ = 1605.2$ |
| $[M+Na]^+ = 1627.2$ |
| $[M+2H]^{2+} = 803.6$ |
| $[M+H+Na]^{2+} = 814.6$ |
| $[M+2Na]^{2+} = 825.1$ |

Fmoc-Lys-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Lys-Gln-OH

Chemical Formula: $C_{79}H_{125}N_{19}O_{14}$

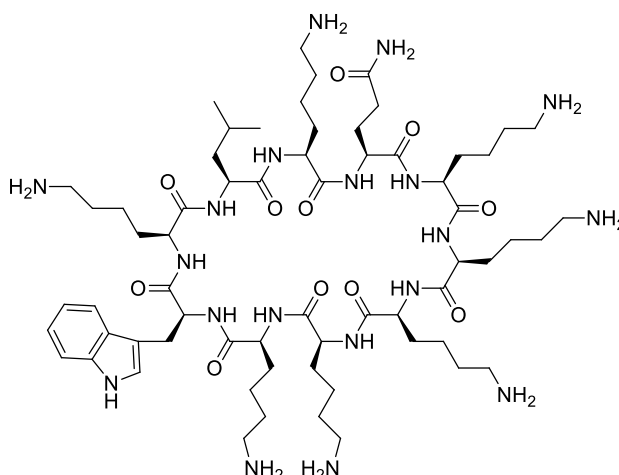
Exact Mass: 1563,9653

Molecular Weight: 1564,9567

HPLC ($\lambda = 220$ nm) (MT-H44)

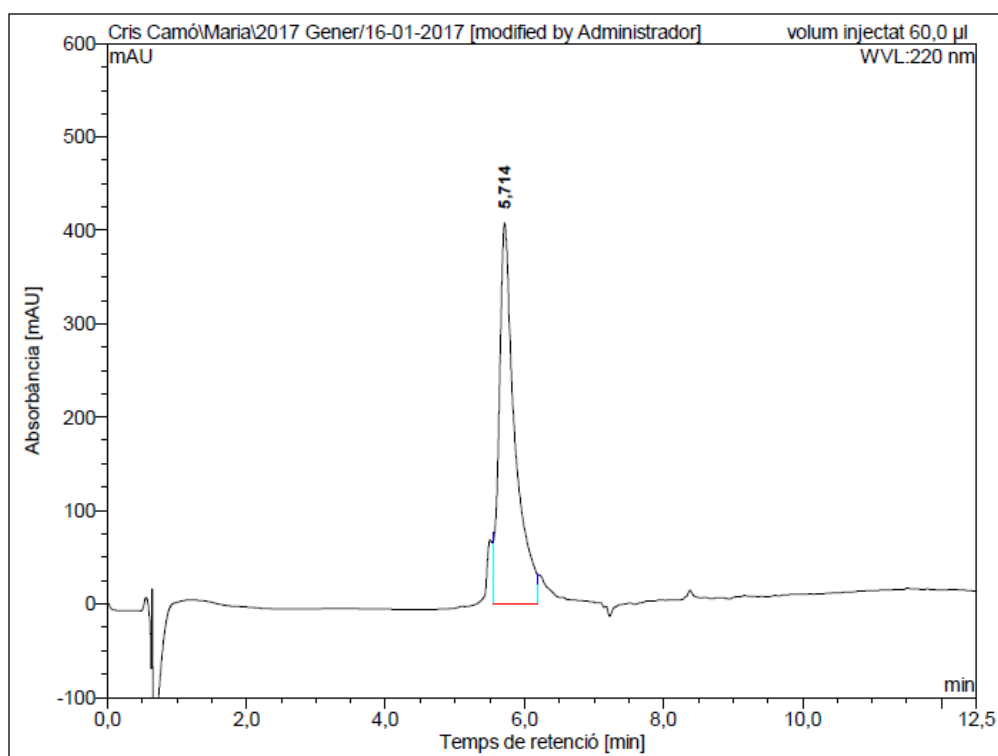
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,12 | 1255,074 | 118,671 | 100,00 |
| Total: | | 1255,074 | 118,671 | 100,00 |

c(Lys-Lys-Lys-Lys-Lys-Trp-Lys-Leu-Lys-Gln) (BPC890W)

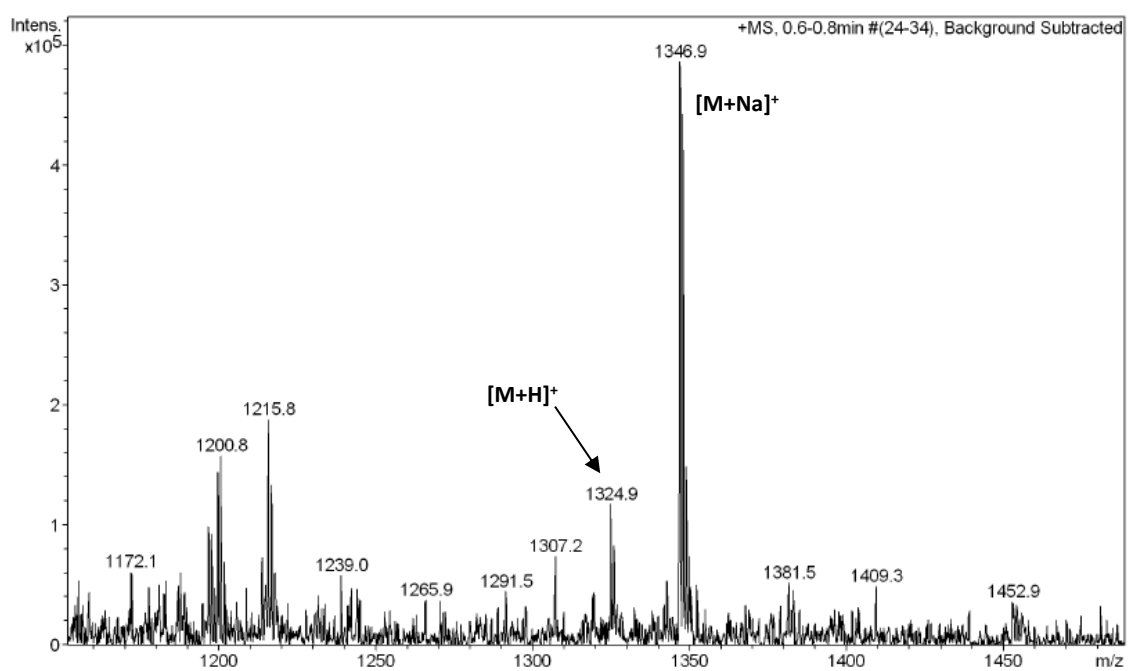
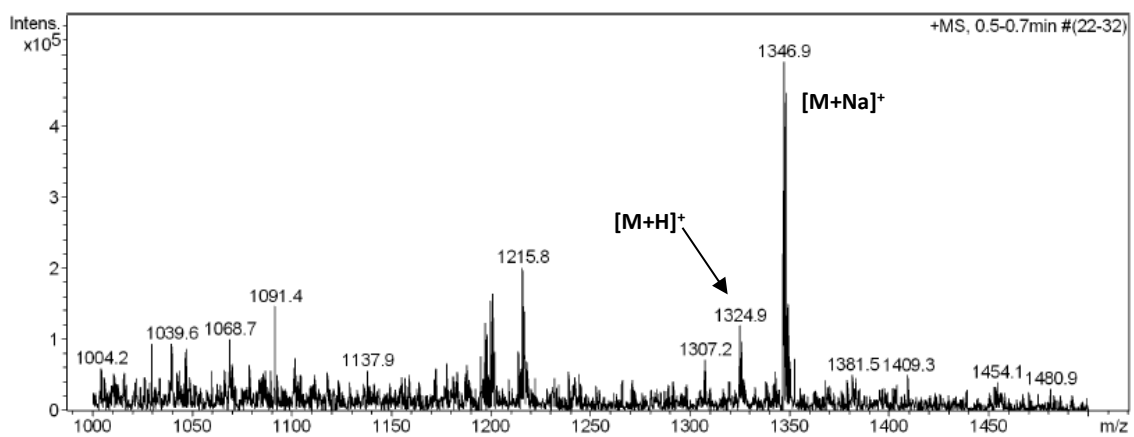
Chemical Formula: $C_{64}H_{113}N_{19}O_{11}$

Exact Mass: 1323,8867

Molecular Weight: 1324,7027

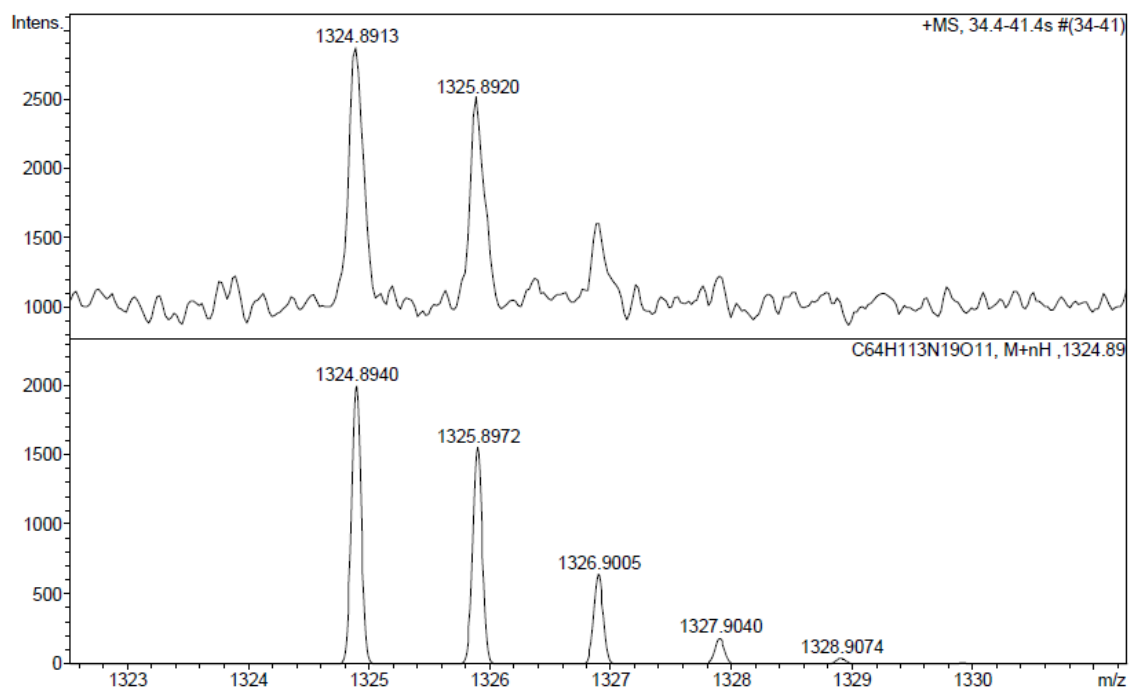
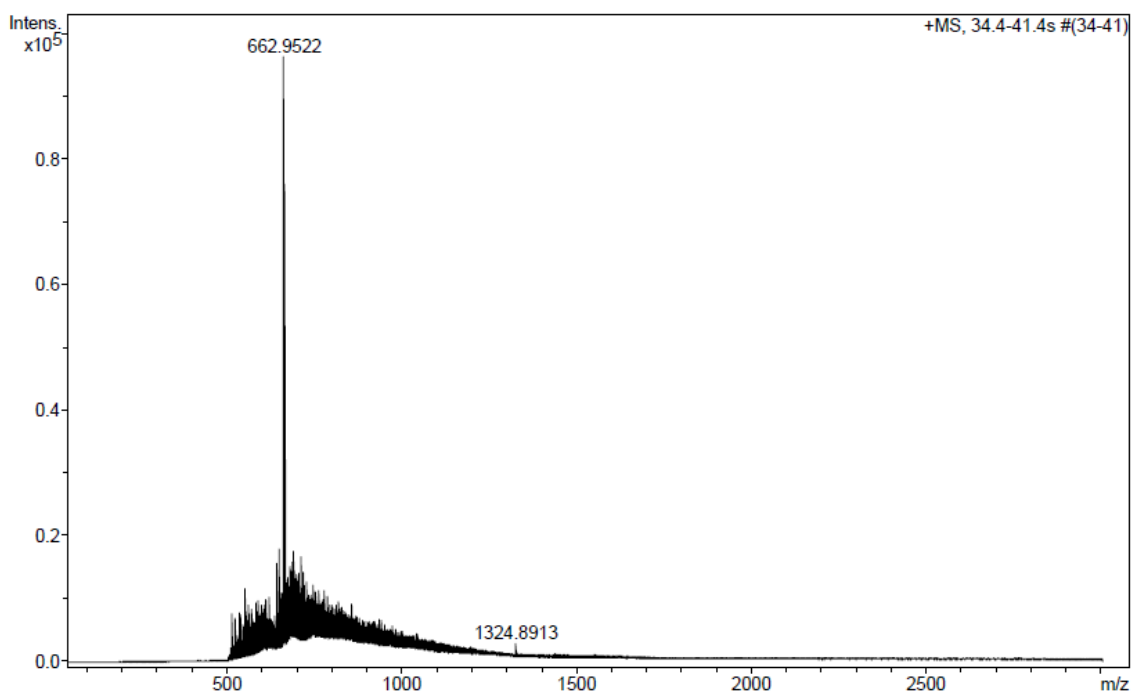
HPLC ($\lambda = 220 \text{ nm}$) (MT-H45)

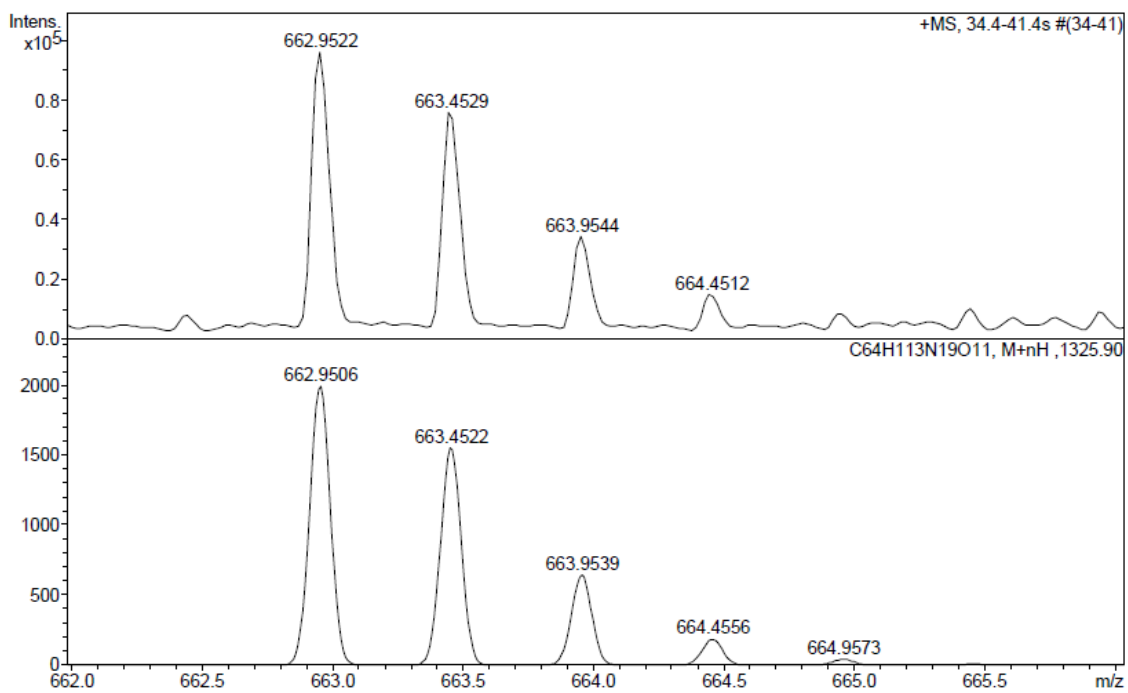
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,71 | 408,459 | 106,498 | 100,00 |
| Total: | | 408,459 | 106,498 | 100,00 |

ESI (m/z) (MT-H45)

| |
|-----------------------------|
| [M+H] ⁺ = 1324.9 |
|-----------------------------|

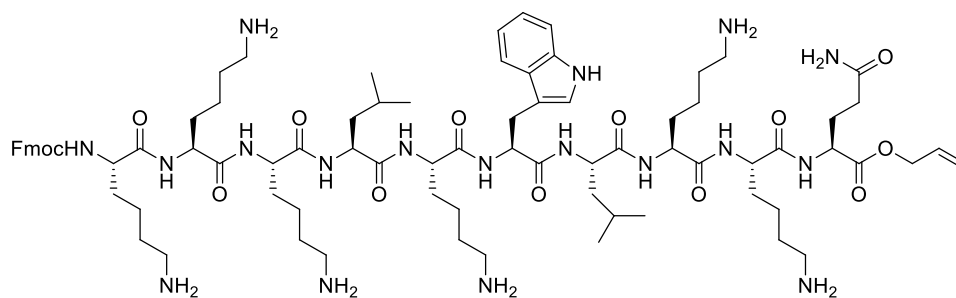
| |
|------------------------------|
| [M+Na] ⁺ = 1346.9 |
|------------------------------|

HRMS (ESI) (m/z) (MT-H)



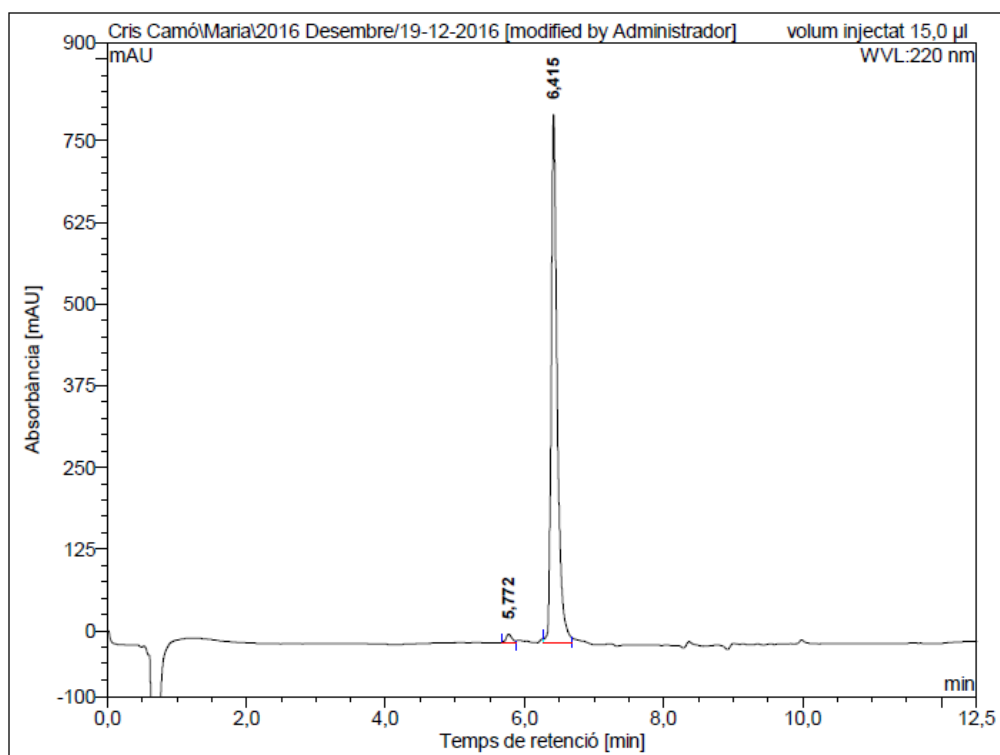
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{114}N_{19}O_{11}$ | 1324.8940 | 1324.8913 |
| $[M+2H]^{2+}$ | $C_{64}H_{115}N_{19}O_{11}$ | 662.9506 | 662.9522 |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OAll

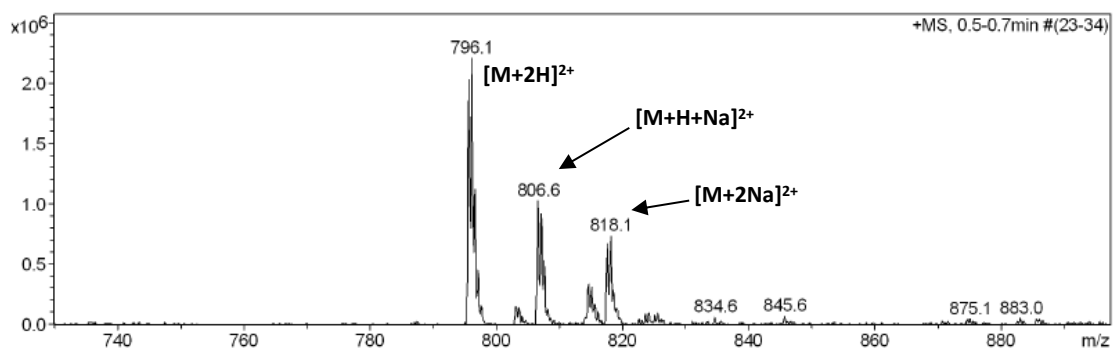
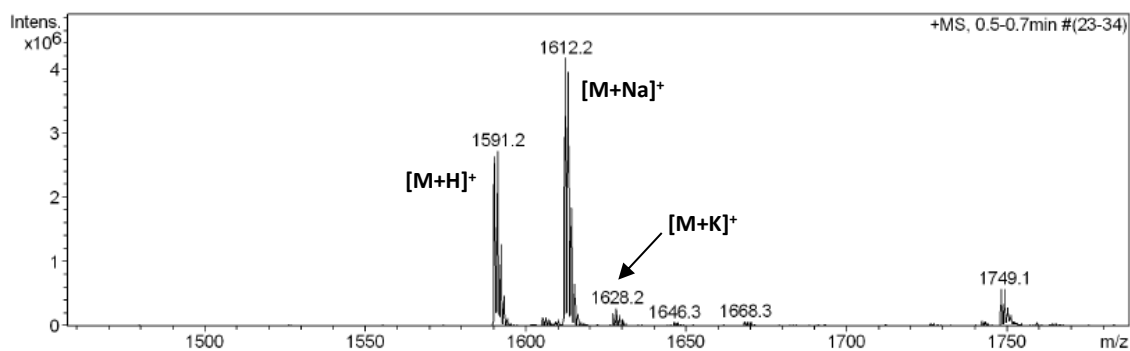
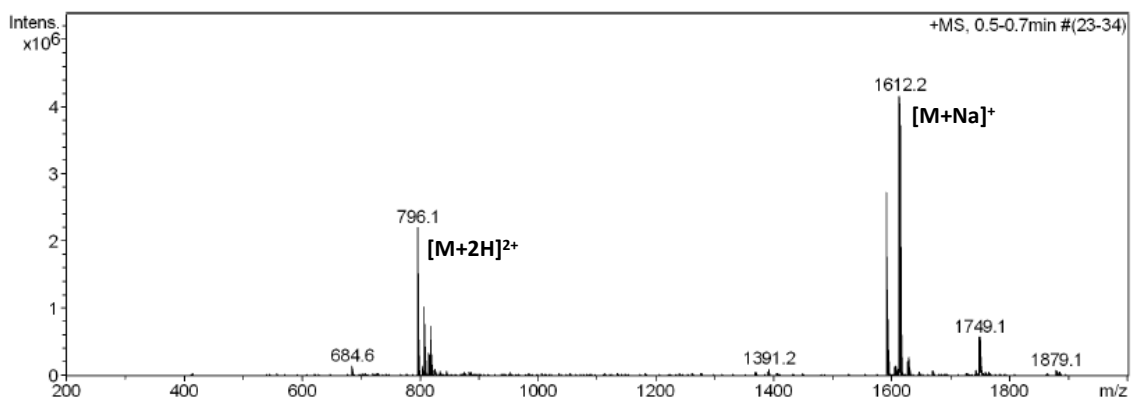
Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

Exact Mass: 1588,9857

Molecular Weight: 1590,0059

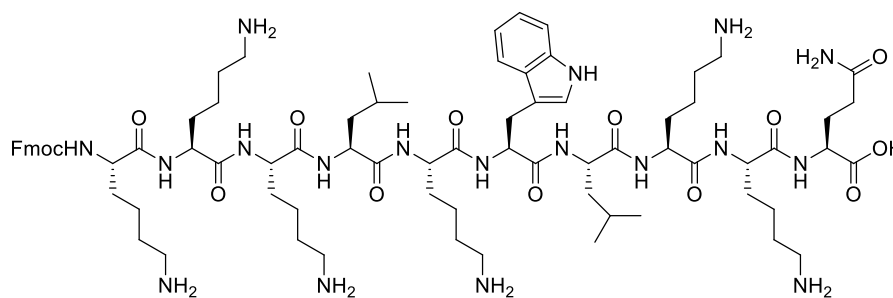
HPLC ($\lambda = 220$ nm) (MT-I43)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,77 | 13,007 | 1,319 | 1,60 |
| 2 | 6,41 | 808,937 | 81,257 | 98,40 |
| Total: | | 821,945 | 82,576 | 100,00 |

ESI (m/z) (MT-I43)

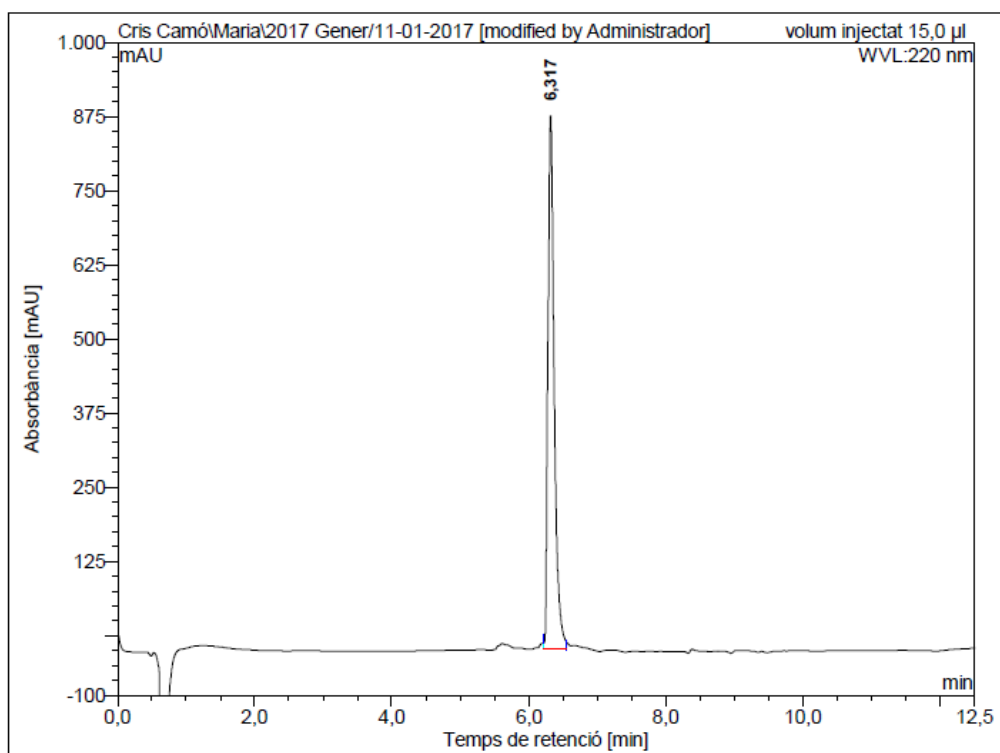
| |
|-------------------------|
| $[M+H]^+ = 1590.2$ |
| $[M+Na]^+ = 1612.2$ |
| $[M+K]^+ = 1628.2$ |
| $[M+2H]^{2+} = 796.1$ |
| $[M+H+Na]^{2+} = 806.6$ |
| $[M+2Na]^{2+} = 818.1$ |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln-OH

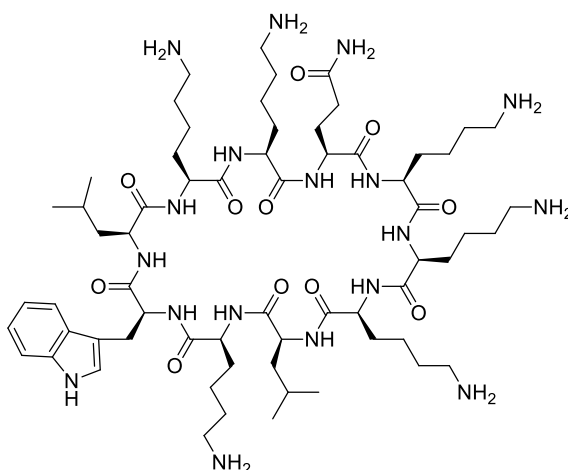
Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

Exact Mass: 1548,9544

Molecular Weight: 1549,9421

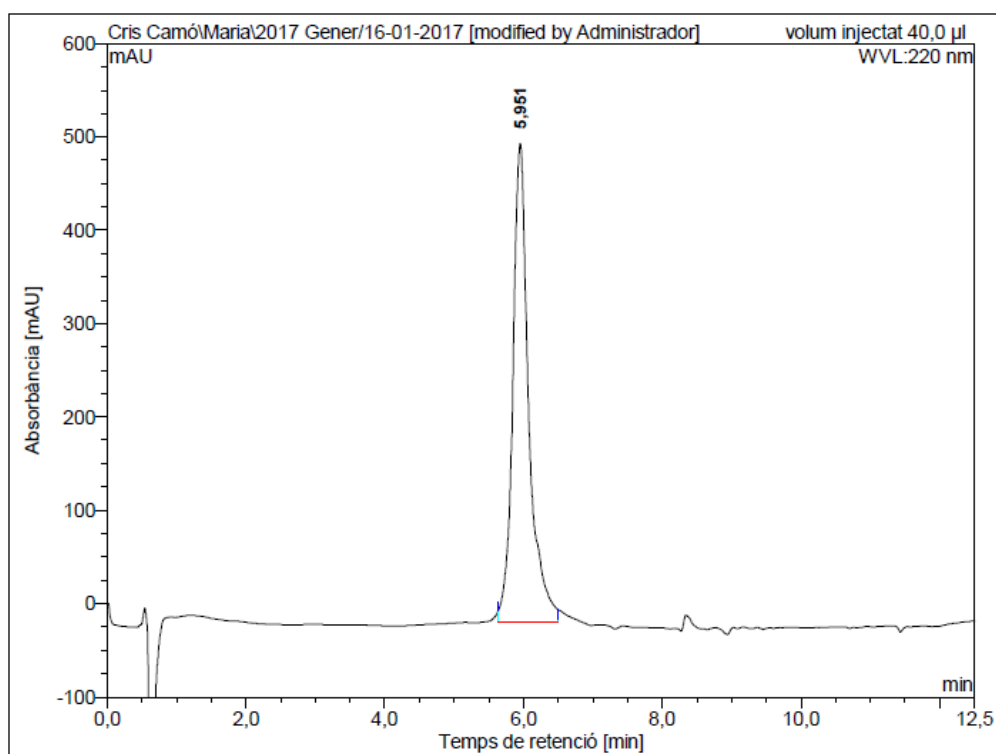
HPLC ($\lambda = 220$ nm) (MT-I44)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,32 | 898,953 | 95,752 | 100,00 |
| Total: | | 898,953 | 95,752 | 100,00 |

c(Lys-Lys-Lys-Leu-Lys-Trp-Leu-Lys-Lys-Gln) (**BPC892W**)Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

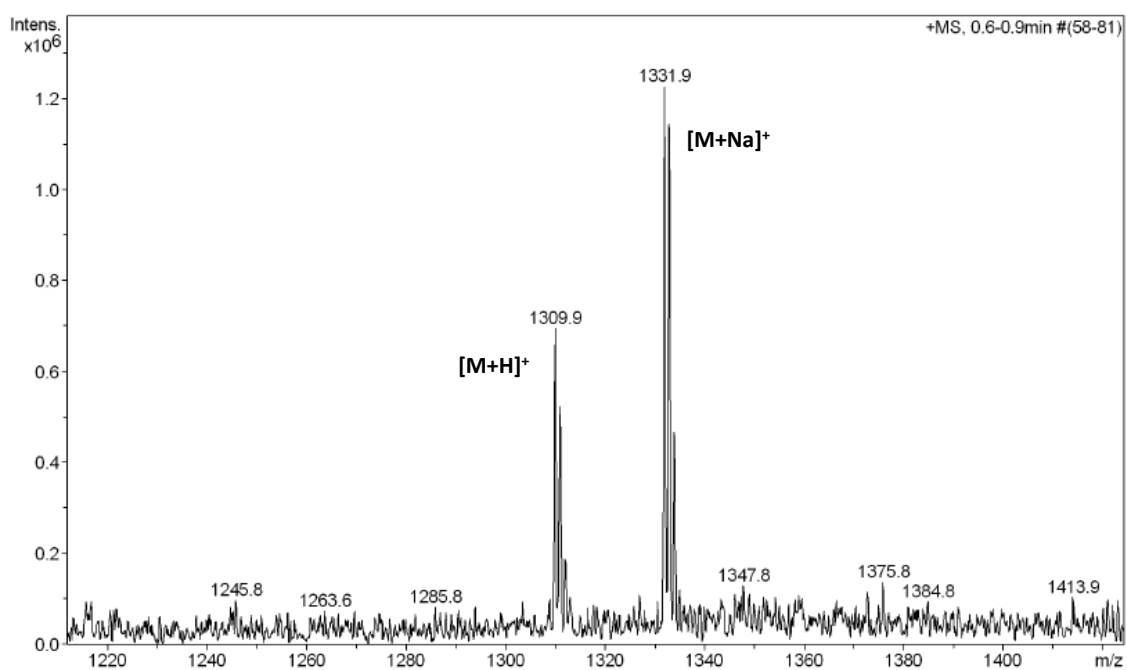
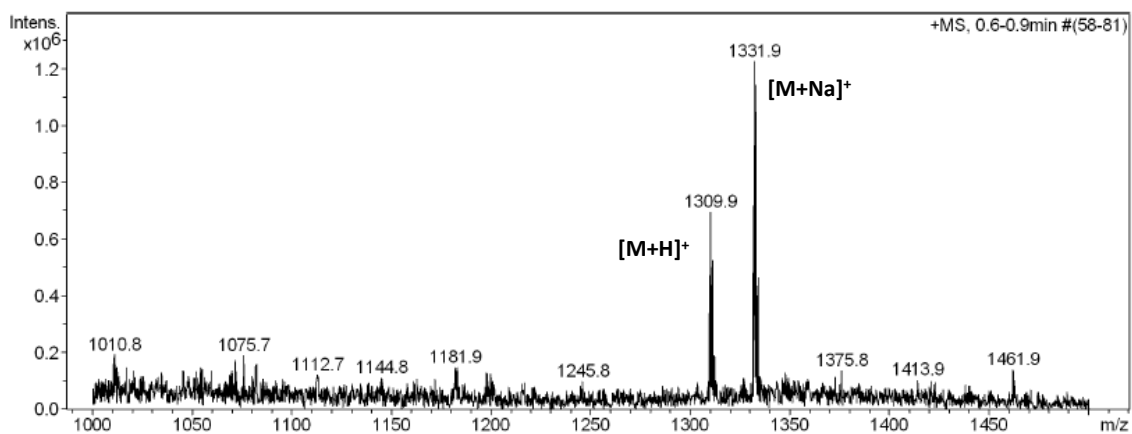
Exact Mass: 1308,8758

Molecular Weight: 1309,6881

HPLC ($\lambda = 220 \text{ nm}$) (MT-I45)

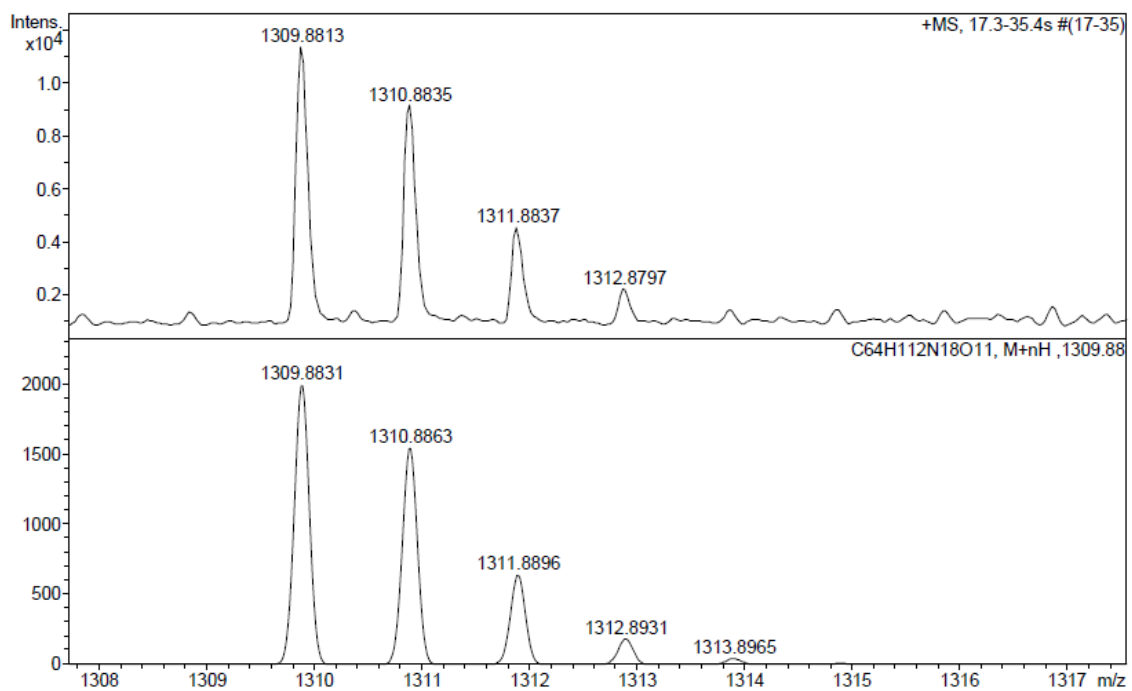
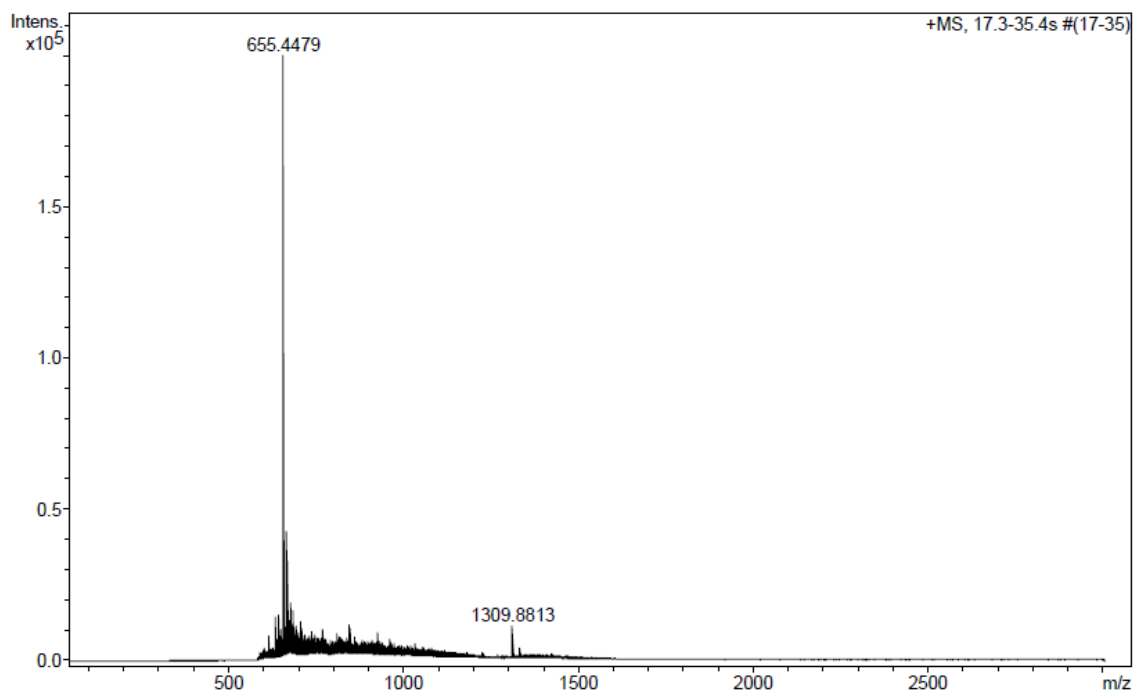
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,95 | 514,172 | 136,911 | 100,00 |
| Total: | | 514,172 | 136,911 | 100,00 |

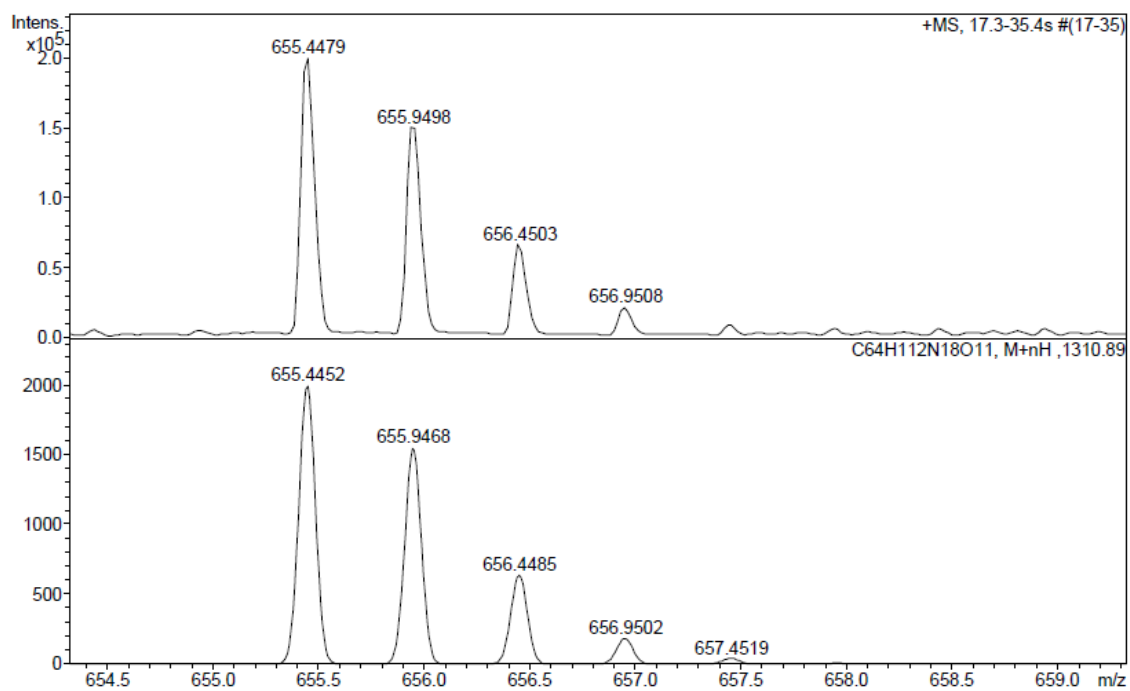
ESI (m/z) (MT-I45)



| |
|-----------------------------|
| [M+H] ⁺ = 1309.9 |
|-----------------------------|

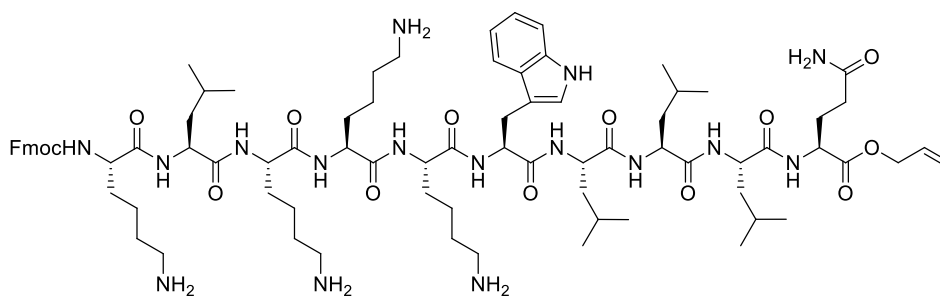
| |
|------------------------------|
| [M+Na] ⁺ = 1331.9 |
|------------------------------|

HRMS (ESI) (m/z) (MT-I)



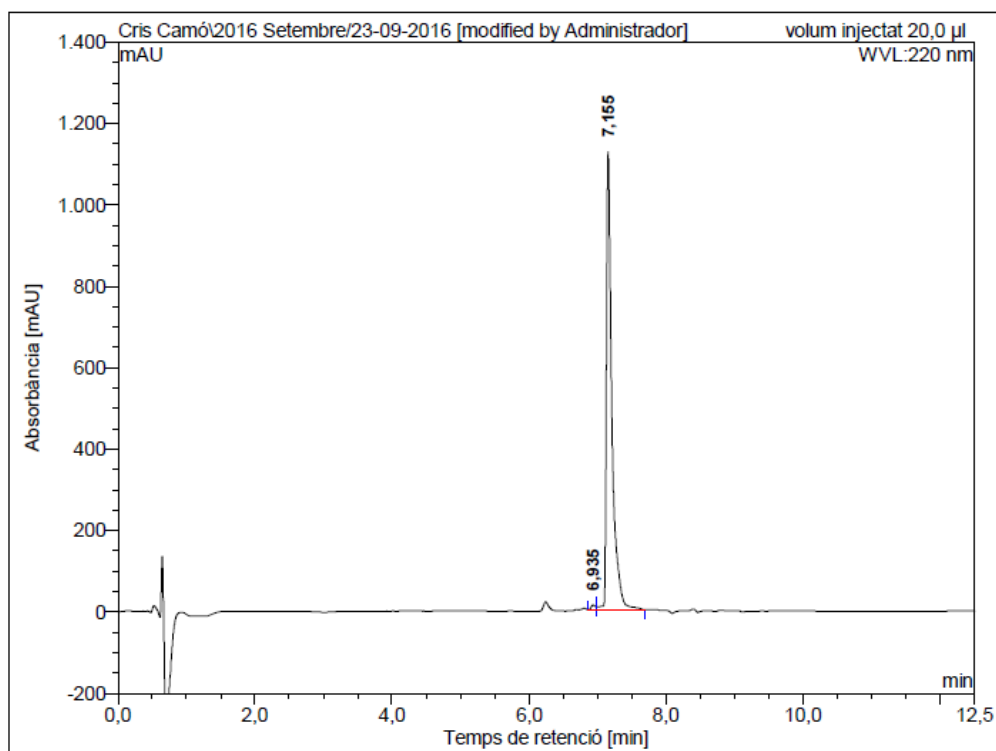
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{113}N_{18}O_{11}$ | 1309.8831 | 1309.8813 |
| $[M+2H]^{2+}$ | $C_{64}H_{114}N_{18}O_{11}$ | 655.4452 | 655.4479 |

Fmoc-Lys-Leu-Lys-Lys-Trp-Leu-Leu-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

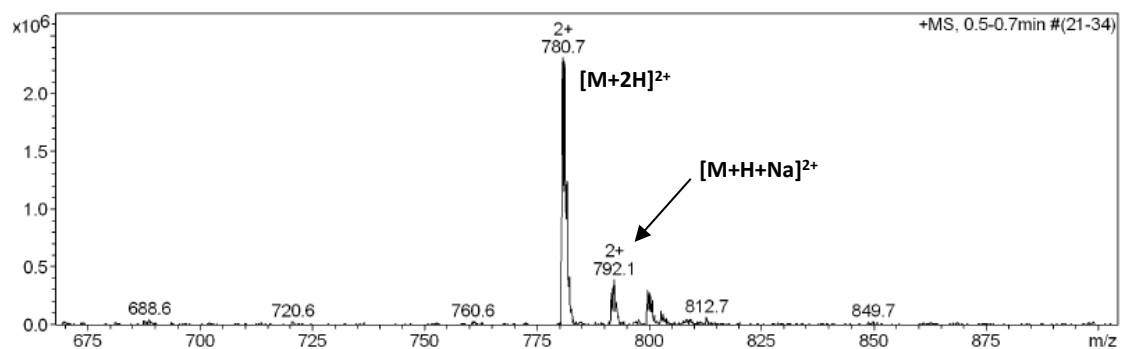
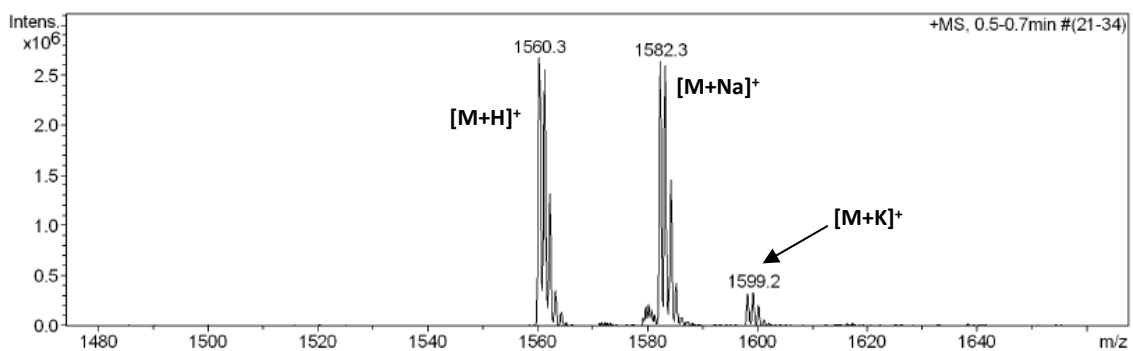
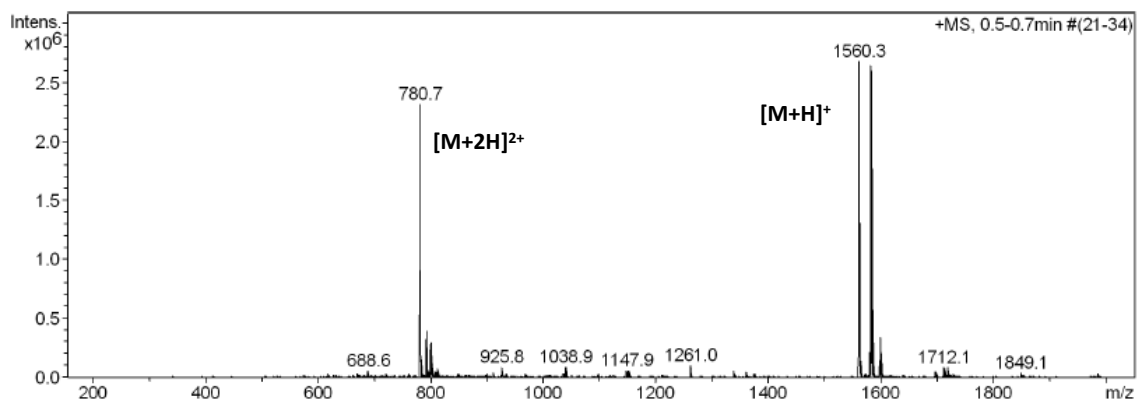
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-22-781)

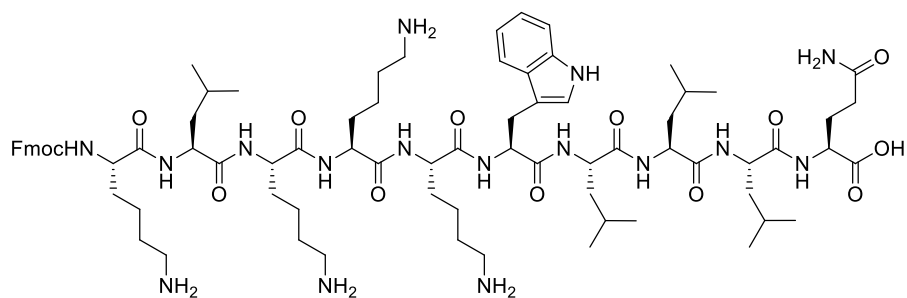
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,94 | 11,937 | 0,886 | 0,84 |
| 2 | 7,15 | 1125,801 | 104,860 | 99,16 |
| Total: | | 1137,737 | 105,746 | 100,00 |

ESI (m/z) (CC-22-781)



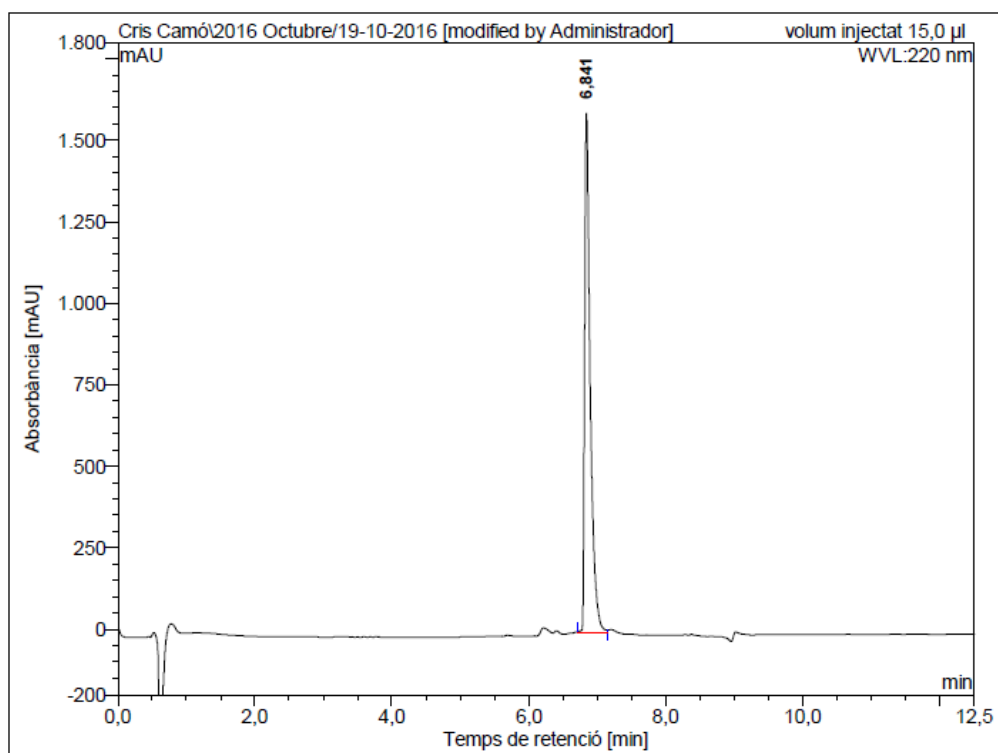
| |
|--------------------------------|
| [M+H] ⁺ = 1560.3 |
| [M+Na] ⁺ = 1582.3 |
| [M+K] ⁺ = 1598.2 |
| [M+2H] ²⁺ = 780.7 |
| [M+H+Na] ²⁺ = 792.1 |

Fmoc-Lys-Leu-Lys-Lys-Lys-Trp-Leu-Leu-Leu-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

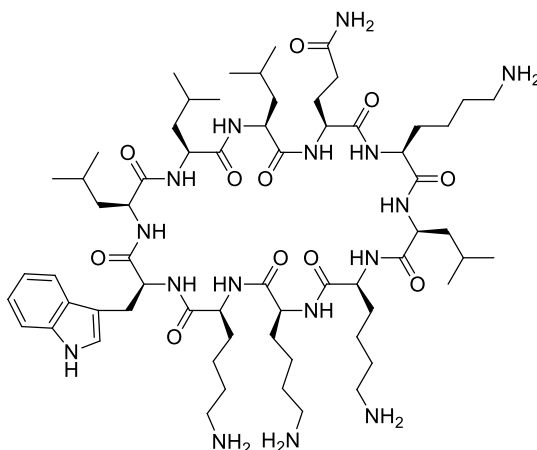
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220 \text{ nm}$) (CC-22-820)

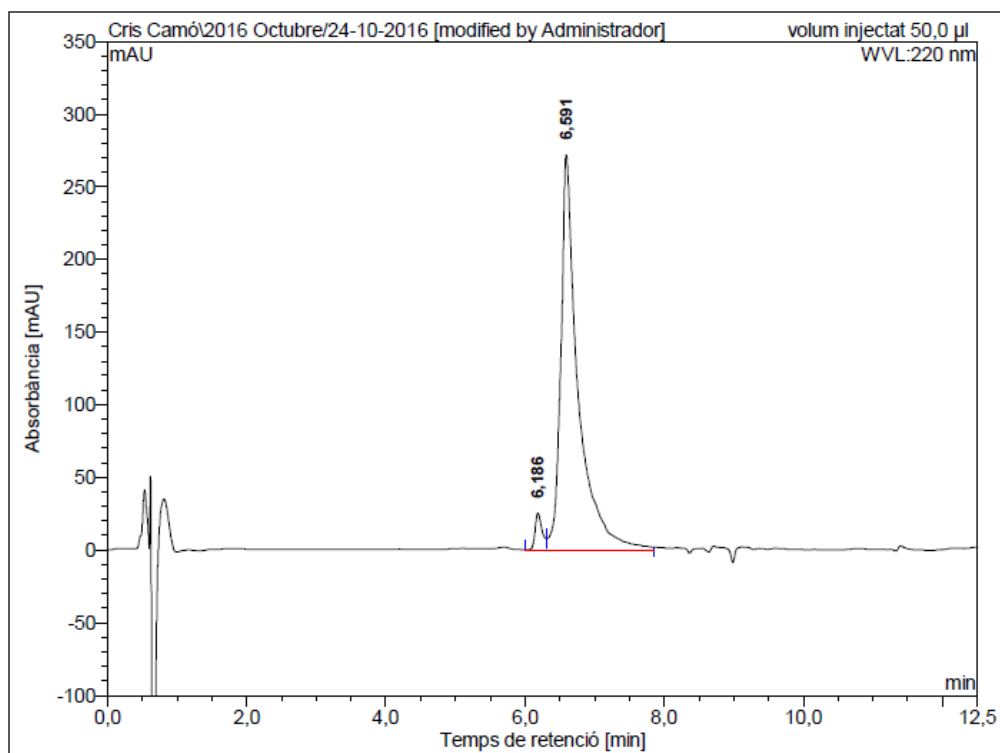
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,84 | 1591,268 | 150,504 | 100,00 |
| Total: | | 1591,268 | 150,504 | 100,00 |

c(Lys-Leu-Lys-Lys-Lys-Trp-Leu-Leu-Leu-Gln) (BPC894W)

Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

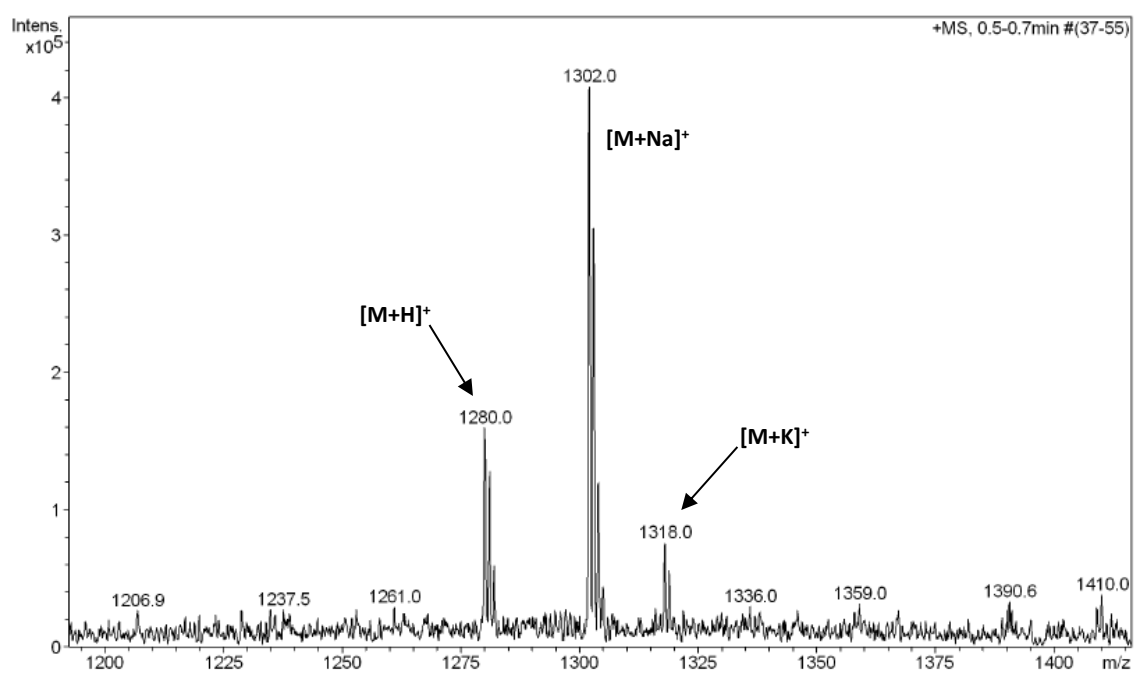
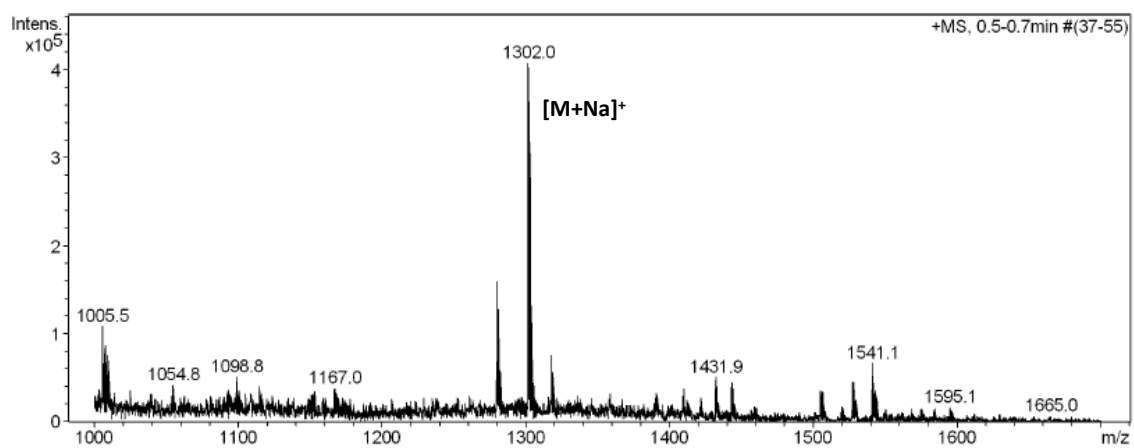
Exact Mass: 1278,8540

Molecular Weight: 1279,6588

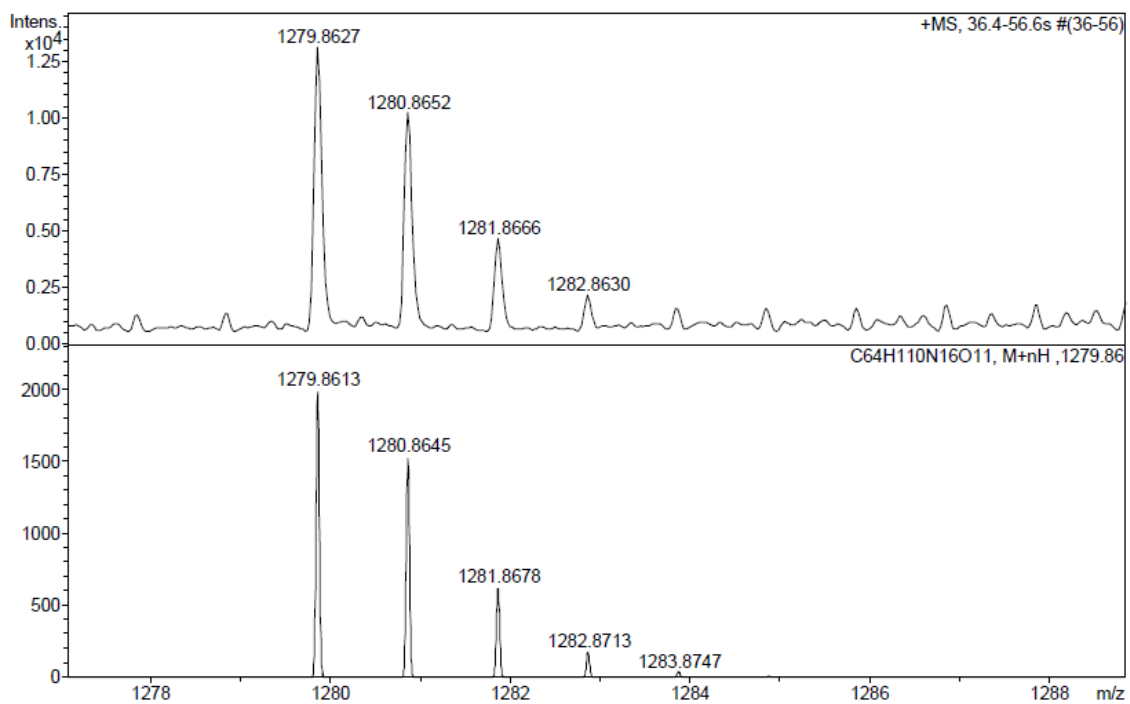
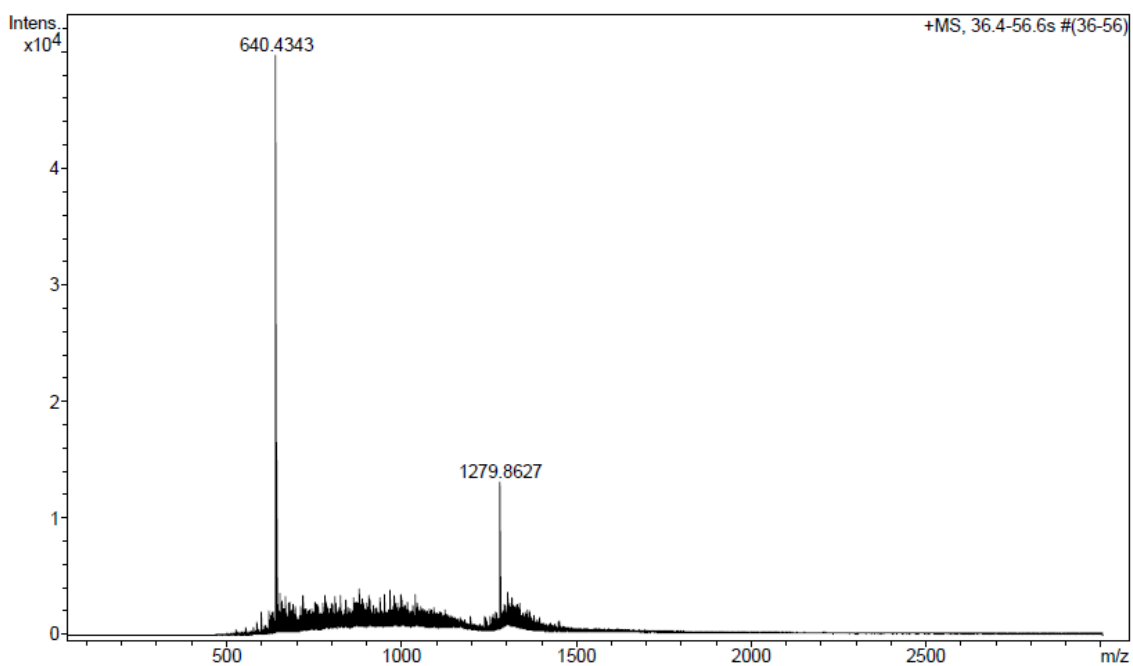
HPLC ($\lambda = 220 \text{ nm}$) (CC-22-829)

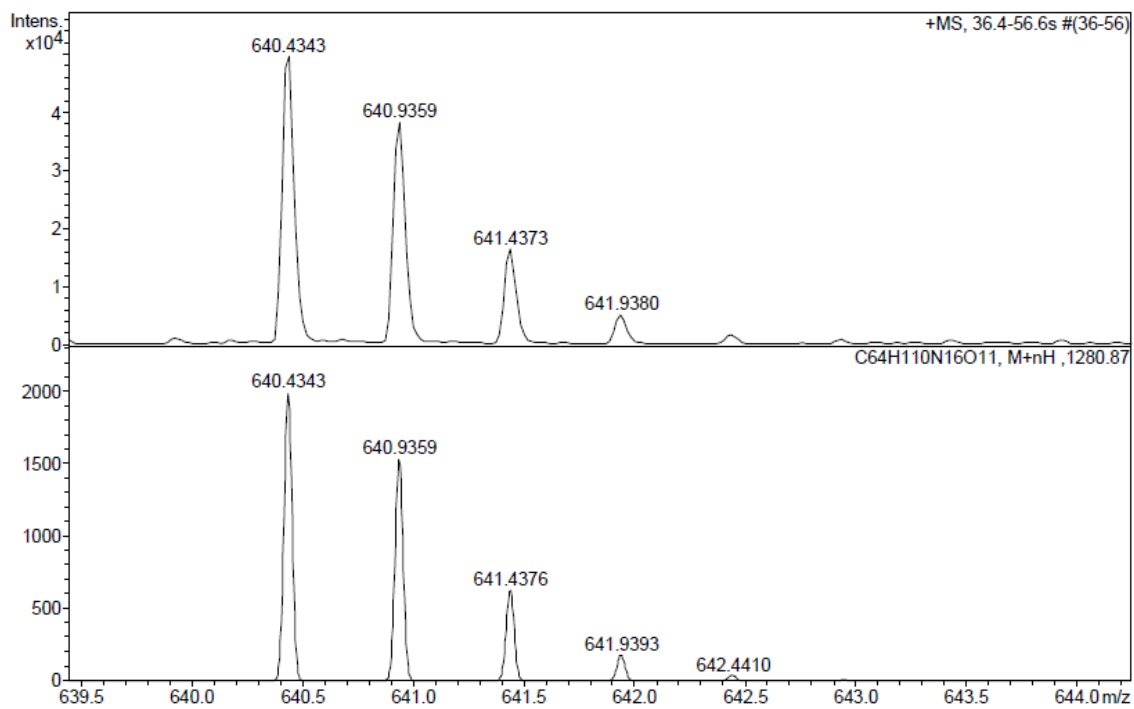
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,19 | 25,385 | 2,964 | 3,65 |
| 2 | 6,59 | 271,818 | 78,263 | 96,35 |
| Total: | | 297,203 | 81,227 | 100,00 |

ESI (m/z) (CC-22-829)



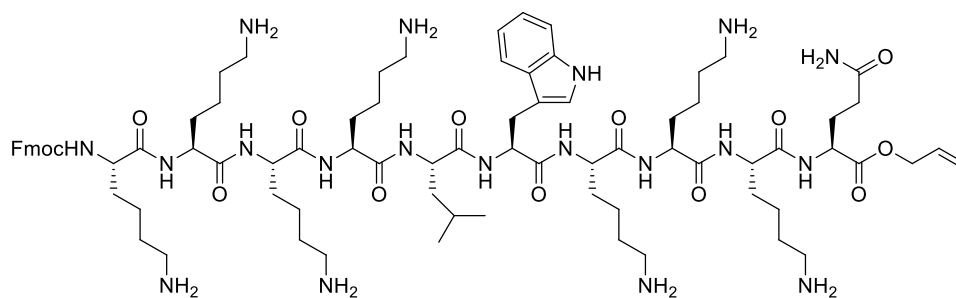
| |
|------------------------------|
| [M+H] ⁺ = 1280.0 |
| [M+Na] ⁺ = 1302.0 |
| [M+K] ⁺ = 1318.0 |

HRMS (ESI) (m/z) (CC-22)



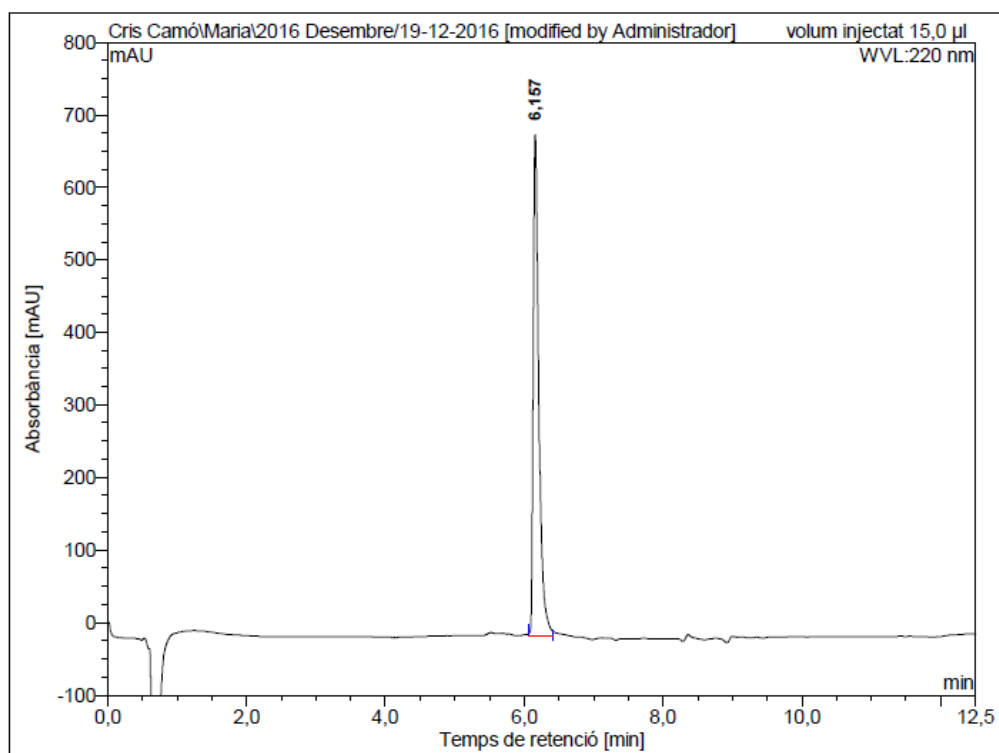
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8627 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4343 |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Lys-Gln-OAll

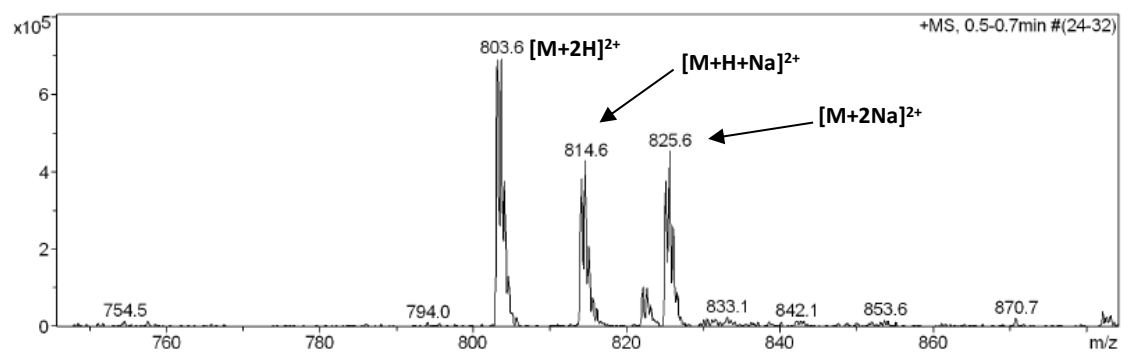
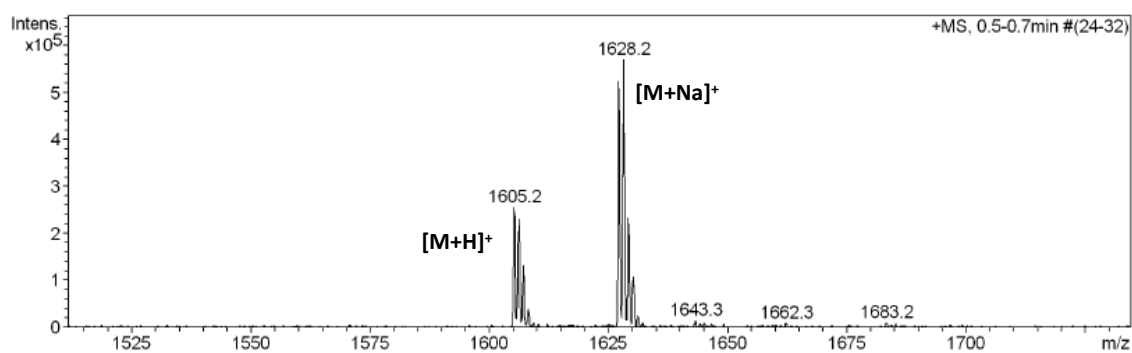
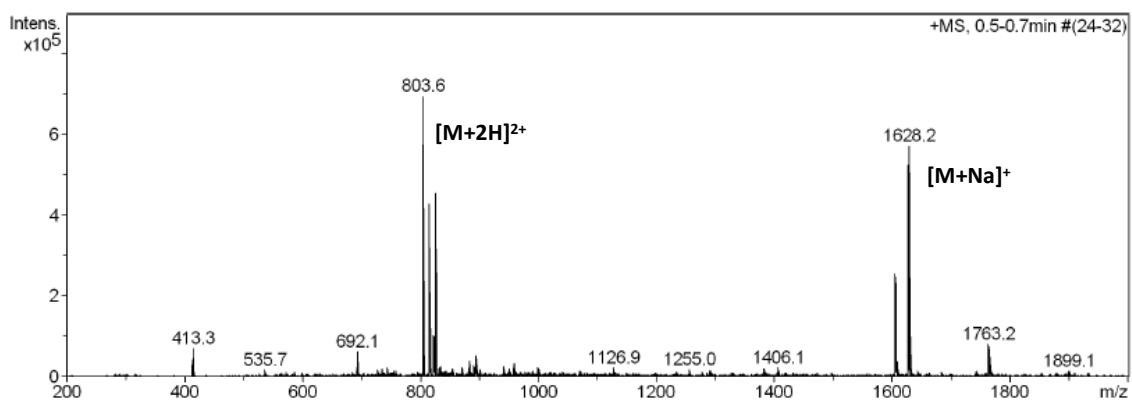
Chemical Formula: $C_{82}H_{129}N_{19}O_{14}$

Exact Mass: 1603,9966

Molecular Weight: 1605,0206

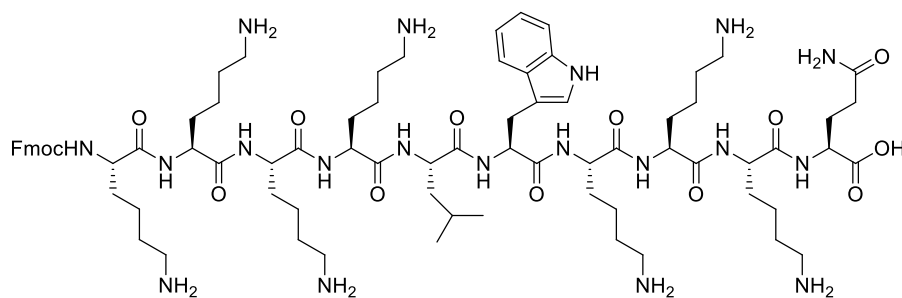
HPLC ($\lambda = 220$ nm) (MT-J43)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,16 | 691,096 | 64,967 | 100,00 |
| Total: | | 691,096 | 64,967 | 100,00 |

ESI (m/z) (MT-J43)

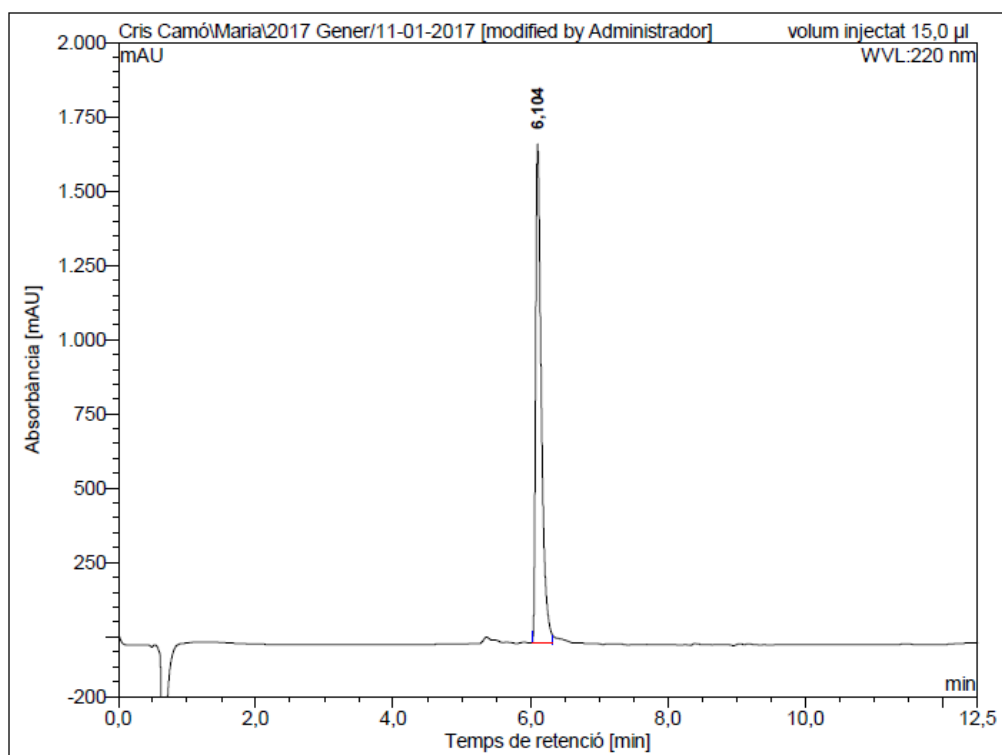
| |
|-------------------------|
| $[M+H]^+ = 1605.2$ |
| $[M+Na]^+ = 1627.2$ |
| $[M+2H]^{2+} = 803.6$ |
| $[M+H+Na]^{2+} = 814.6$ |
| $[M+2Na]^{2+} = 825.6$ |

Fmoc-Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{125}N_{19}O_{14}$

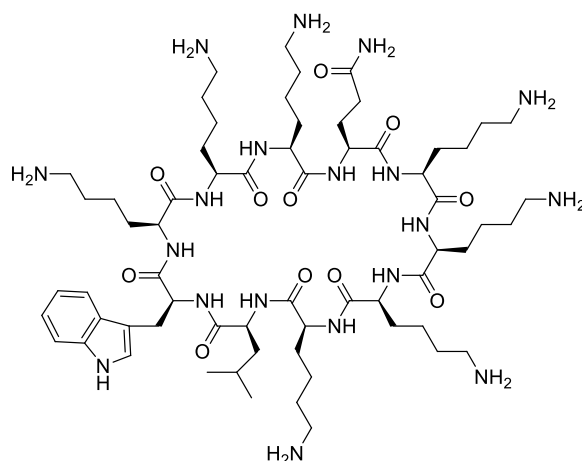
Exact Mass: 1563,9653

Molecular Weight: 1564,9567

HPLC ($\lambda = 220$ nm) (MT-J44)

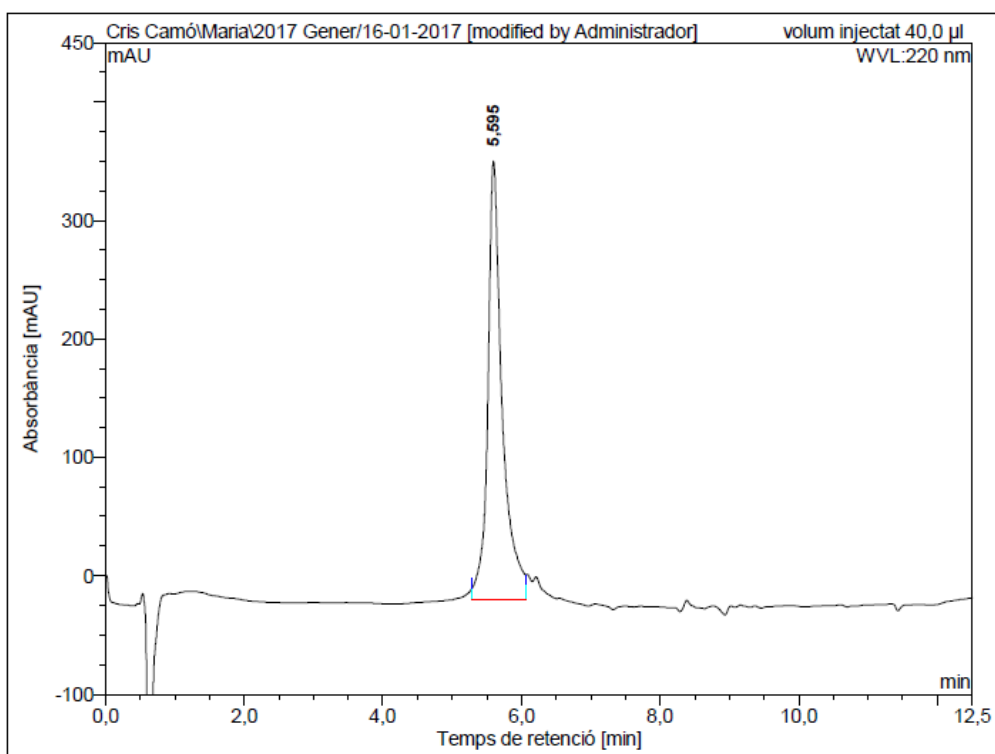
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,10 | 1680,589 | 162,982 | 100,00 |
| Total: | | 1680,589 | 162,982 | 100,00 |

c(Lys-Lys-Lys-Lys-Leu-Trp-Lys-Lys-Lys-Gln) (BPC896W)

Chemical Formula: $C_{64}H_{113}N_{19}O_{11}$

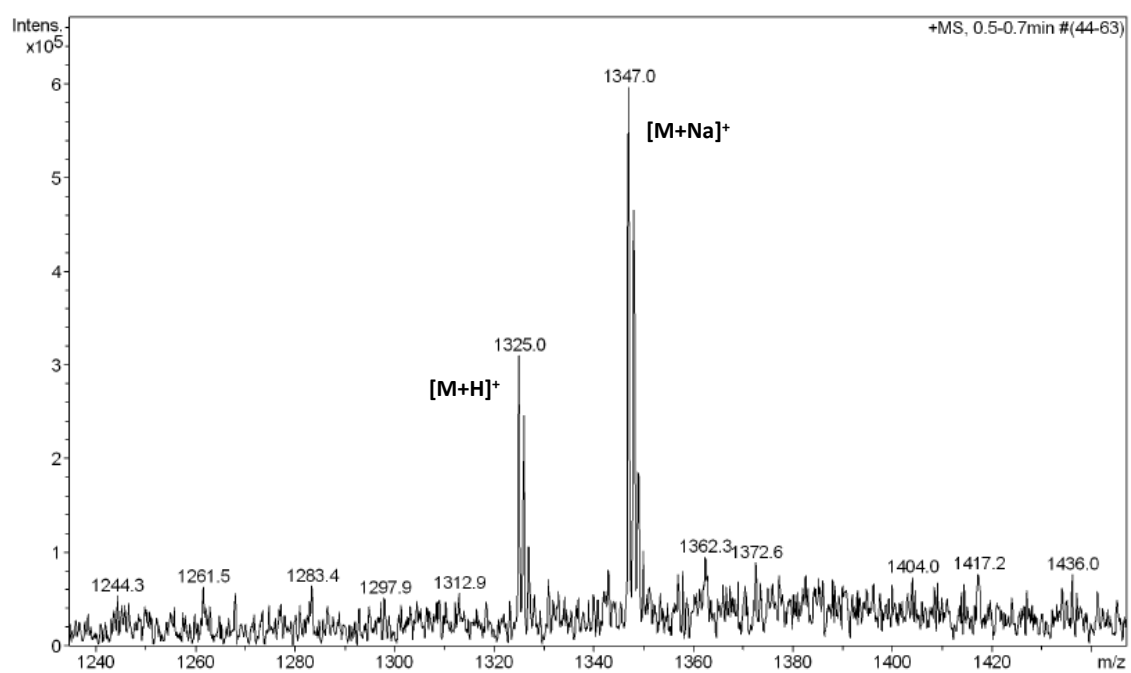
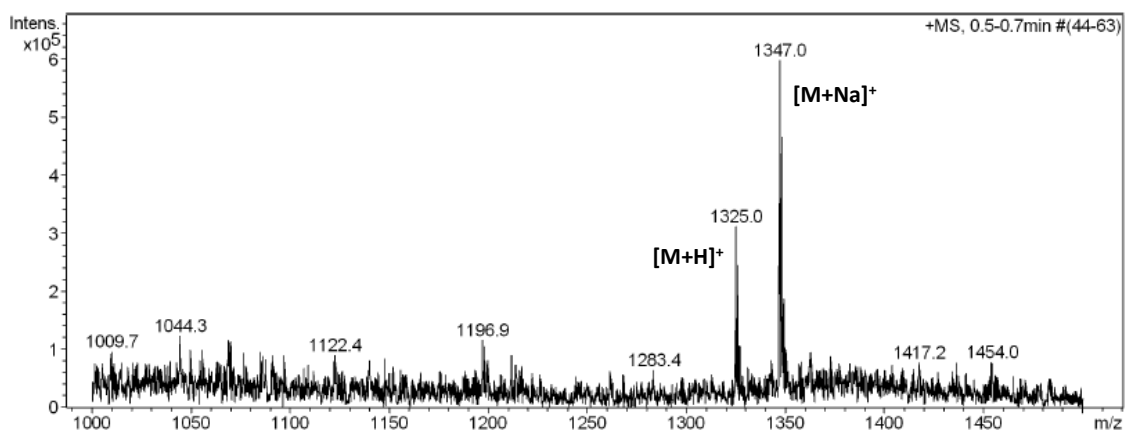
Exact Mass: 1323,8867

Molecular Weight: 1324,7027

HPLC ($\lambda = 220 \text{ nm}$) (MT-J45)

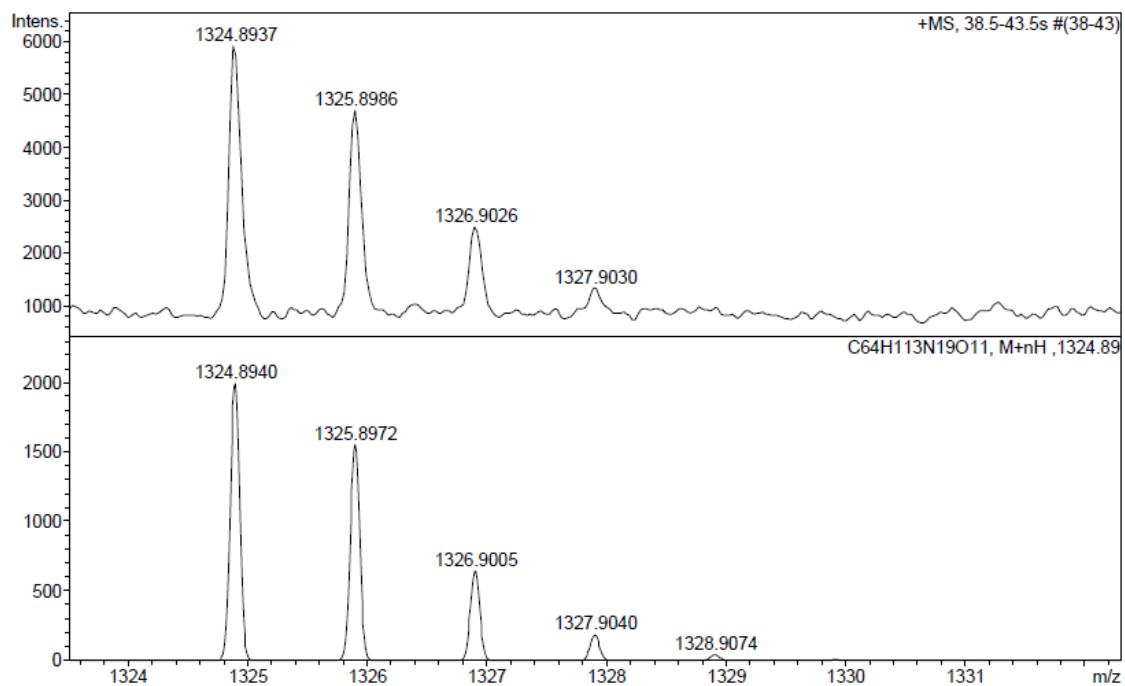
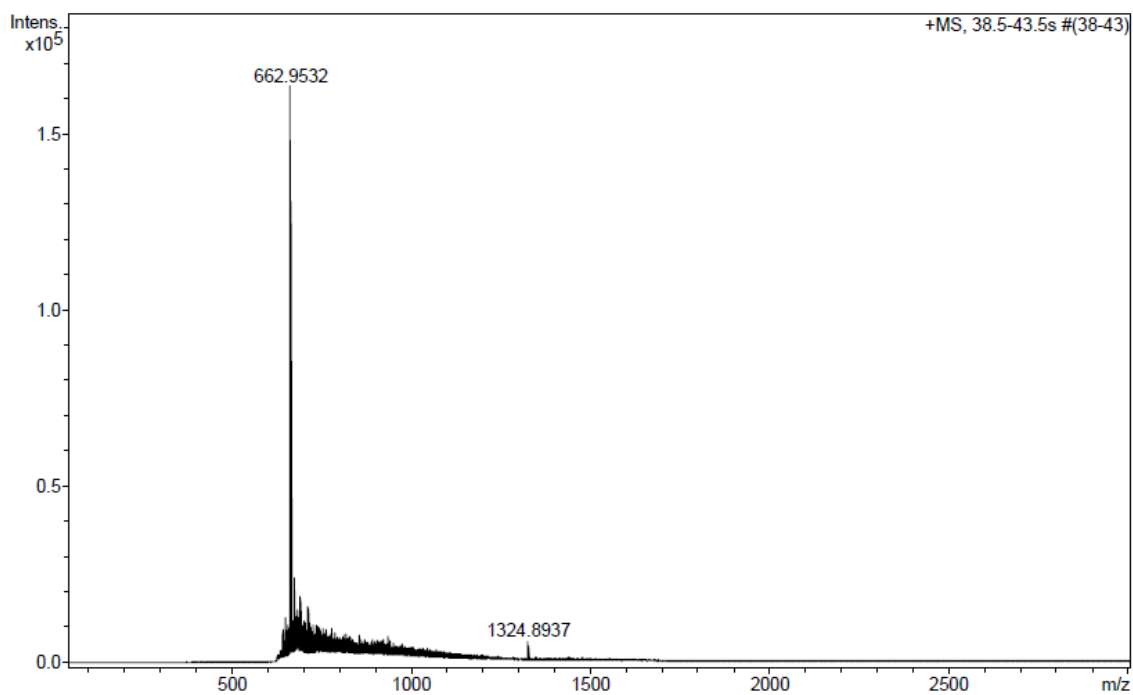
| No. | Tempes retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|---------------------|------------|--------------|-----------------|
| 1 | 5,59 | 370,569 | 89,271 | 100,00 |
| Total: | | 370,569 | 89,271 | 100,00 |

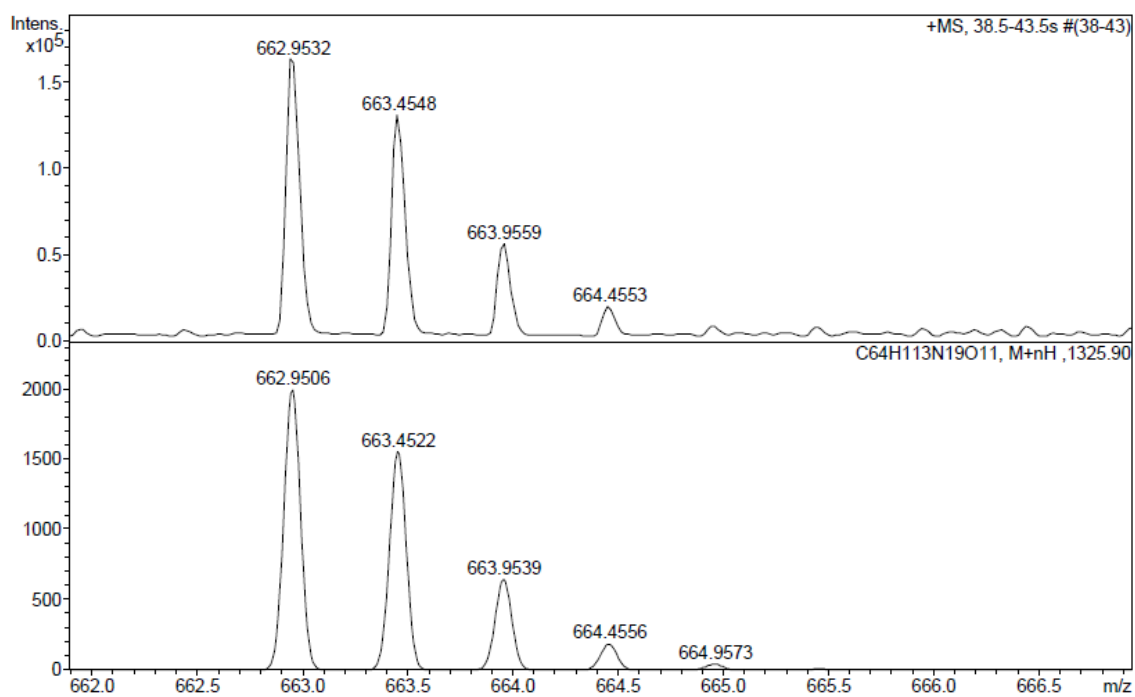
ESI (m/z) (MT-J45)



| |
|--------------------|
| $[M+H]^+ = 1325.0$ |
|--------------------|

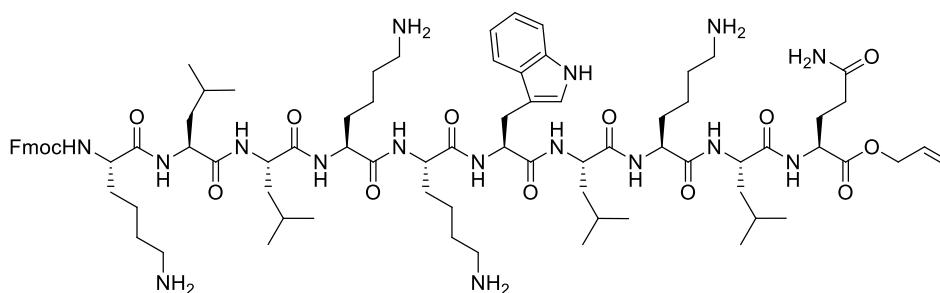
| |
|---------------------|
| $[M+Na]^+ = 1347.0$ |
|---------------------|

HRMS (ESI) (m/z) (MT-J)



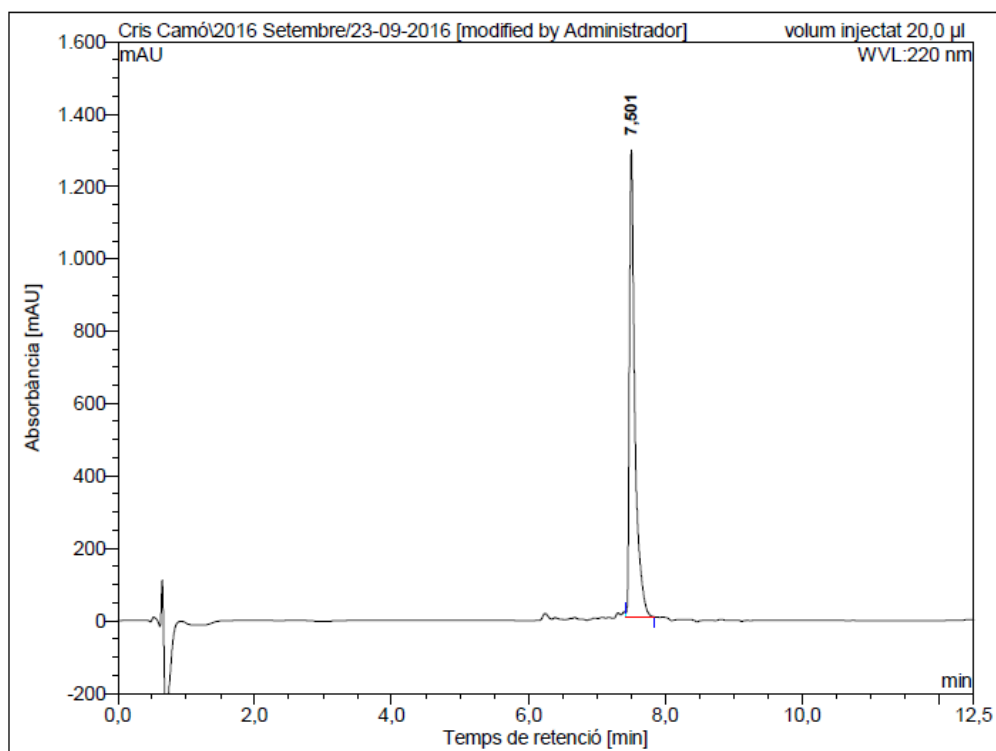
| | Molecular formula | Calculated | Found |
|----------------------------|--|------------|-----------|
| [M+H]⁺ | C ₆₄ H ₁₁₄ N ₁₉ O ₁₁ | 1324.8940 | 1324.8937 |
| [M+2H]²⁺ | C ₆₄ H ₁₁₅ N ₁₉ O ₁₁ | 662.9506 | 662.9532 |

Fmoc-Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

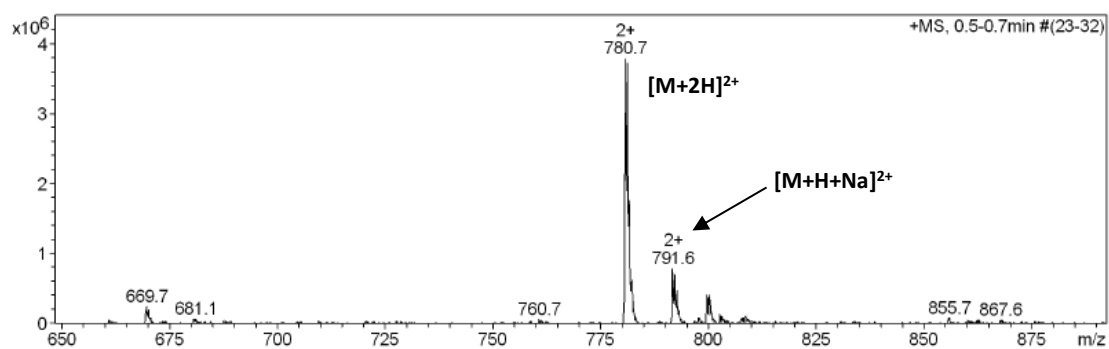
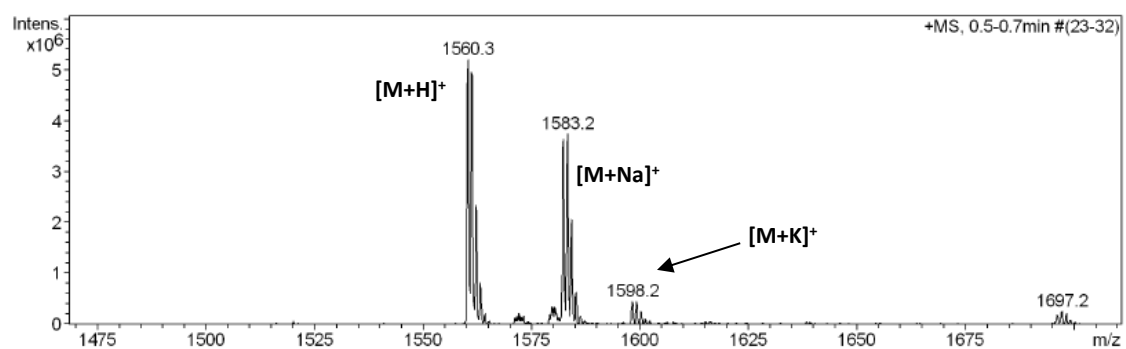
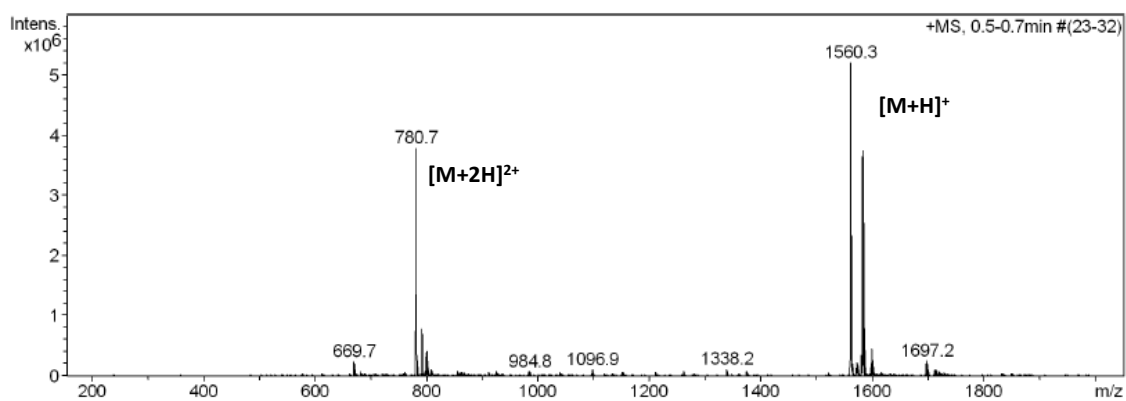
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-23-781)

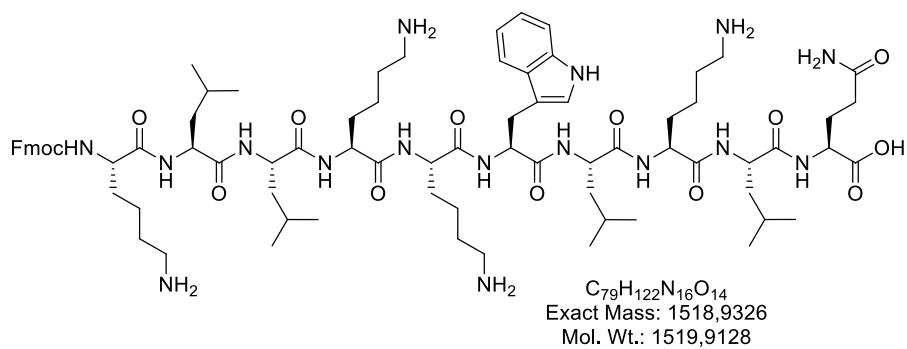
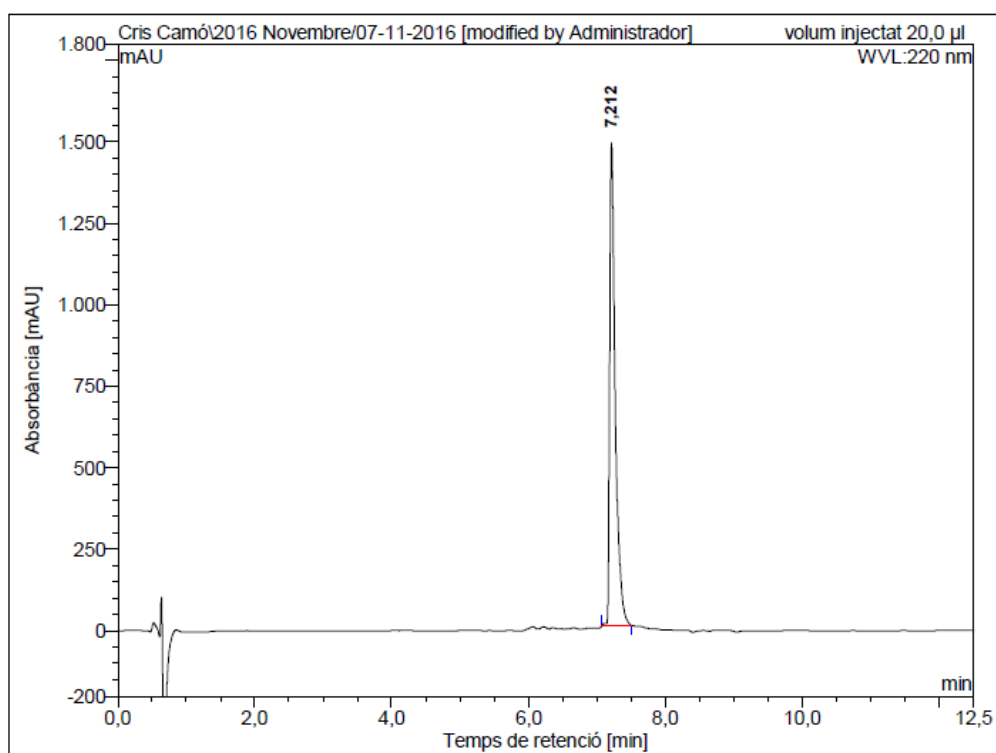
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,50 | 1290,732 | 120,094 | 100,00 |
| Total: | | 1290,732 | 120,094 | 100,00 |

ESI (m/z) (CC-23-781)



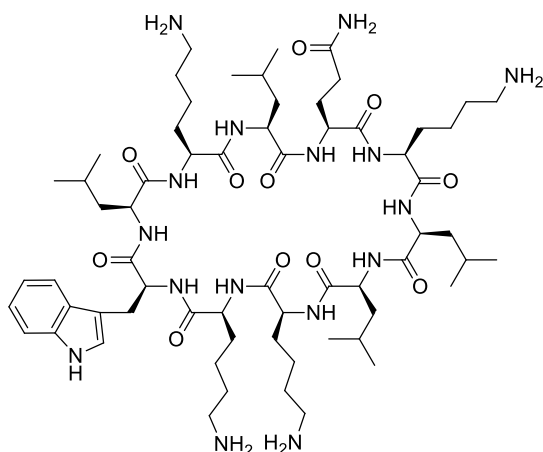
| |
|-------------------------|
| $[M+H]^+ = 1560.3$ |
| $[M+Na]^+ = 1582.0$ |
| $[M+K]^+ = 1598.2$ |
| $[M+2H]^{2+} = 780.7$ |
| $[M+H+Na]^{2+} = 791.6$ |

Fmoc-Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Leu-Gln-OH

HPLC ($\lambda = 220 \text{ nm}$) (CC-23-848)

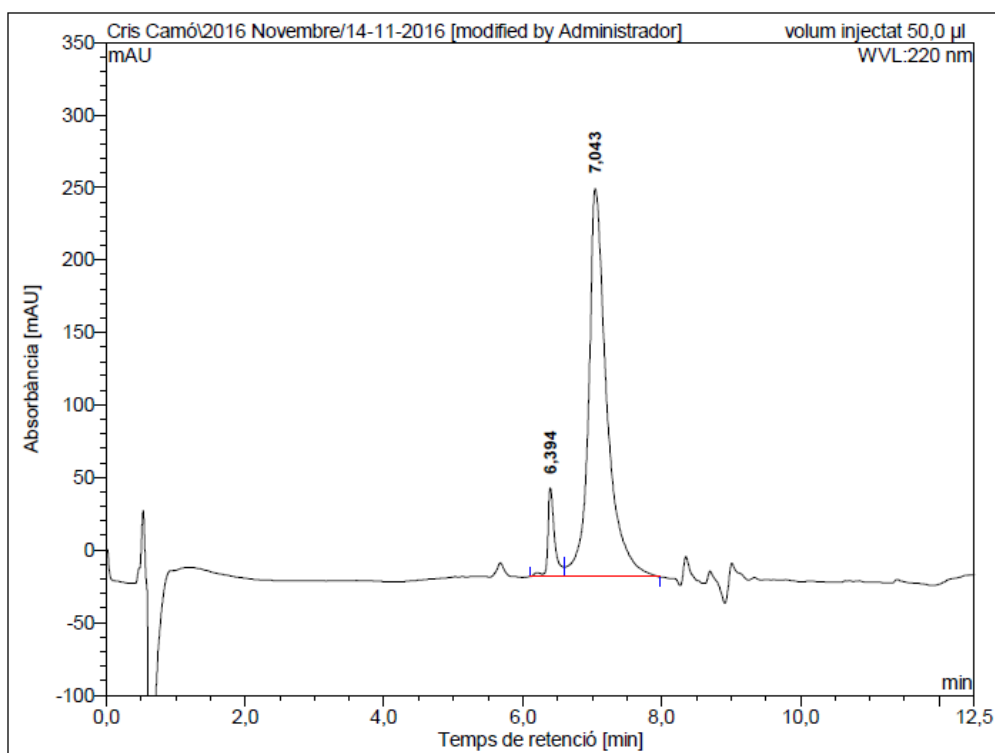
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,21 | 1479,959 | 140,792 | 100,00 |
| Total: | | 1479,959 | 140,792 | 100,00 |

c(Lys-Leu-Leu-Lys-Lys-Trp-Leu-Lys-Leu-Gln) (BPC898W)

Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

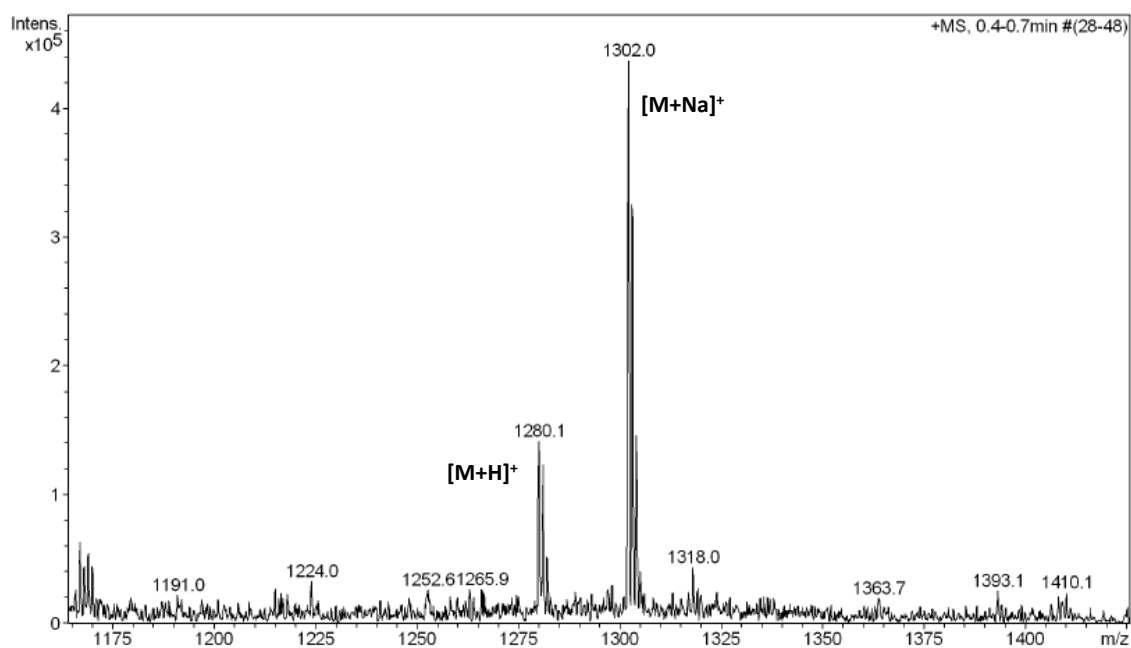
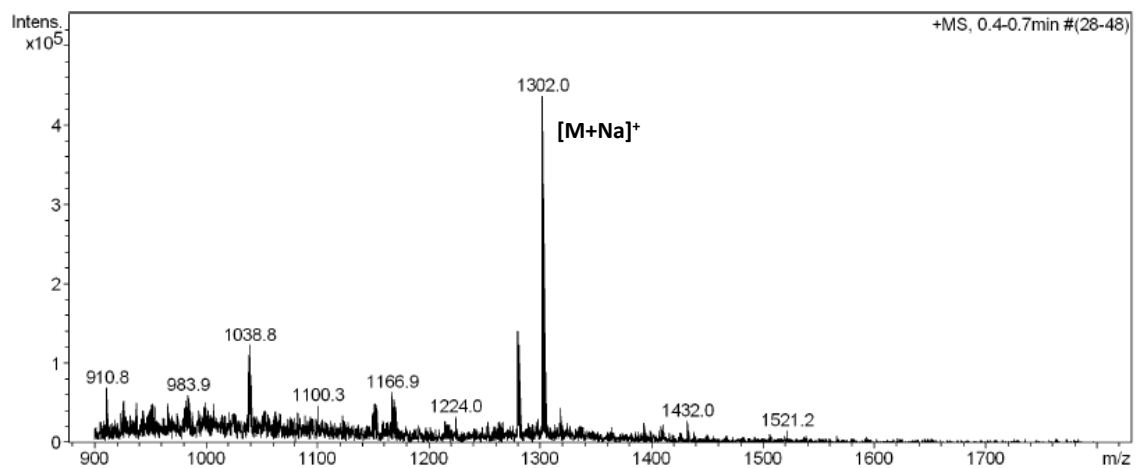
Exact Mass: 1278,8540

Molecular Weight: 1279,6588

HPLC ($\lambda = 220 \text{ nm}$) (CC-23-855)

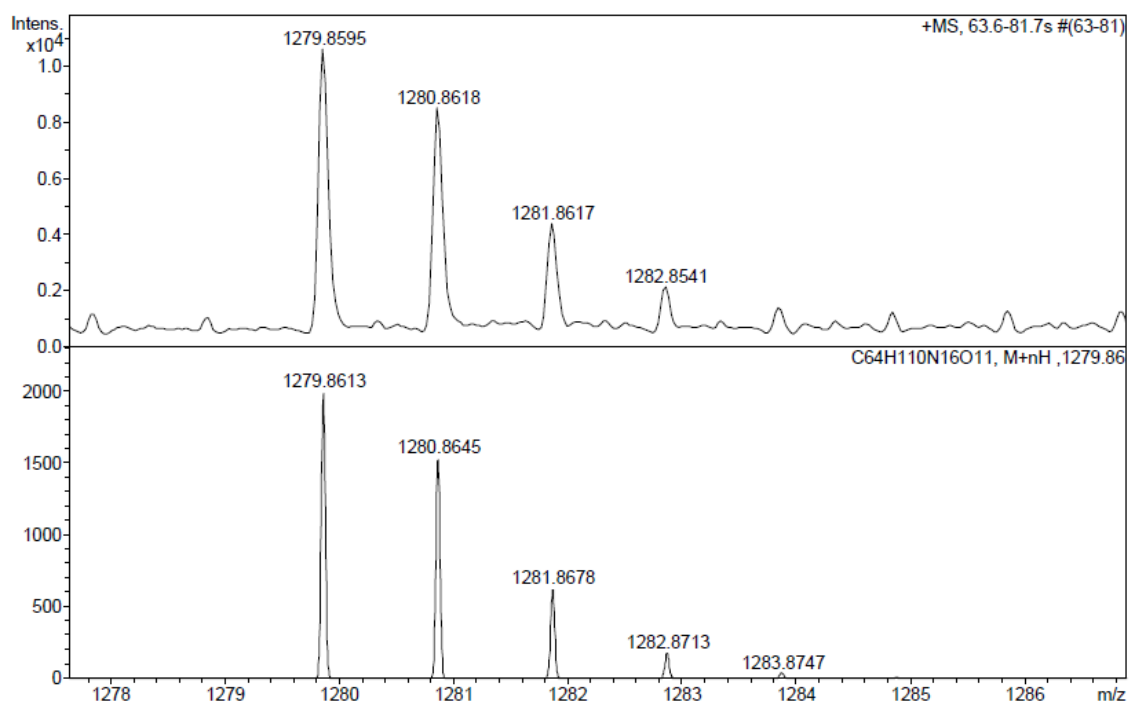
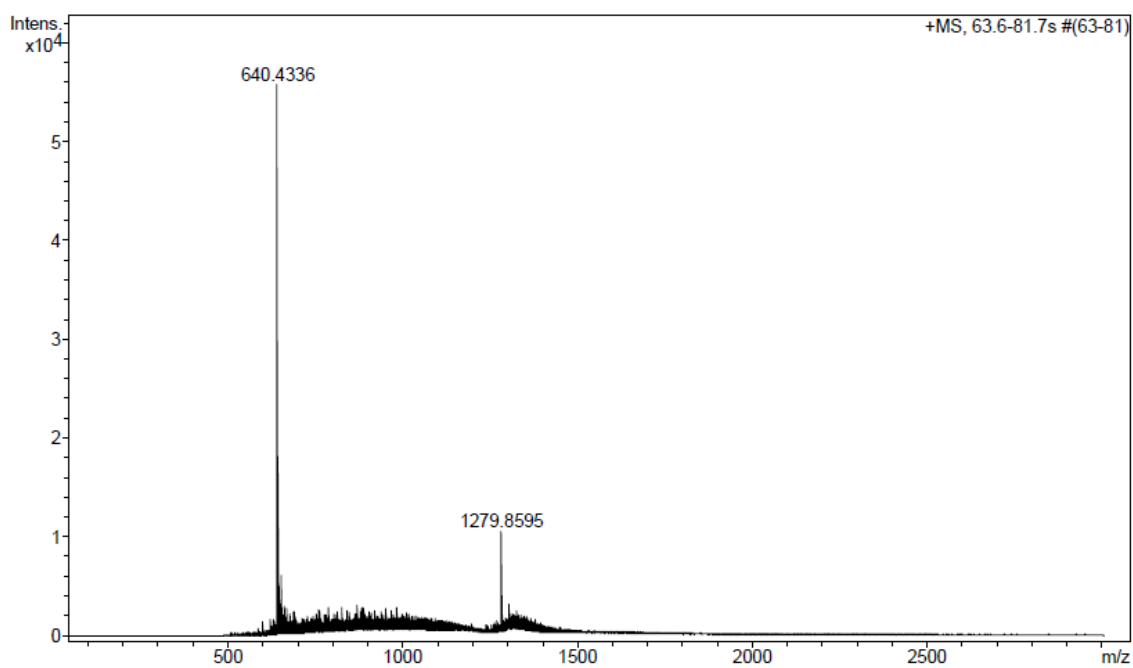
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,39 | 61,112 | 6,953 | 7,86 |
| 2 | 7,04 | 267,565 | 81,544 | 92,14 |
| Total: | | 328,677 | 88,497 | 100,00 |

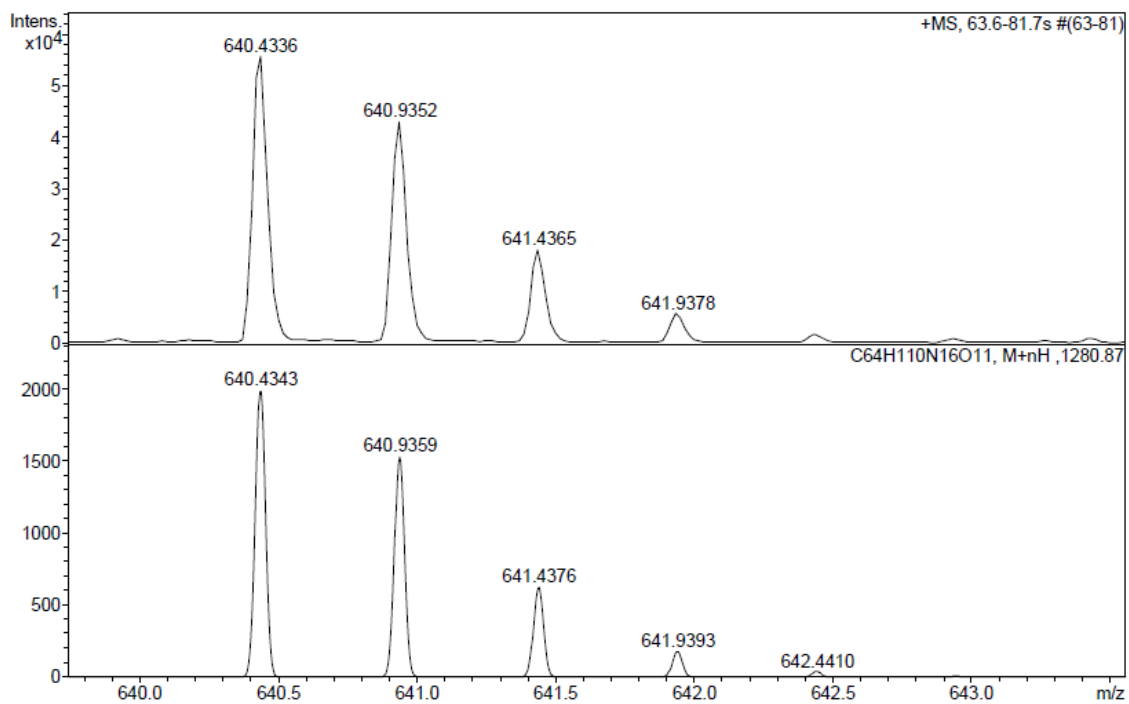
ESI (m/z) (CC-23-855)



| |
|--------------------|
| $[M+H]^+ = 1280.1$ |
|--------------------|

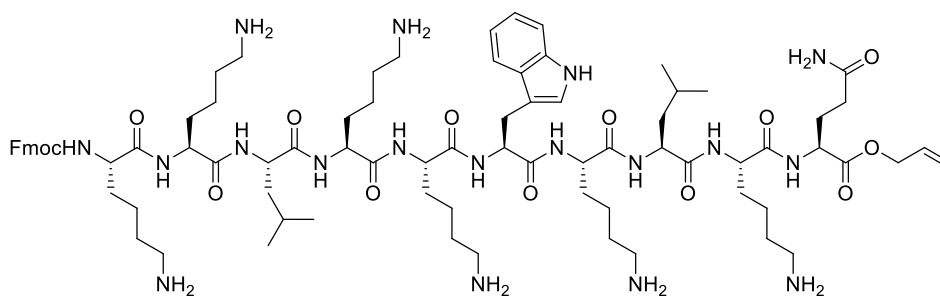
| |
|---------------------|
| $[M+Na]^+ = 1302.0$ |
|---------------------|

HRMS (ESI) (m/z) (CC-23)



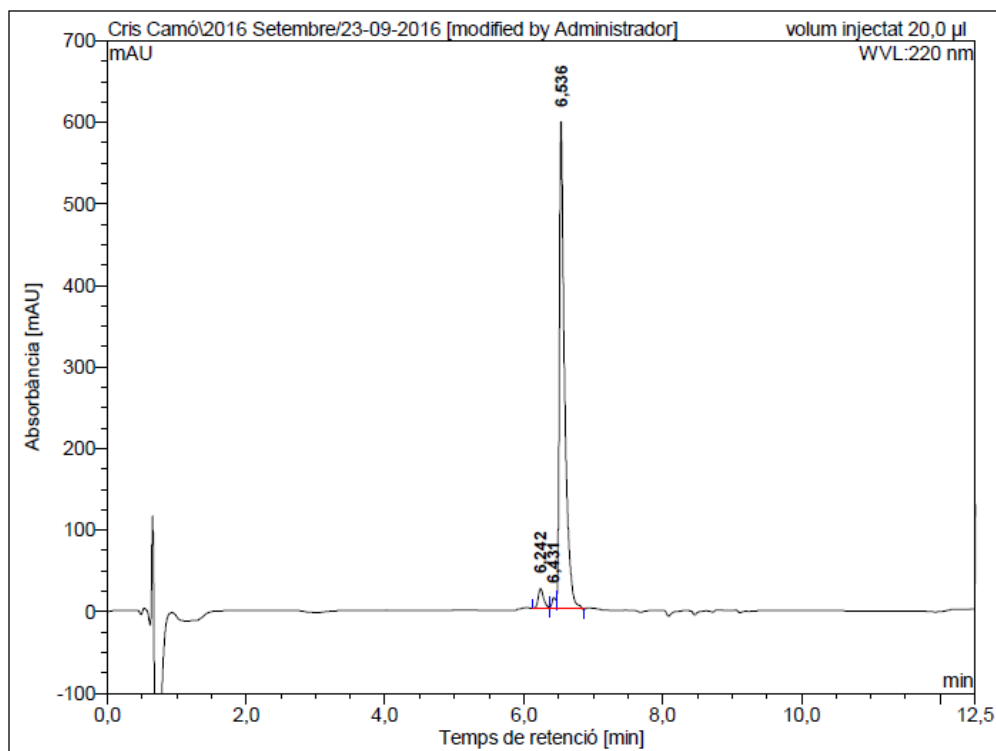
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{111}N_{16}O_{11}$ | 1279.8613 | 1279.8595 |
| $[M+2H]^{2+}$ | $C_{64}H_{112}N_{16}O_{11}$ | 640.4343 | 640.4336 |

Fmoc-Lys-Lys-Leu-Lys-Lys-Trp-Lys-Leu-Lys-Gln-OAll

Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

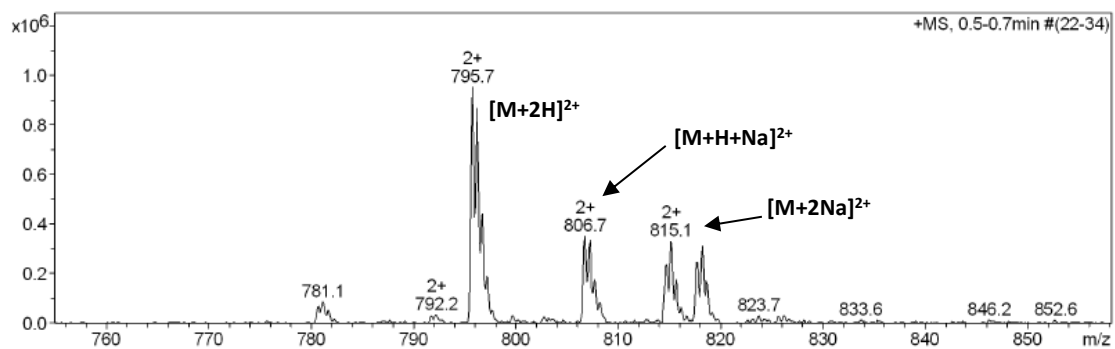
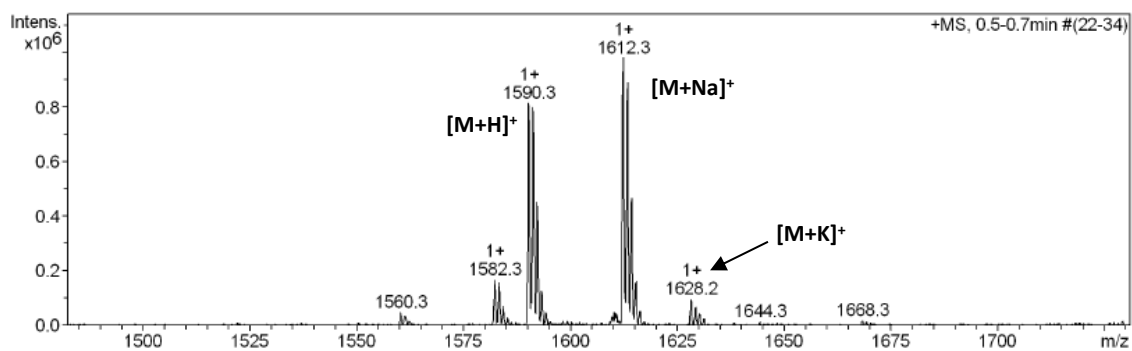
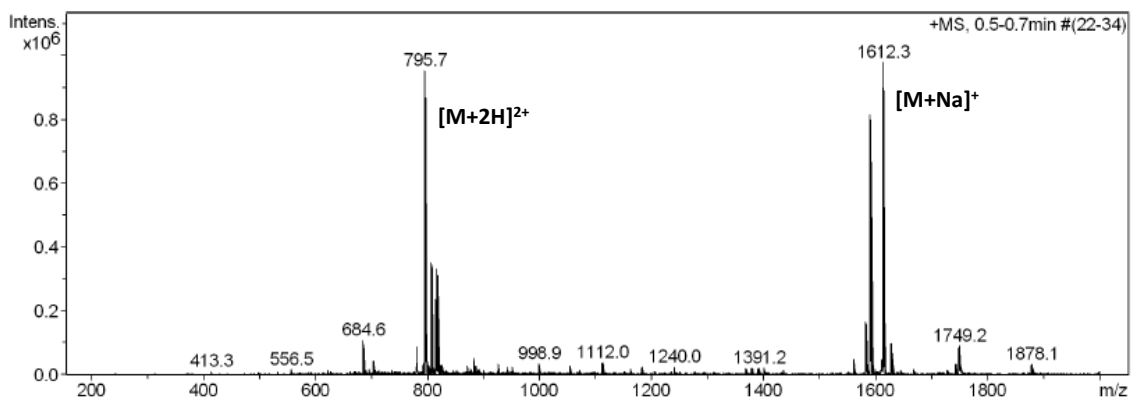
Exact Mass: 1588,9857

Molecular Weight: 1590,0059

HPLC ($\lambda = 220 \text{ nm}$) (CC-24-781)

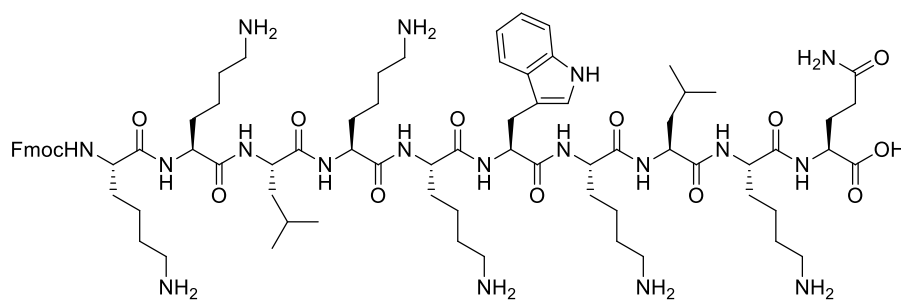
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,24 | 24,476 | 2,268 | 4,08 |
| 2 | 6,43 | 13,350 | 0,833 | 1,50 |
| 3 | 6,54 | 596,928 | 52,527 | 94,43 |
| Total: | | 634,753 | 55,628 | 100,00 |

ESI (m/z) (CC-24-781)



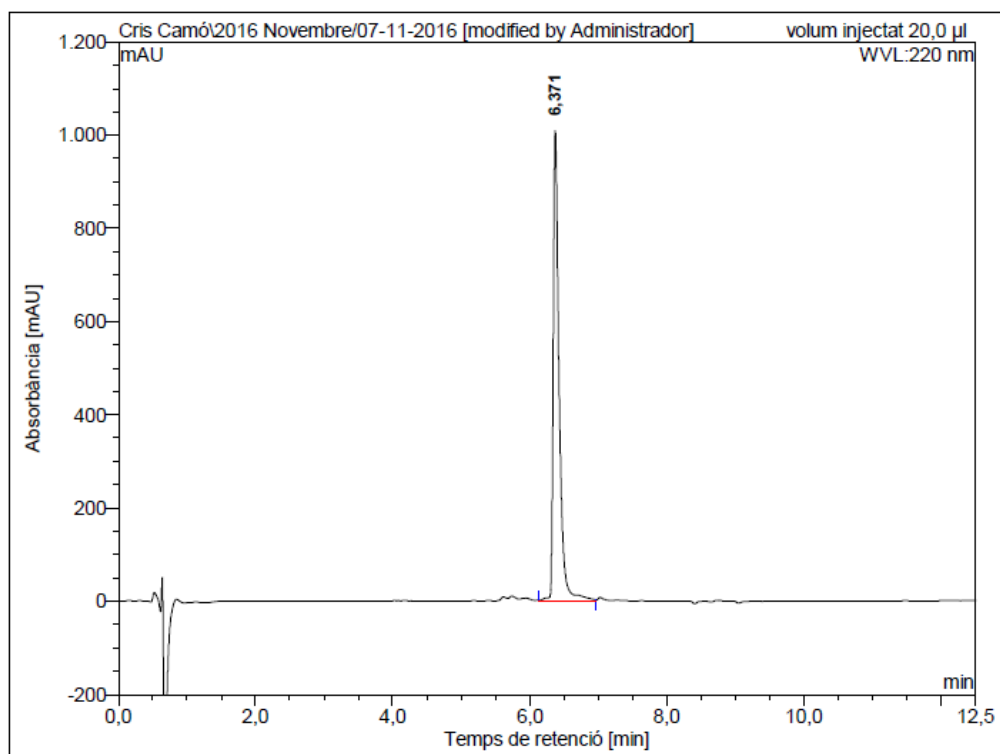
| |
|-------------------------|
| $[M+H]^+ = 1590.3$ |
| $[M+Na]^+ = 1612.3$ |
| $[M+K]^+ = 1628.2$ |
| $[M+2H]^{2+} = 795.7$ |
| $[M+H+Na]^{2+} = 806.7$ |
| $[M+2Na]^{2+} = 815.1$ |

Fmoc-Lys-Lys-Leu-Lys-Lys-Trp-Lys-Leu-Lys-Gln-OH

Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

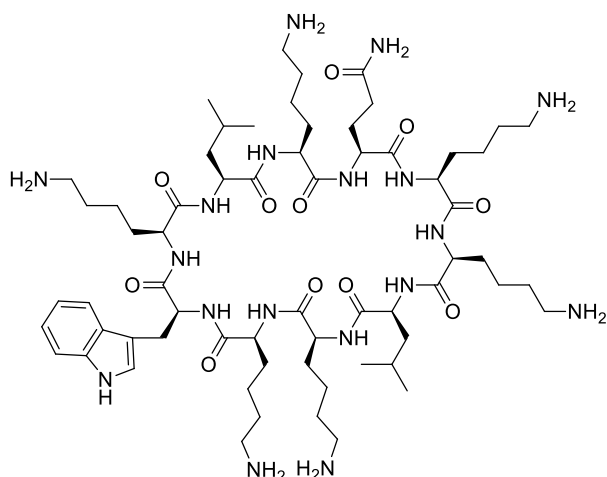
Exact Mass: 1548,9544

Molecular Weight: 1549,9421

HPLC ($\lambda = 220 \text{ nm}$) (CC-24-848)

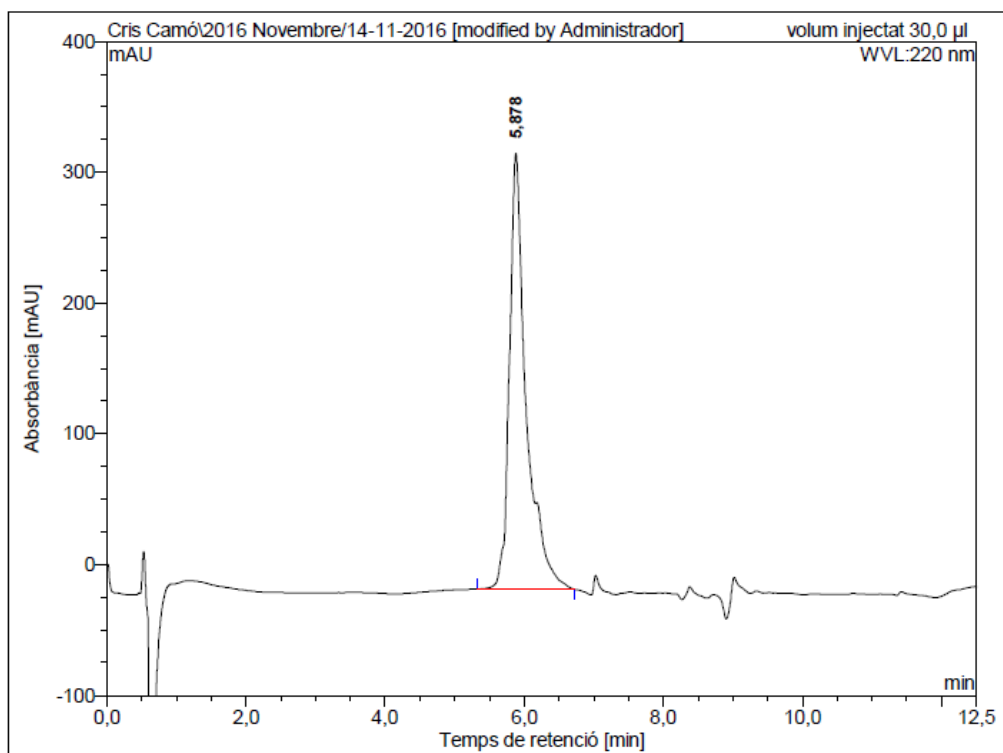
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,37 | 1008,527 | 100,560 | 100,00 |
| Total: | | 1008,527 | 100,560 | 100,00 |

c(Lys-Lys-Leu-Lys-Lys-Trp-Lys-Leu-Lys-Gln) (BPC900W)

Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

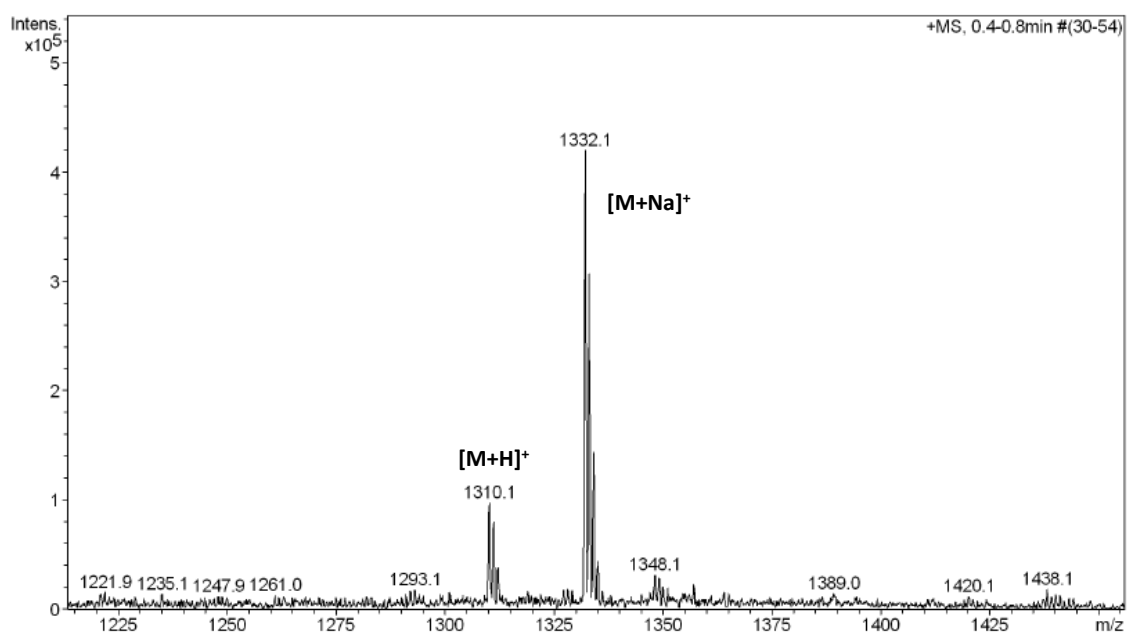
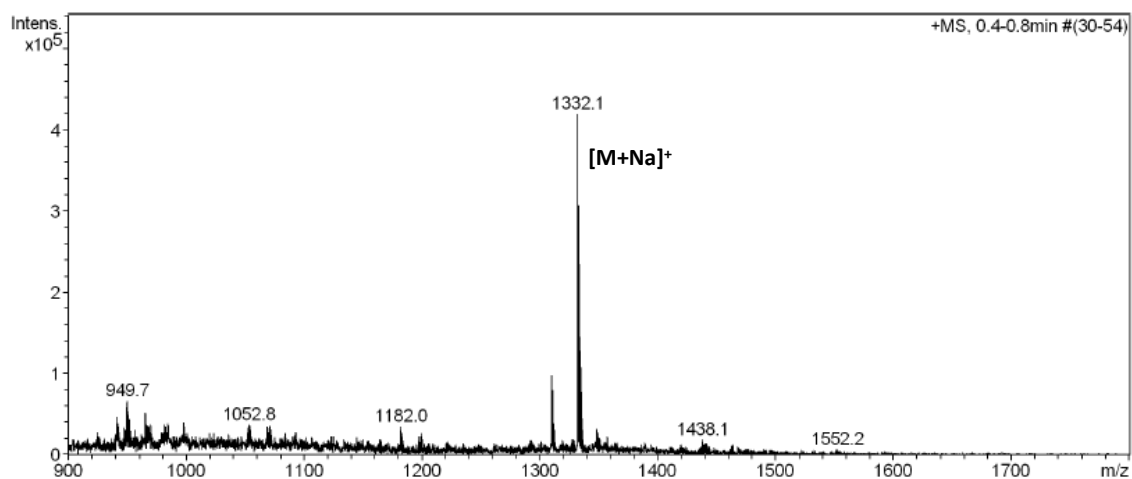
Exact Mass: 1308,8758

Molecular Weight: 1309,6881

HPLC ($\lambda = 220 \text{ nm}$) (CC-24-855)

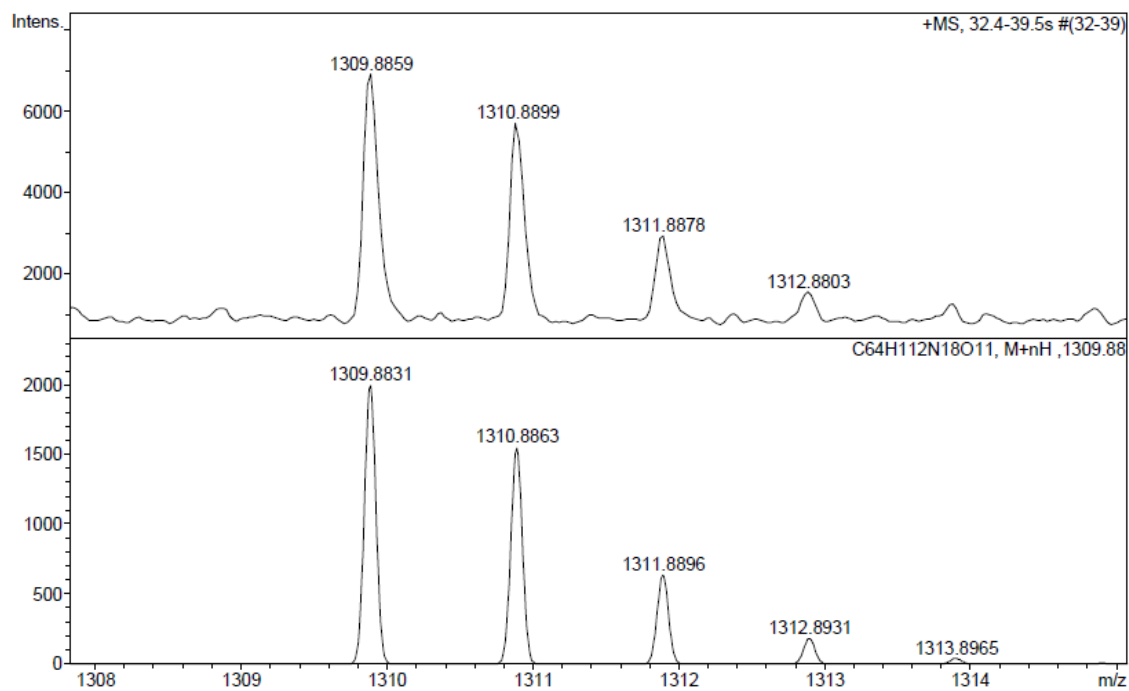
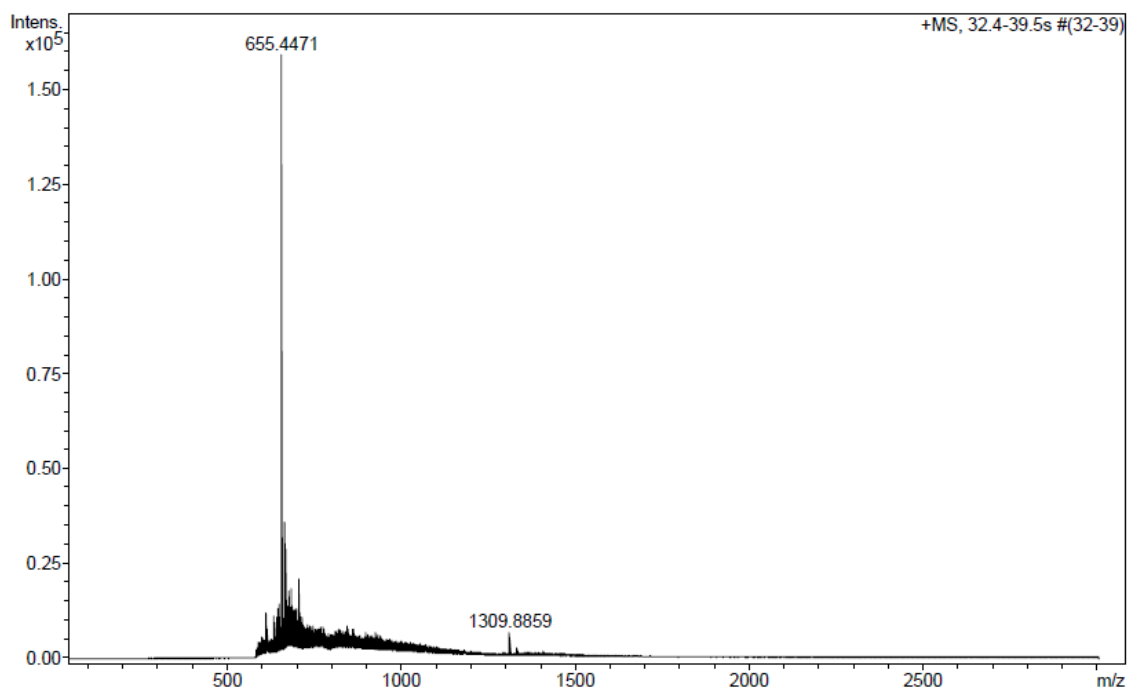
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,88 | 333,217 | 93,082 | 100,00 |
| Total: | | 333,217 | 93,082 | 100,00 |

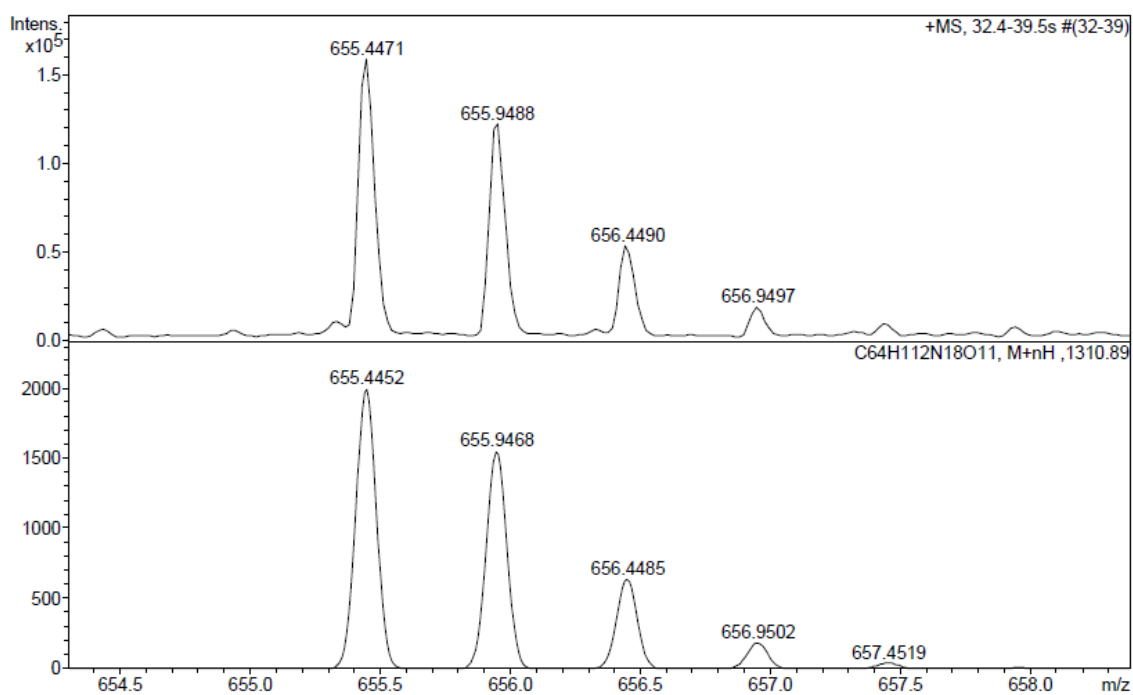
ESI (m/z) (CC-24-855)



| |
|--------------------|
| $[M+H]^+ = 1310.1$ |
|--------------------|

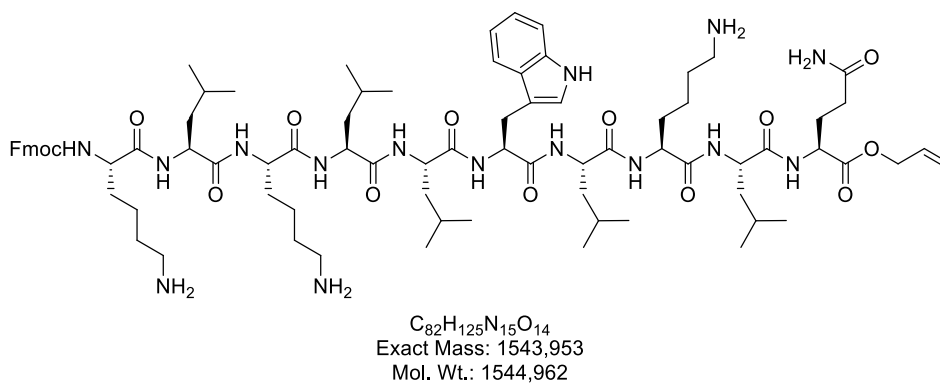
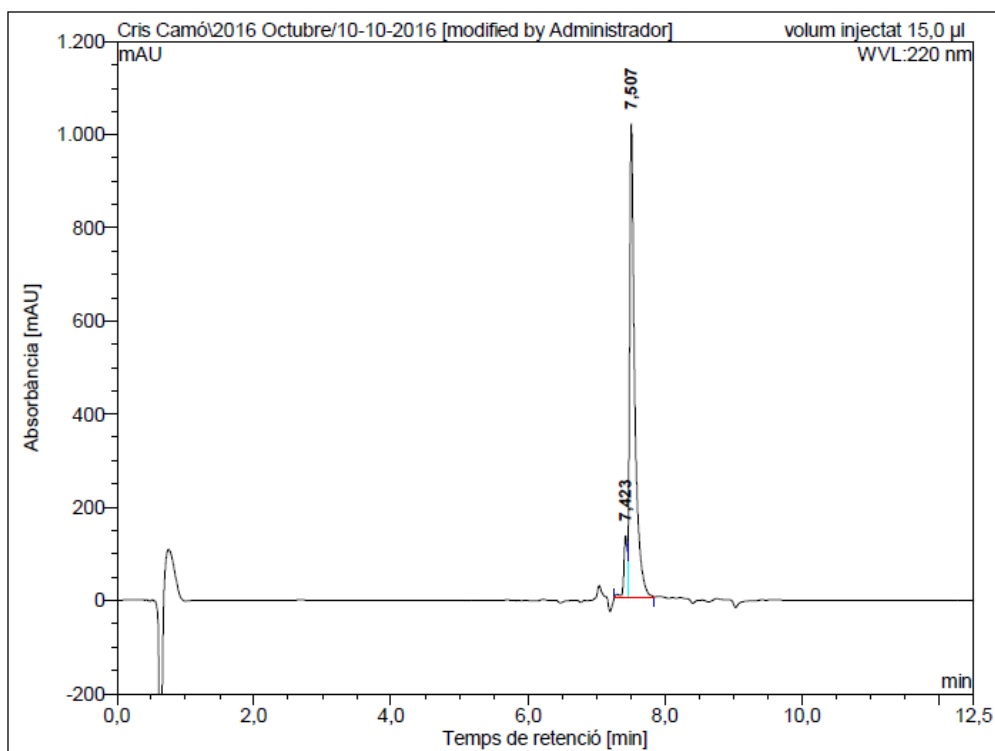
| |
|---------------------|
| $[M+Na]^+ = 1332.1$ |
|---------------------|

HRMS (ESI) (m/z) (CC-24)



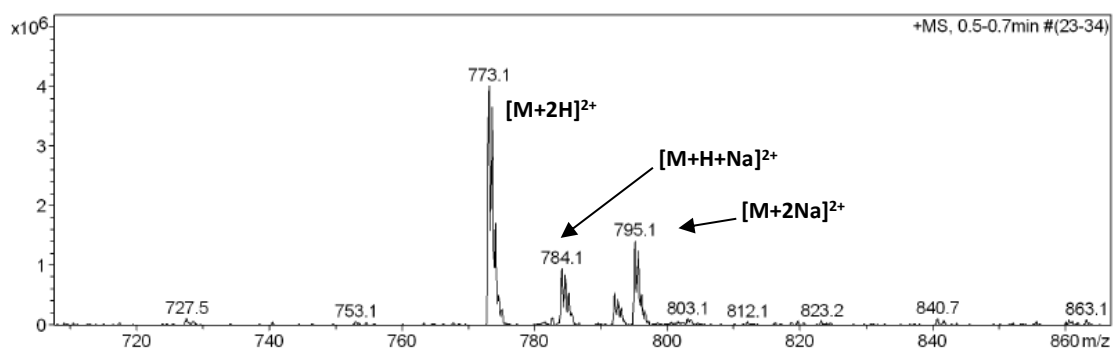
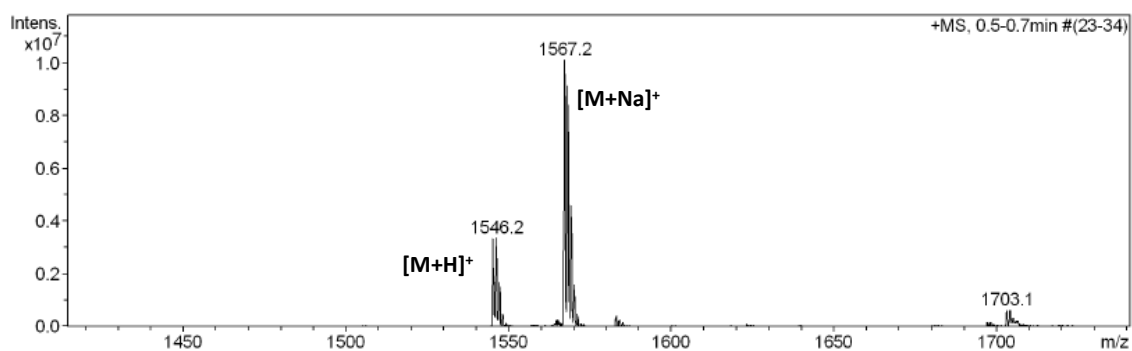
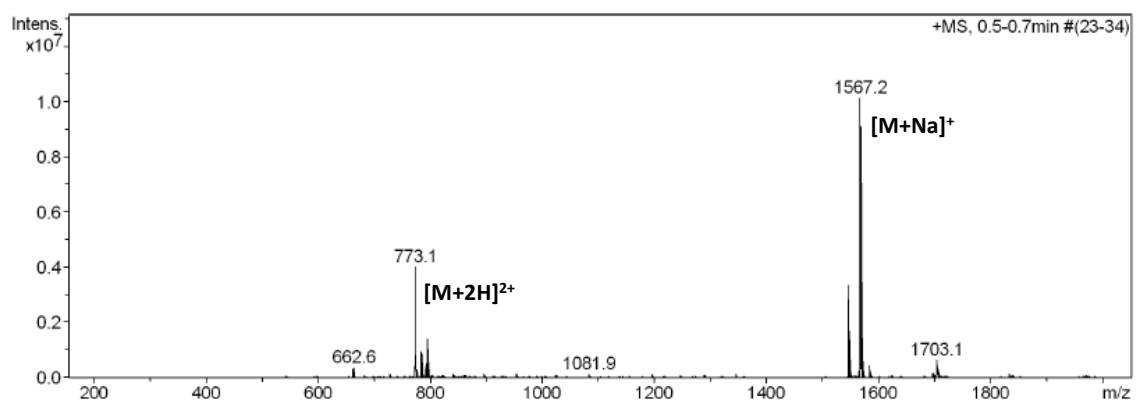
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{113}N_{18}O_{11}$ | 1309.8831 | 1309.8859 |
| $[M+2H]^{2+}$ | $C_{64}H_{114}N_{18}O_{11}$ | 655.4452 | 655.4471 |

Fmoc-Lys-Leu-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OAll

HPLC ($\lambda = 220 \text{ nm}$) (CC-25-798)

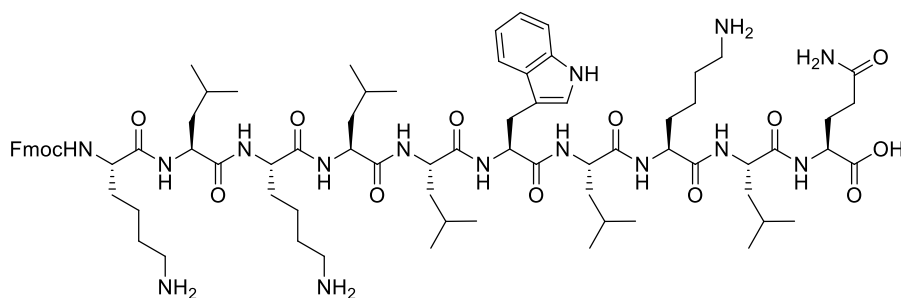
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,42 | 131,326 | 7,215 | 7,55 |
| 2 | 7,51 | 1015,783 | 88,363 | 92,45 |
| Total: | | 1147,108 | 95,578 | 100,00 |

ESI (m/z) (CC-25-798)



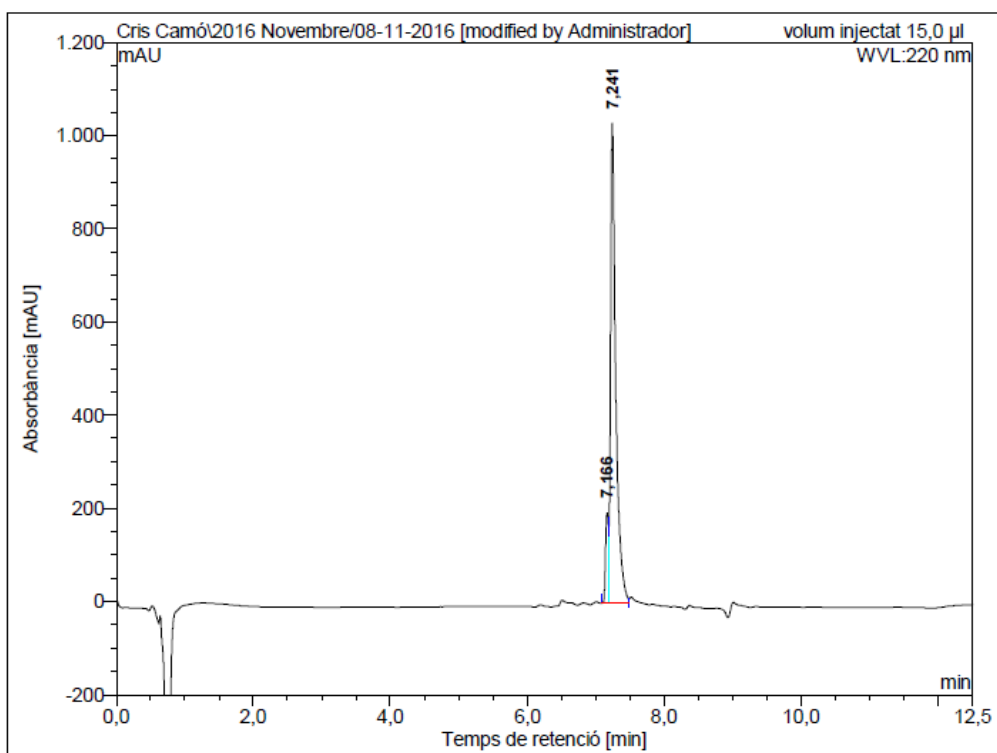
| |
|-------------------------|
| $[M+H]^+ = 1545.2$ |
| $[M+Na]^+ = 1567.2$ |
| $[M+2H]^{2+} = 773.1$ |
| $[M+H+Na]^{2+} = 784.1$ |
| $[M+2Na]^{2+} = 795.1$ |

Fmoc-Lys-Leu-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OH

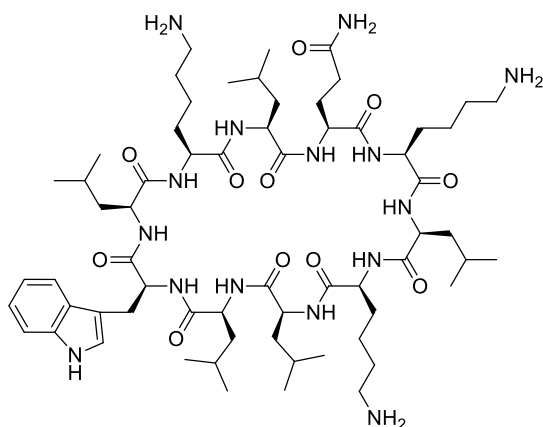
Chemical Formula: $C_{79}H_{121}N_{15}O_{14}$

Exact Mass: 1503,9217

Molecular Weight: 1504,8981

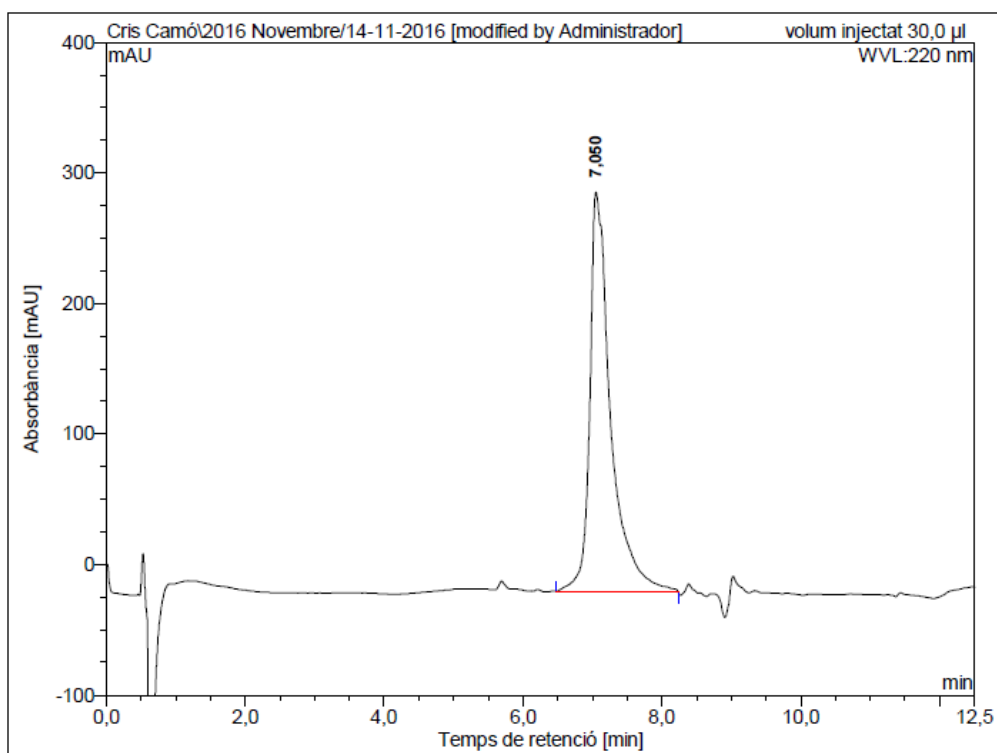
HPLC ($\lambda = 220$ nm) (CC-25-848)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,17 | 193,443 | 9,629 | 9,44 |
| 2 | 7,24 | 1030,117 | 92,350 | 90,56 |
| Total: | | 1223,559 | 101,978 | 100,00 |

c(Lys-Leu-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln) (**BPC902W**)Chemical Formula: $C_{64}H_{109}N_{15}O_{11}$

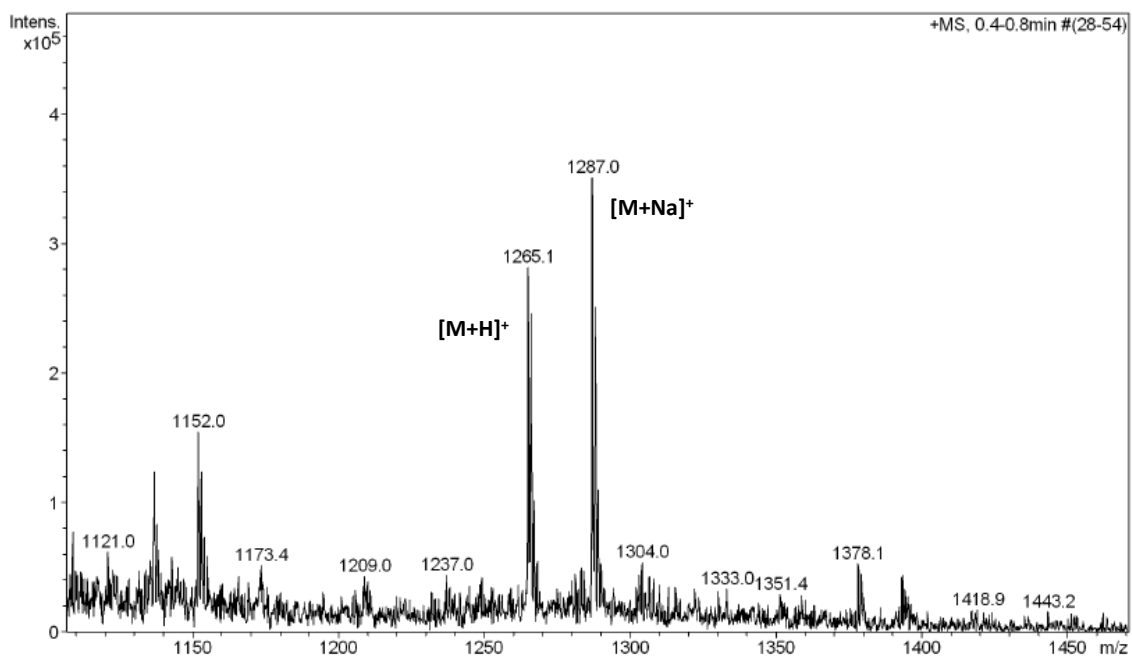
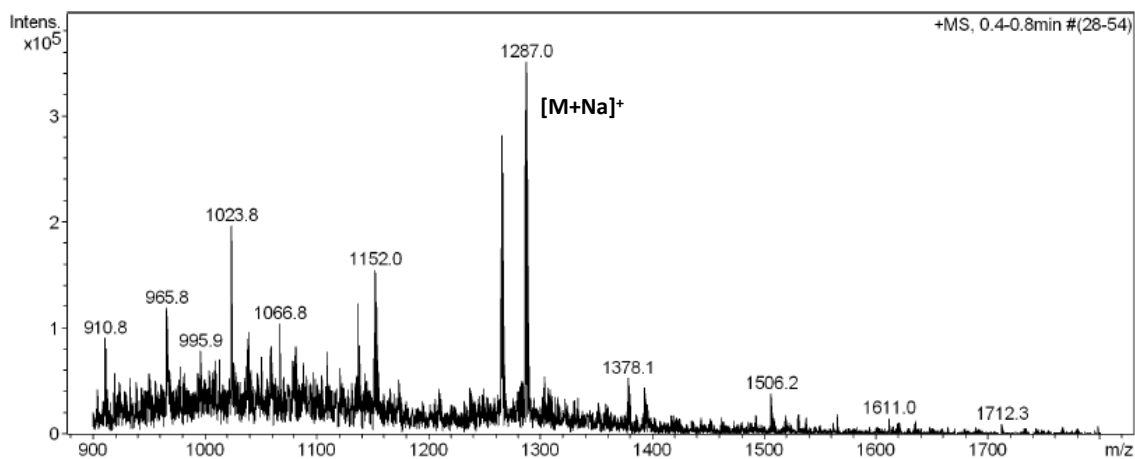
Exact Mass: 1263,8431

Molecular Weight: 1264,6442

HPLC ($\lambda = 220 \text{ nm}$) (CC-25-855)

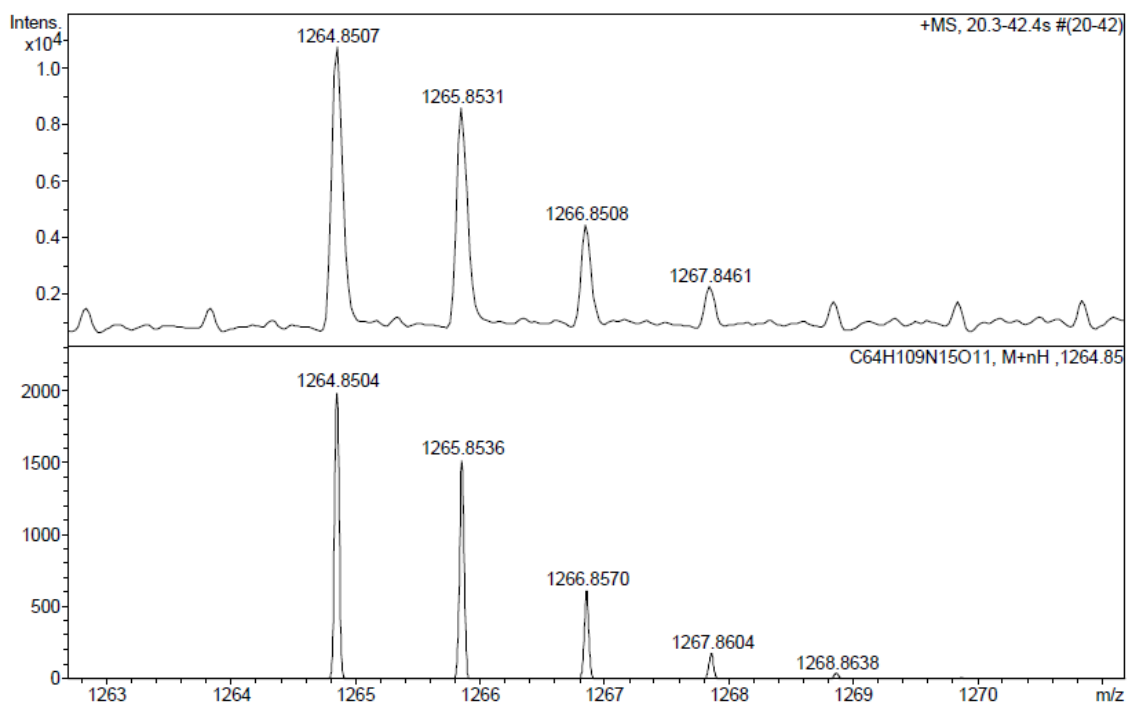
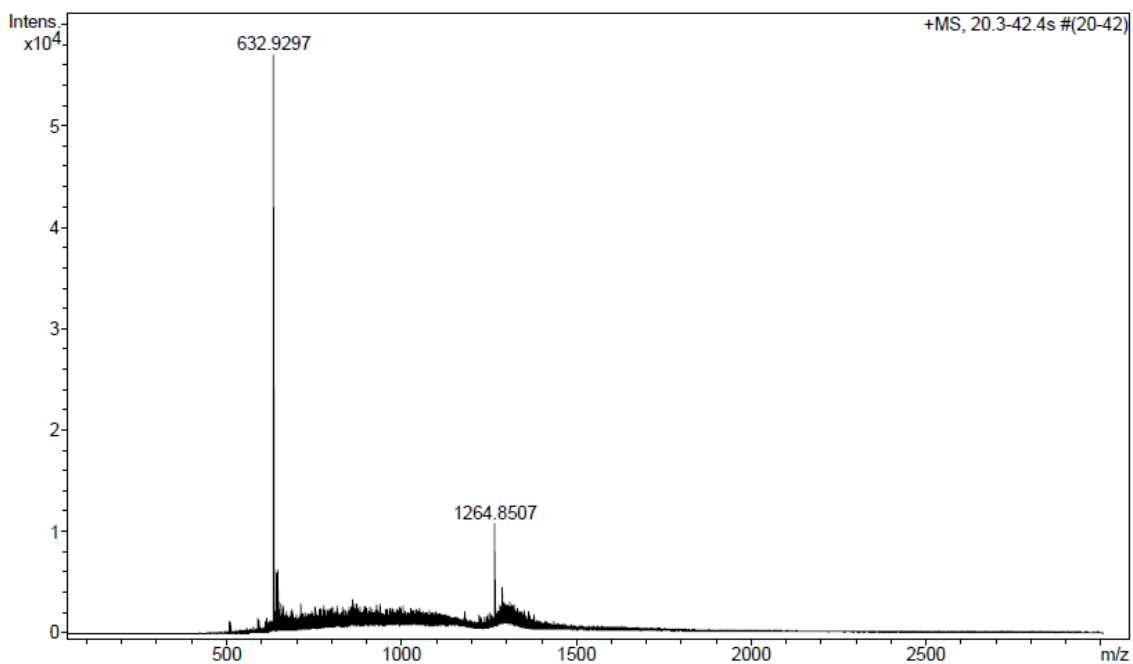
| No. | Tempes retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|---------------------|------------|--------------|-----------------|
| 1 | 7,05 | 305,707 | 106,262 | 100,00 |
| Total: | | 305,707 | 106,262 | 100,00 |

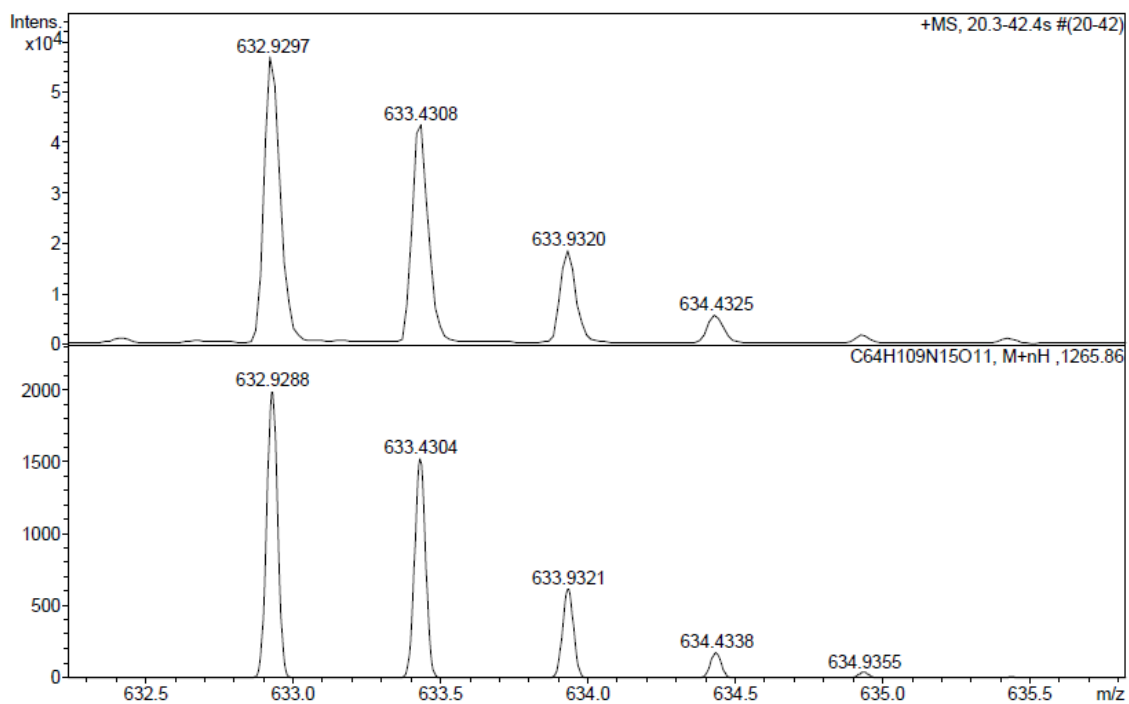
ESI (m/z) (CC-25-855)



| |
|--------------------|
| $[M+H]^+ = 1265.1$ |
|--------------------|

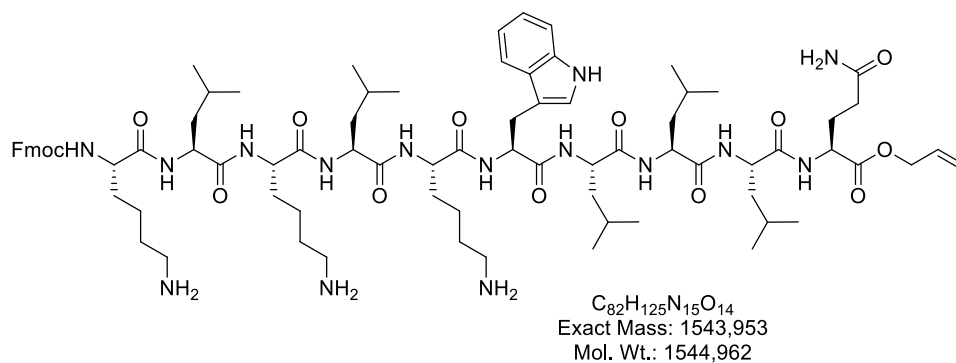
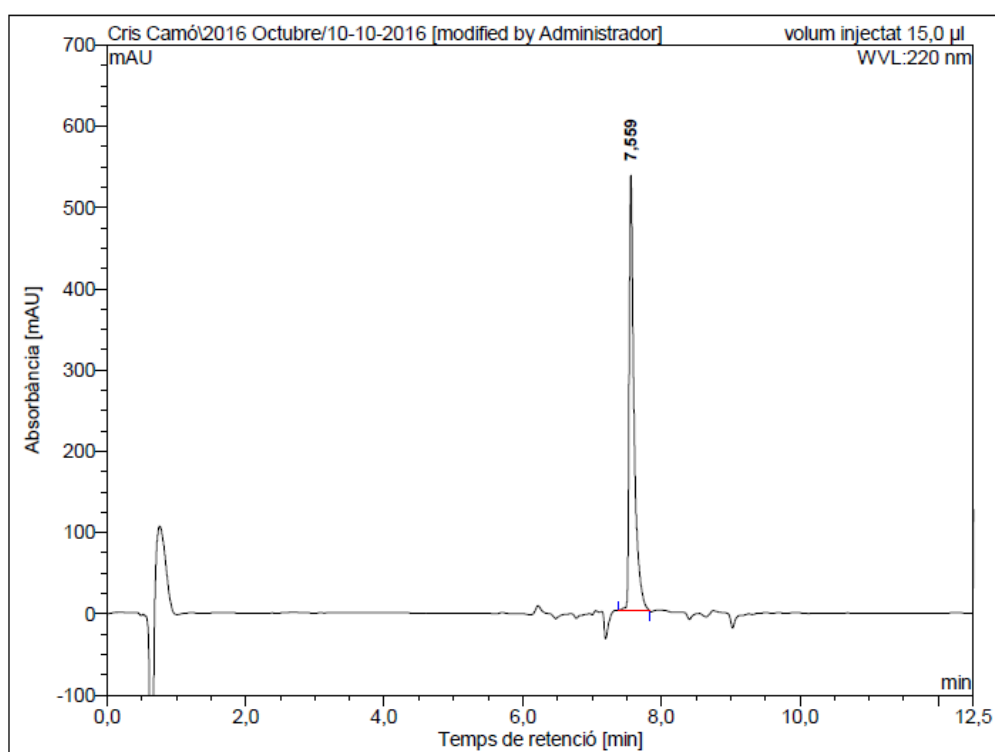
| |
|---------------------|
| $[M+Na]^+ = 1287.0$ |
|---------------------|

HRMS (ESI) (m/z) (CC-25)



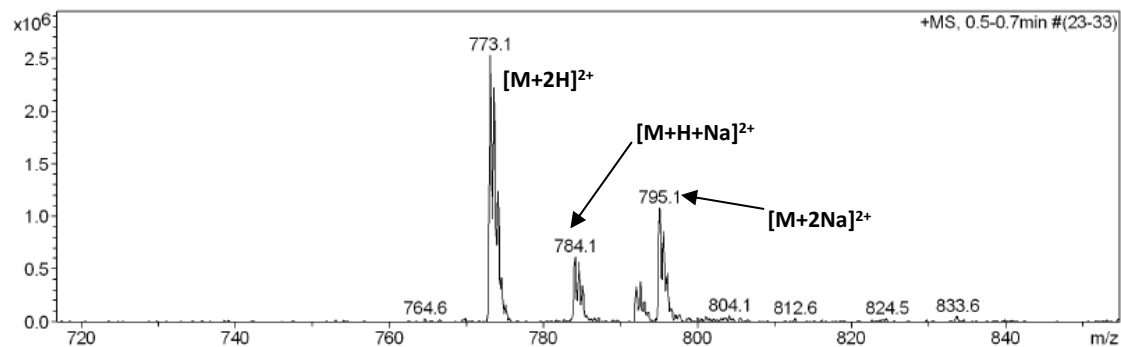
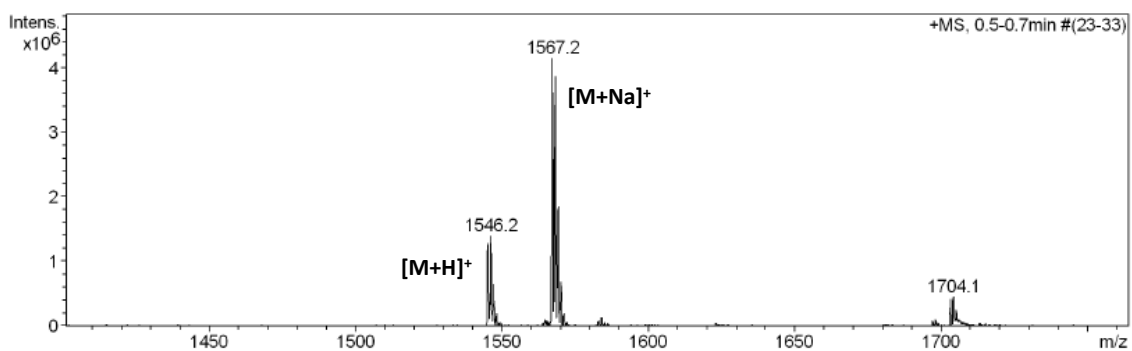
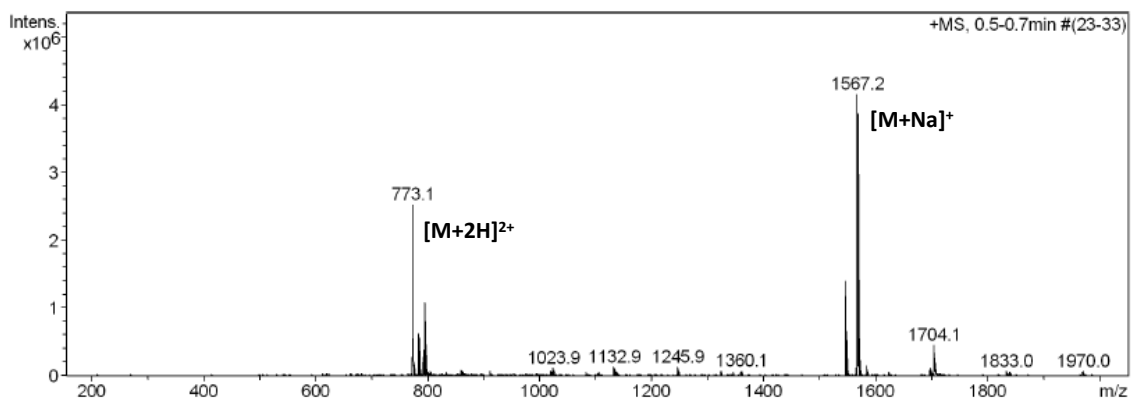
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₀ N ₁₅ O ₁₁ | 1264.8504 | 1264.8507 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₁ N ₁₅ O ₁₁ | 632.9288 | 632.9297 |

Fmoc-Lys-Leu-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OAll

HPLC ($\lambda = 220 \text{ nm}$) (CC-26-798)

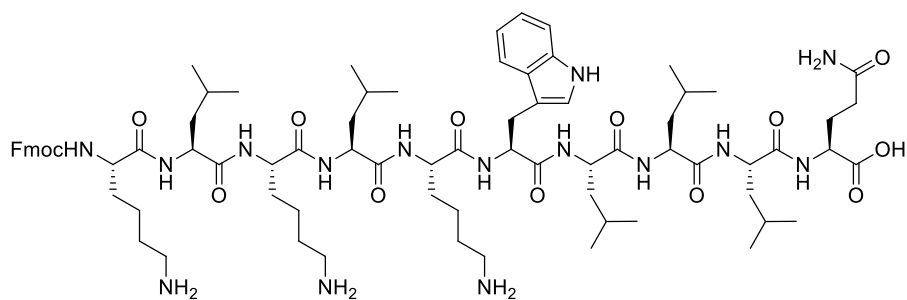
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,56 | 535,706 | 44,167 | 100,00 |
| Total: | | 535,706 | 44,167 | 100,00 |

ESI (m/z) (CC-26-798)



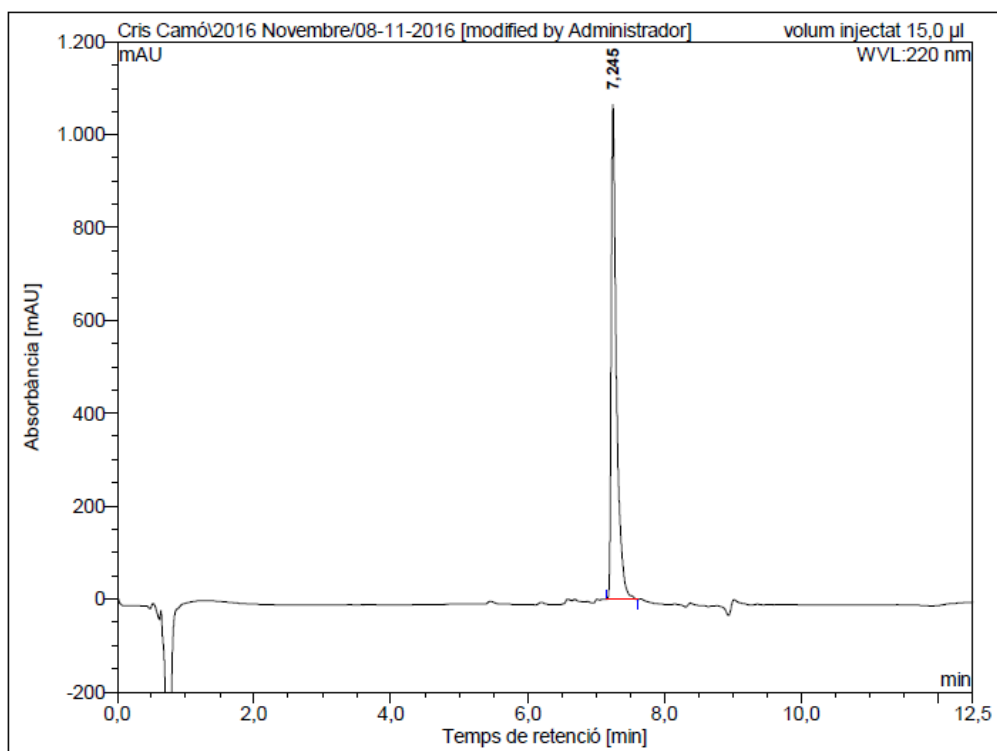
| |
|-------------------------|
| $[M+H]^+ = 1545.2$ |
| $[M+Na]^+ = 1567.2$ |
| $[M+2H]^{2+} = 773.1$ |
| $[M+H+Na]^{2+} = 784.1$ |
| $[M+2Na]^{2+} = 795.1$ |

Fmoc-Lys-Leu-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OH

Chemical Formula: $C_{79}H_{121}N_{15}O_{14}$

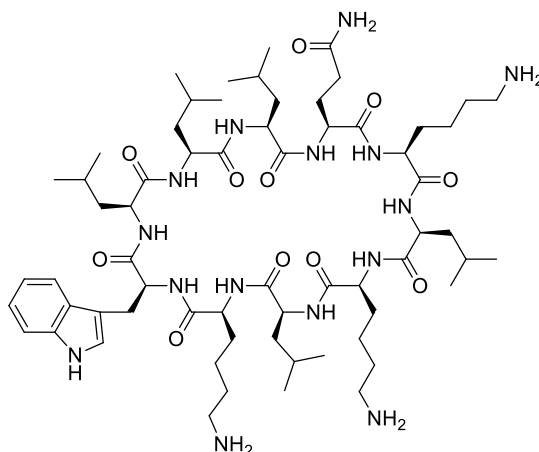
Exact Mass: 1503,9217

Molecular Weight: 1504,8981

HPLC ($\lambda = 220 \text{ nm}$) (CC-26-848)

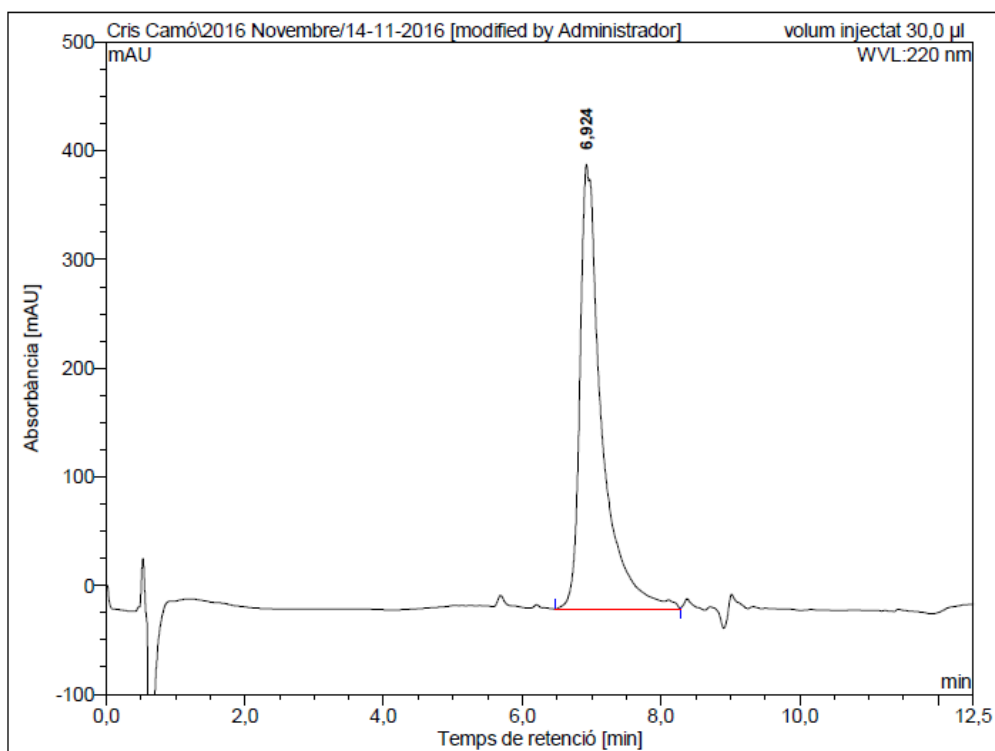
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,24 | 1066,284 | 95,040 | 100,00 |
| Total: | | 1066,284 | 95,040 | 100,00 |

c(Lys-Leu-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln) (BPC904W)

Chemical Formula: $C_{64}H_{109}N_{15}O_{11}$

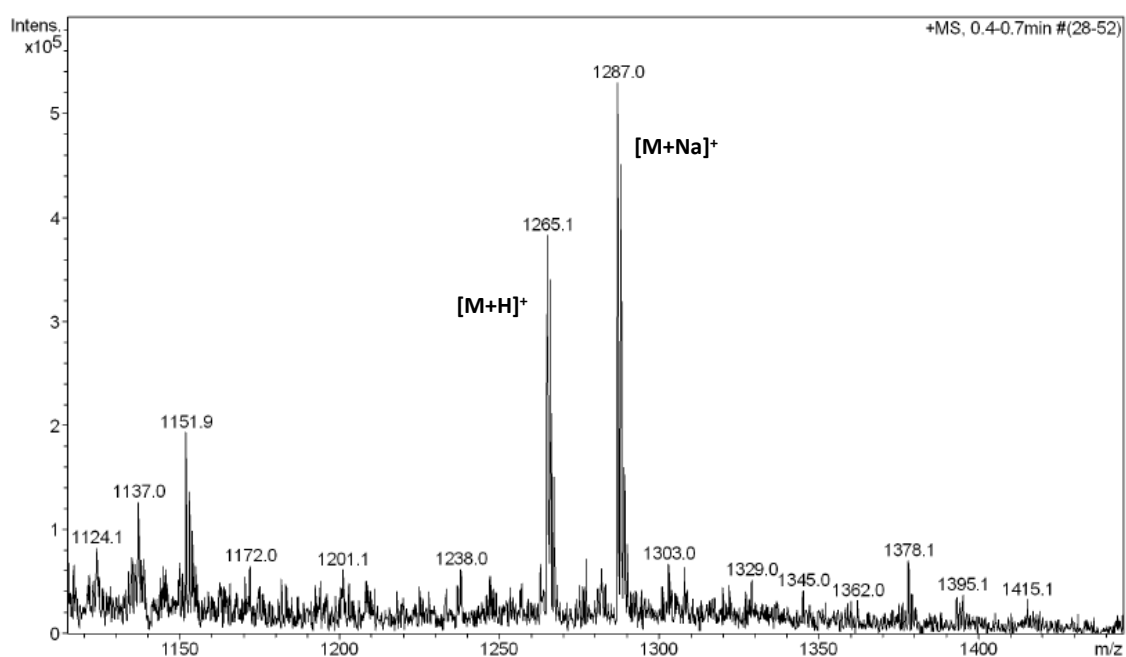
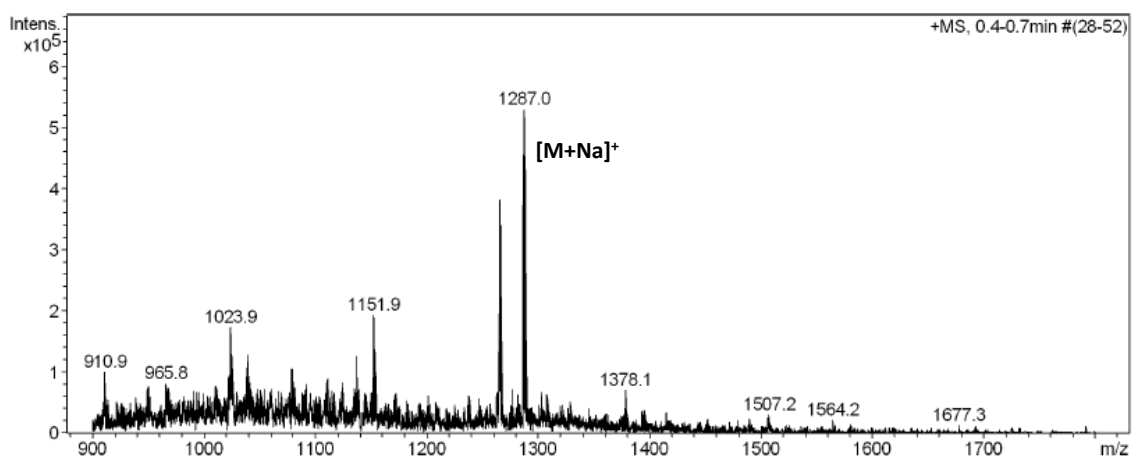
Exact Mass: 1263,8431

Molecular Weight: 1264,6442

HPLC ($\lambda = 220$ nm) (CC-26-855)

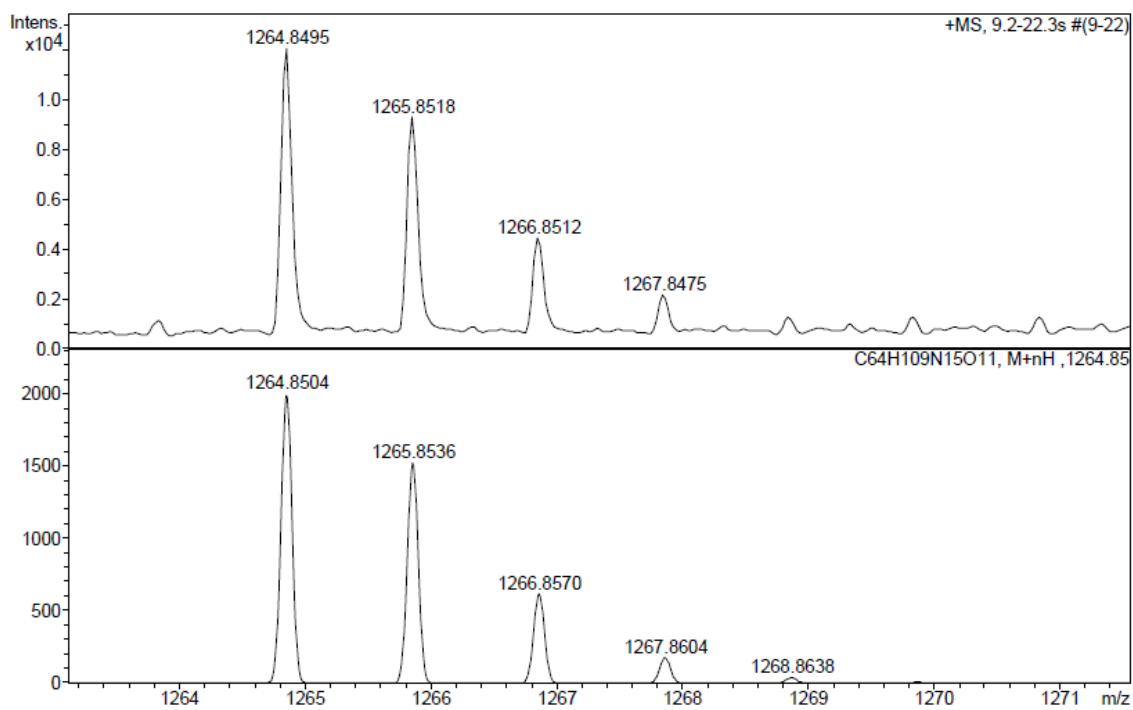
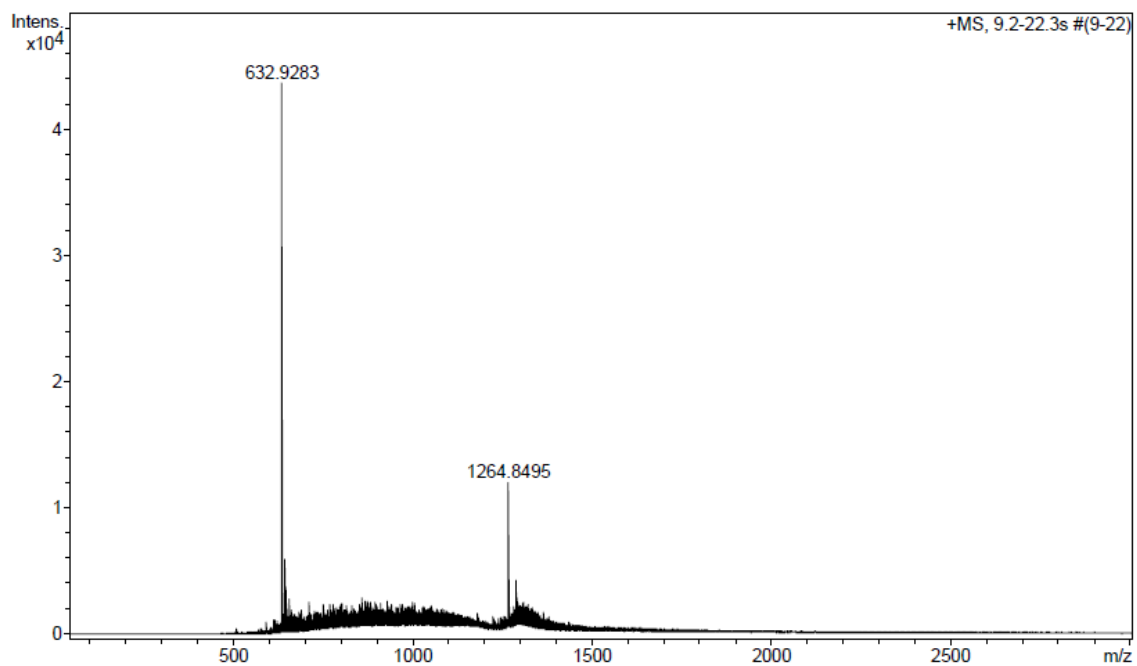
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,92 | 409,044 | 149,621 | 100,00 |
| Total: | | 409,044 | 149,621 | 100,00 |

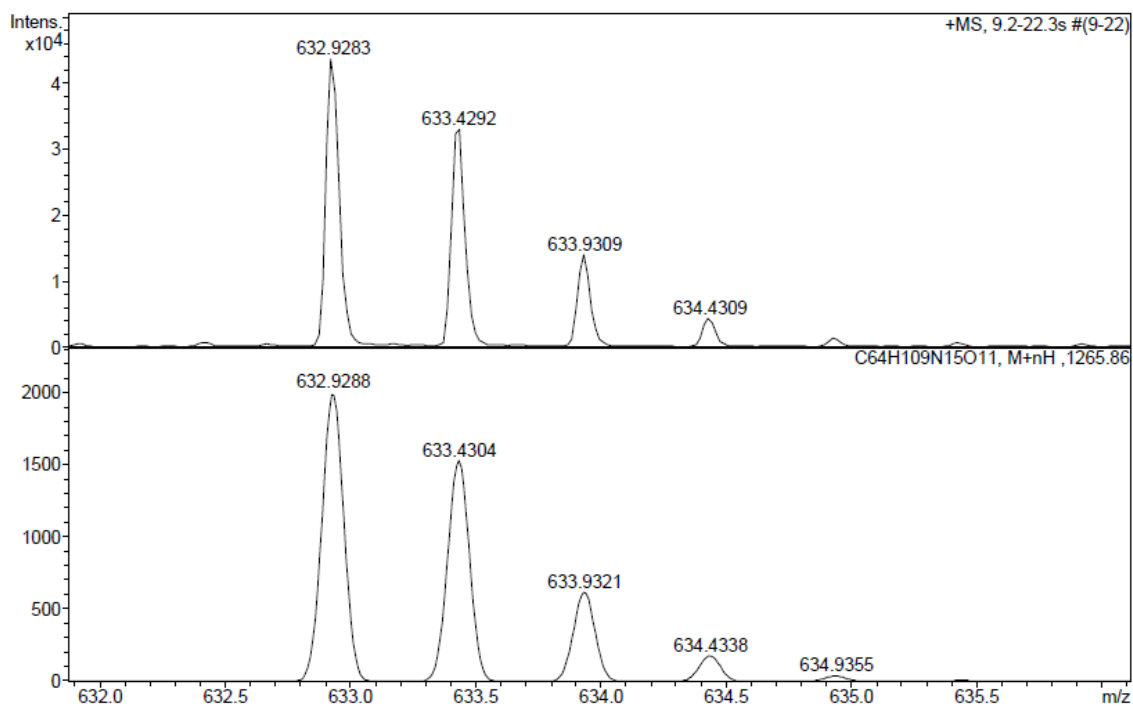
ESI (m/z) (CC-26-855)



| |
|--------------------|
| $[M+H]^+ = 1265.1$ |
|--------------------|

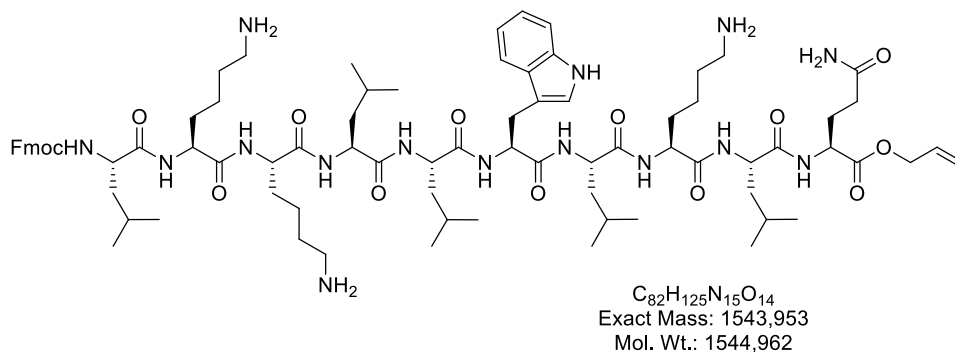
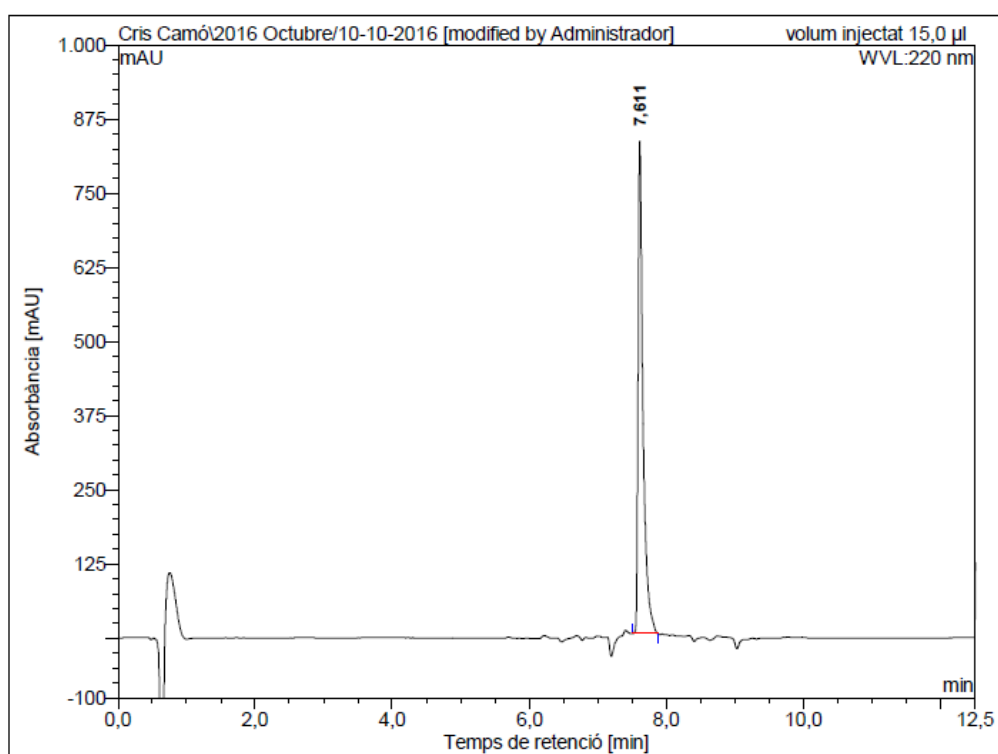
| |
|---------------------|
| $[M+Na]^+ = 1287.0$ |
|---------------------|

HRMS (ESI) (m/z) (CC-26)



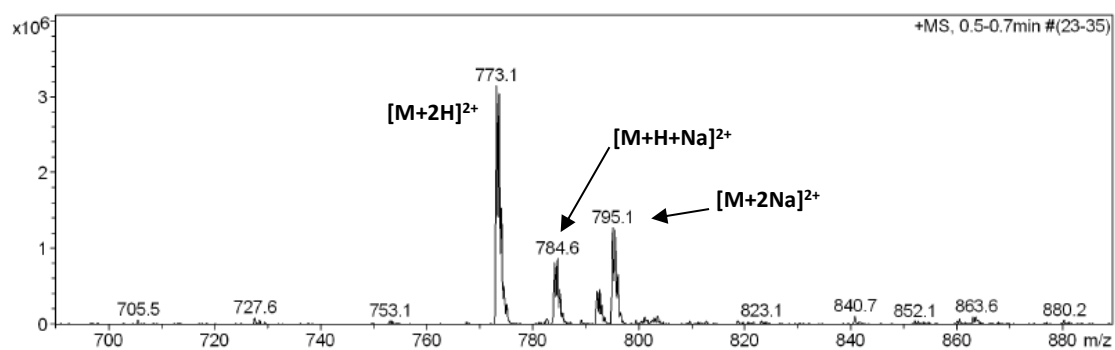
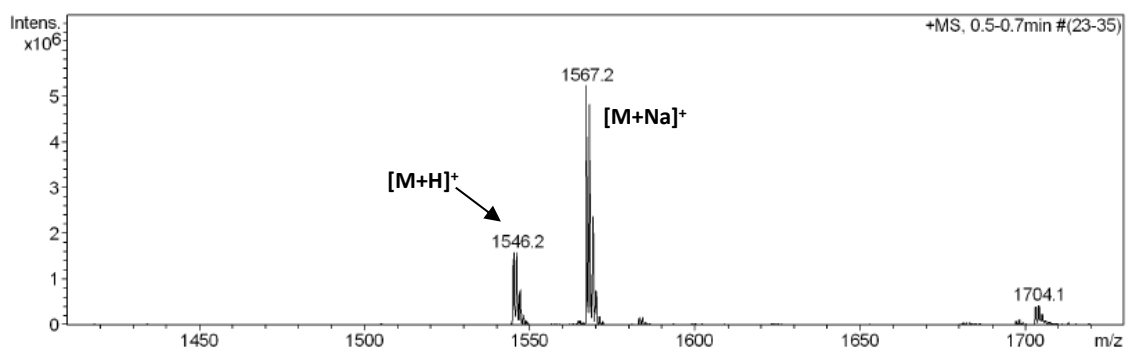
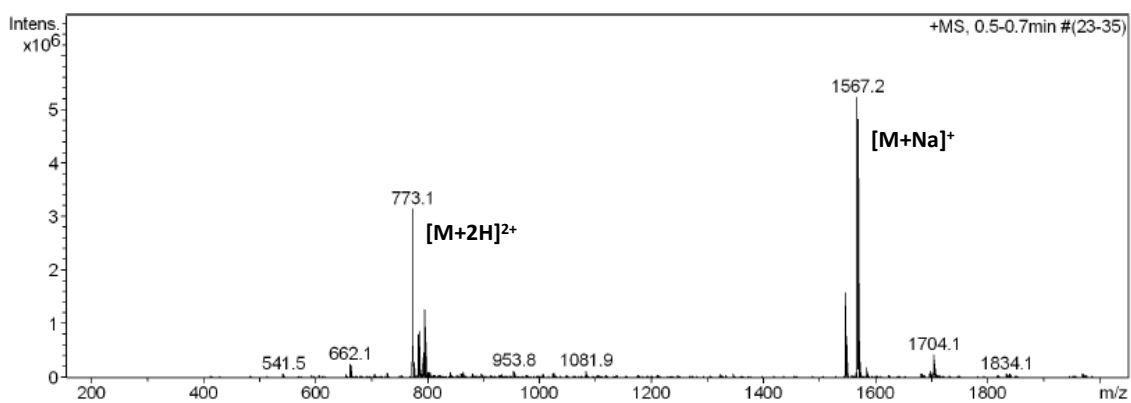
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₀ N ₁₅ O ₁₁ | 1264.8504 | 1264.8495 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₁ N ₁₅ O ₁₁ | 632.9288 | 632.9283 |

Fmoc-Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OAll

HPLC ($\lambda = 220 \text{ nm}$) (CC-27-798)

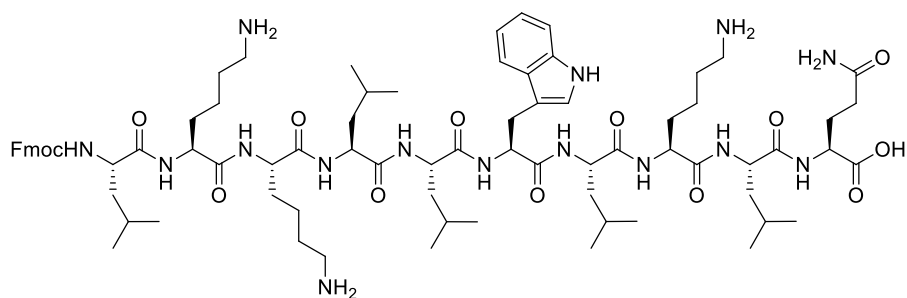
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,61 | 830,700 | 68,875 | 100,00 |
| Total: | | 830,700 | 68,875 | 100,00 |

ESI (m/z) (CC-27-798)



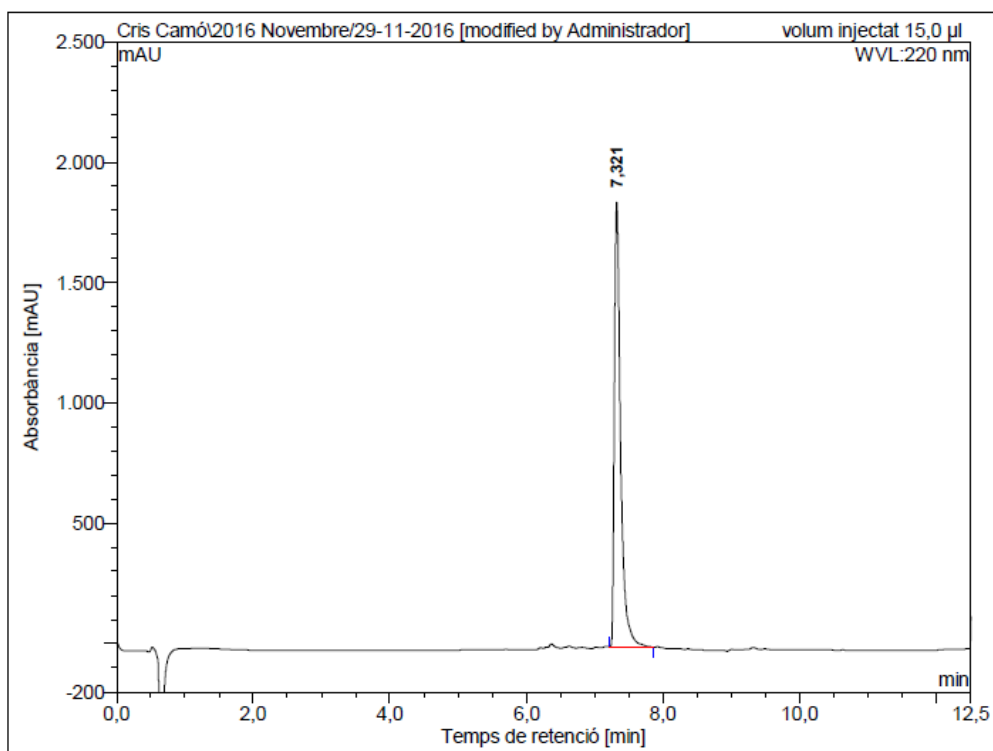
| |
|-------------------------|
| $[M+H]^+ = 1545.2$ |
| $[M+Na]^+ = 1567.2$ |
| $[M+2H]^{2+} = 773.1$ |
| $[M+H+Na]^{2+} = 784.6$ |
| $[M+2Na]^{2+} = 795.1$ |

Fmoc-Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln-OH

Chemical Formula: $C_{79}H_{121}N_{15}O_{14}$

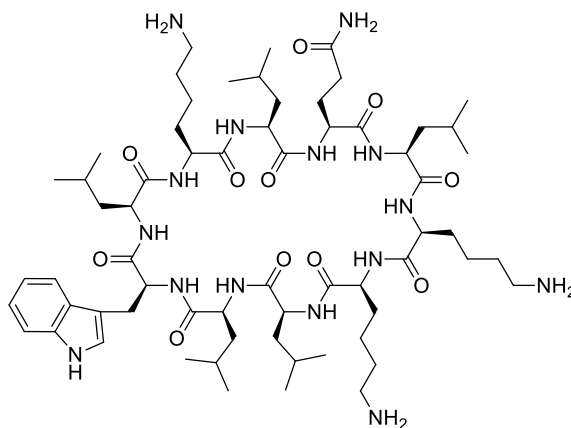
Exact Mass: 1503,9217

Molecular Weight: 1504,8981

HPLC ($\lambda = 220 \text{ nm}$) (CC-27-876)

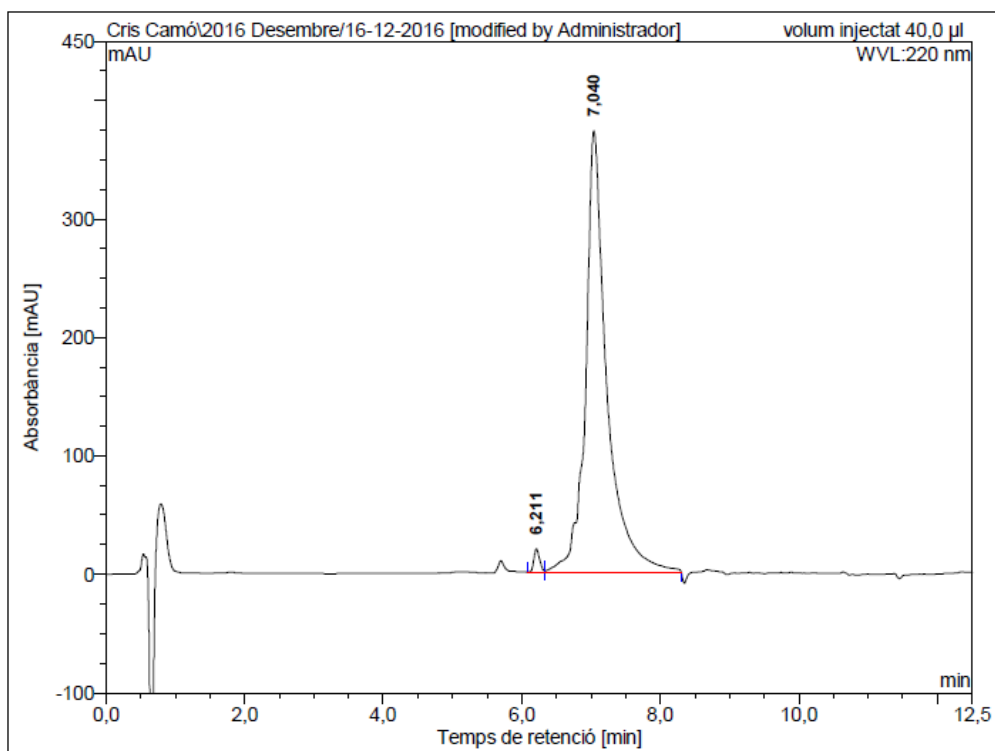
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,32 | 1848,892 | 196,706 | 100,00 |
| Total: | | 1848,892 | 196,706 | 100,00 |

c(Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Leu-Gln) (BPC906W)

Chemical Formula: C₆₄H₁₀₉N₁₅O₁₁

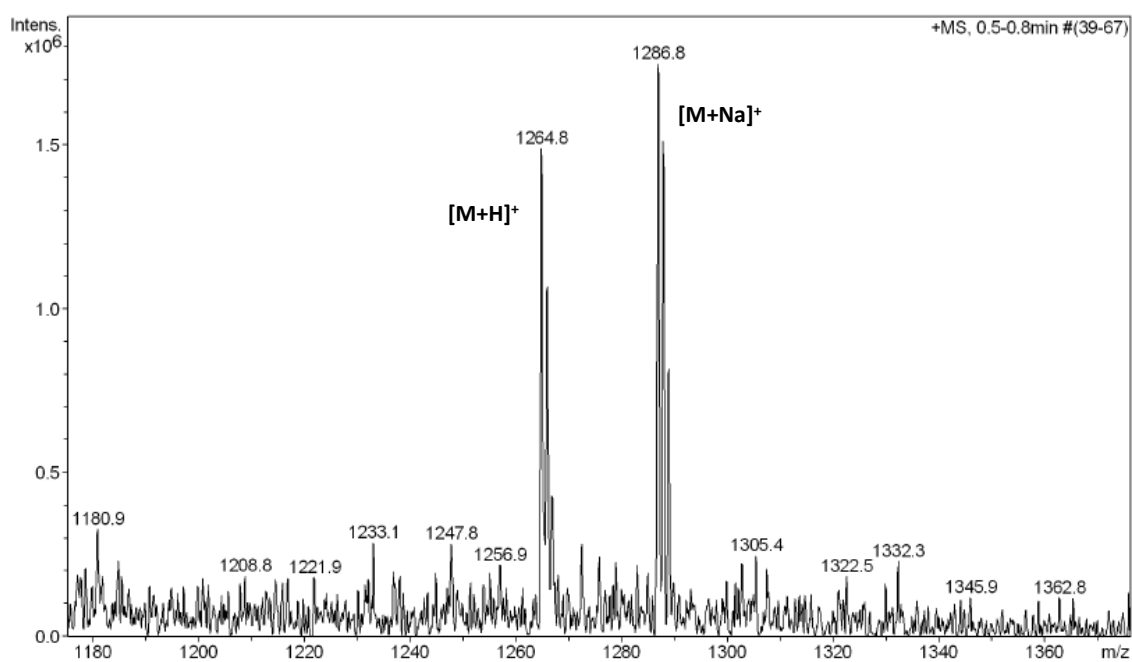
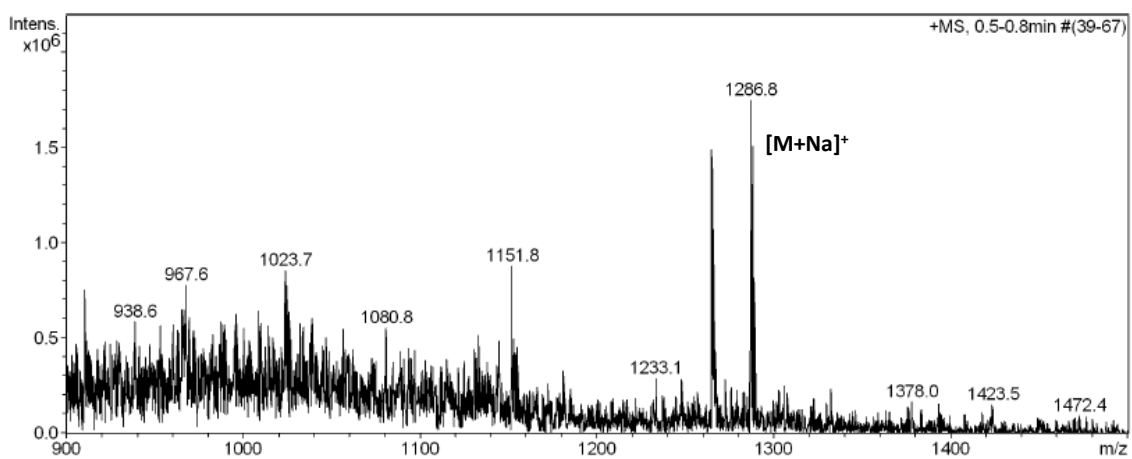
Exact Mass: 1263,8431

Molecular Weight: 1264,6442

HPLC ($\lambda = 220$ nm) (CC-27-903)

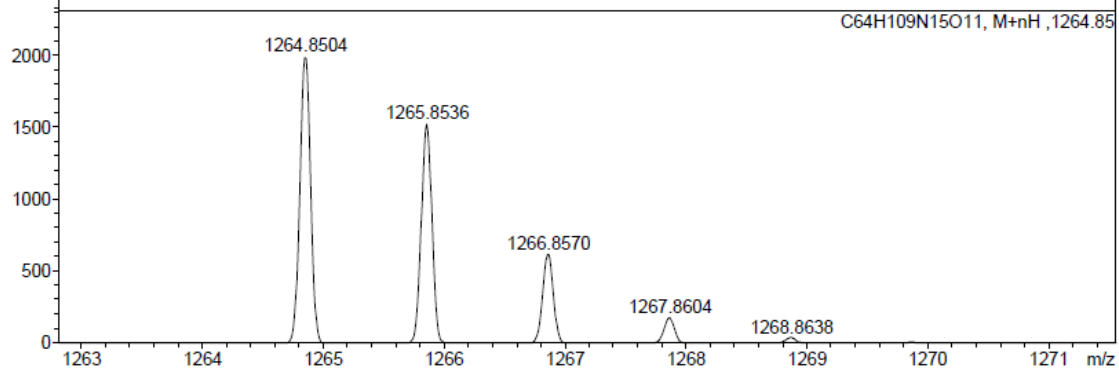
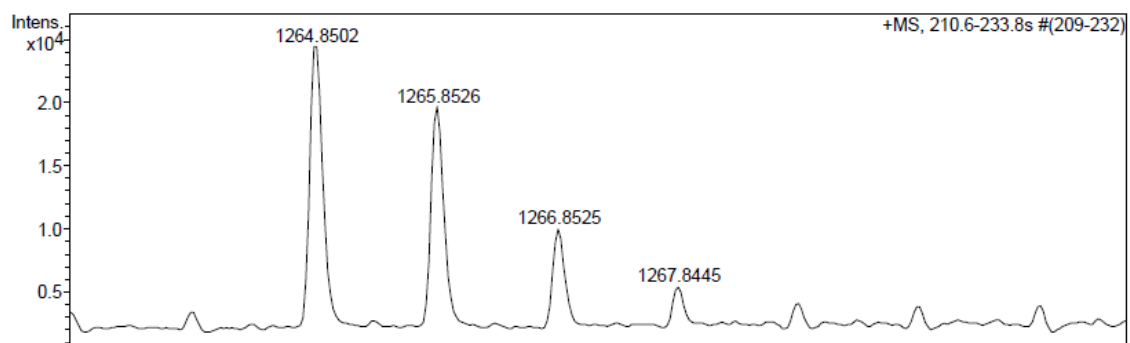
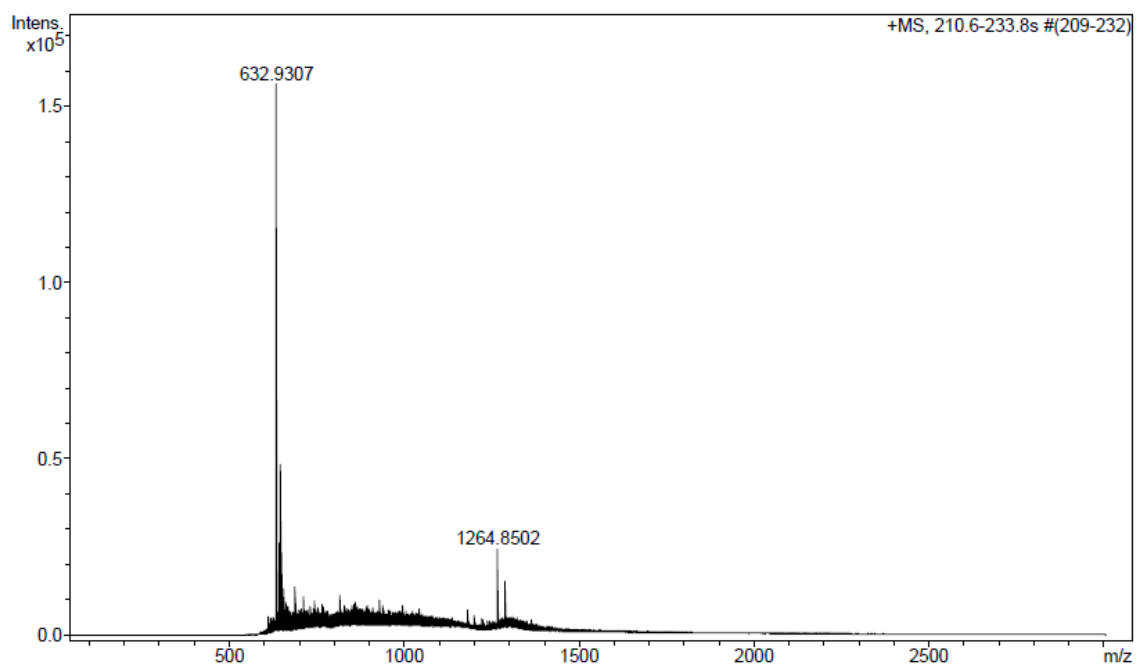
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,21 | 19,511 | 1,880 | 1,40 |
| 2 | 7,04 | 372,816 | 132,334 | 98,60 |
| Total: | | 392,327 | 134,214 | 100,00 |

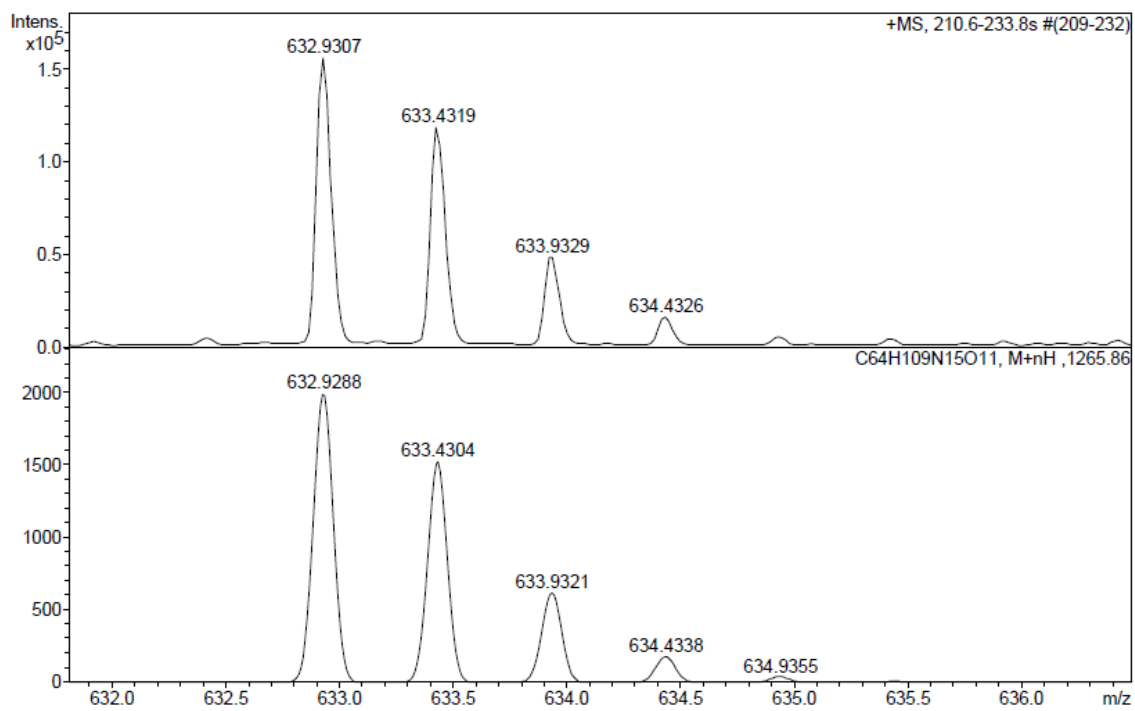
ESI (m/z) (CC-27-929)



| |
|--------------------|
| $[M+H]^+ = 1264.8$ |
|--------------------|

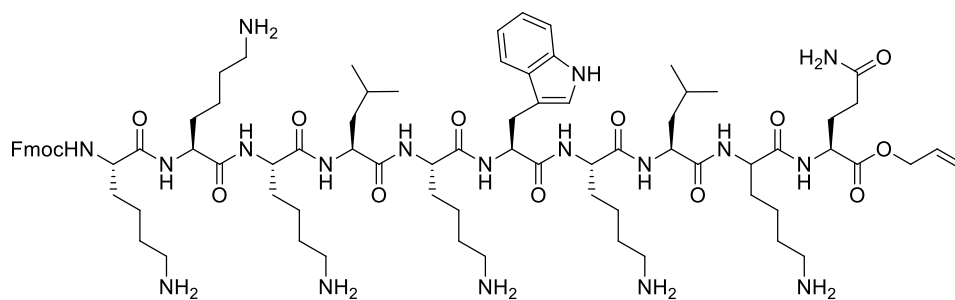
| |
|---------------------|
| $[M+Na]^+ = 1286.8$ |
|---------------------|

HRMS (ESI) (m/z) (CC-27)



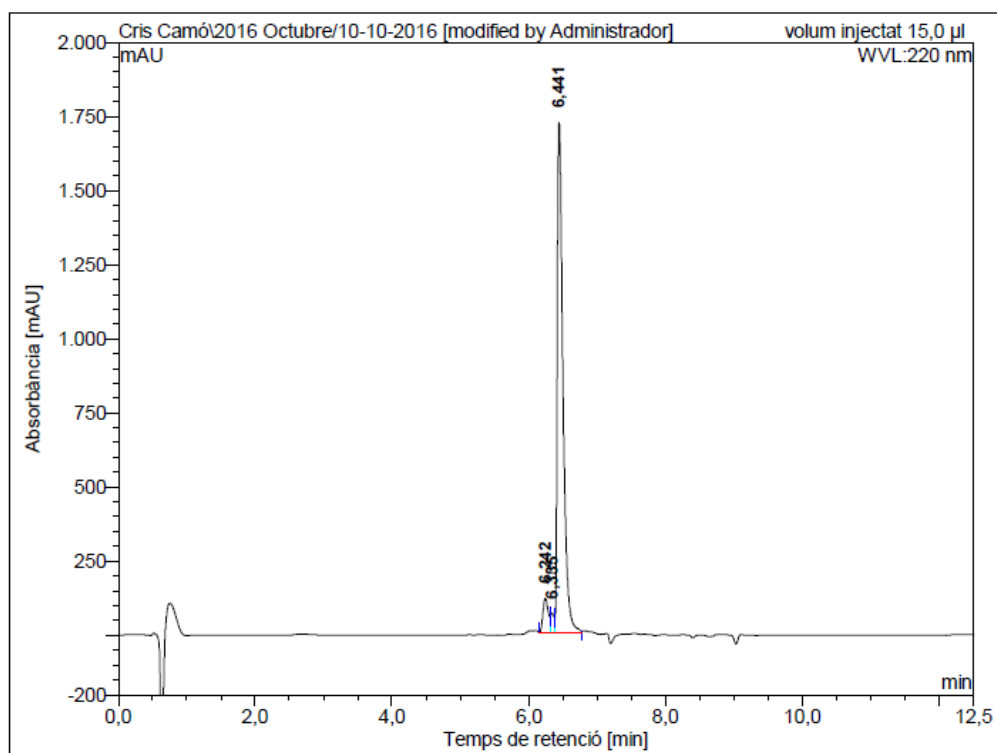
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₀ N ₁₅ O ₁₁ | 1264.8504 | 1264.8502 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₁ N ₁₅ O ₁₁ | 632.9288 | 632.9307 |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Lys-Leu-Lys-Gln-OAll

Chemical Formula: $C_{82}H_{128}N_{18}O_{14}$

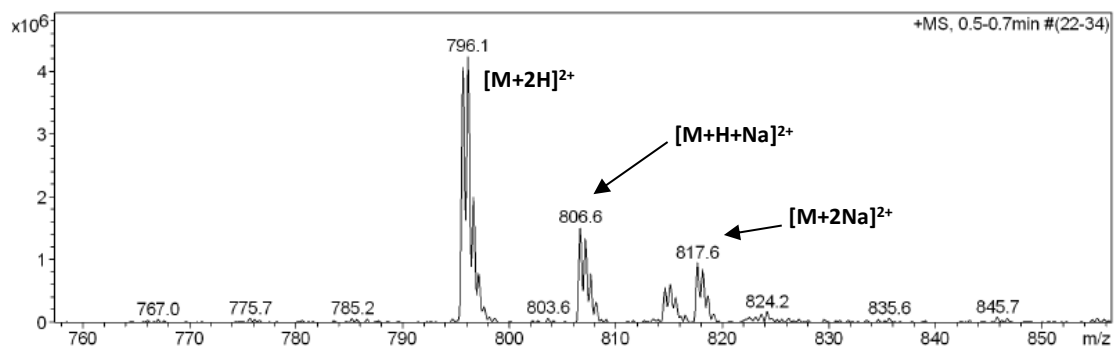
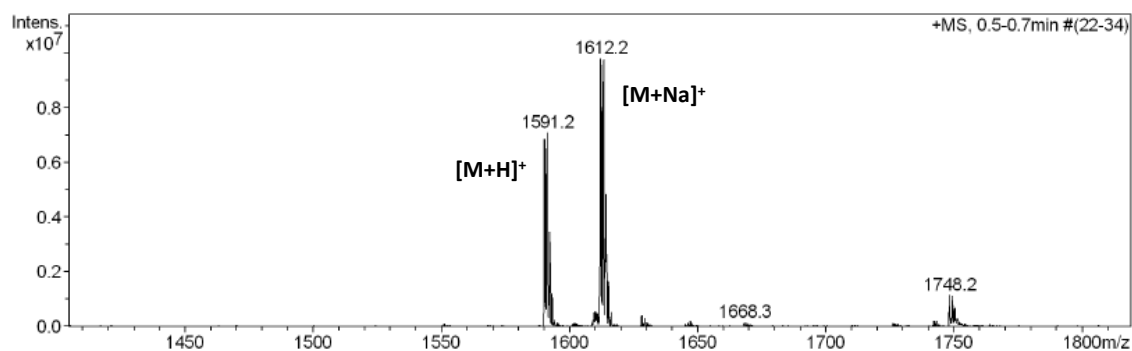
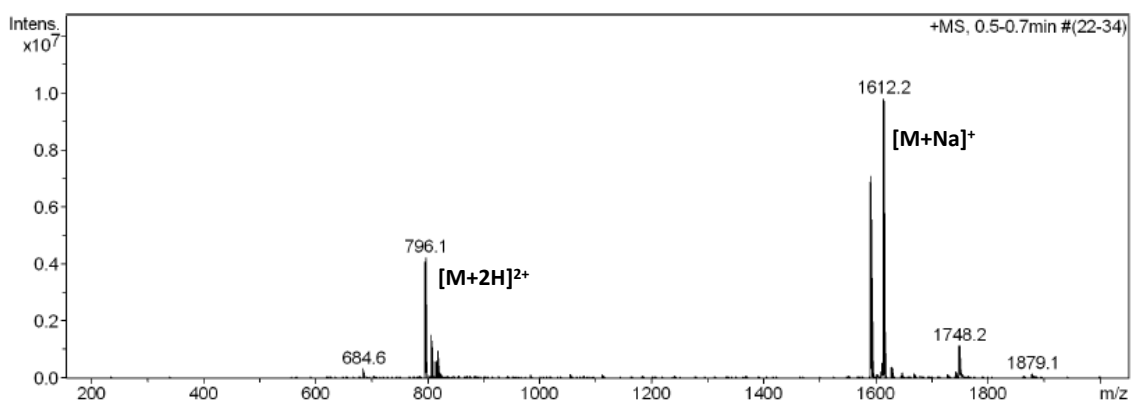
Exact Mass: 1588,9857

Molecular Weight: 1590,0059

HPLC ($\lambda = 220$ nm) (CC-28-798)

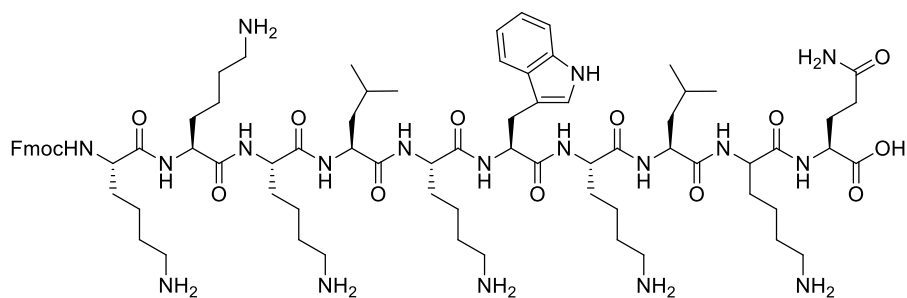
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 6,24 | 112,949 | 10,025 | 5,61 |
| 2 | 6,33 | 63,966 | 4,030 | 2,26 |
| 3 | 6,44 | 1719,292 | 164,553 | 92,13 |
| Total: | | 1896,206 | 178,608 | 100,00 |

ESI (m/z) (CC-28-798)



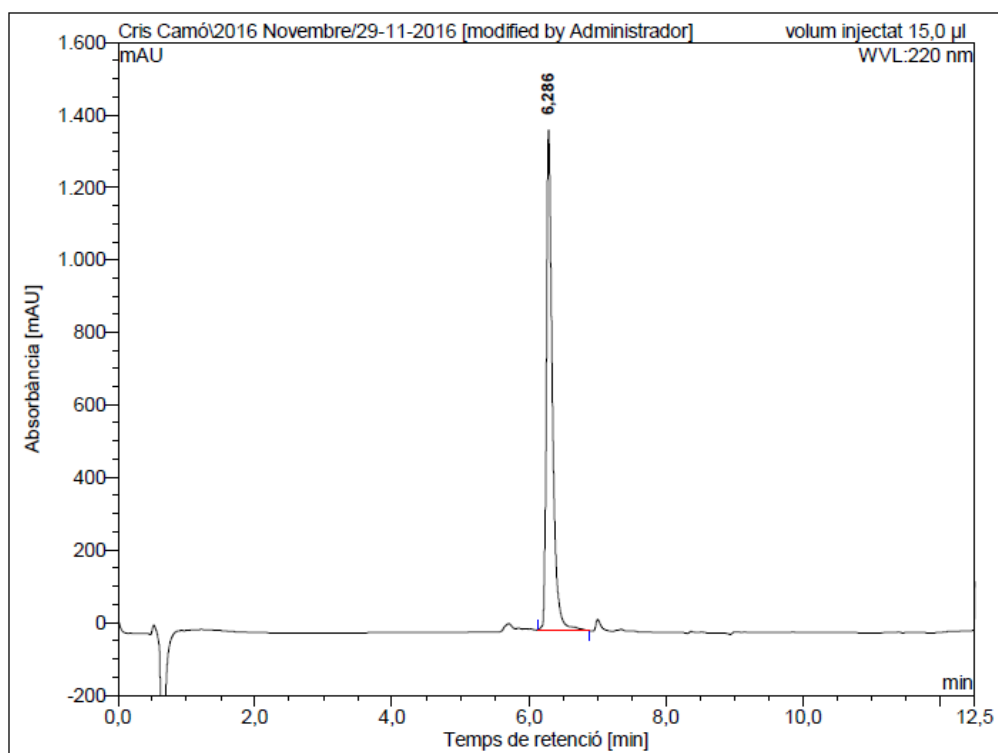
| |
|-------------------------|
| $[M+H]^+ = 1590.2$ |
| $[M+Na]^+ = 1612.2$ |
| $[M+2H]^{2+} = 796.1$ |
| $[M+H+Na]^{2+} = 806.6$ |
| $[M+2Na]^{2+} = 817.6$ |

Fmoc-Lys-Lys-Lys-Leu-Lys-Trp-Lys-Leu-Lys-Gln-OH

Chemical Formula: $C_{79}H_{124}N_{18}O_{14}$

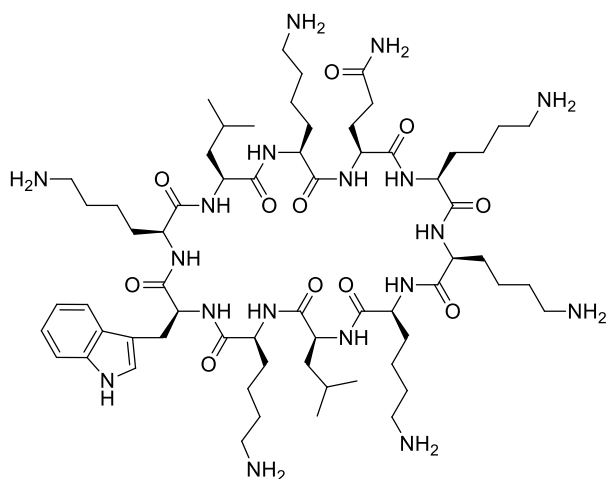
Exact Mass: 1548,9544

Molecular Weight: 1549,9421

HPLC ($\lambda = 220 \text{ nm}$) (CC-28-876)

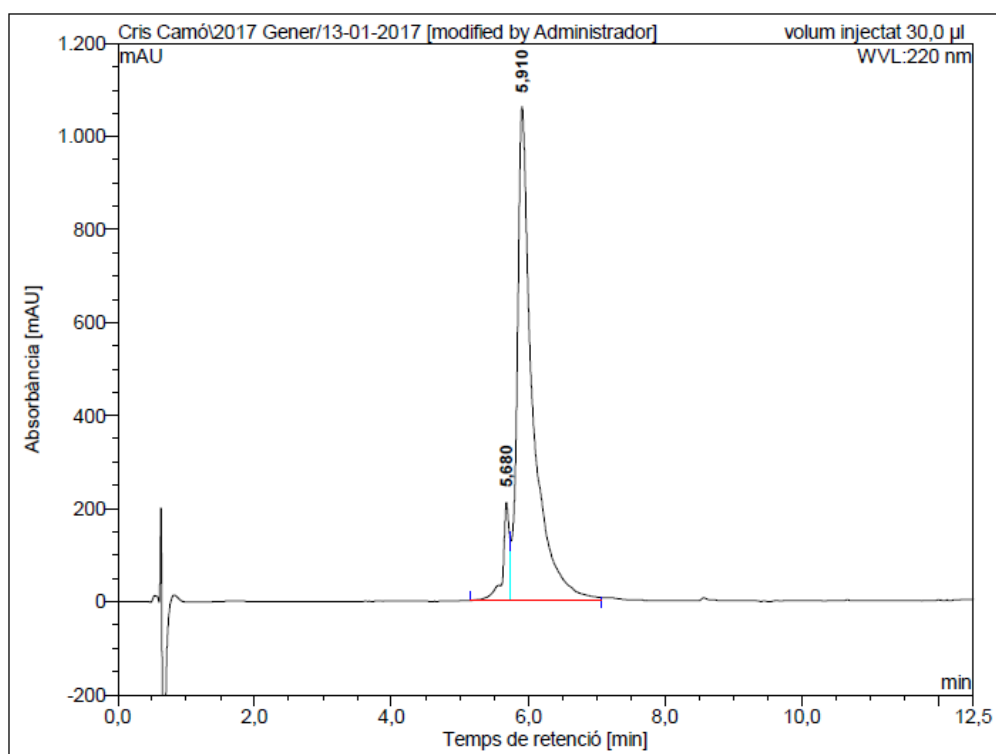
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,29 | 1379,335 | 138,903 | 100,00 |
| Total: | | 1379,335 | 138,903 | 100,00 |

c(Lys-Lys-Lys-Leu-Lys-Trp-Lys-Leu-Lys-Gln) (BPC908W)

Chemical Formula: $C_{64}H_{112}N_{18}O_{11}$

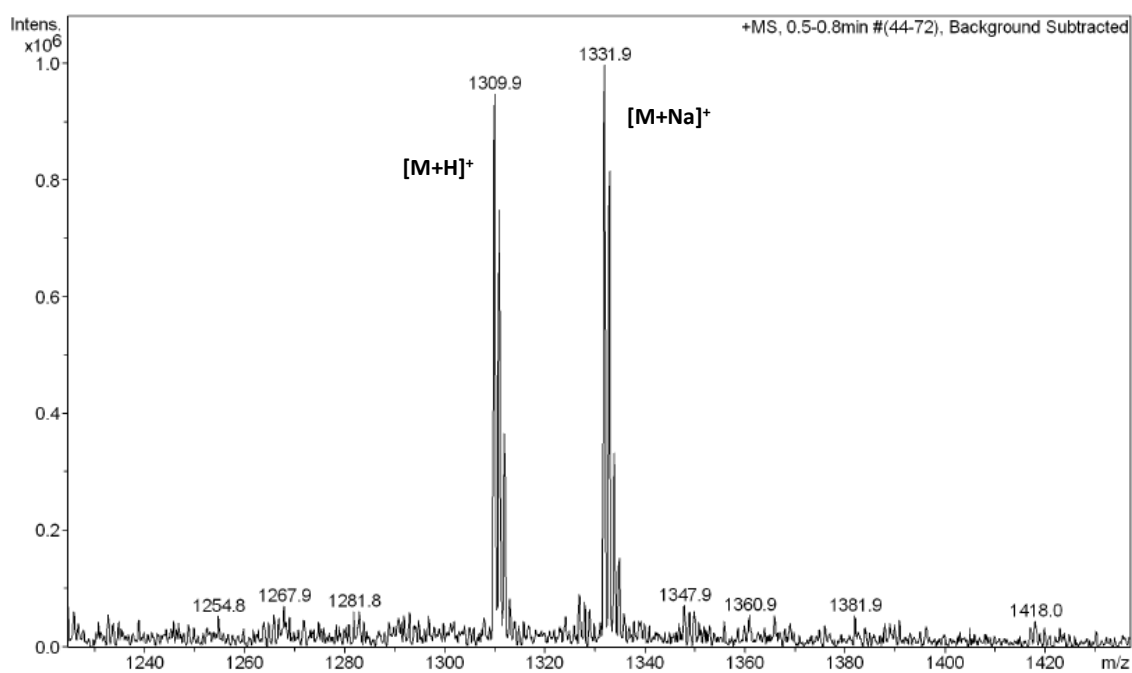
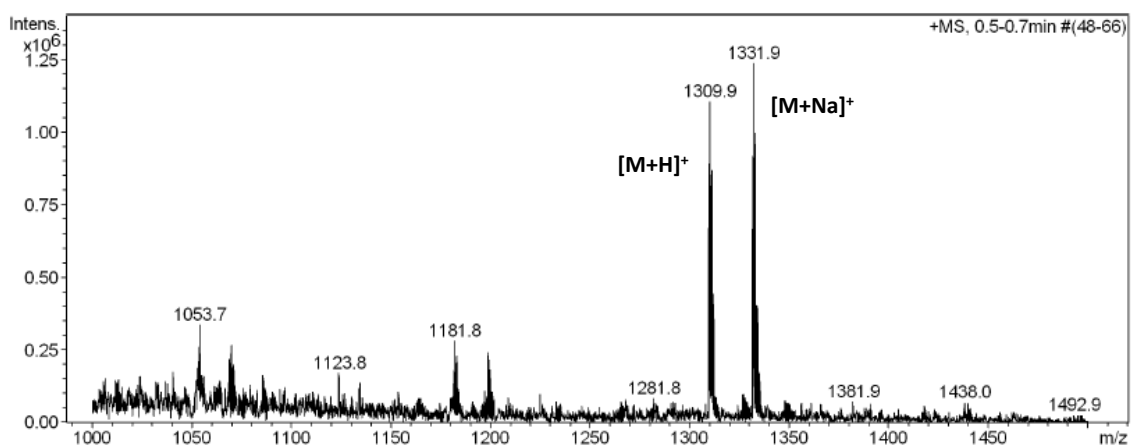
Exact Mass: 1308,8758

Molecular Weight: 1309,6881

HPLC ($\lambda = 220 \text{ nm}$) (CC-28-929)

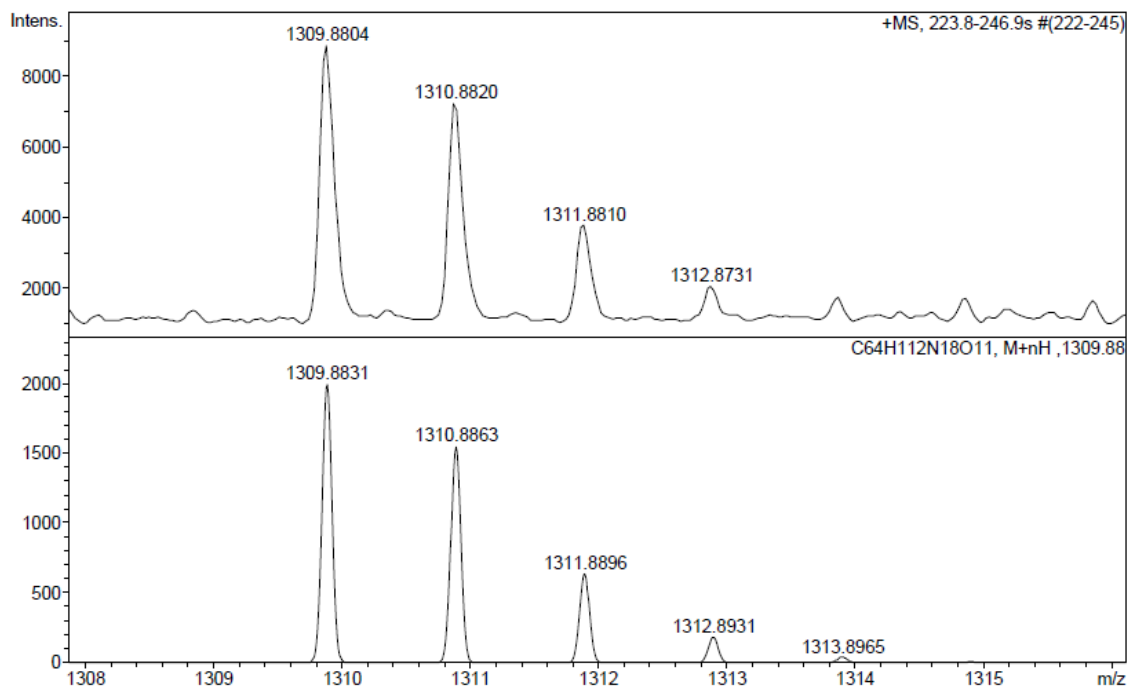
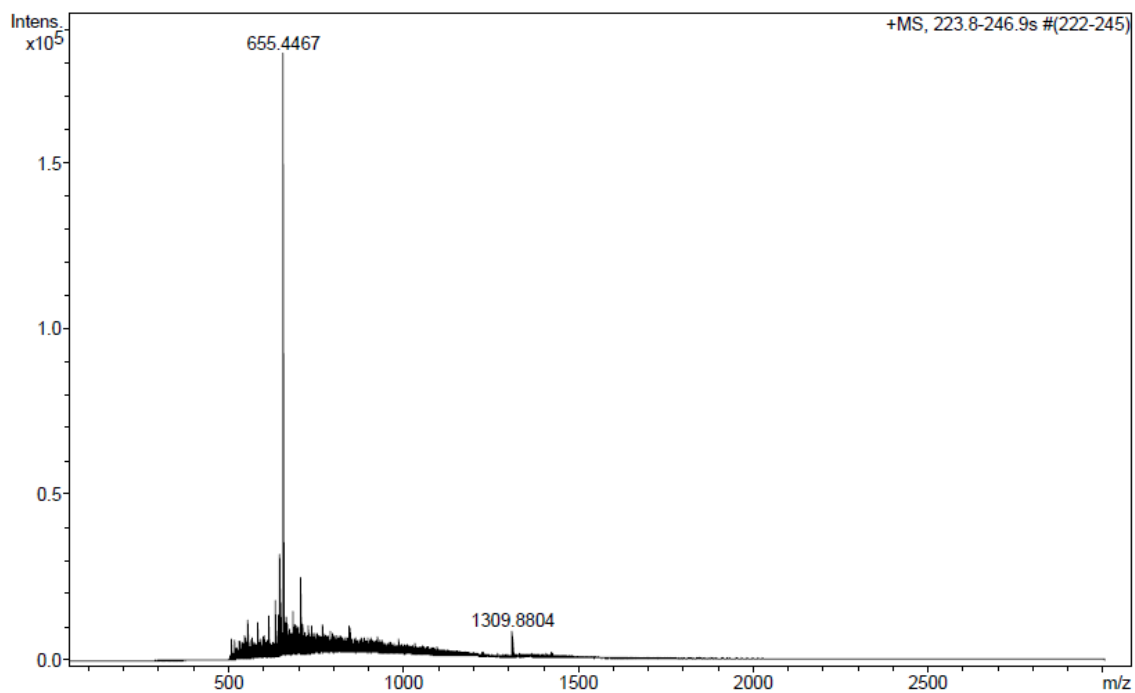
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 5,68 | 210,275 | 23,414 | 7,80 |
| 2 | 5,91 | 1061,206 | 276,850 | 92,20 |
| Total: | | 1271,481 | 300,263 | 100,00 |

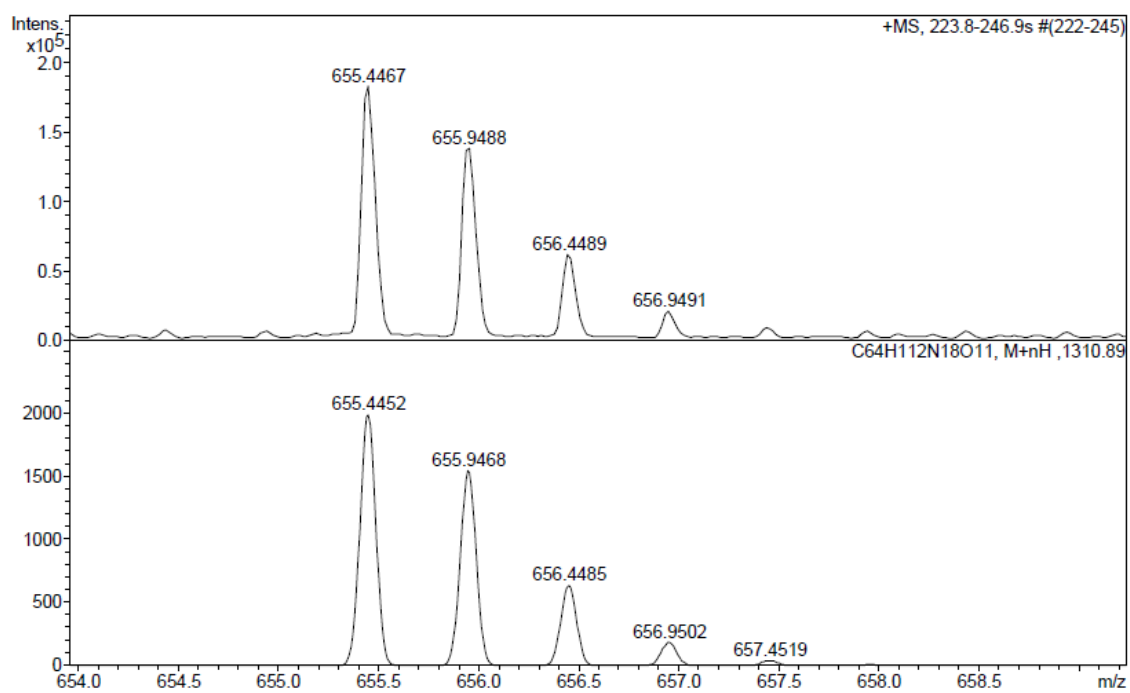
ESI (m/z) (CC-28-929)



| |
|--------------------|
| $[M+H]^+ = 1309.9$ |
|--------------------|

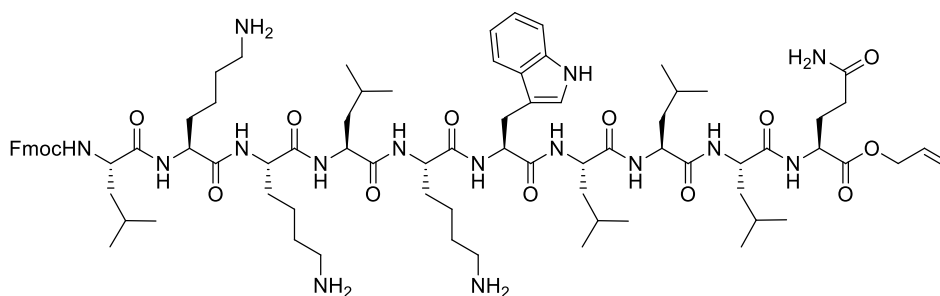
| |
|---------------------|
| $[M+Na]^+ = 1331.9$ |
|---------------------|

HRMS (ESI) (m/z) (CC-28)



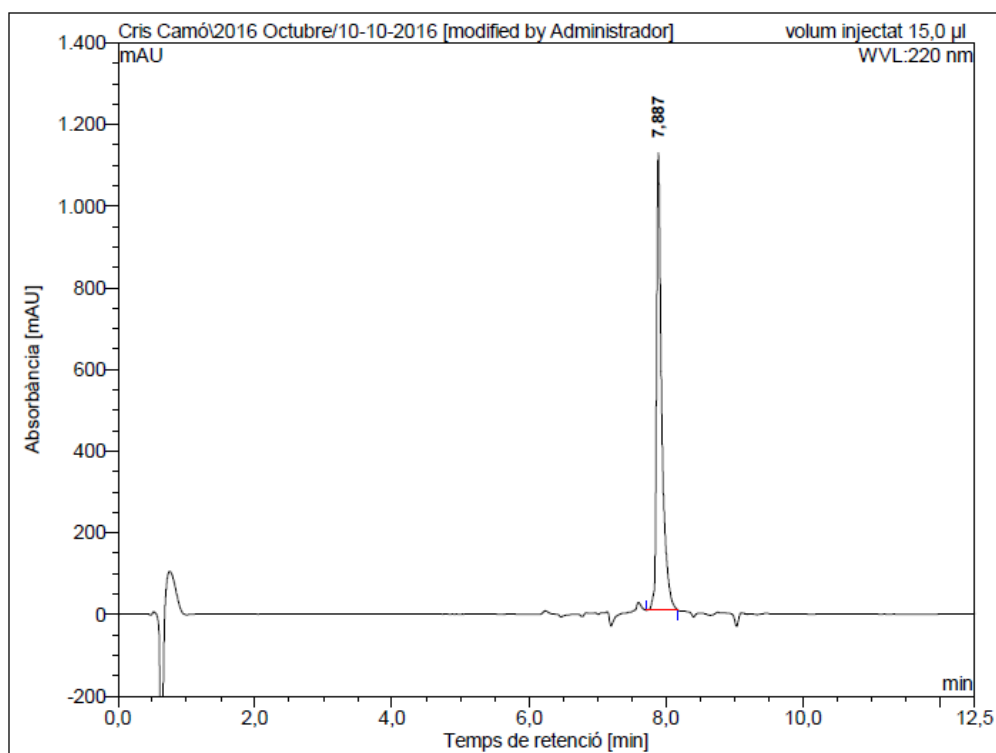
| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₃ N ₁₈ O ₁₁ | 1309.8831 | 1309.8804 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₄ N ₁₈ O ₁₁ | 655.4452 | 655.4467 |

Fmoc-Leu-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OAll

Chemical Formula: $C_{82}H_{125}N_{15}O_{14}$

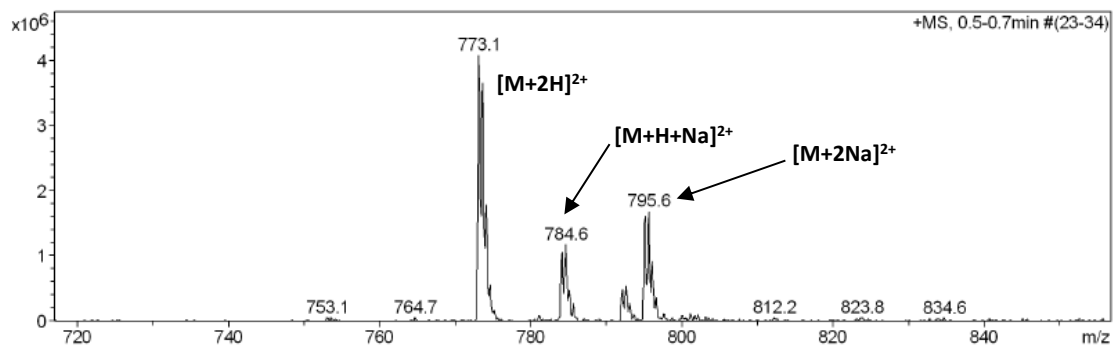
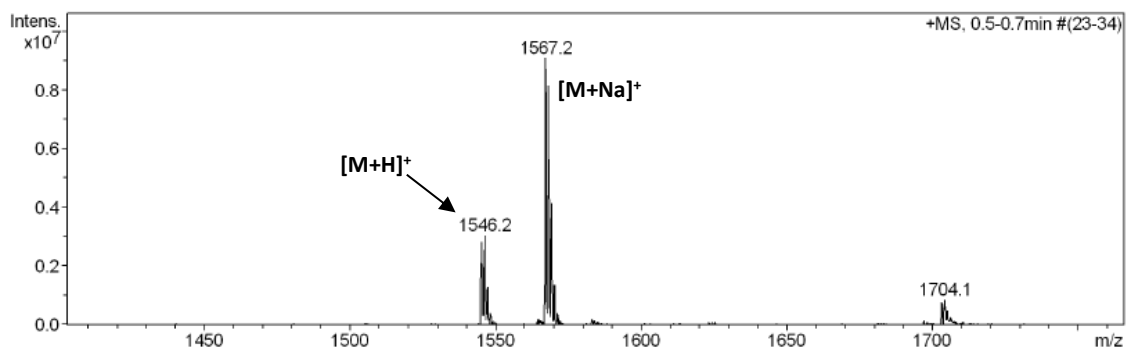
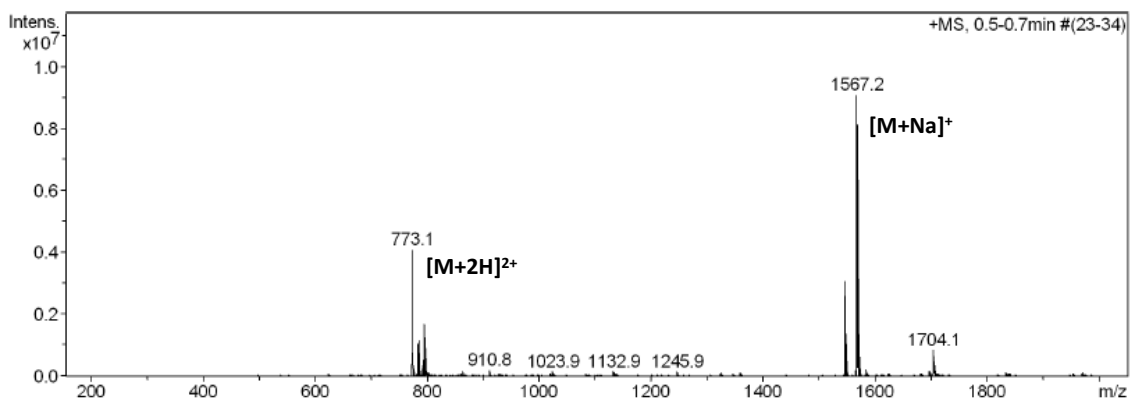
Exact Mass: 1543,9530

Molecular Weight: 1544,9620

HPLC ($\lambda = 220 \text{ nm}$) (CC-29-798)

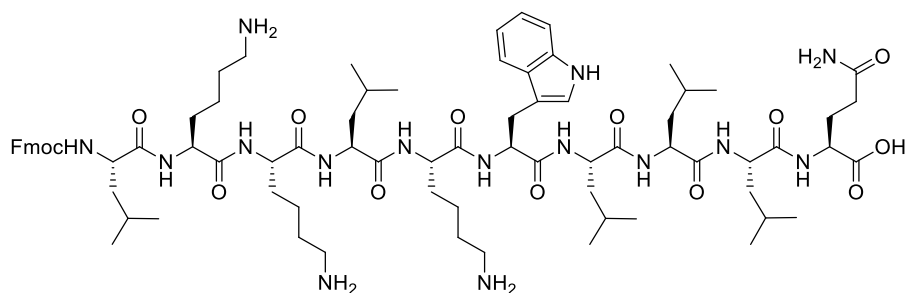
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,89 | 1121,148 | 99,843 | 100,00 |
| Total: | | 1121,148 | 99,843 | 100,00 |

ESI (m/z) (CC-29-798)



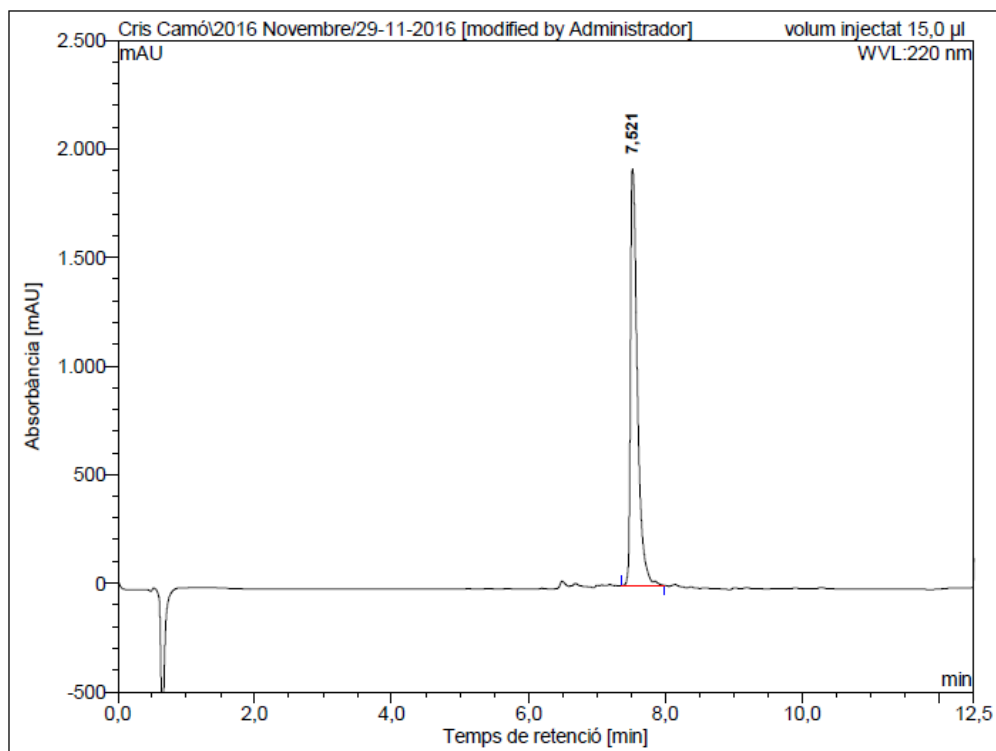
| |
|-------------------------|
| $[M+H]^+ = 1545.2$ |
| $[M+Na]^+ = 1567.2$ |
| $[M+2H]^{2+} = 773.1$ |
| $[M+H+Na]^{2+} = 784.6$ |
| $[M+2Na]^{2+} = 795.6$ |

Fmoc-Leu-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln-OH

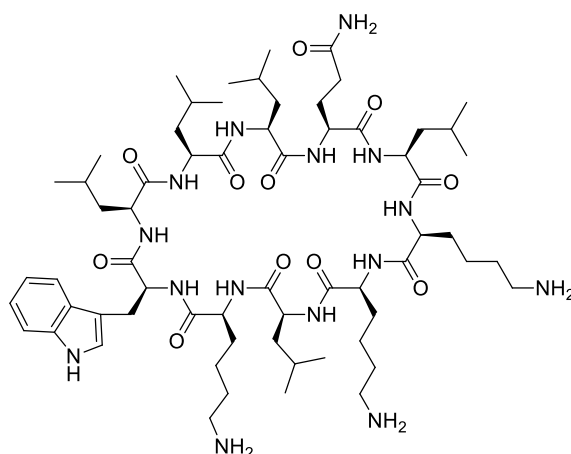
Chemical Formula: $C_{79}H_{121}N_{15}O_{14}$

Exact Mass: 1503,9217

Molecular Weight: 1504,8981

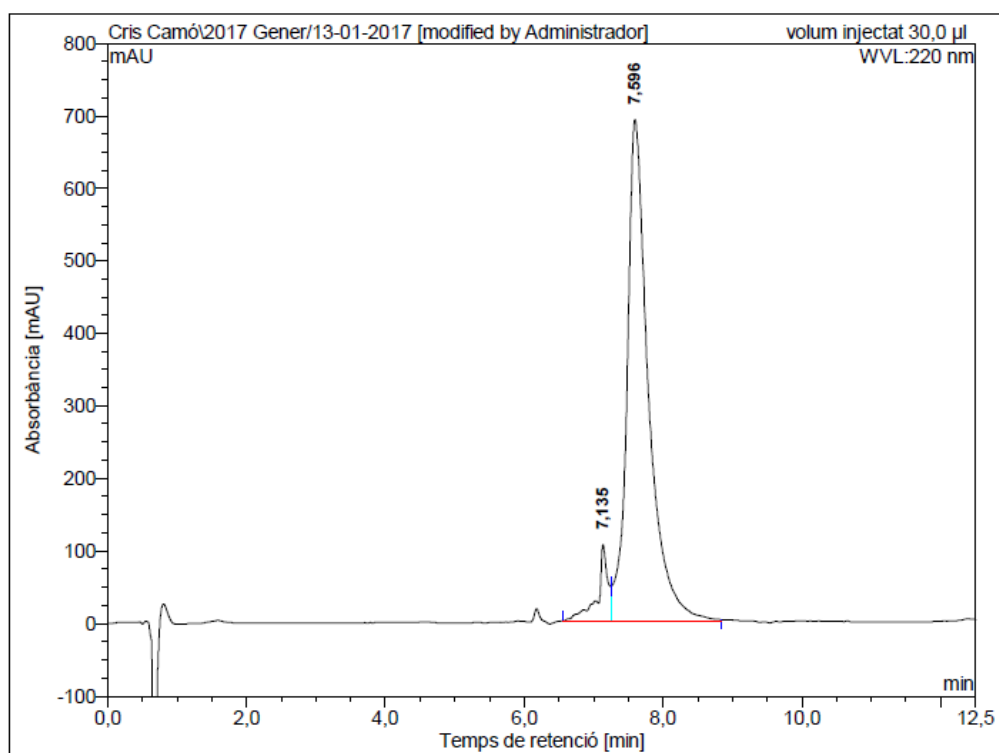
HPLC ($\lambda = 220 \text{ nm}$) (CC-29-876)

| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,52 | 1919,795 | 227,610 | 100,00 |
| Total: | | 1919,795 | 227,610 | 100,00 |

c(Leu-Lys-Lys-Leu-Lys-Trp-Leu-Leu-Leu-Gln) (**BPC910W**)Chemical Formula: $C_{64}H_{109}N_{15}O_{11}$

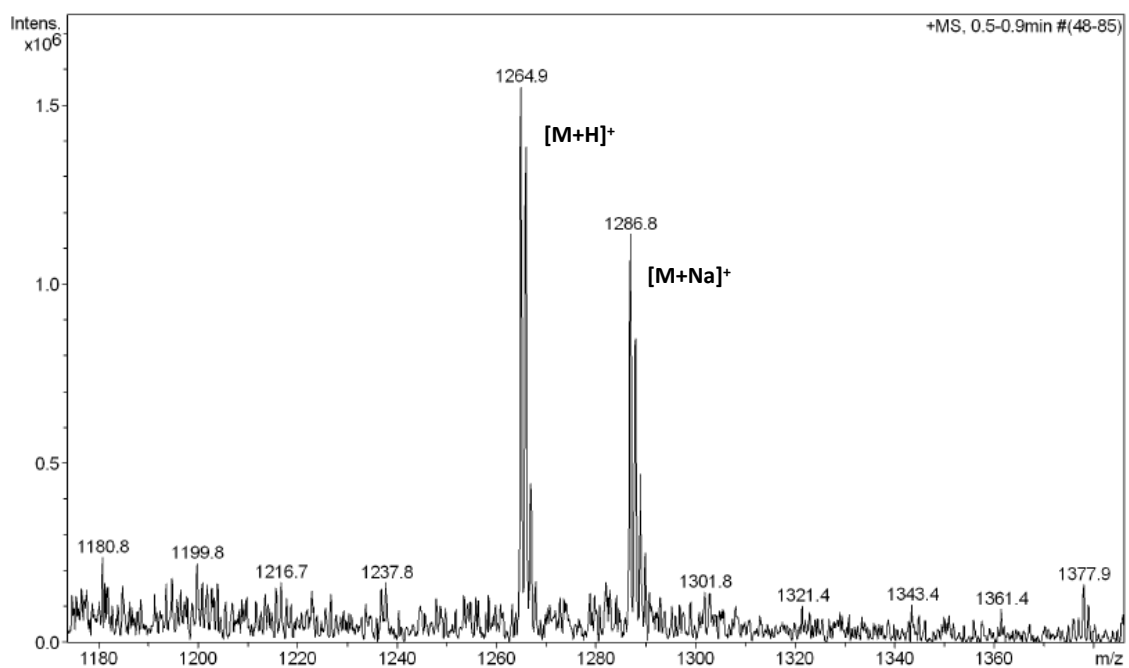
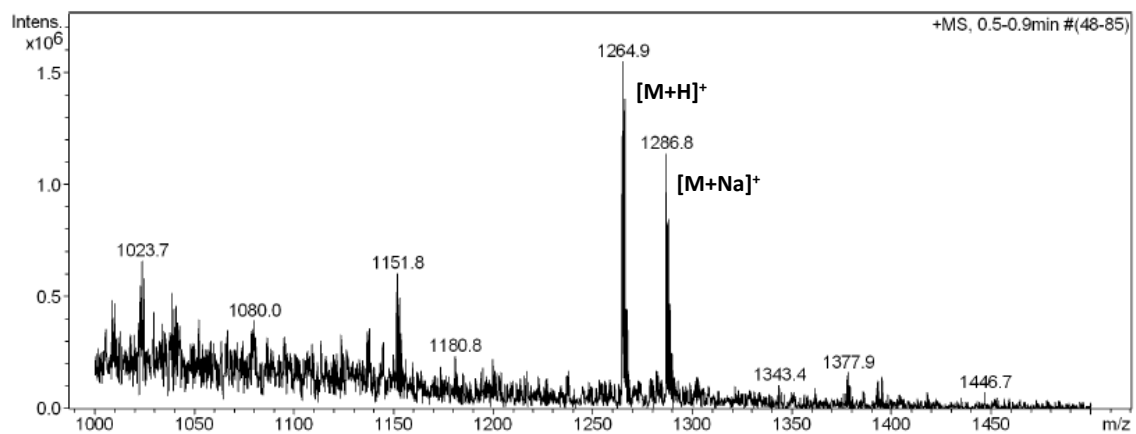
Exact Mass: 1263,8431

Molecular Weight: 1264,6442

HPLC ($\lambda = 220 \text{ nm}$) (CC-29-929)

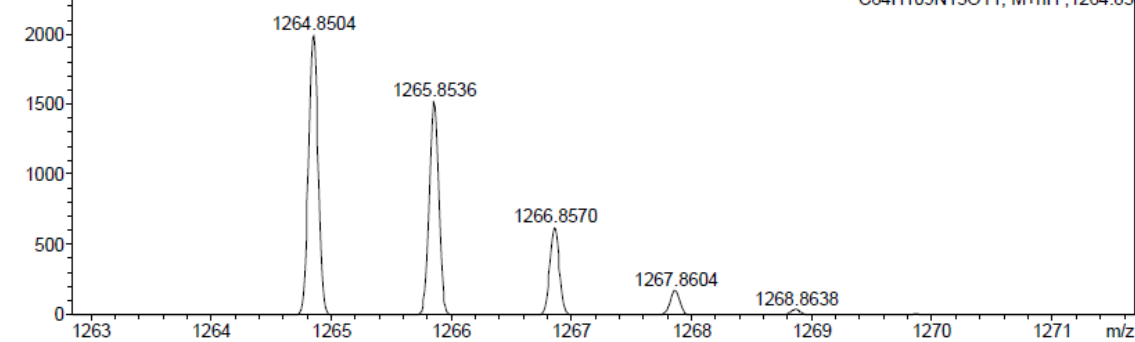
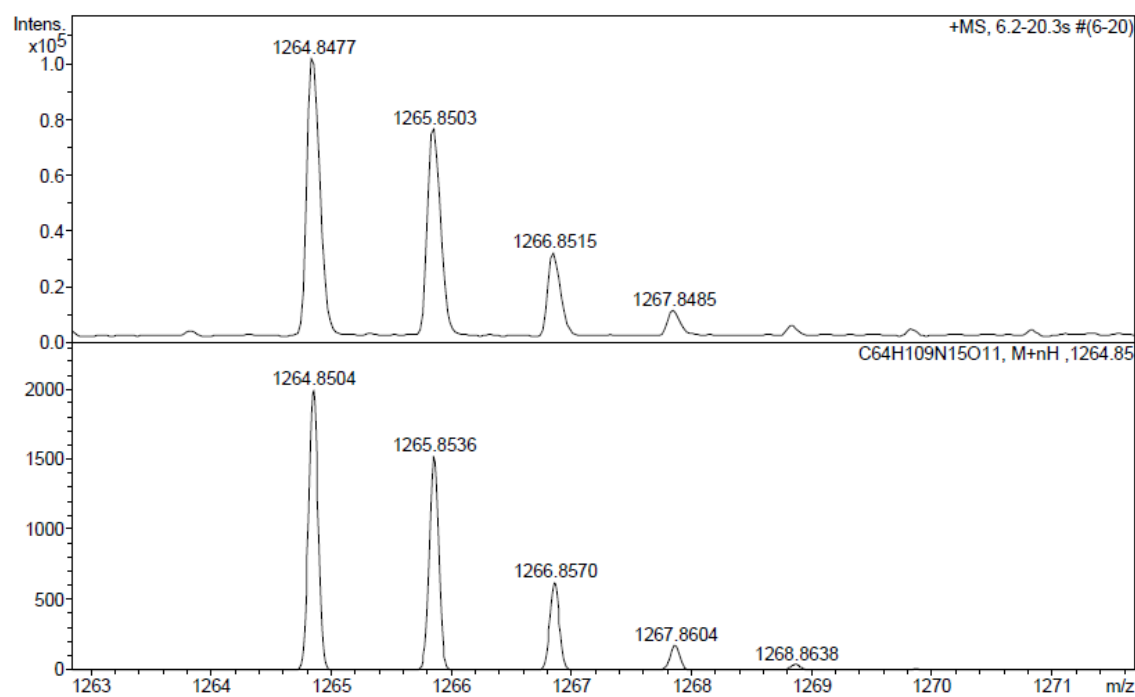
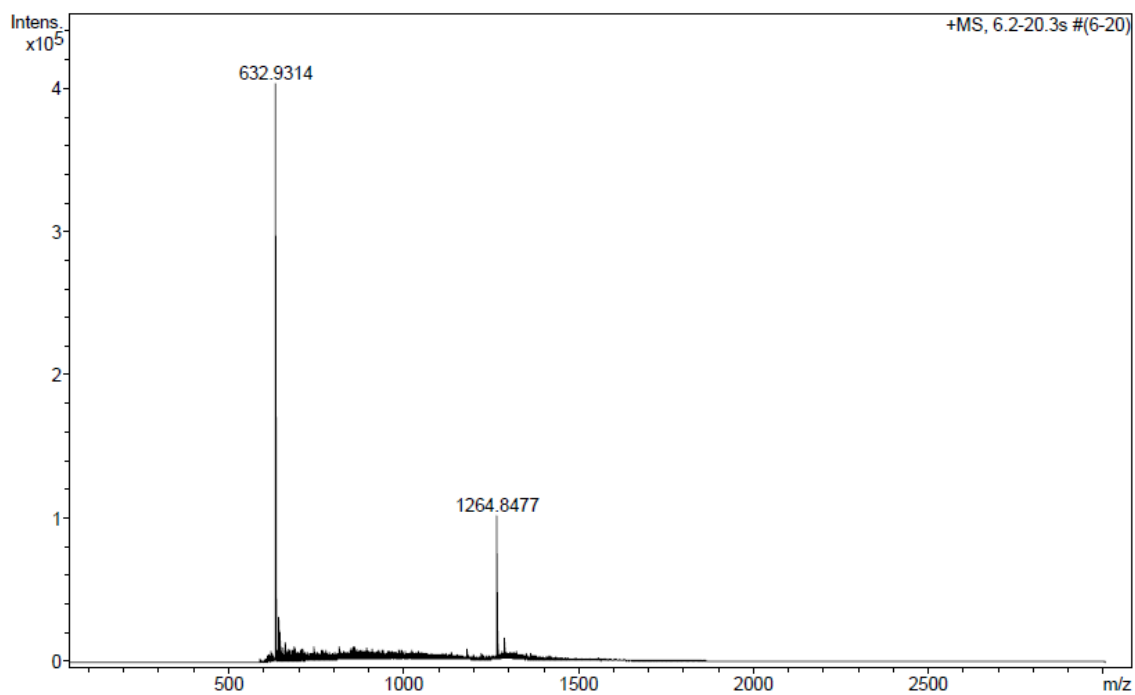
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 7,13 | 105,442 | 18,842 | 7,08 |
| 2 | 7,60 | 691,730 | 247,336 | 92,92 |
| Total: | | 797,171 | 266,179 | 100,00 |

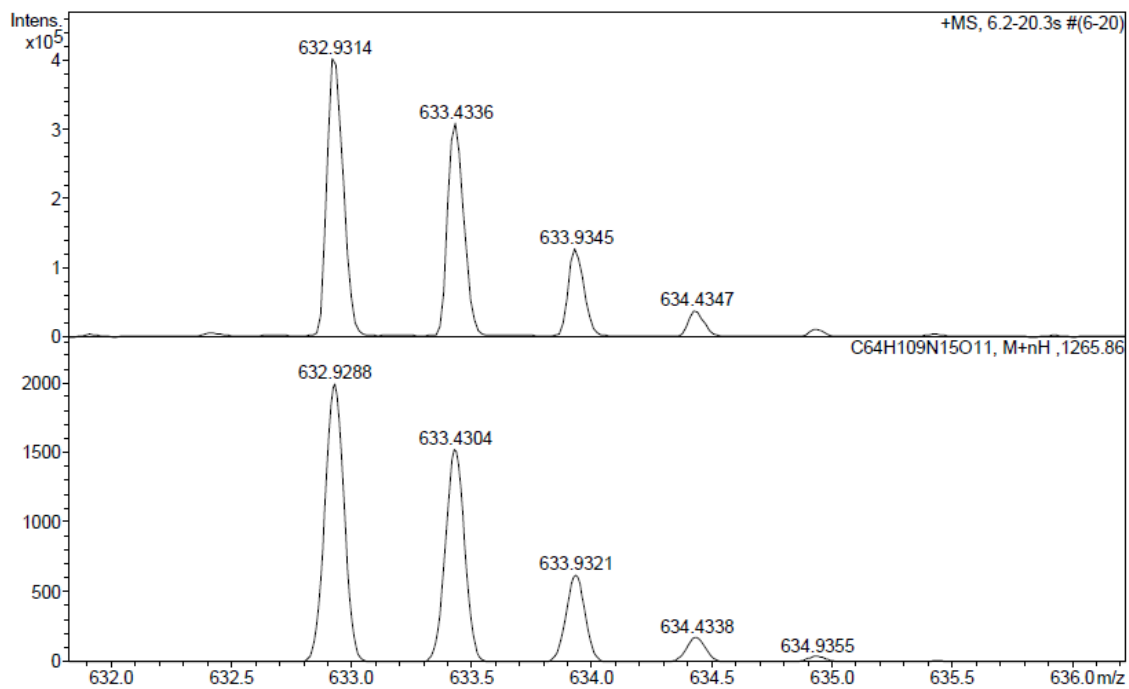
ESI (m/z) (CC-29-929)



| |
|-----------------------------|
| [M+H] ⁺ = 1264.9 |
|-----------------------------|

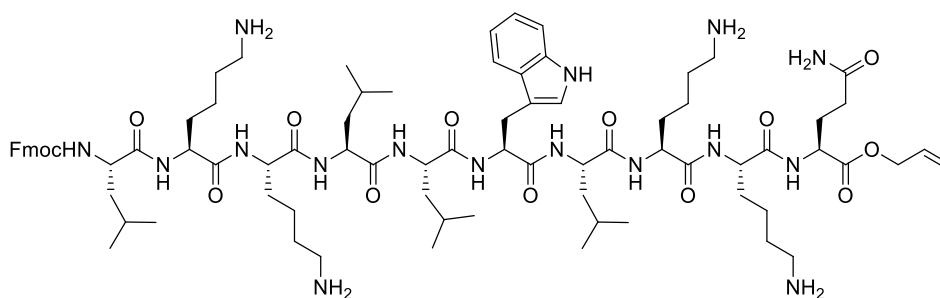
| |
|------------------------------|
| [M+Na] ⁺ = 1286.8 |
|------------------------------|

HRMS (ESI) (m/z) (CC-29)



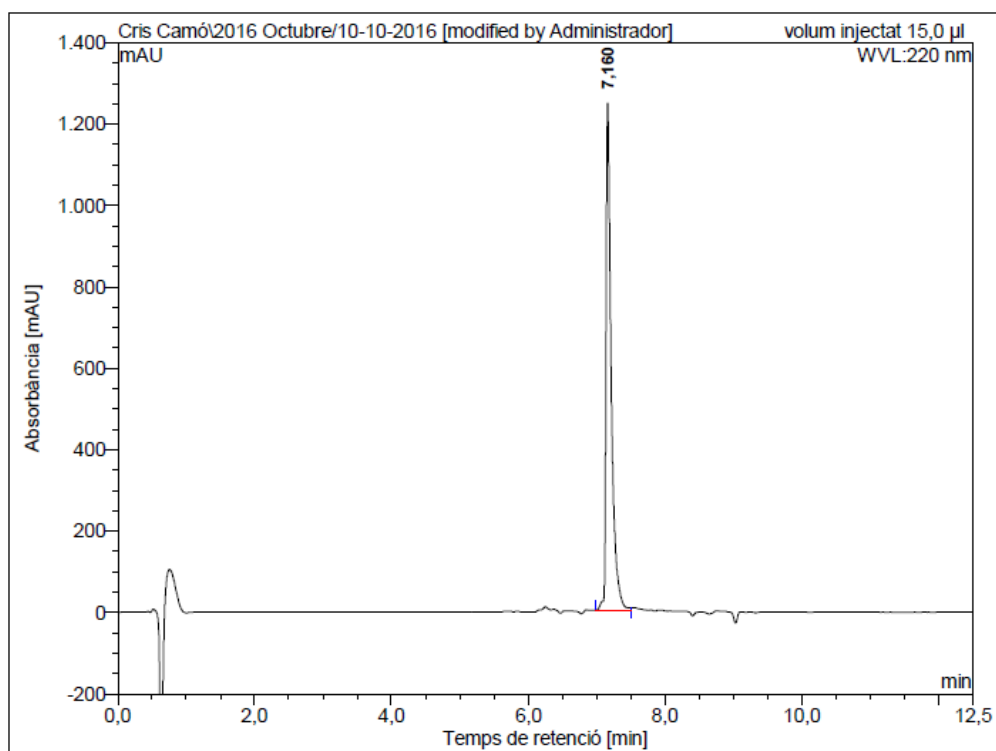
| | Molecular formula | Calculated | Found |
|---------------|-----------------------------|------------|-----------|
| $[M+H]^+$ | $C_{64}H_{110}N_{15}O_{11}$ | 1264.8504 | 1264.8477 |
| $[M+2H]^{2+}$ | $C_{64}H_{111}N_{15}O_{11}$ | 632.9288 | 632.9314 |

Fmoc-Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Lys-Gln-OAll

Chemical Formula: $C_{82}H_{126}N_{16}O_{14}$

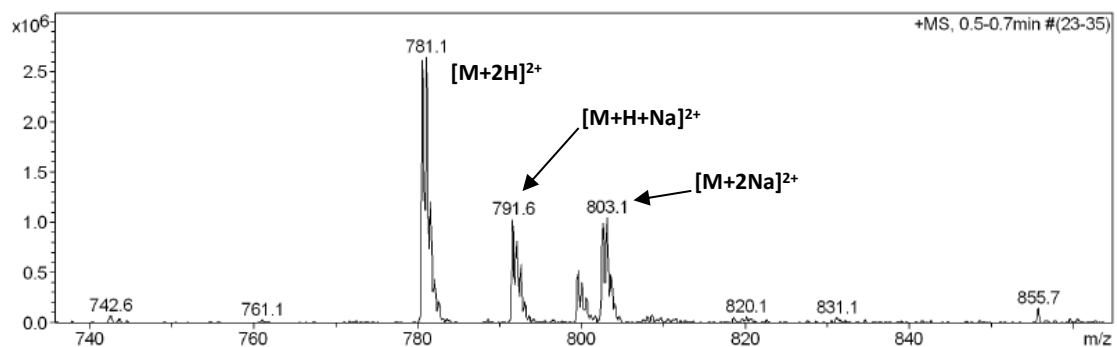
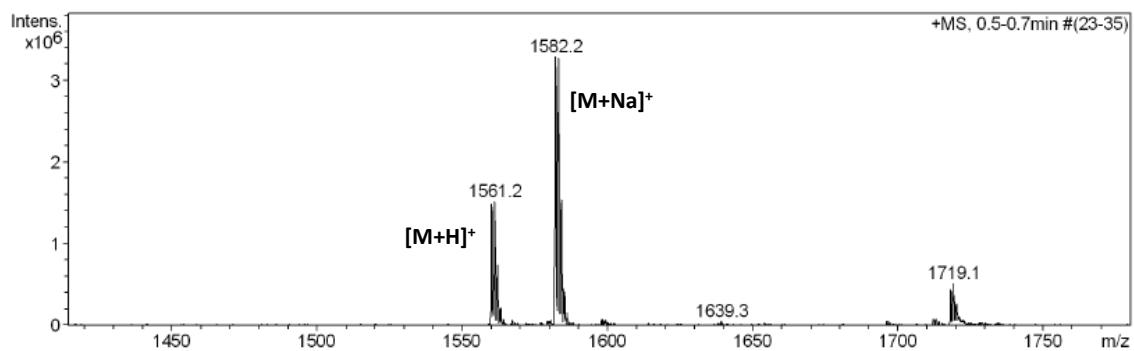
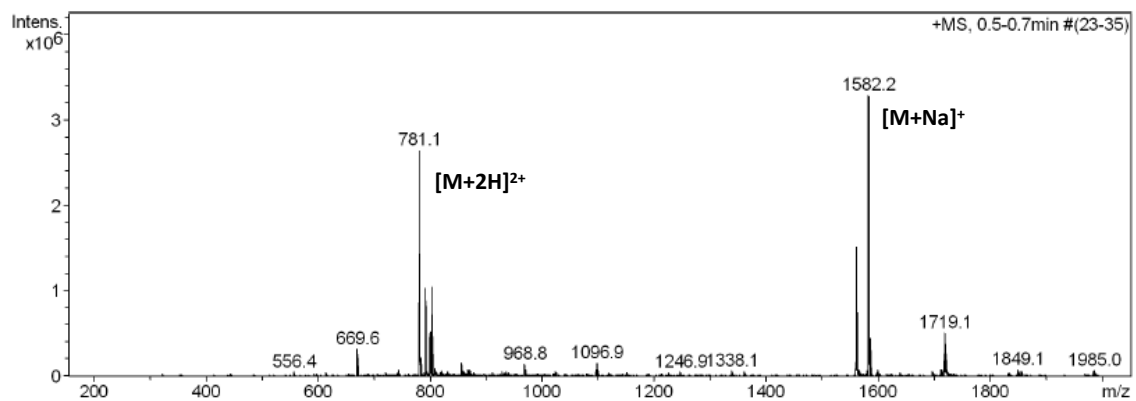
Exact Mass: 1558,9639

Molecular Weight: 1559,9766

HPLC ($\lambda = 220$ nm) (CC-30-798)

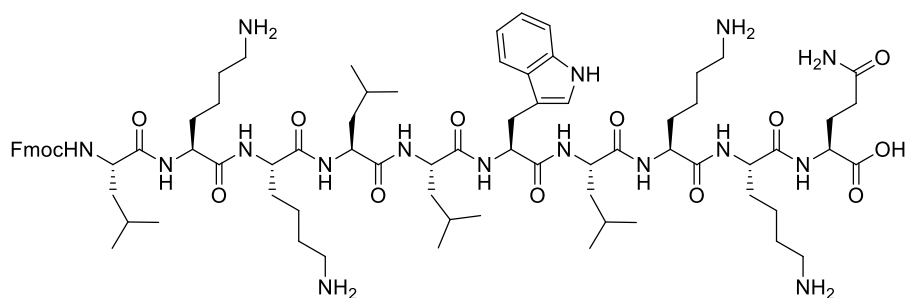
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,16 | 1246,789 | 110,174 | 100,00 |
| Total: | | 1246,789 | 110,174 | 100,00 |

ESI (m/z) (CC-30-798)



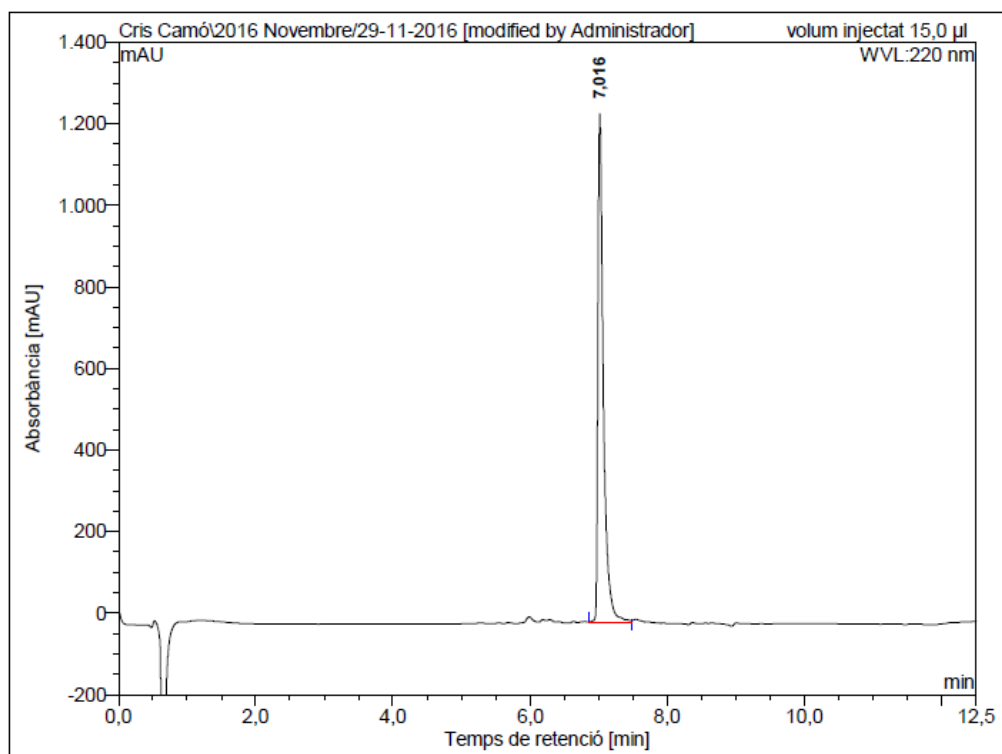
| |
|--------------------------------|
| [M+H] ⁺ = 1560.2 |
| [M+Na] ⁺ = 1582.2 |
| [M+2H] ²⁺ = 781.1 |
| [M+H+Na] ²⁺ = 791.6 |
| [M+2Na] ²⁺ = 803.1 |

Fmoc-Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Lys-Gln-OH

Chemical Formula: $C_{79}H_{122}N_{16}O_{14}$

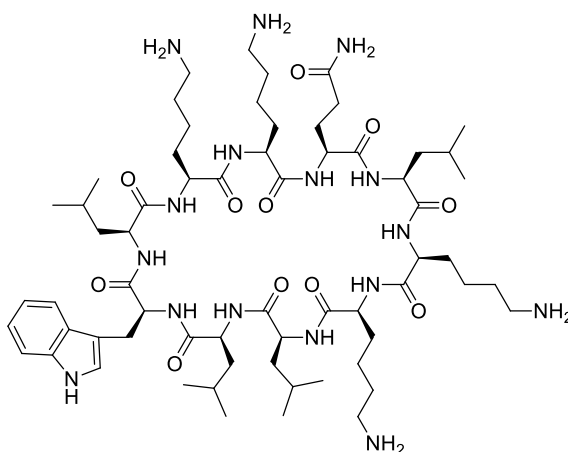
Exact Mass: 1518,9326

Molecular Weight: 1519,9128

HPLC ($\lambda = 220$ nm) (CC-30-876)

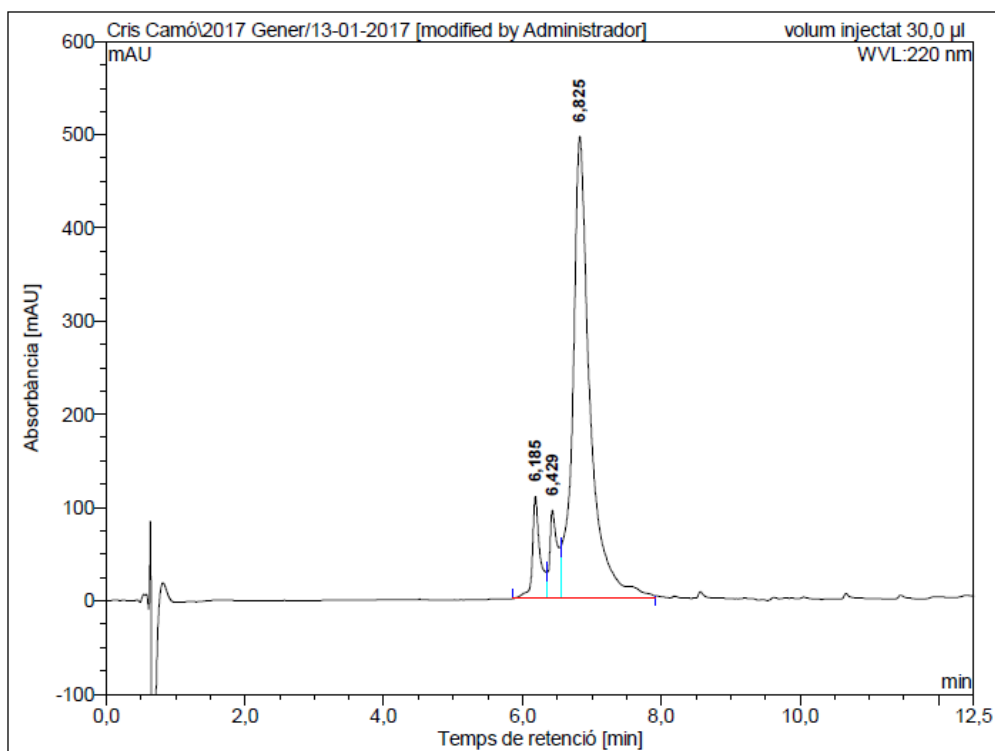
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|--------------------|------------|--------------|-----------------|
| 1 | 7,02 | 1245,555 | 115,334 | 100,00 |
| Total: | | 1245,555 | 115,334 | 100,00 |

c(Leu-Lys-Lys-Leu-Leu-Trp-Leu-Lys-Lys-Gln) (BPC912W)

Chemical Formula: $C_{64}H_{110}N_{16}O_{11}$

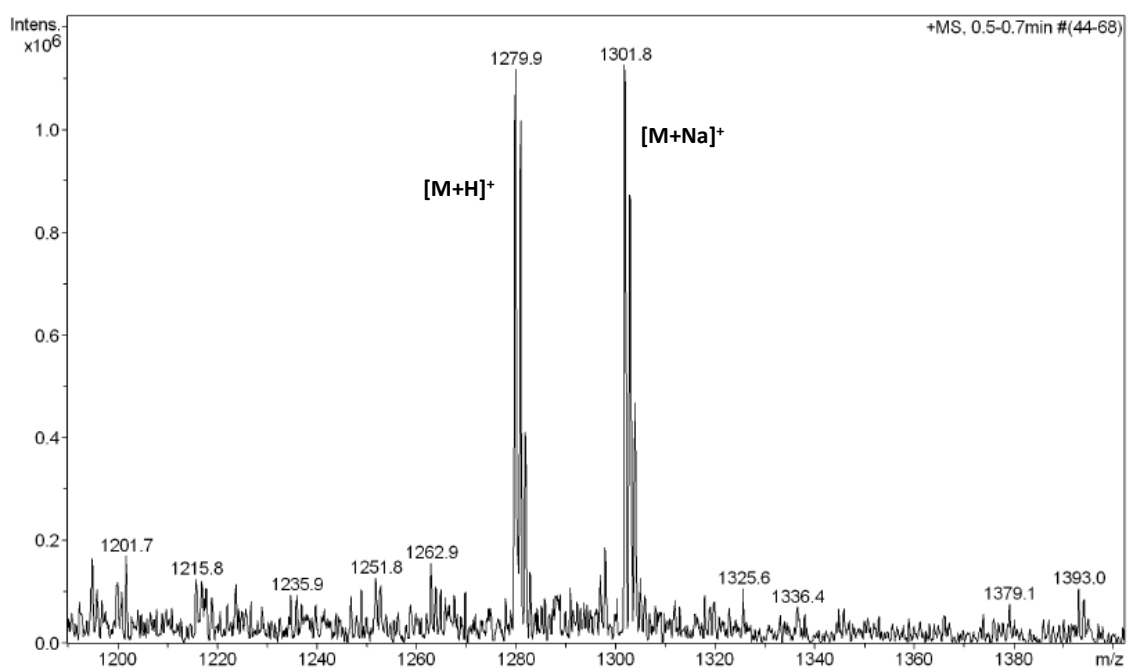
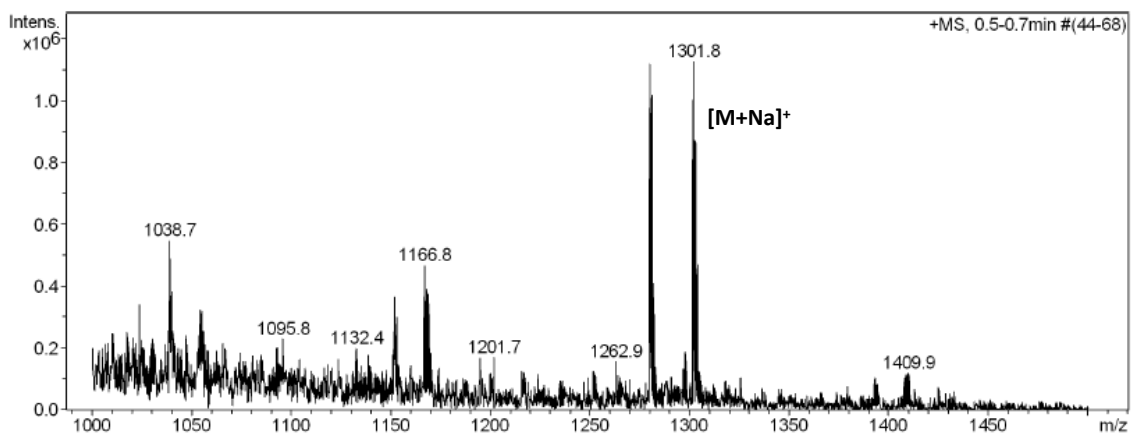
Exact Mass: 1278,8540

Molecular Weight: 1279,6588

HPLC ($\lambda = 220 \text{ nm}$) (CC-30-929)

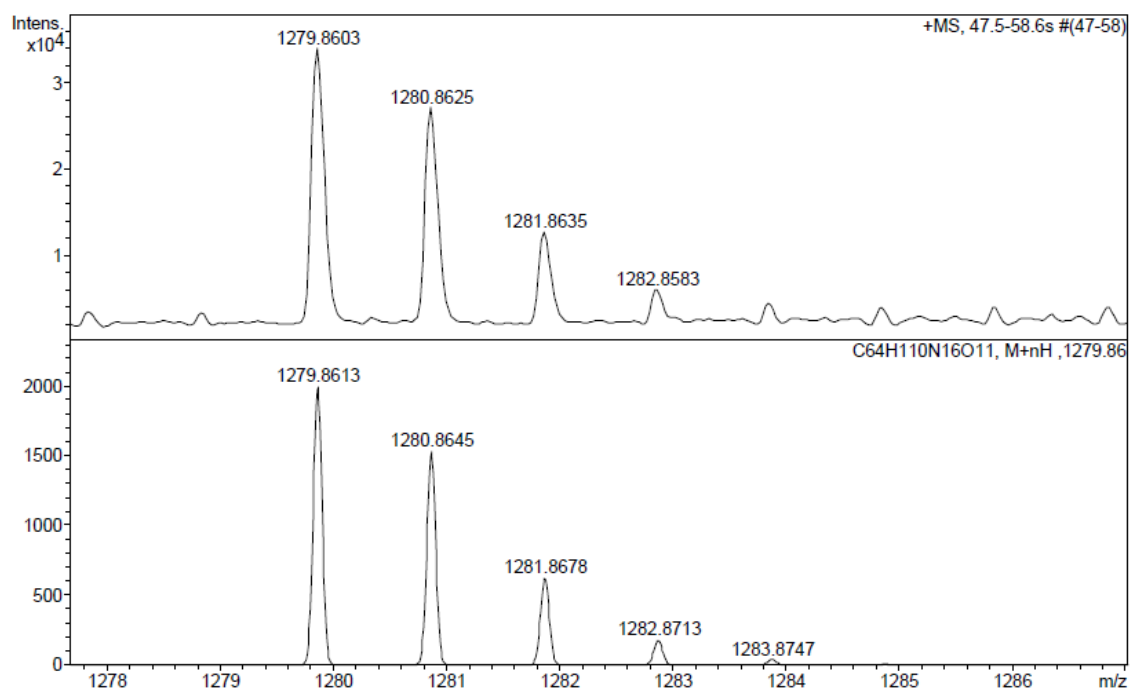
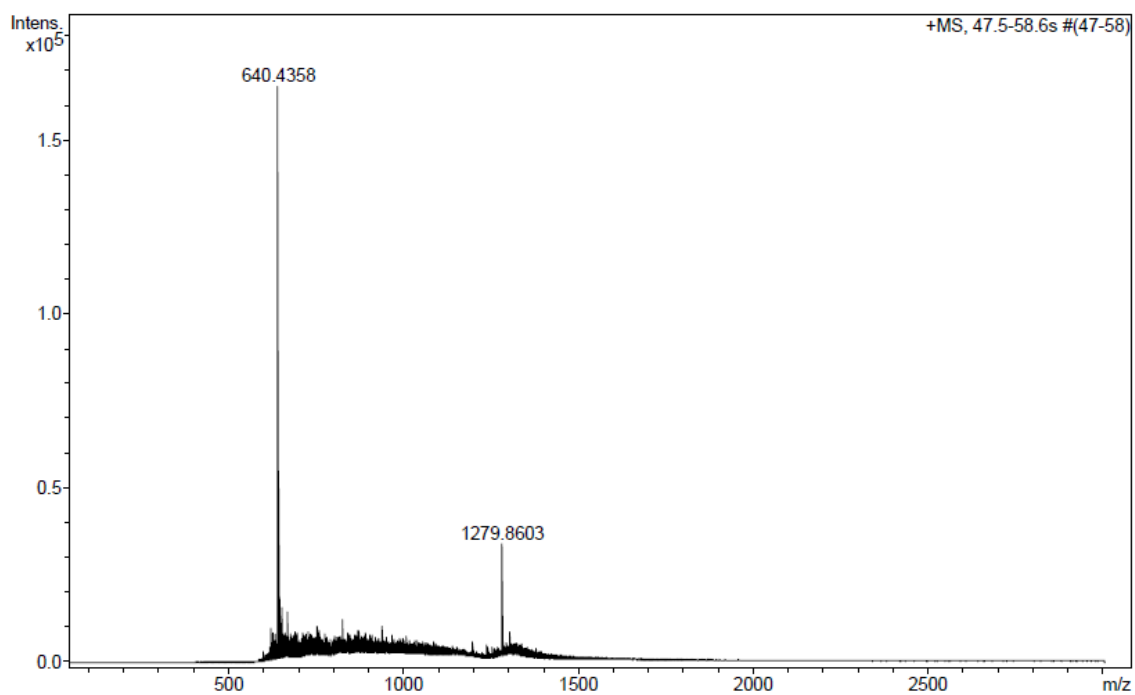
| No. | Temps retenció min | alçada mAU | Area mAU*min | Area relativa % |
|--------|-----------------------|---------------|-----------------|--------------------|
| 1 | 6,19 | 109,764 | 14,536 | 8,55 |
| 2 | 6,43 | 95,011 | 11,893 | 6,99 |
| 3 | 6,82 | 495,949 | 143,591 | 84,46 |
| Total: | | 700,725 | 170,020 | 100,00 |

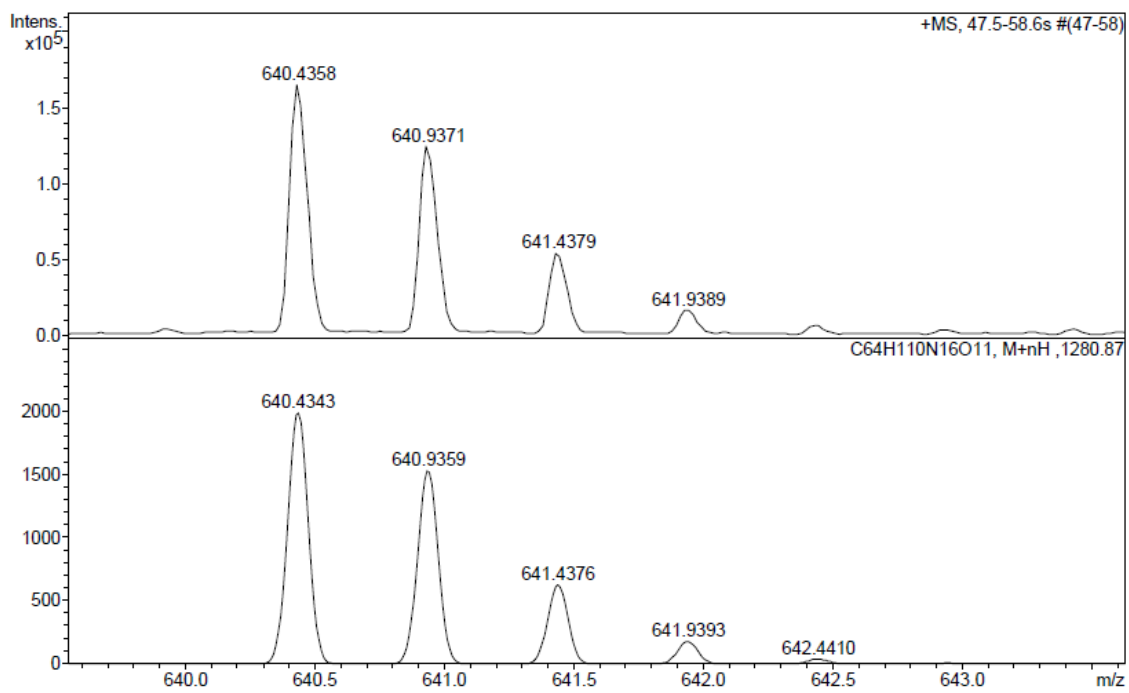
ESI (m/z) (CC-30-929)



| |
|-----------------------------|
| [M+H] ⁺ = 1279.9 |
|-----------------------------|

| |
|------------------------------|
| [M+Na] ⁺ = 1301.8 |
|------------------------------|

HRMS (ESI) (m/z) (CC-30)



| | Molecular formula | Calculated | Found |
|----------------------|--|------------|-----------|
| [M+H] ⁺ | C ₆₄ H ₁₁₁ N ₁₆ O ₁₁ | 1279.8613 | 1279.8603 |
| [M+2H] ²⁺ | C ₆₄ H ₁₁₂ N ₁₆ O ₁₁ | 640.4343 | 640.4358 |