Supporting Information.

Stable Helical Peptoids via Covalent Side Chain to Side Chain Cyclization

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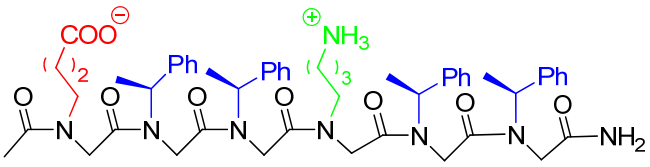
1. General information.

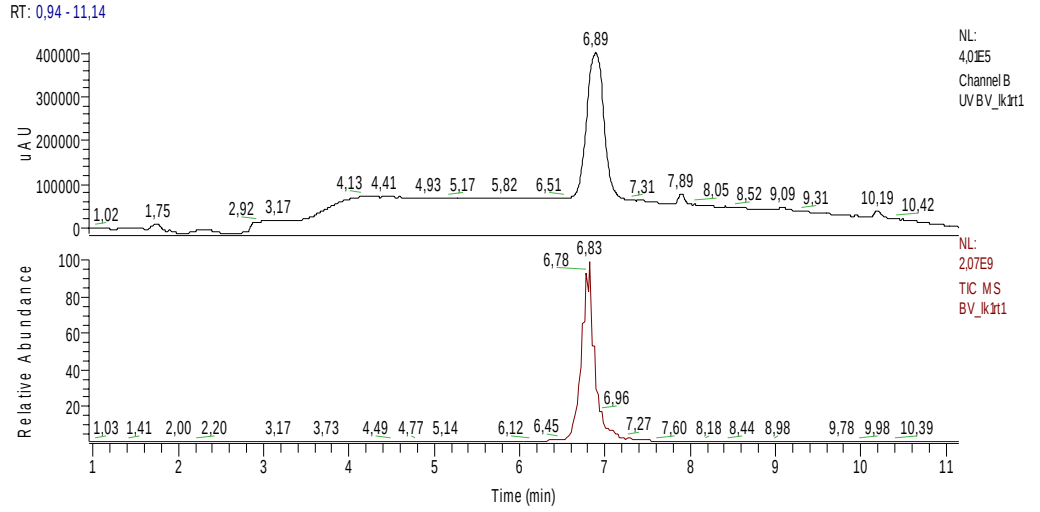
The crude reaction mixture of each peptoid was analyzed by LC-ESI-MS, carried on an Agilent 1100 series binary pump together with a reversed-phase HPLC column (Macherey-Nagel) and a Finnigan Thermoquest LCQ. Peptoids were subsequently purified by reverse-phase HPLC on a Nucleodur C4 Gravity column (125 x 21 mm, Macherey-Nagel) with a linear gradient of A (0.1% HCOOH in H_2O) and B (0.1% HCOOH in MeCN) from 20% of A to 40% of B and a flow rate of 25 mL min^{-1} and were detected at 210 nm using a diode array UV/VIS detector. The identities and purities of the purified peptoids were assessed by LC-ESI-MS. In order to assess the purity of purified peptoids, either UV detector at 210 nm or Corona® Charged Aerosol Detector coupled to the LC-ESI-MS were employed. Following purification, all peptoids were lyophilized and kept at −20 °C.

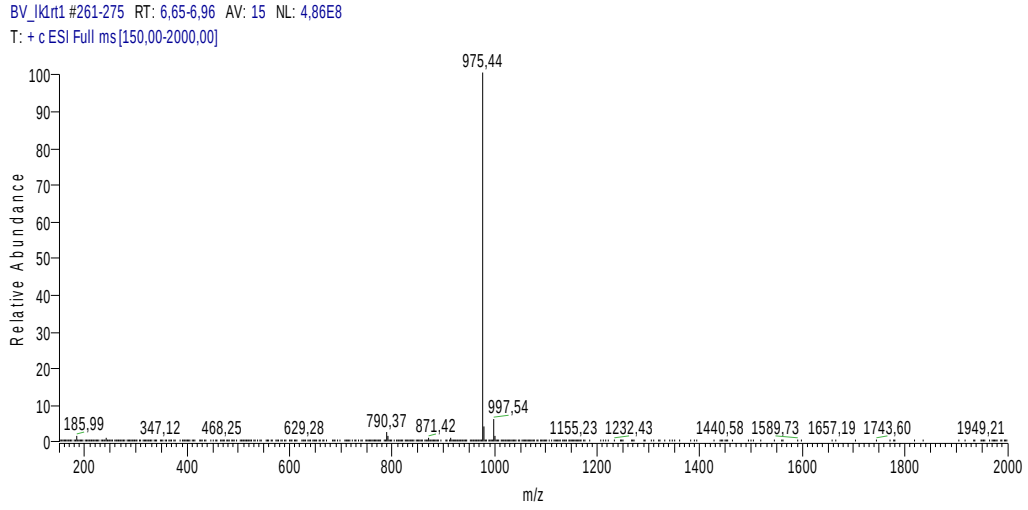
2. LC-MS characterization.

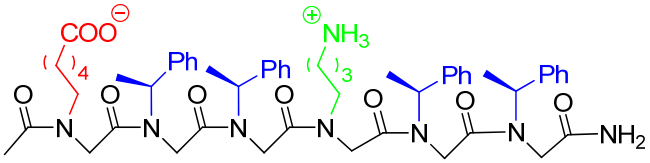


(1)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
975.5	975.4

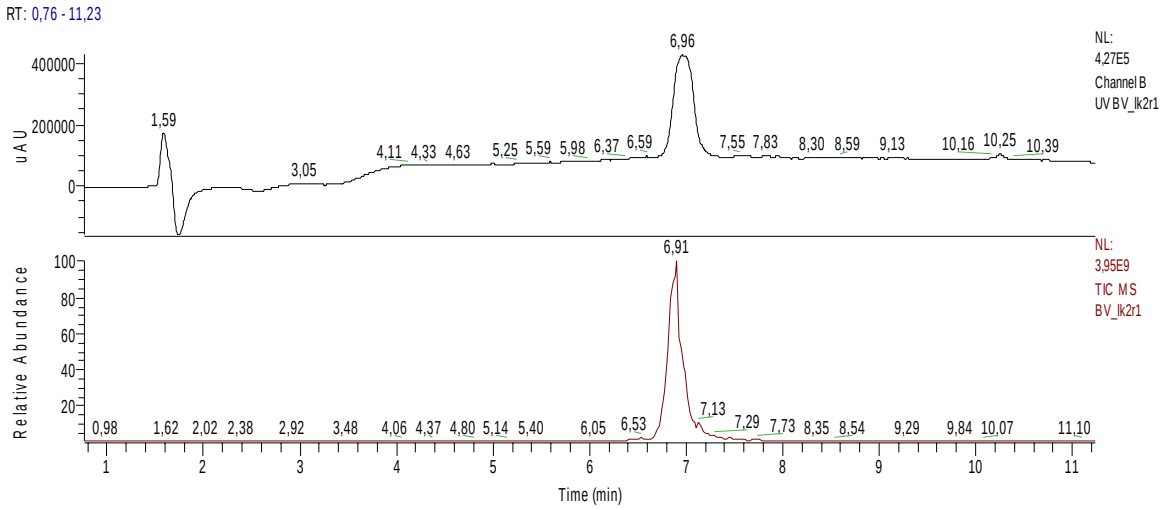


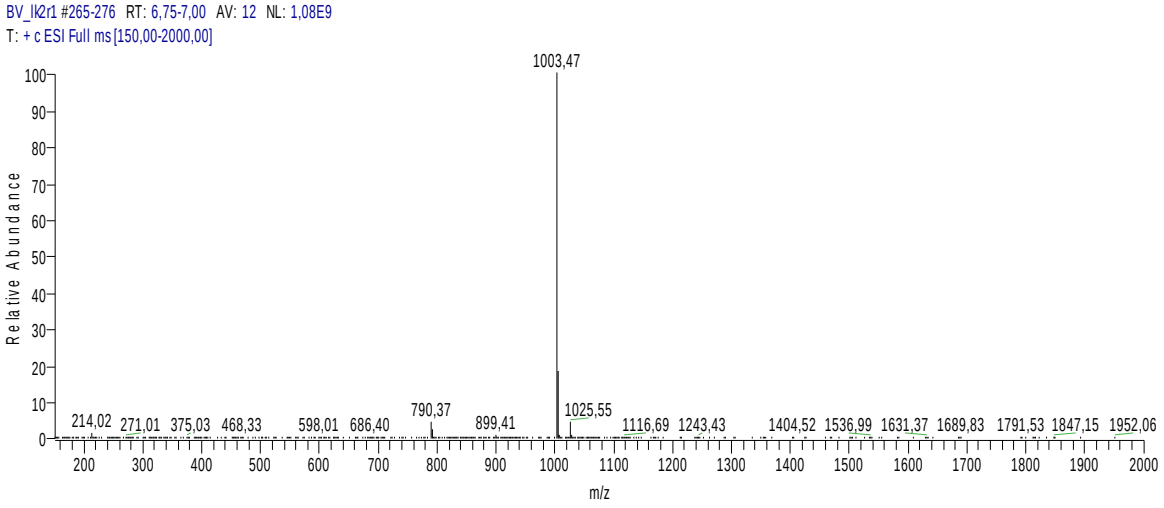


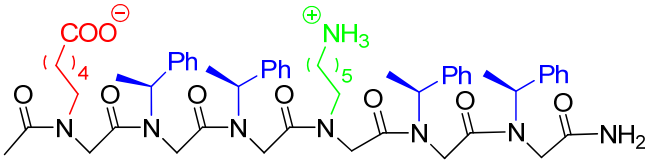


(2)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
1003.6	1003.5







(3)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
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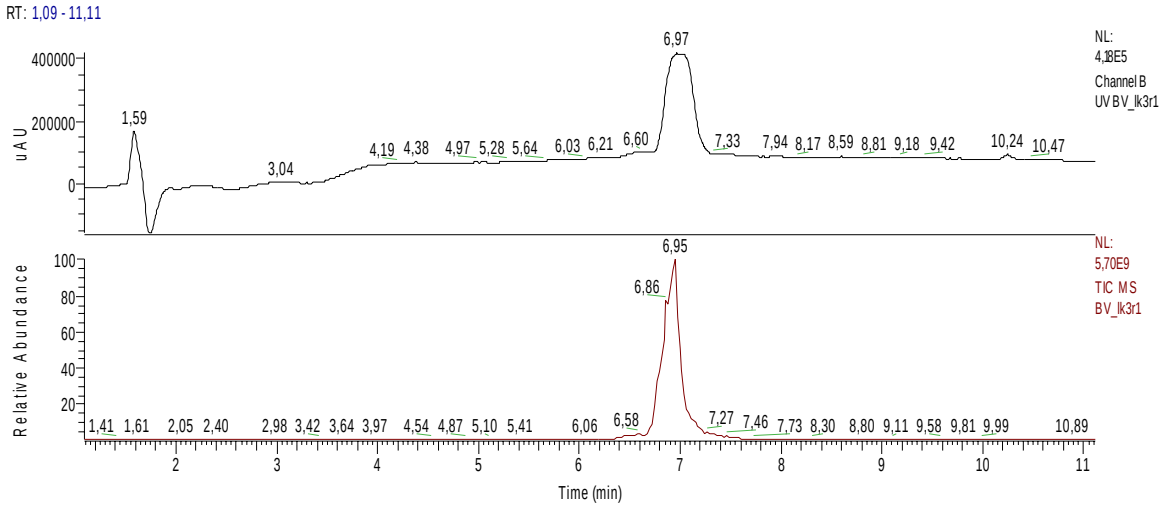
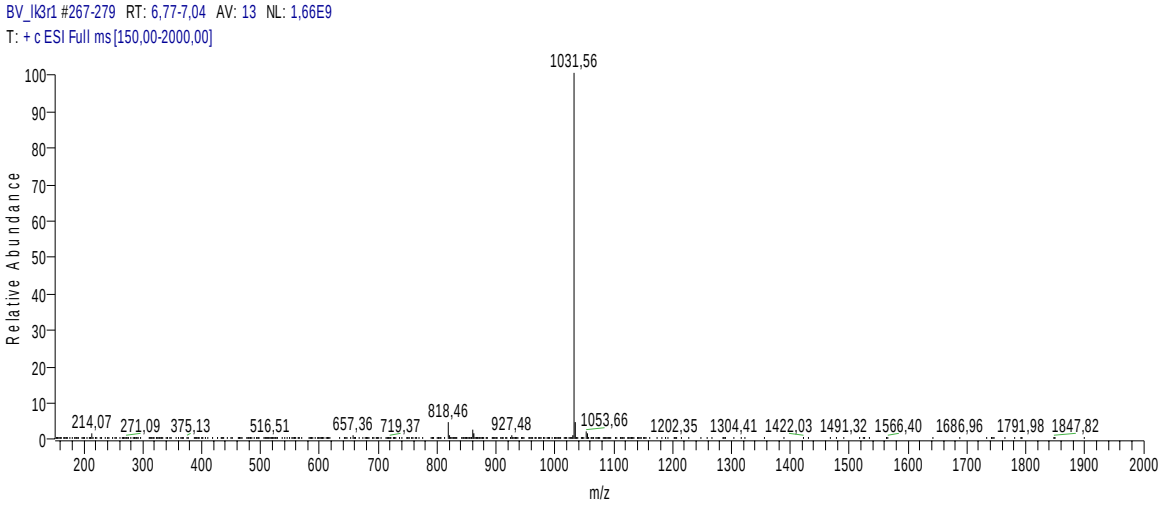
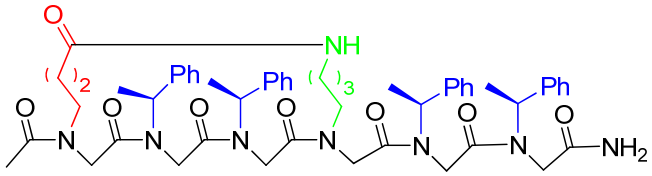
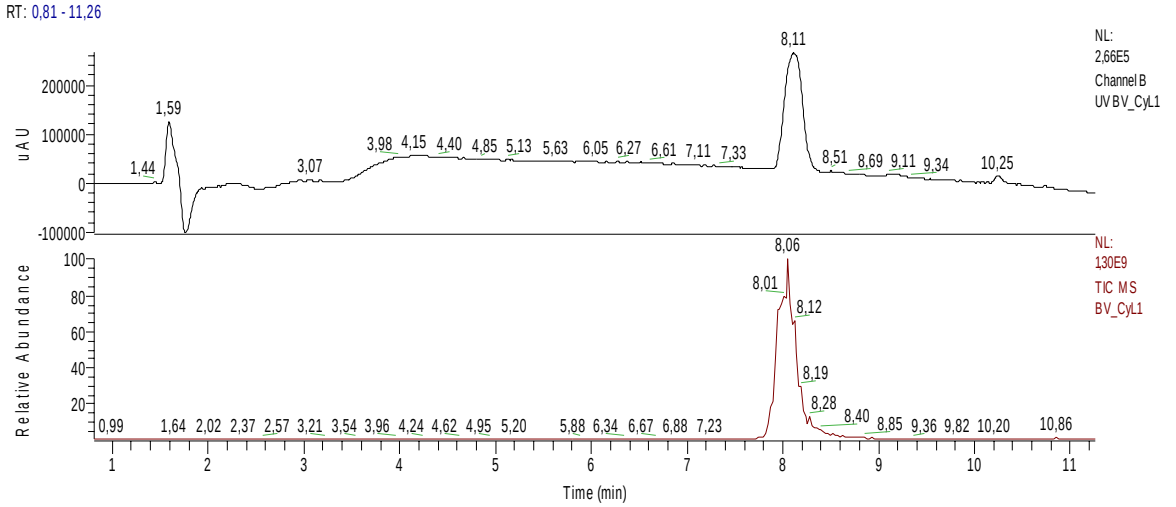


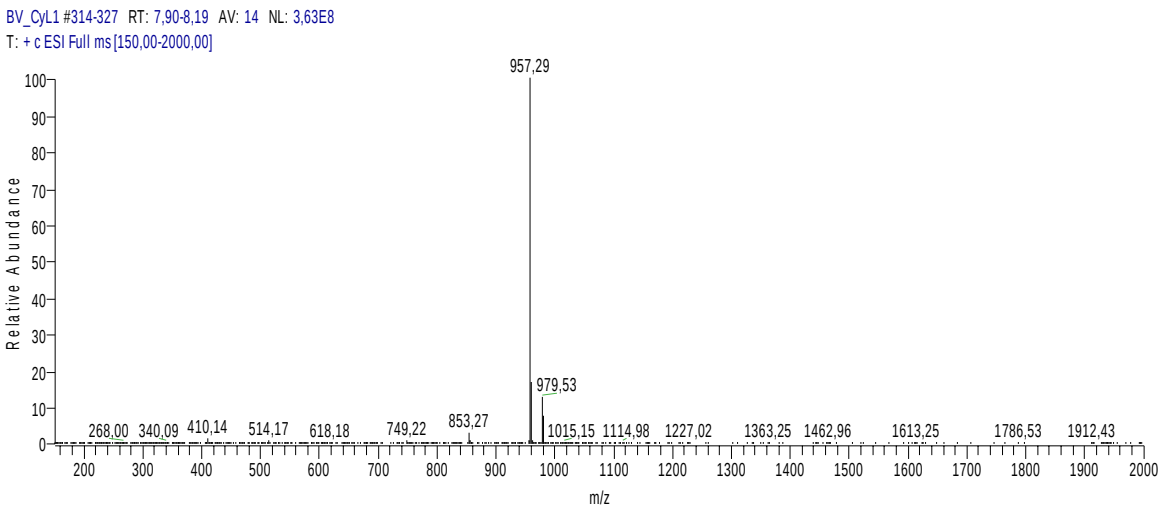


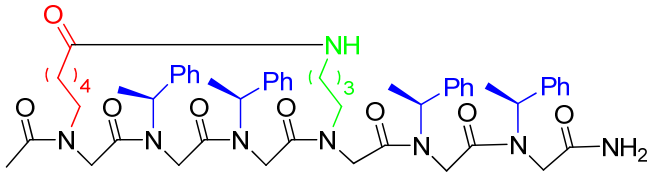


(4)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.3

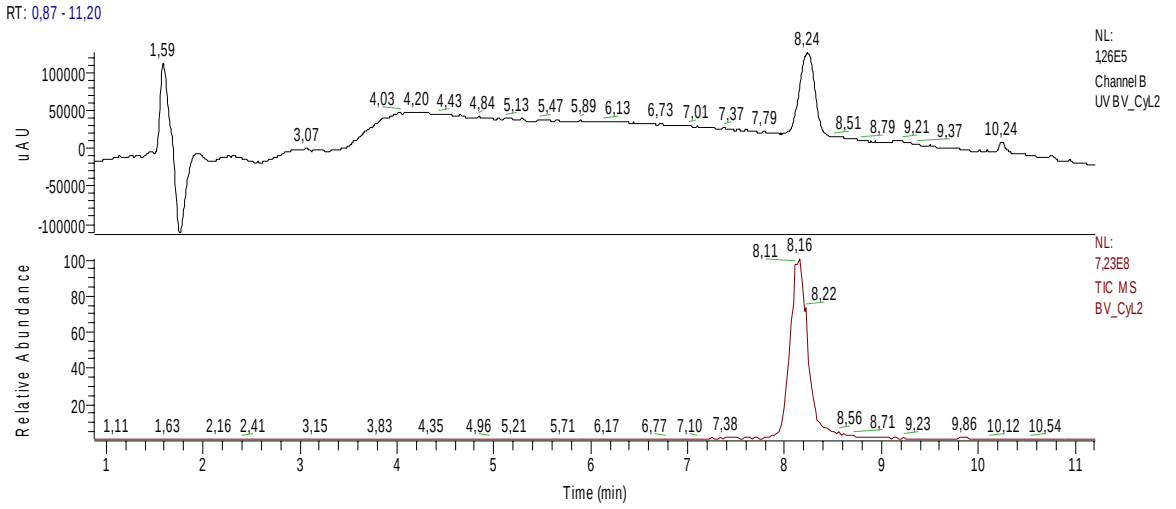


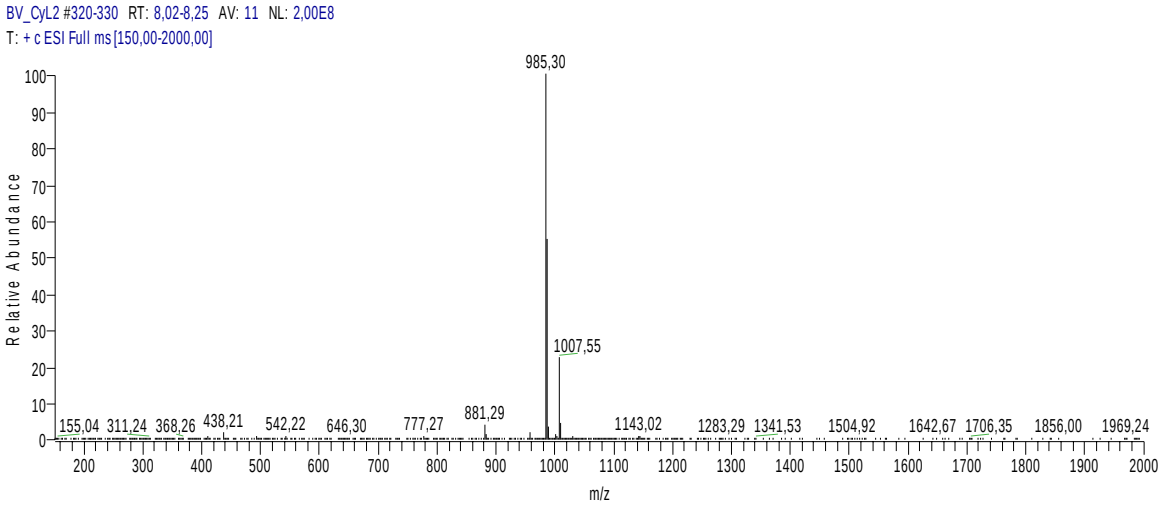


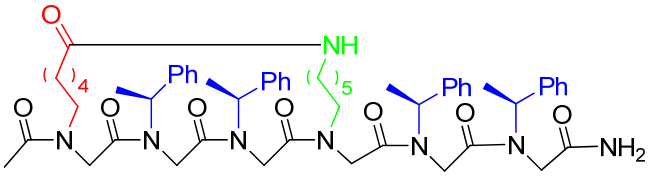


(5)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
985.6	985.3

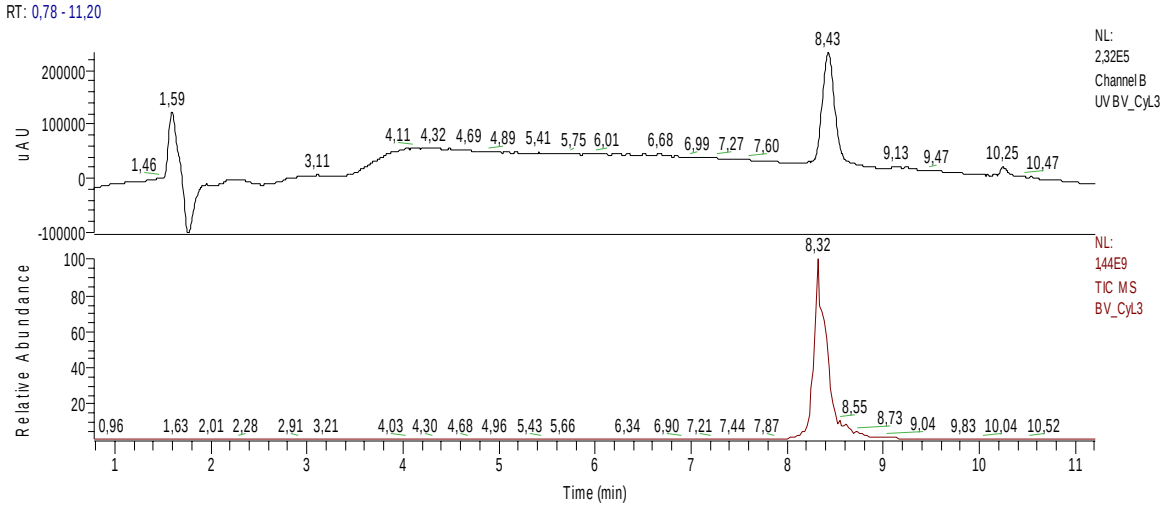


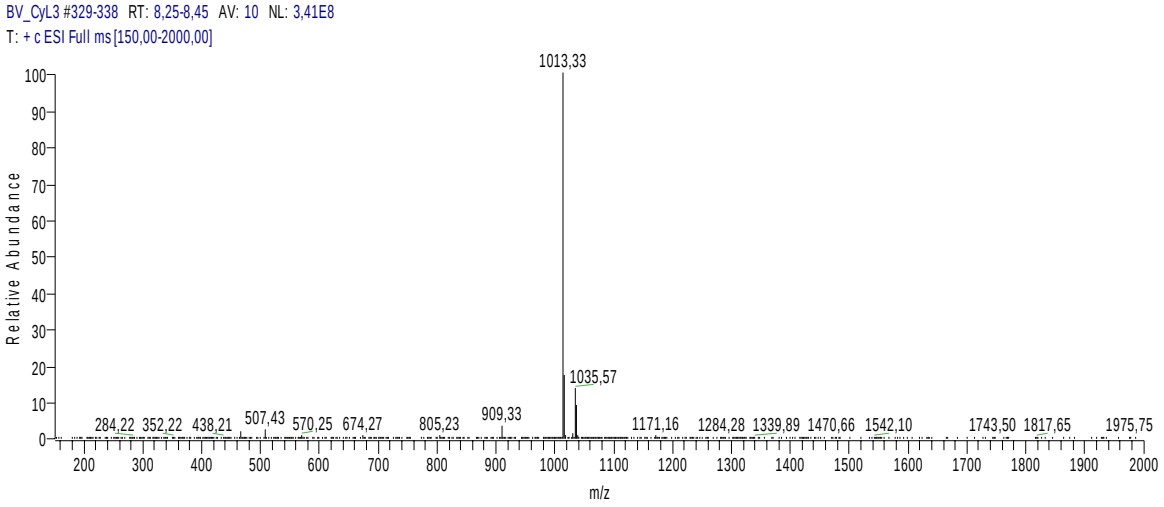


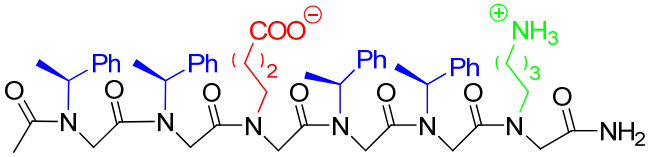


(6)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
1013.6	1013.3

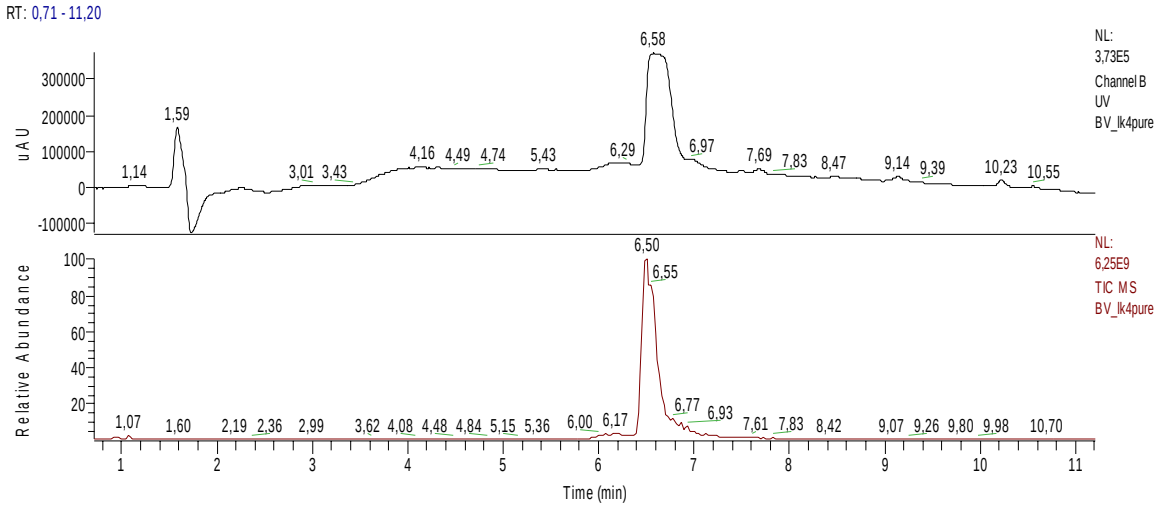


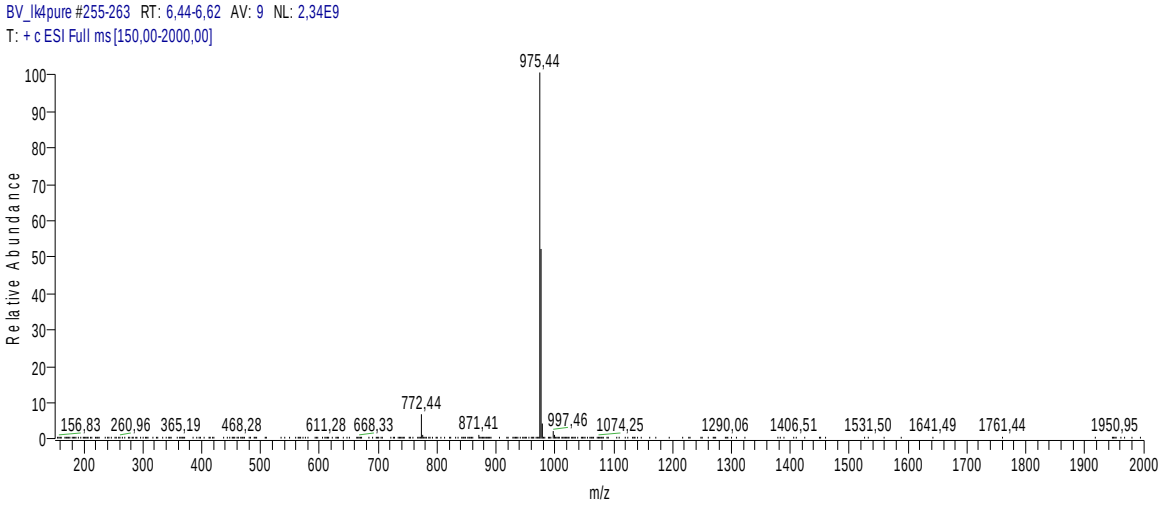


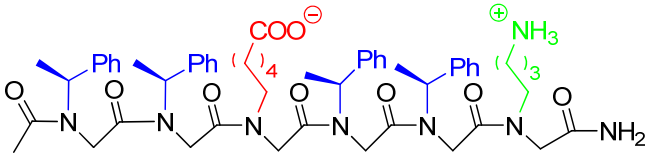


(7)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
975.5	975.4

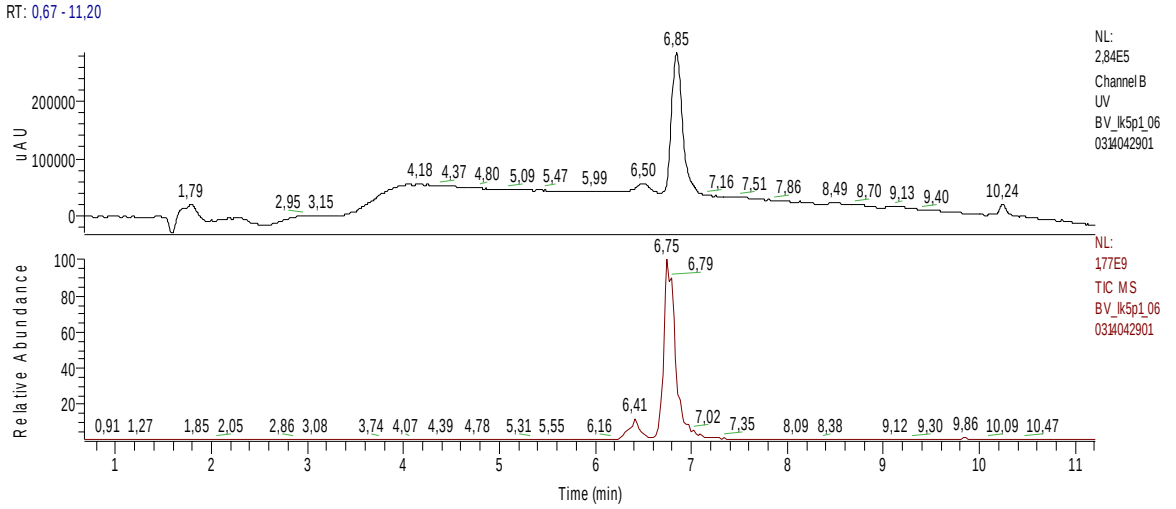


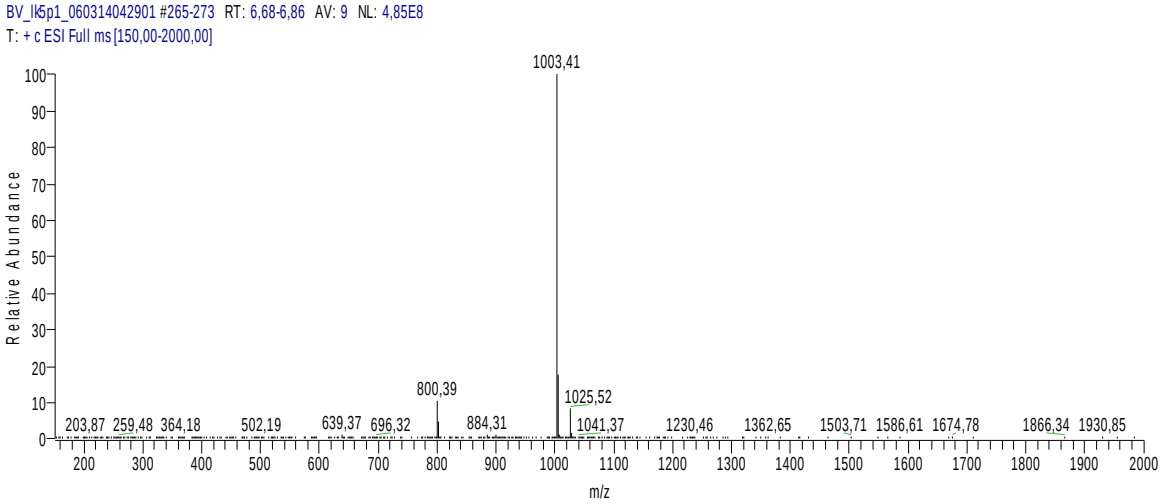


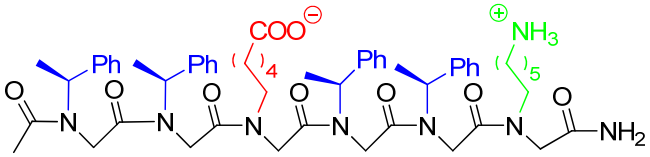


(8)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
1003.6	1003.4

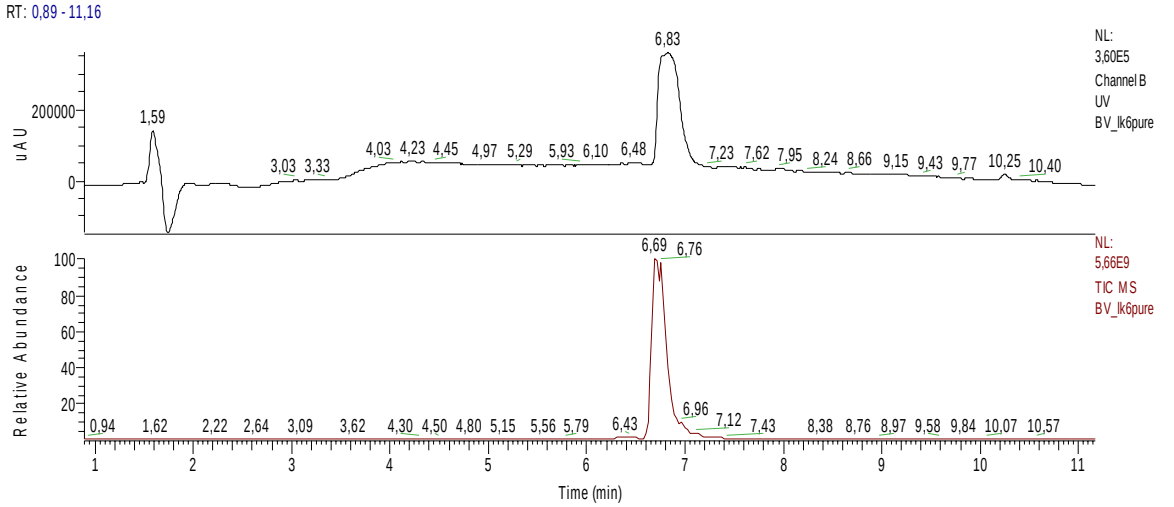


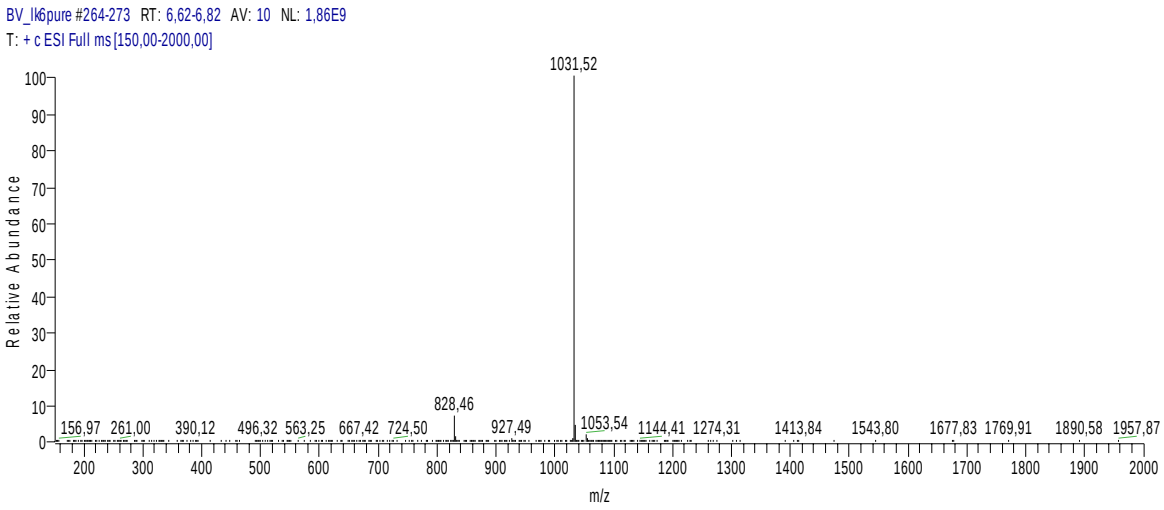


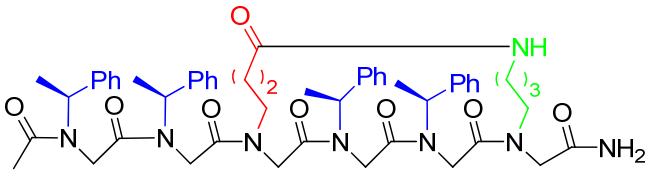


(9)

Calculated mass	Observed mass
$[M + H]^+$	$[M + H^+]^+$
1031.6	1031.5

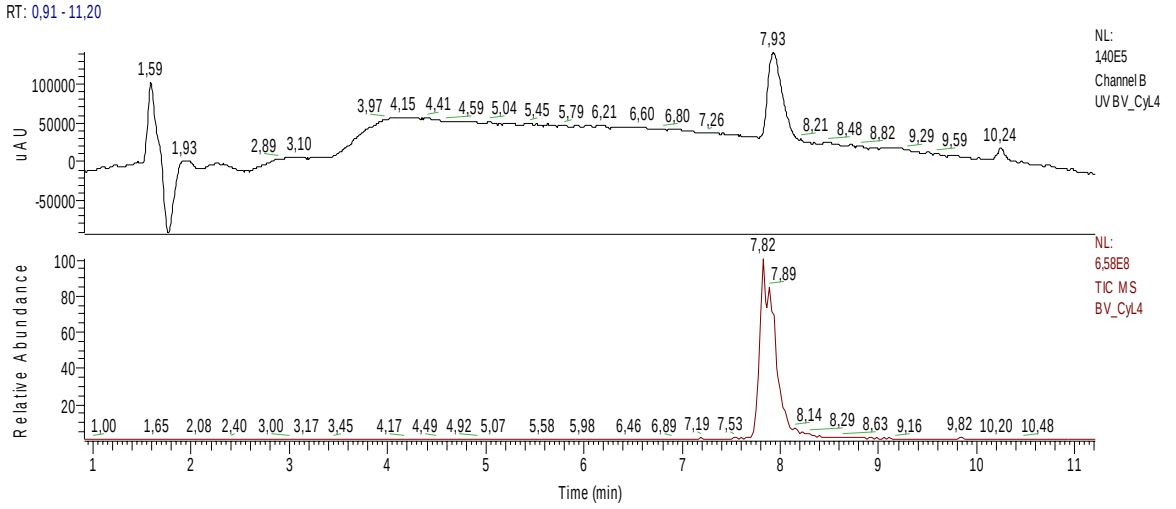


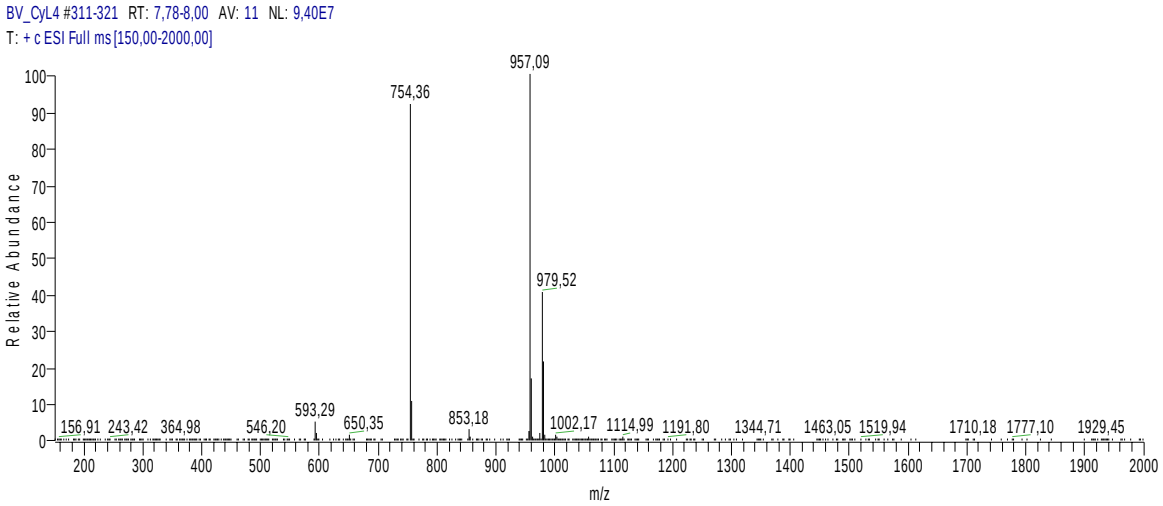


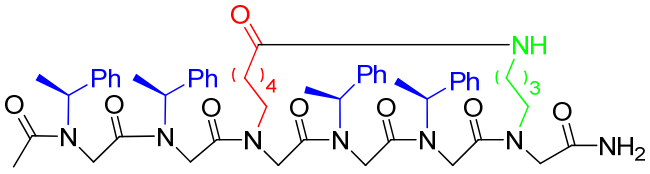


(10)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.1

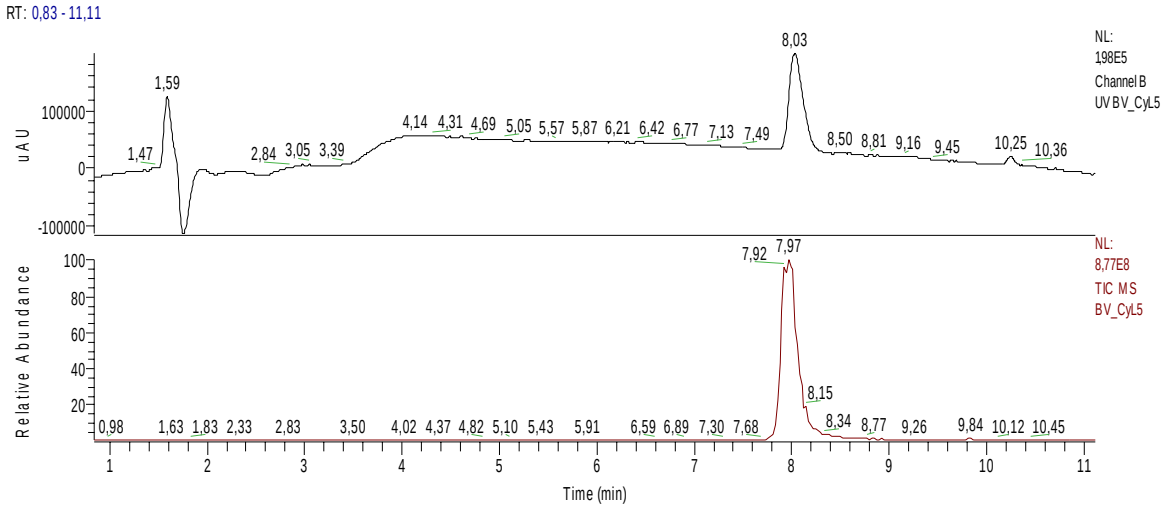


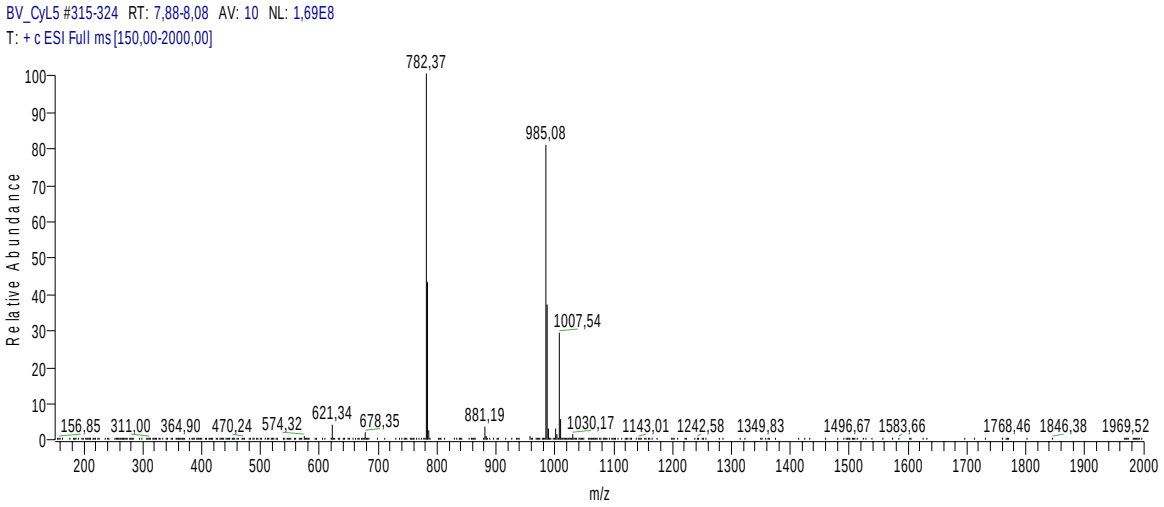


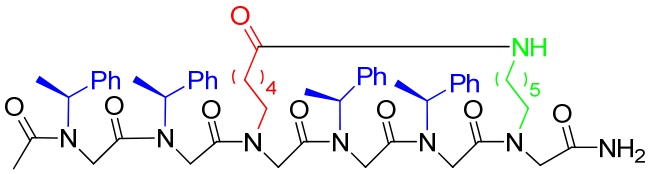


(11)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
985.6	985.1

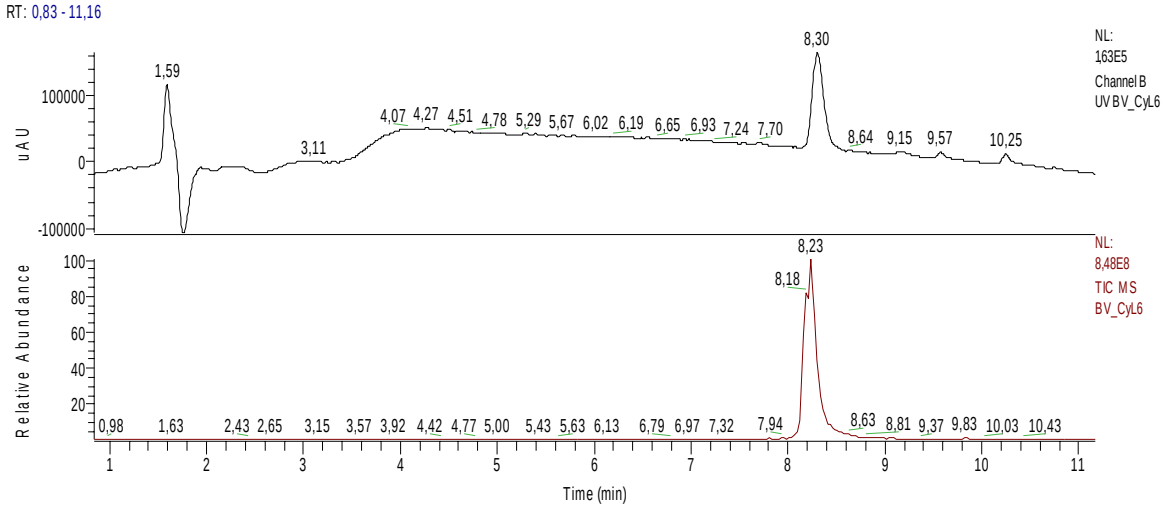


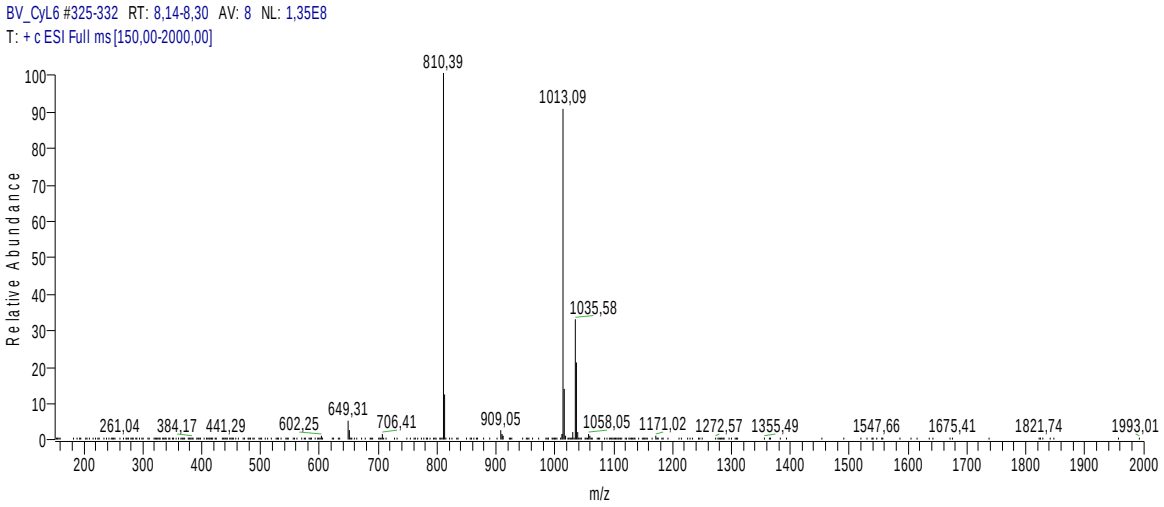


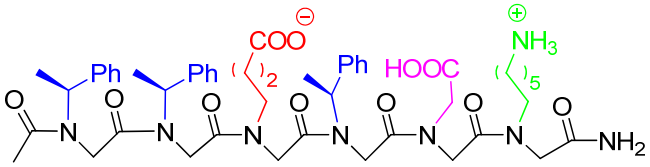


(12)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
1013.6	1013.1

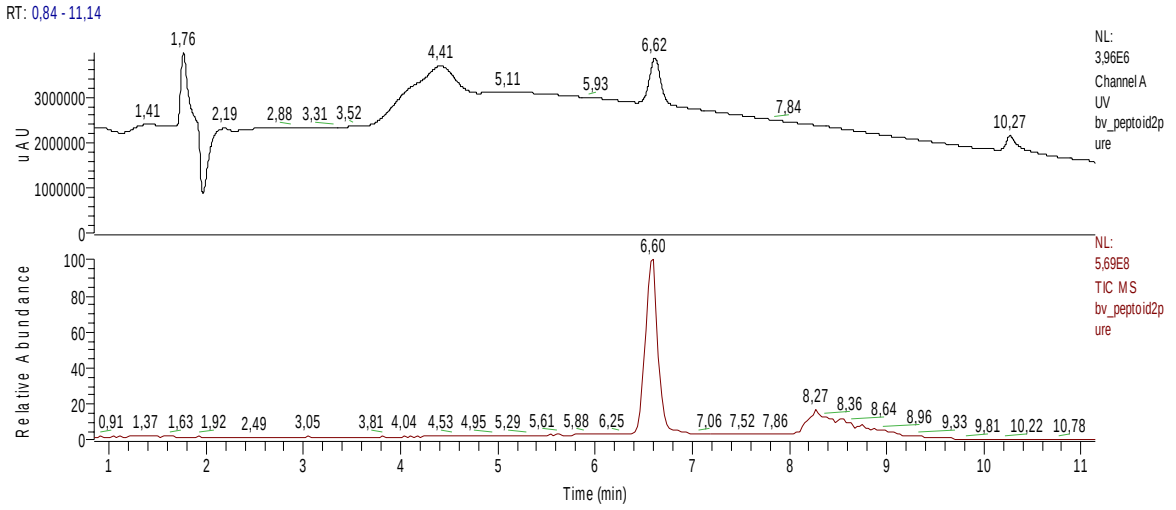


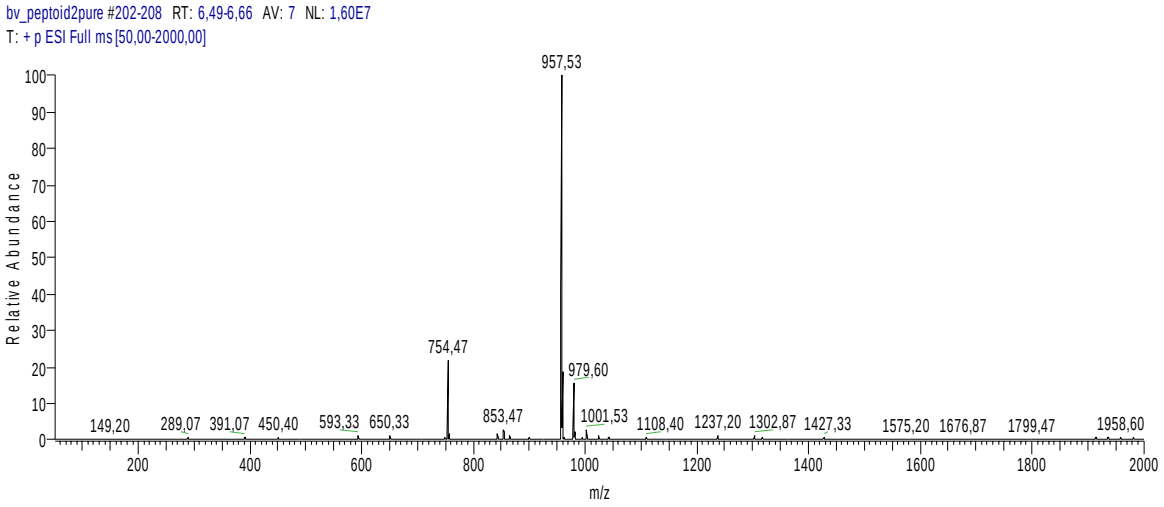


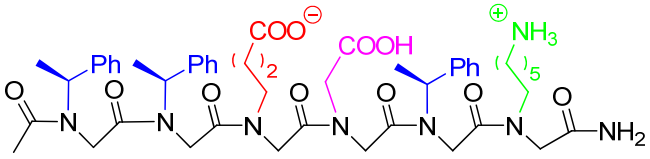


(13)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.5

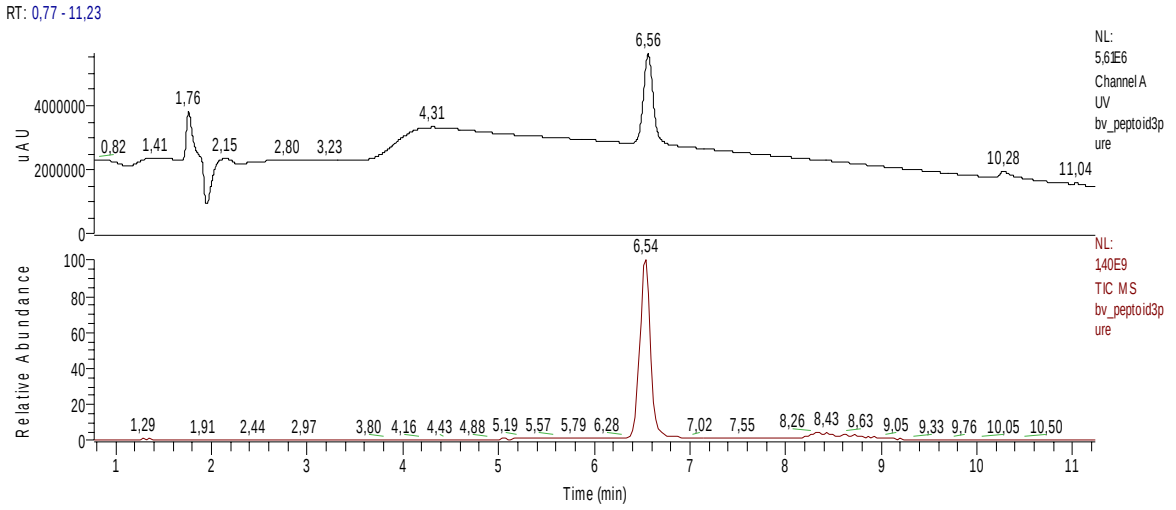


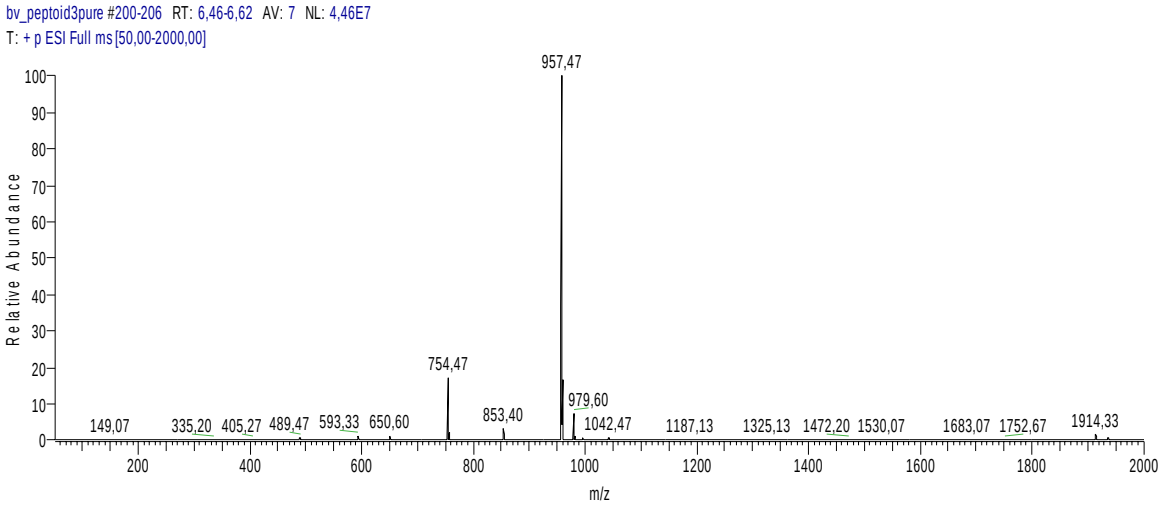


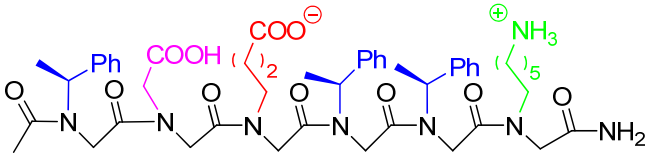


(14)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.5

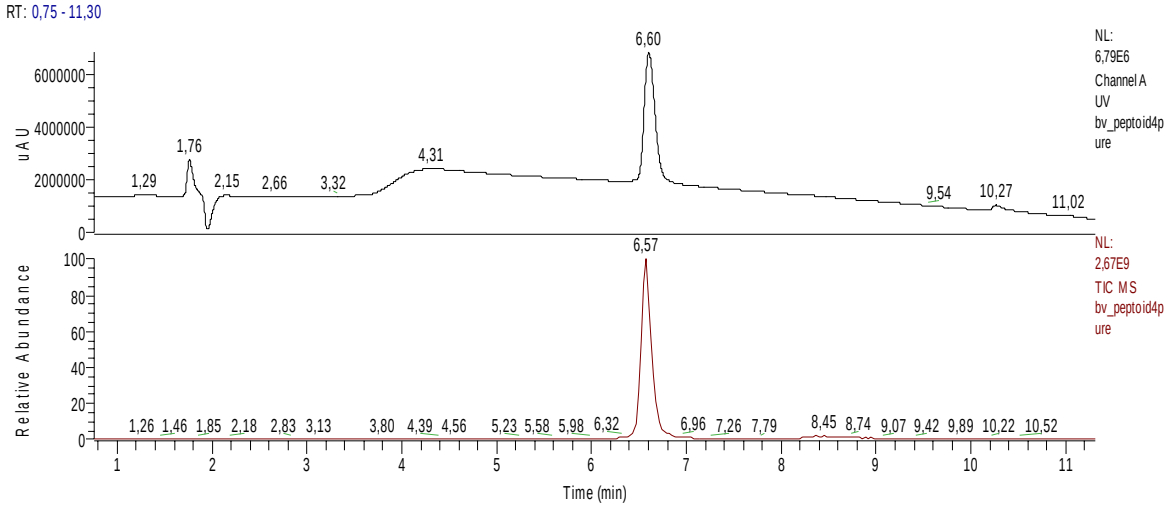


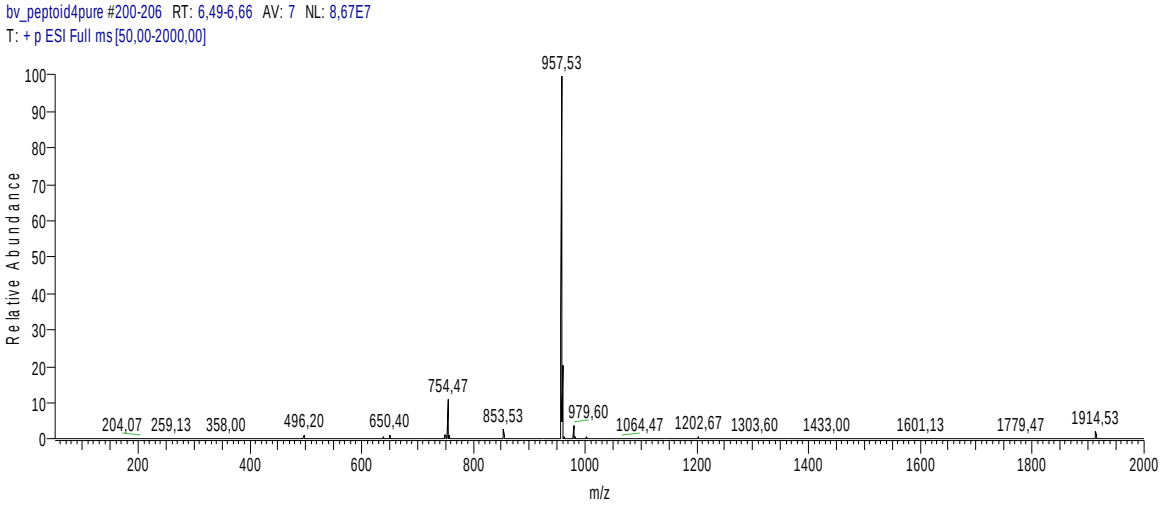


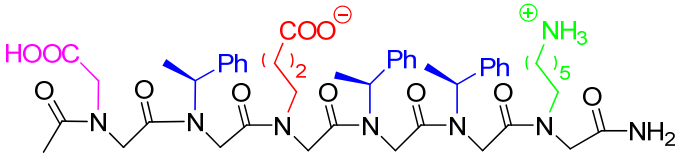


(15)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.4

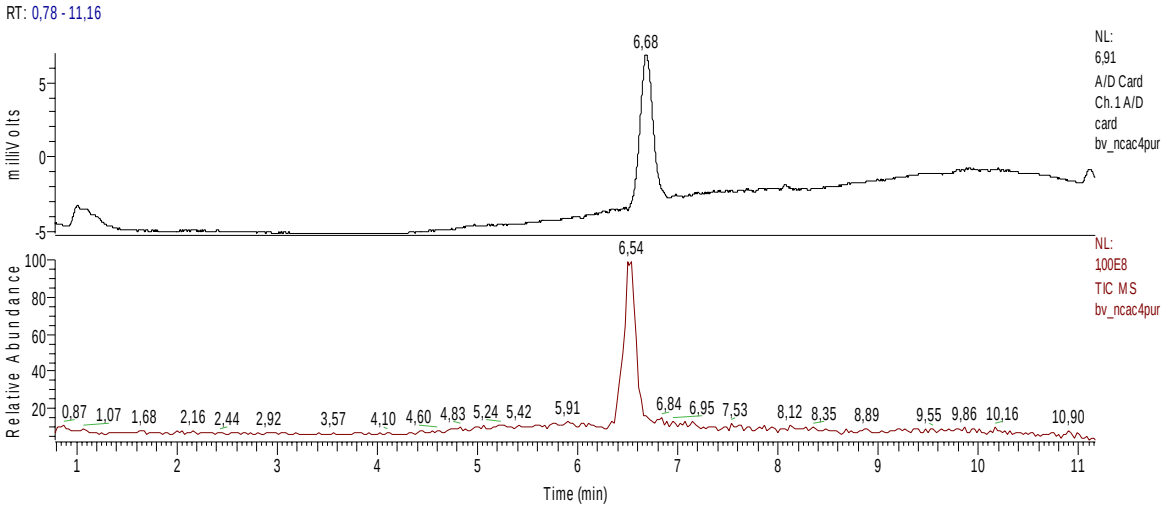


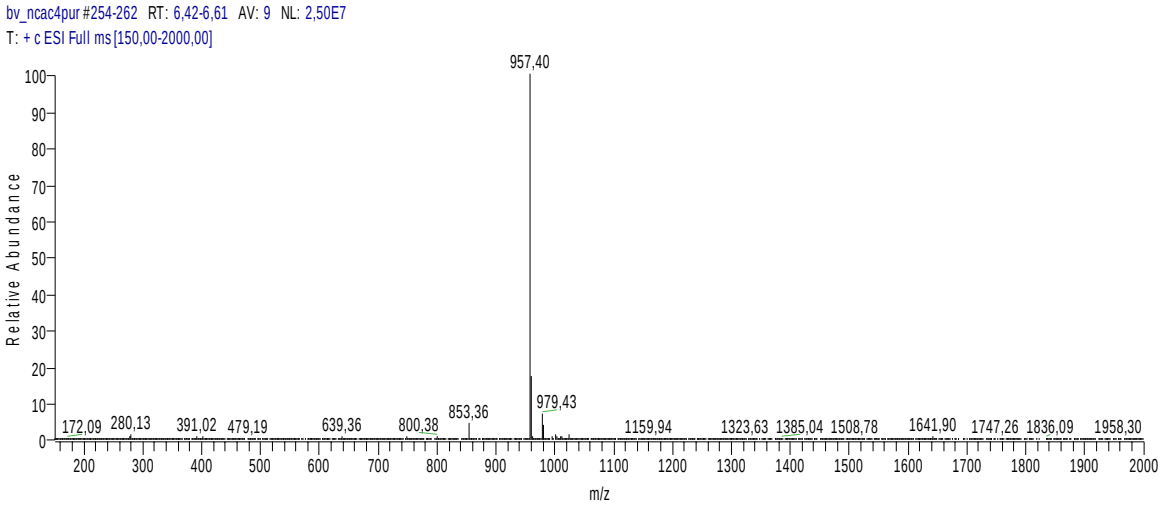


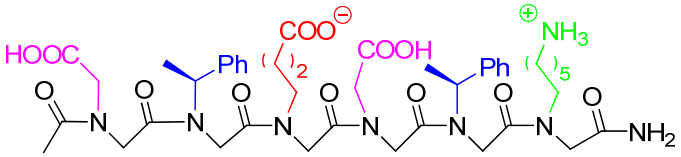


(16)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
957.5	957.4







(17)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
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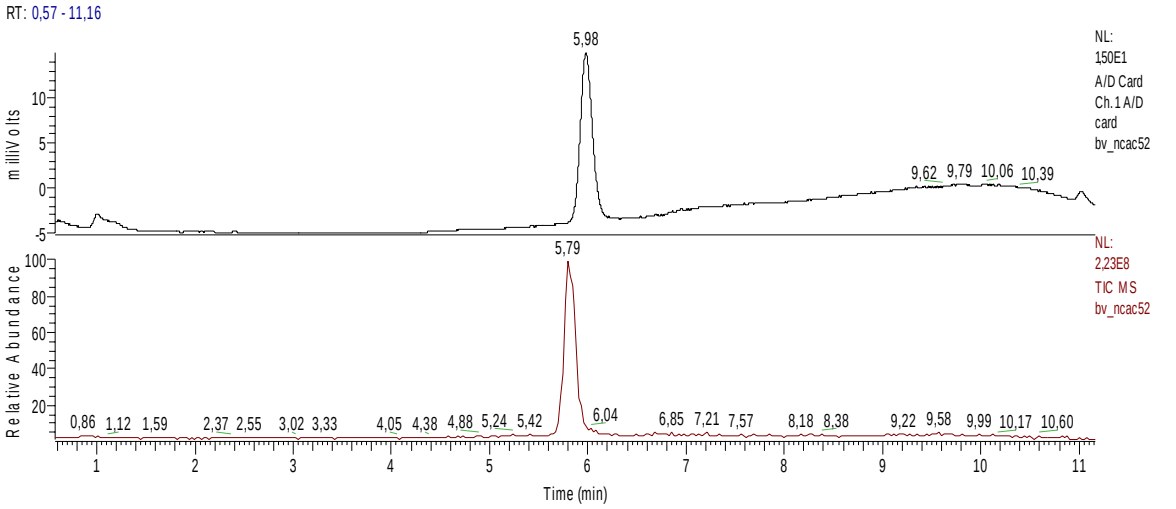
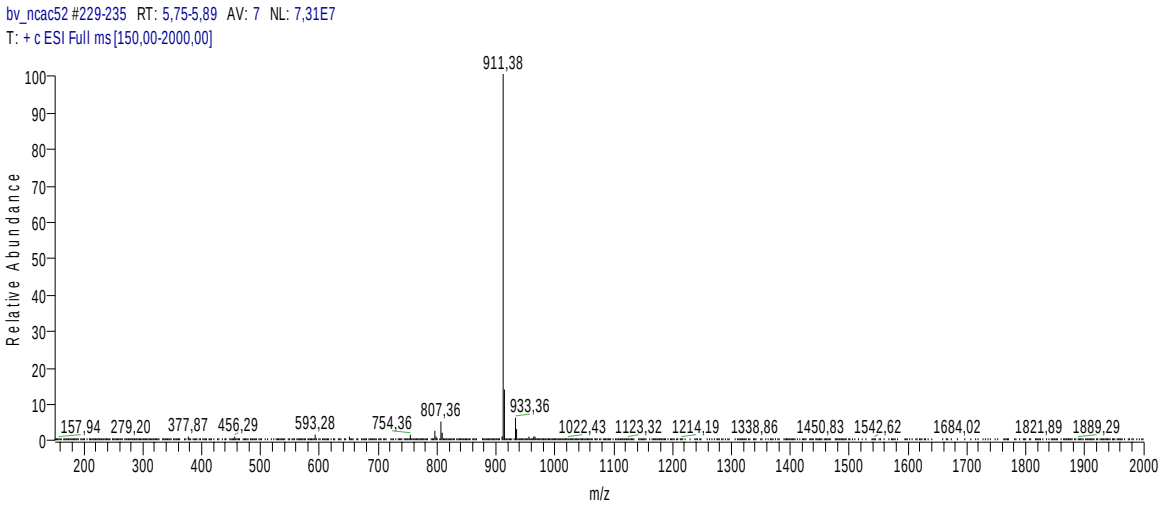
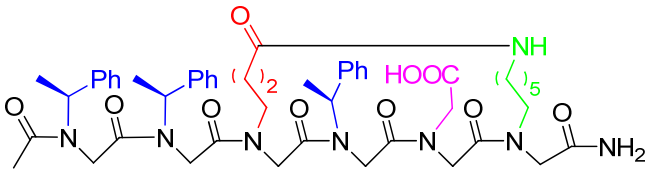
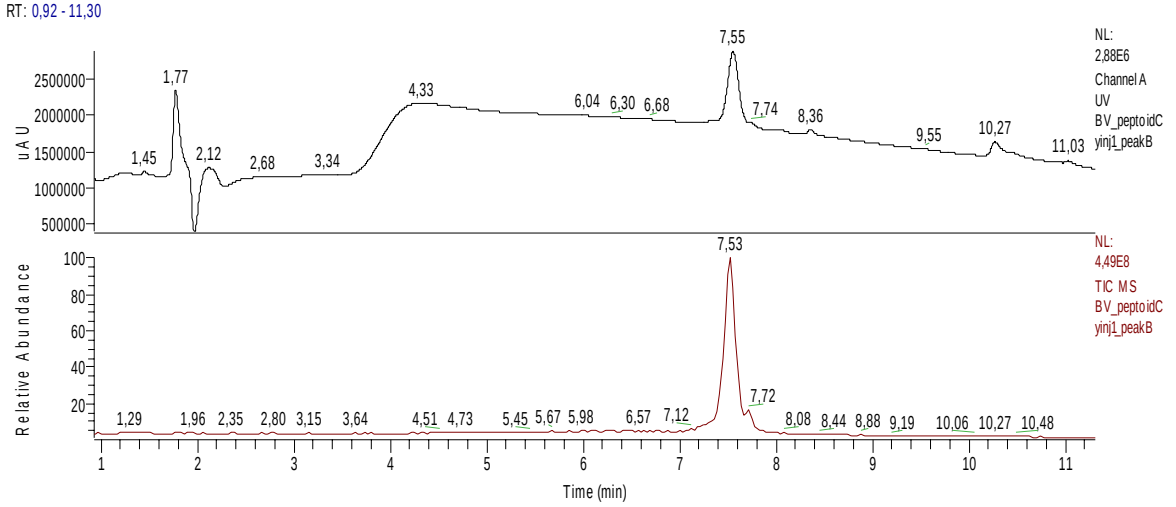


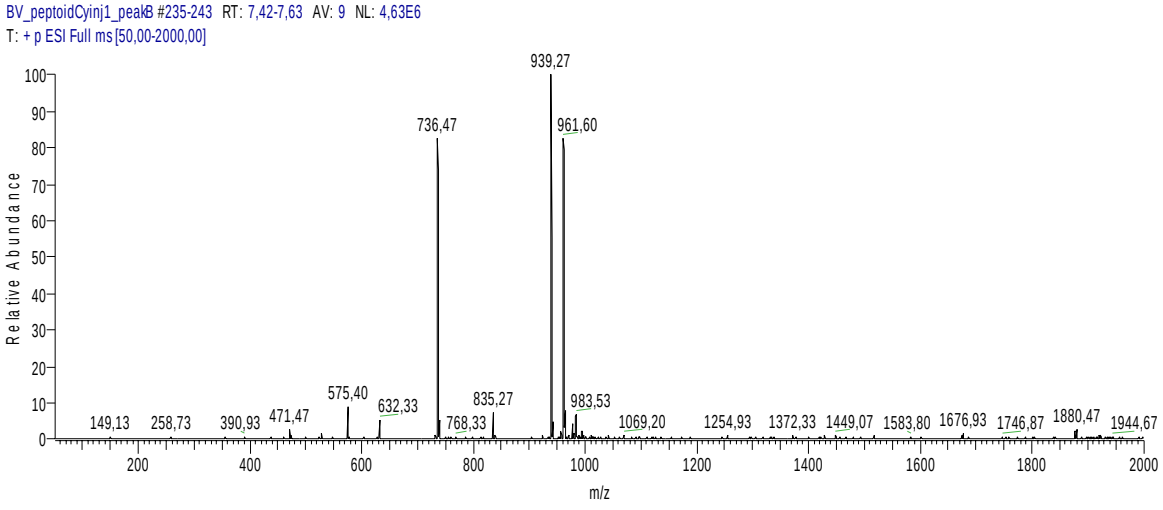


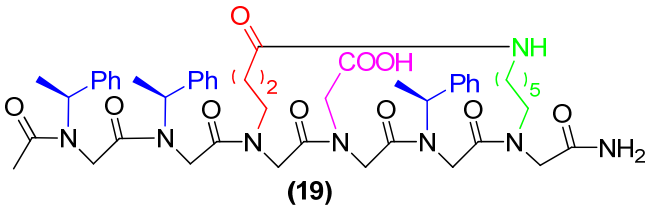


(18)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
939.5	939.3

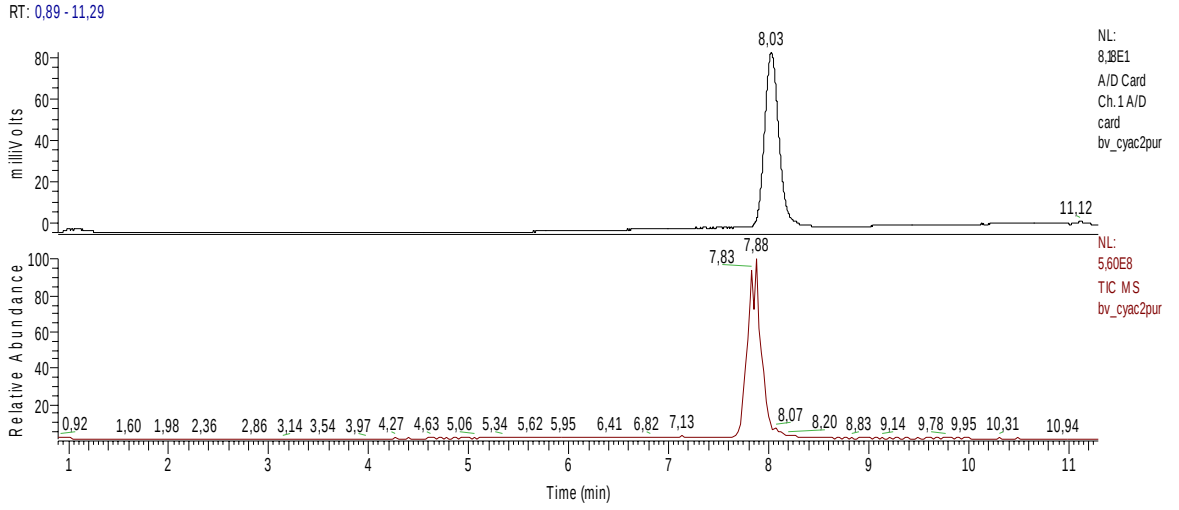


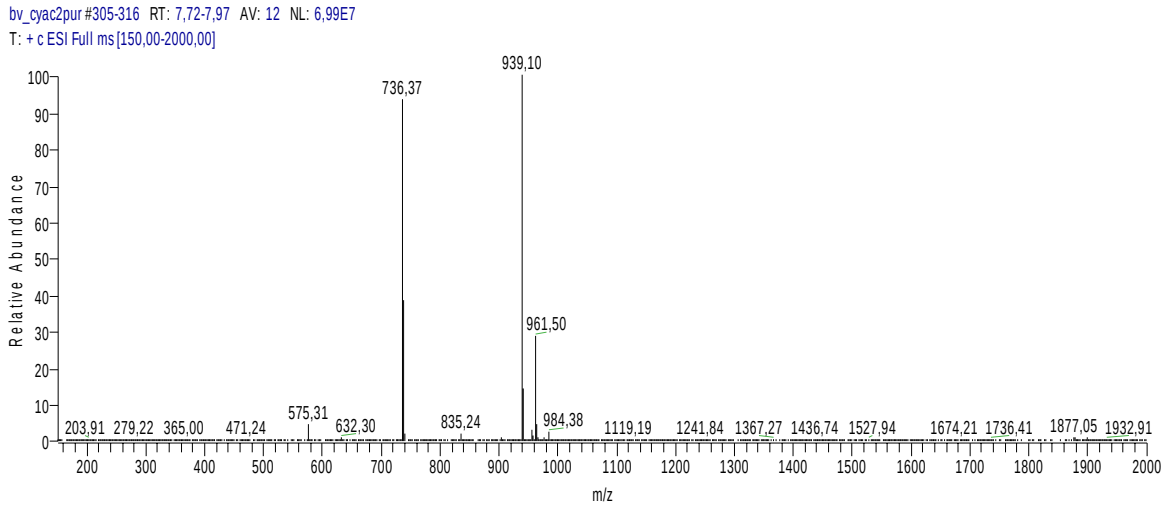


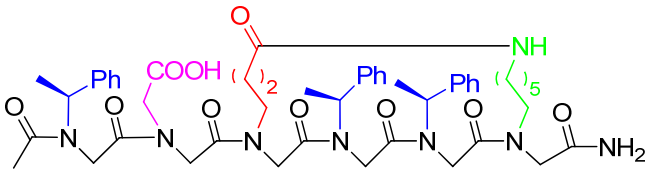


(19)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
939.5	939.1

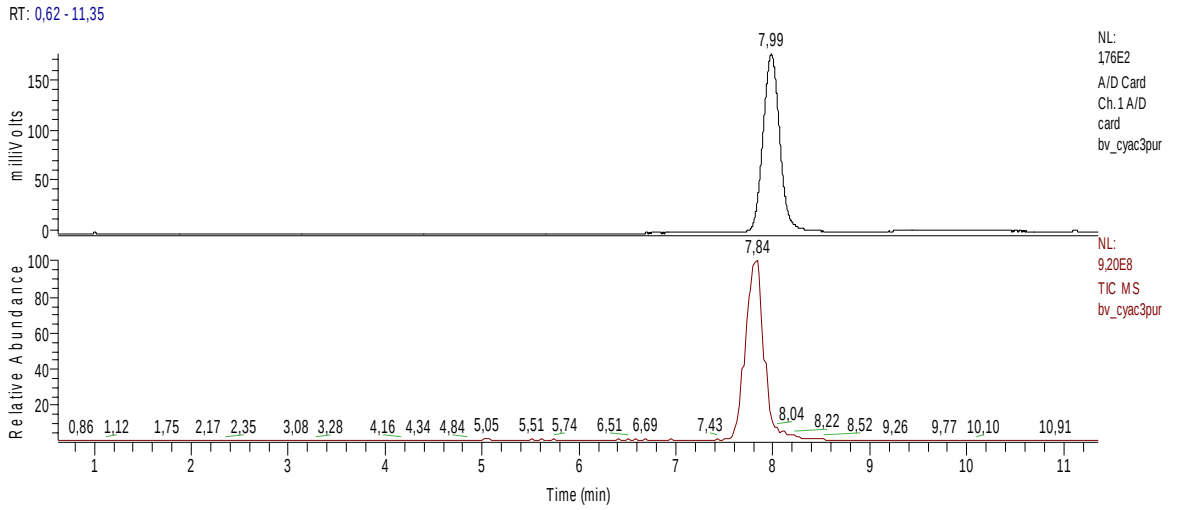


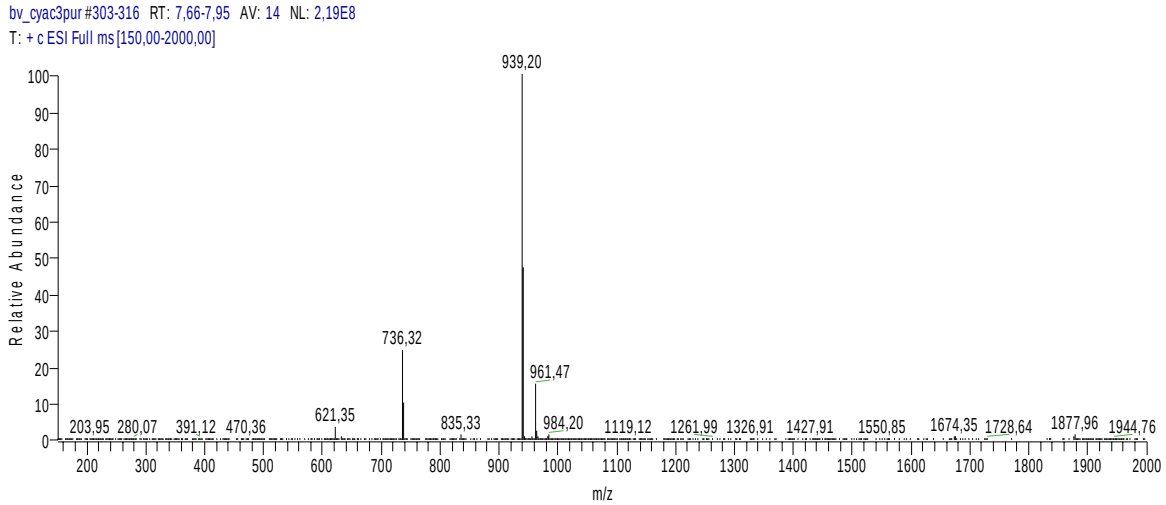


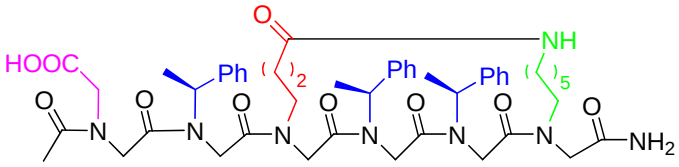


(20)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
939.5	939.2

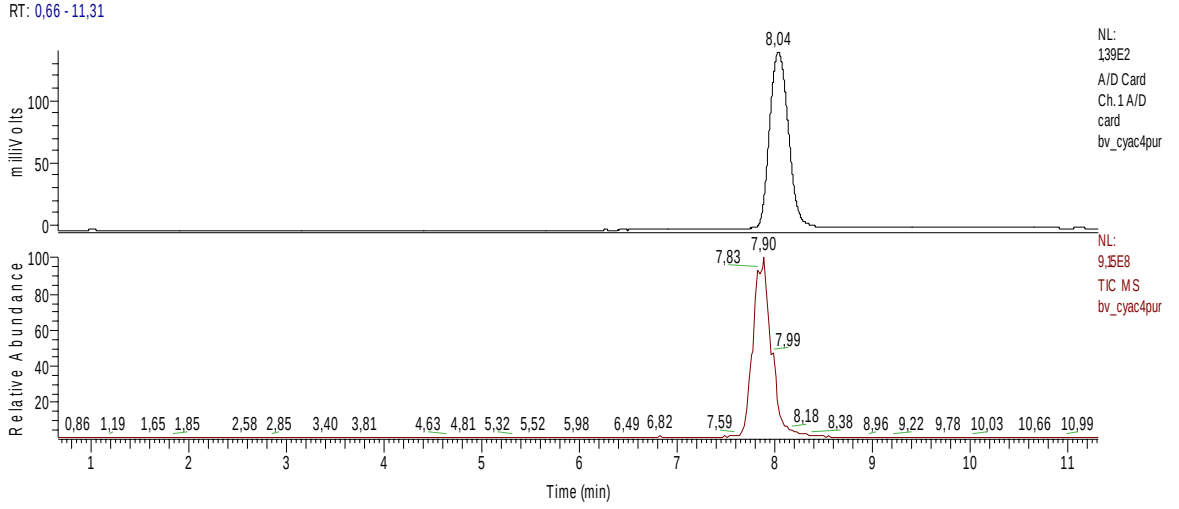


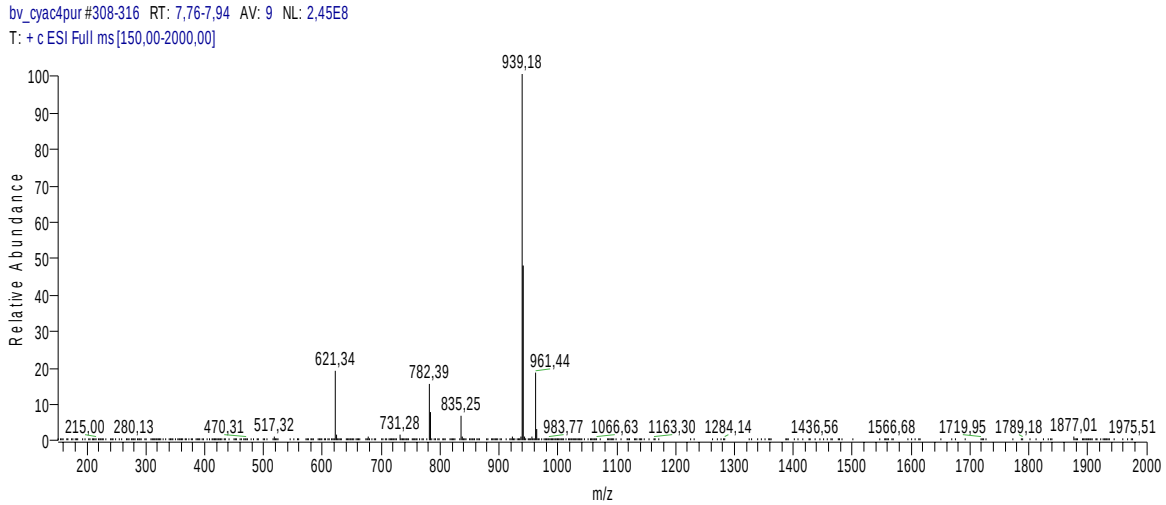


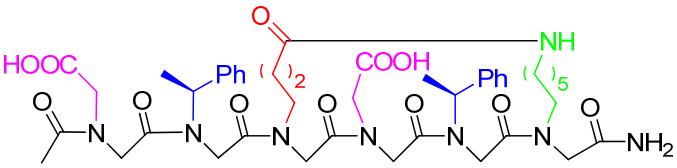


(21)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
939.5	939.2







(22)

Calculated mass $[M + H]^+$	Observed mass $[M + H^+]^+$
893.4	893.1