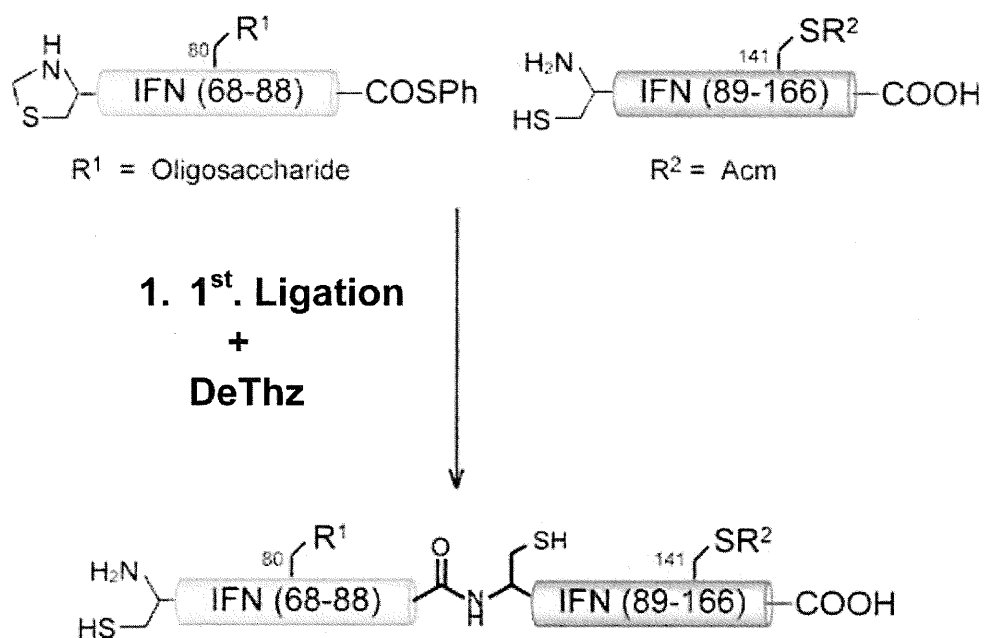
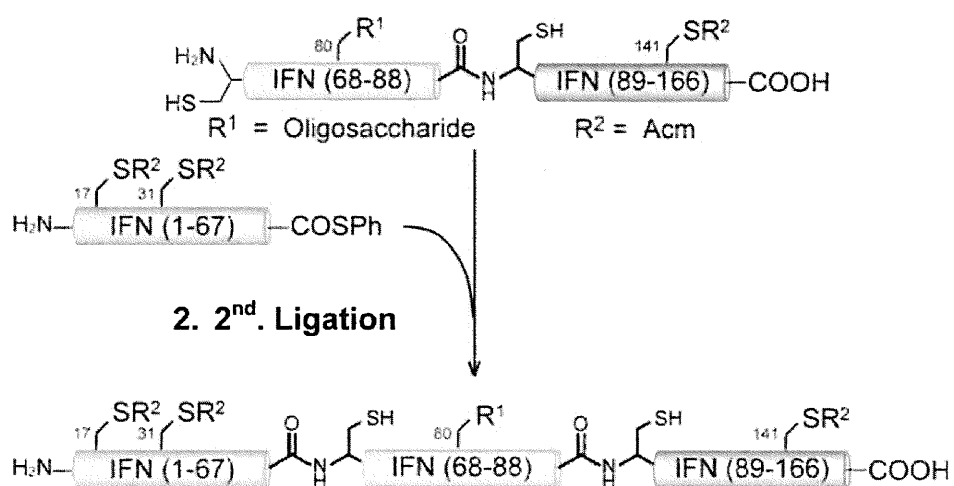


Figures

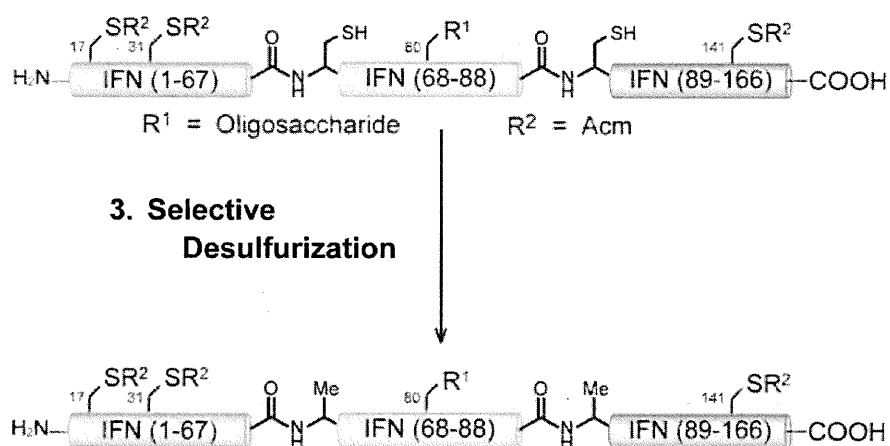
[Figure 1]



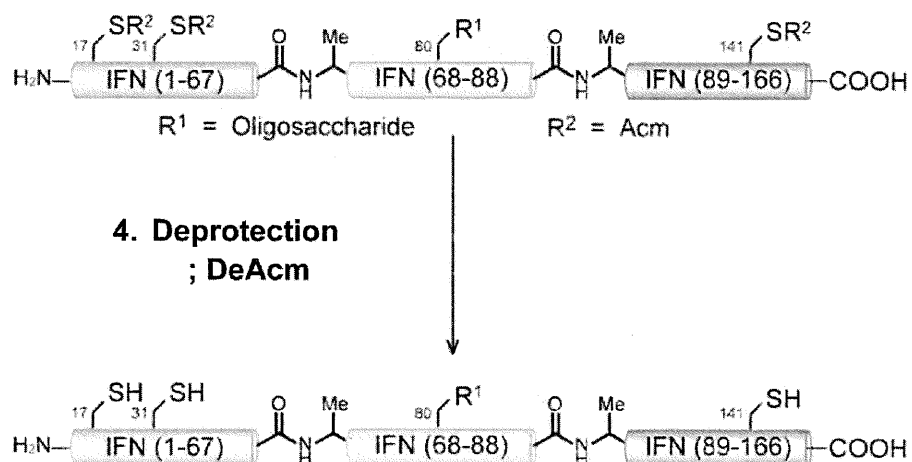
[Figure 2]



[Figure 3]

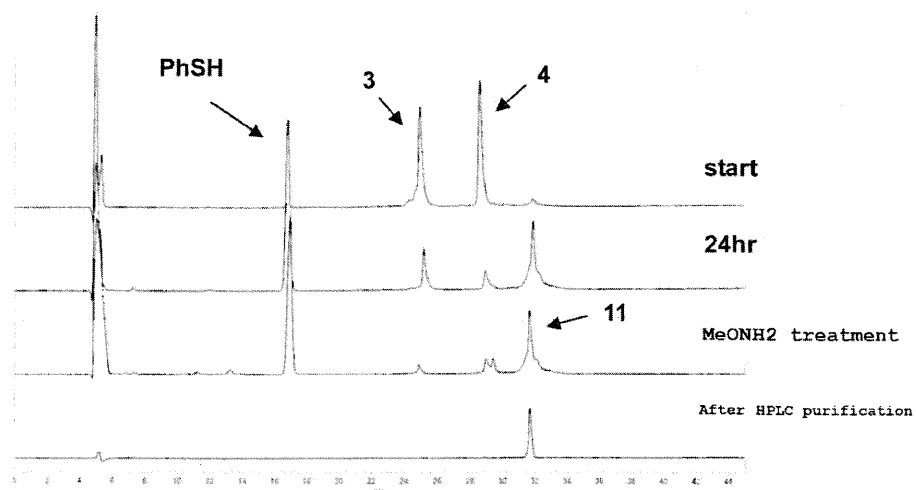


[Figure 4]

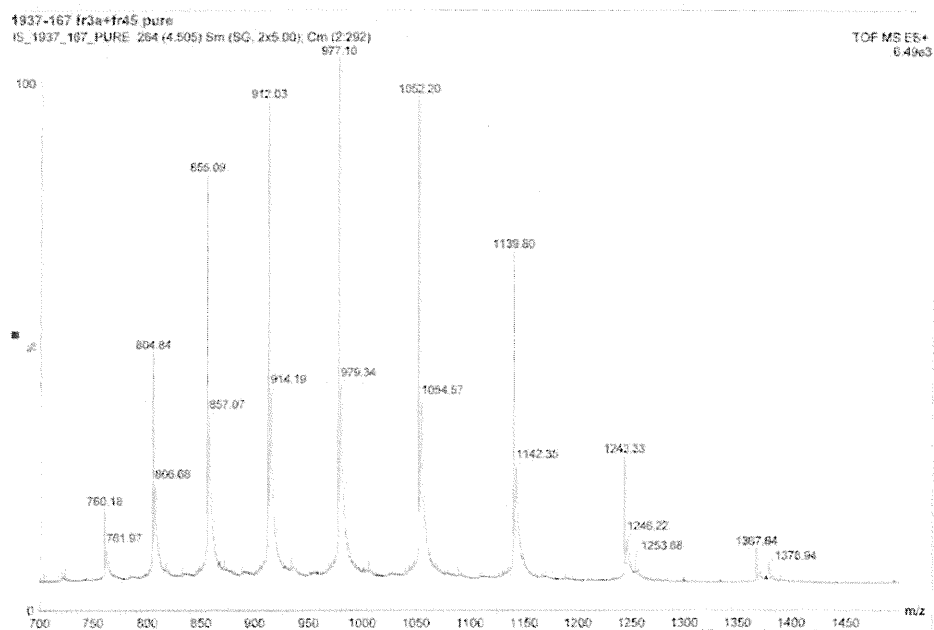


[Figure 5]

A



B



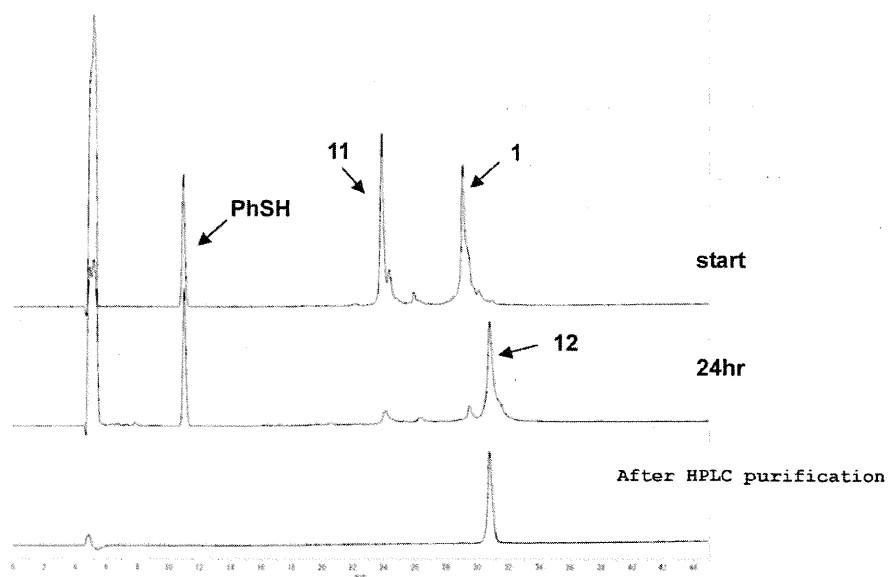
[Figure 6]

Peptide fragment (11) (SEQ ID NO. 16)

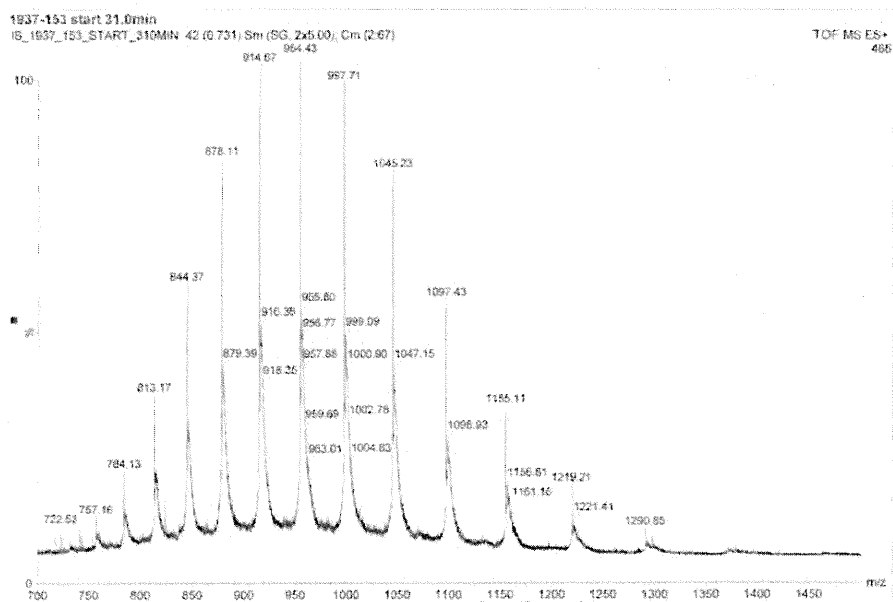
70
H₂N-Cys-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
80
Asn(asialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-Cys-
90
Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-
100
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-
110
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
120
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-
130
Phe-Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H
140
150
160

[Figure 7]

A



B



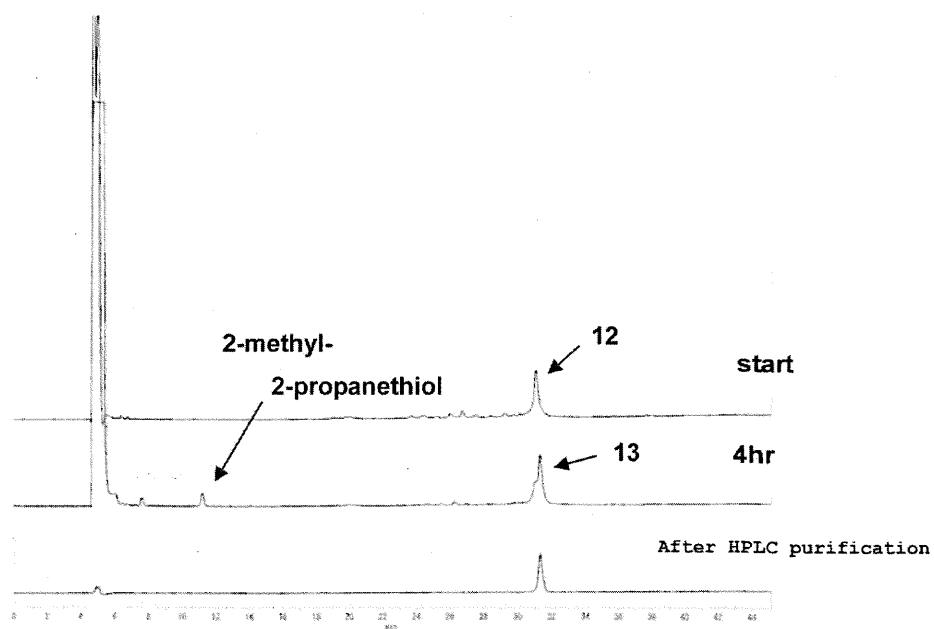
[Figure 8]

Peptide fragment (12) (SEQ ID NO. 17)

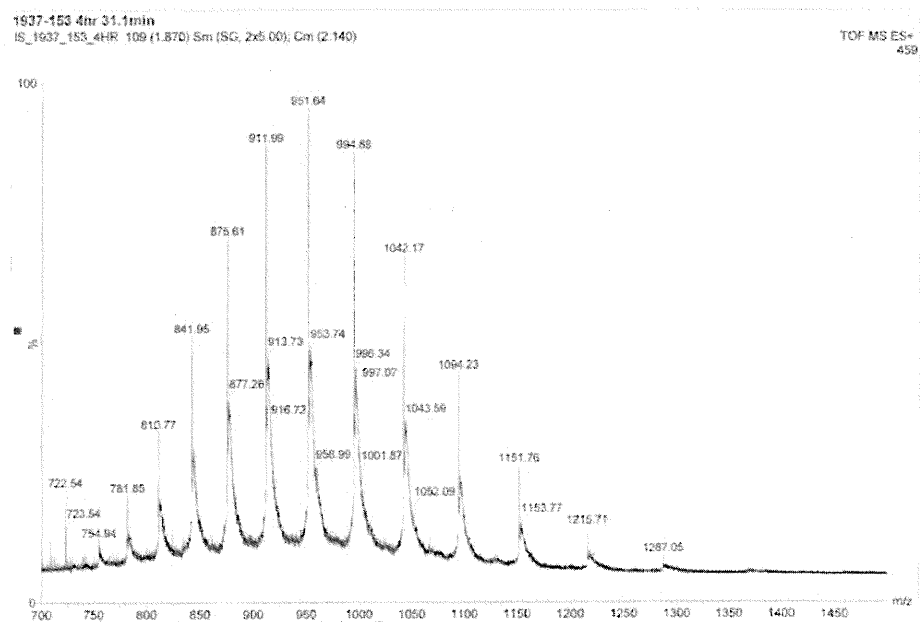
¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys(Acm)-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-³⁰
⁴⁰
Cys(Acm)-Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-
⁵⁰
Gln-Leu-Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-⁶⁰
⁷⁰
Leu-Gln-Asn-Ile-Phe-Cys-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰
Asn(asialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-
⁹⁰
Cys-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-¹⁰⁰
¹¹⁰
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-¹²⁰
¹³⁰
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
¹⁴⁰
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-¹⁵⁰
¹⁶⁰
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 9]

A



B

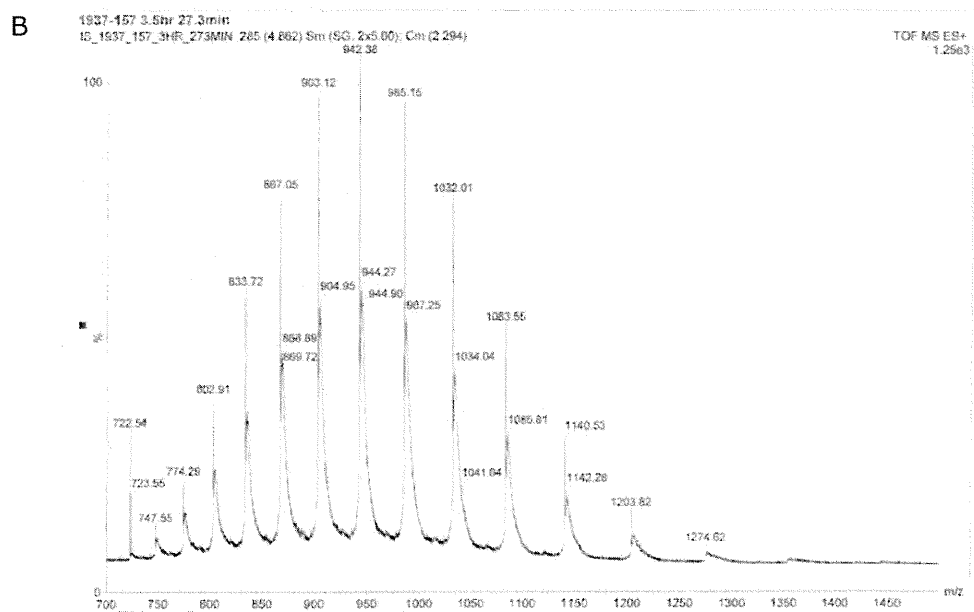
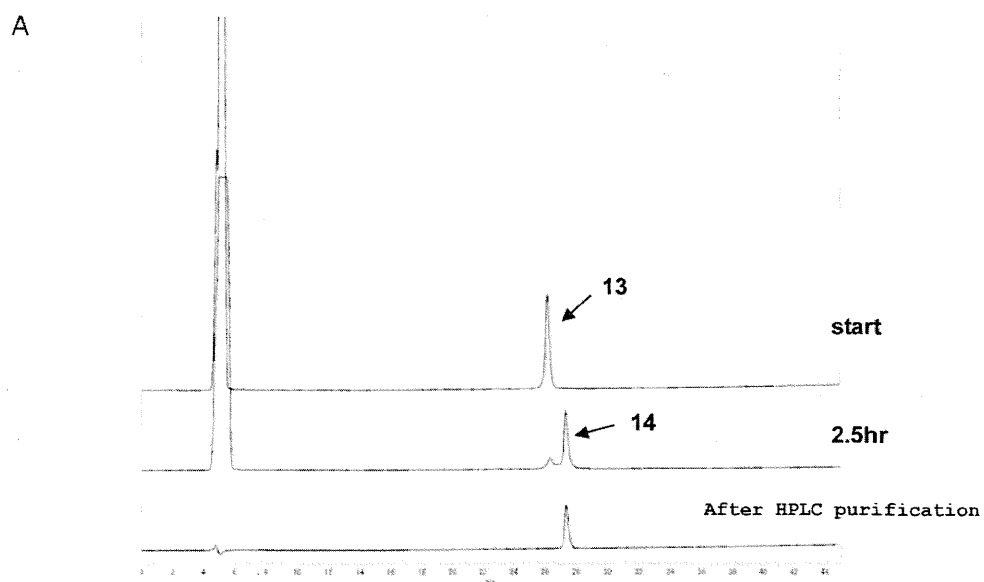


[Figure 10]

Peptide fragment (13) (SEQ ID NO. 18)

¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys(Acm)-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-³⁰
⁴⁰
Cys(Acm)-Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-
⁵⁰⁶⁰
Gln-Leu-Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-
⁷⁰
Leu-Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰
Asn(asialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-
⁹⁰¹⁰⁰
Ala-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-
¹¹⁰¹²⁰
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-
¹³⁰
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
¹⁴⁰¹⁵⁰
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-
¹⁶⁰
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 11]

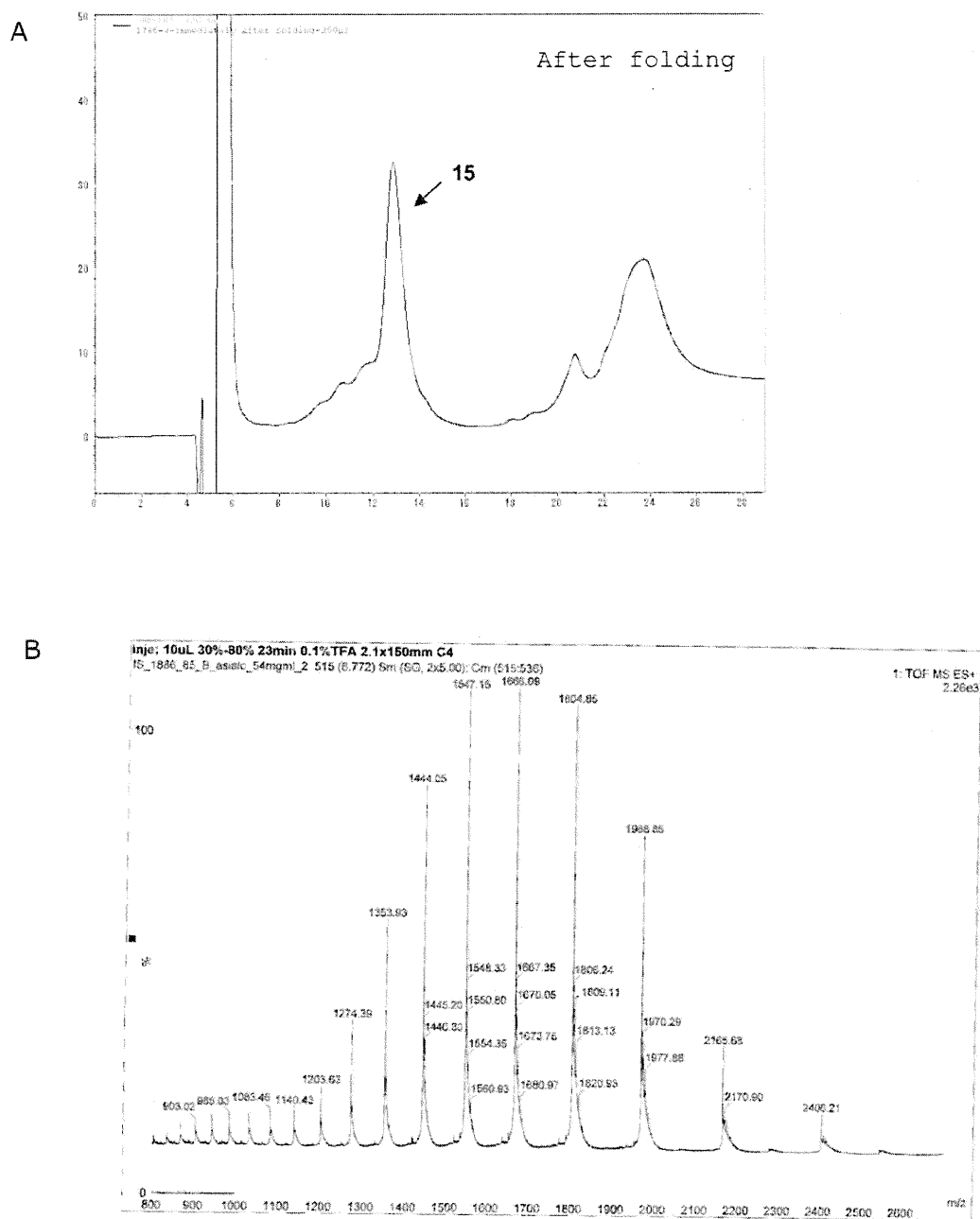


[Figure 12]

Peptide fragment (14) (SEQ ID NO. 19)

1 10
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-
20 30
Gln-Cys-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-Cys-
40
Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-Leu-
50 60
Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-
70
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
80
Asn(asialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-Ala-
90 100
Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-
110 120
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-
130
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
140 150
Ser-His-Cys-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-
160
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 13]

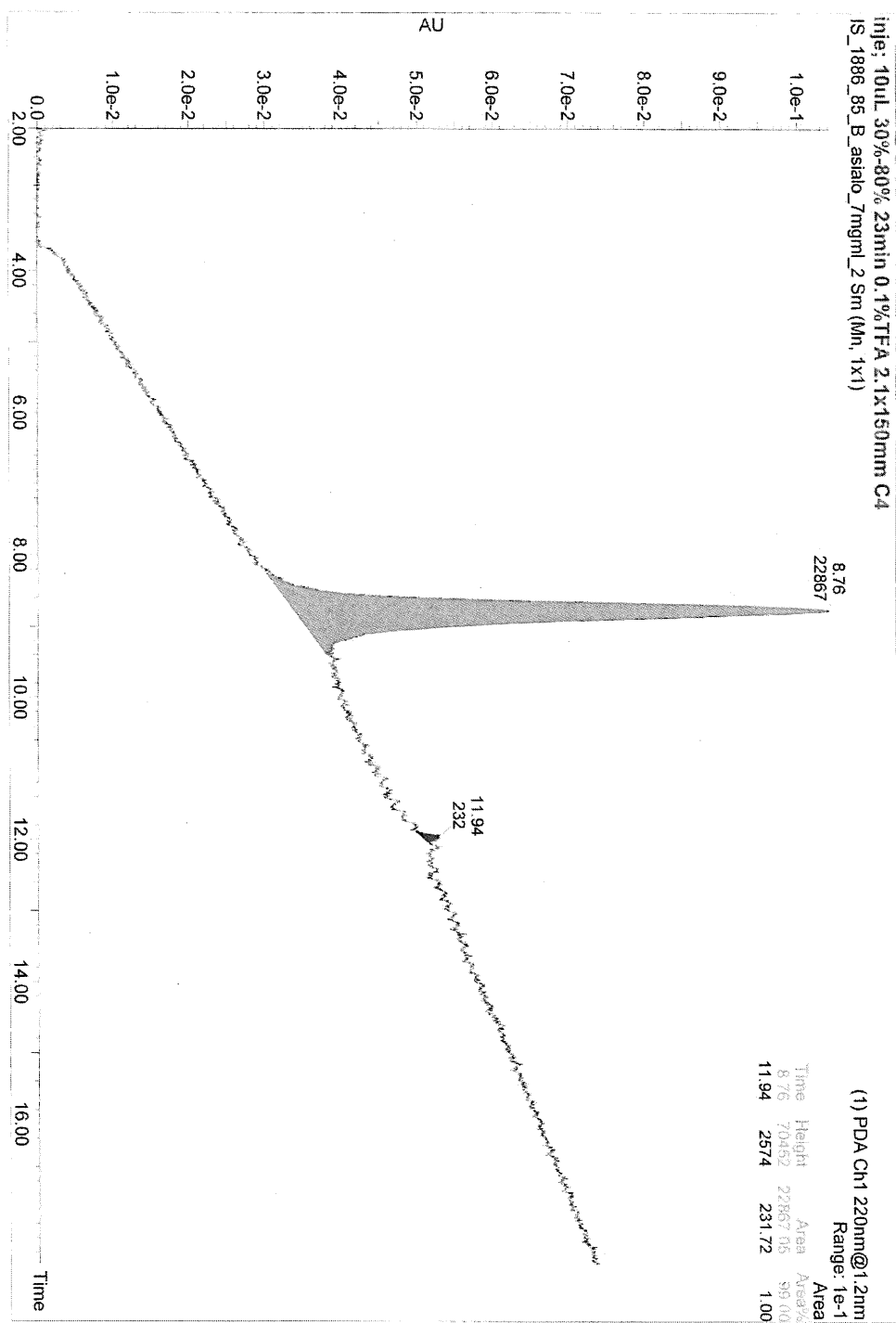


[Figure 14]

Peptide fragment (15) (SEQ ID NO. 20)

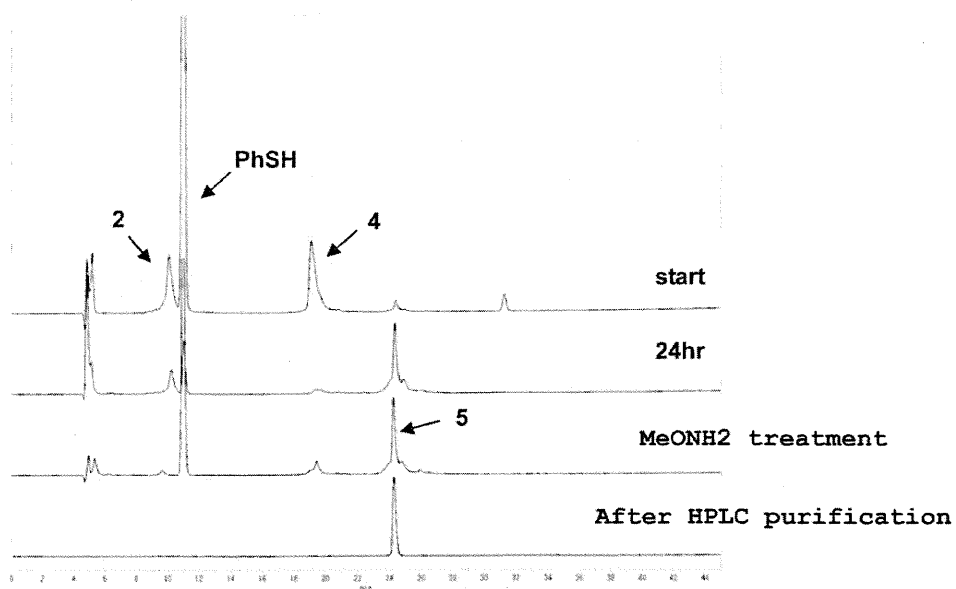
¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-Cys-³⁰
⁴⁰
Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-Leu-
⁵⁰
Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-⁶⁰
⁷⁰
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰
Asn(asialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-Ala-
⁹⁰
Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-¹⁰⁰
¹¹⁰
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-¹²⁰
¹³⁰
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
¹⁴⁰
Ser-His-Cys-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-¹⁵⁰
¹⁶⁰
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 15]

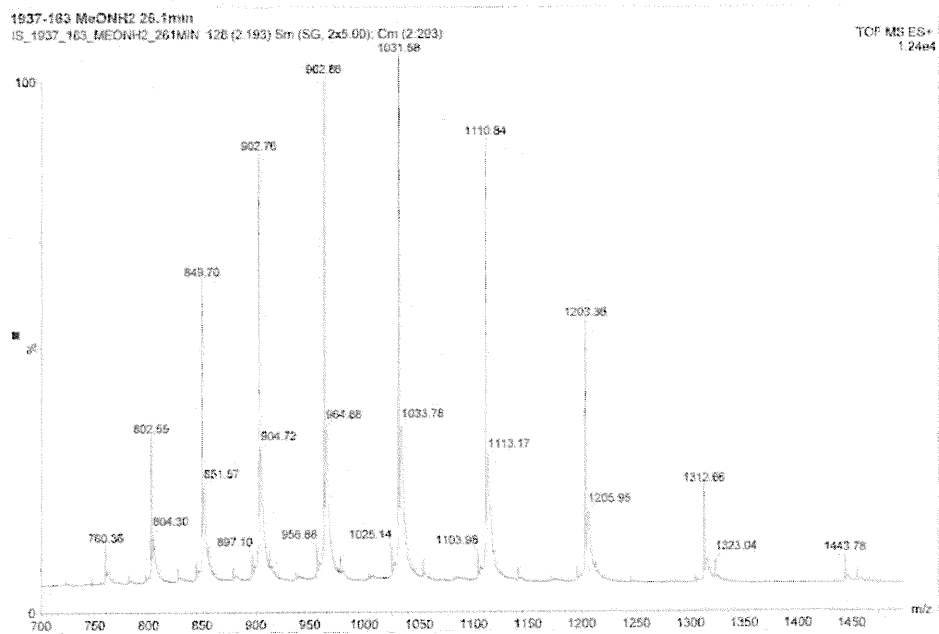


[Figure 16]

A



B



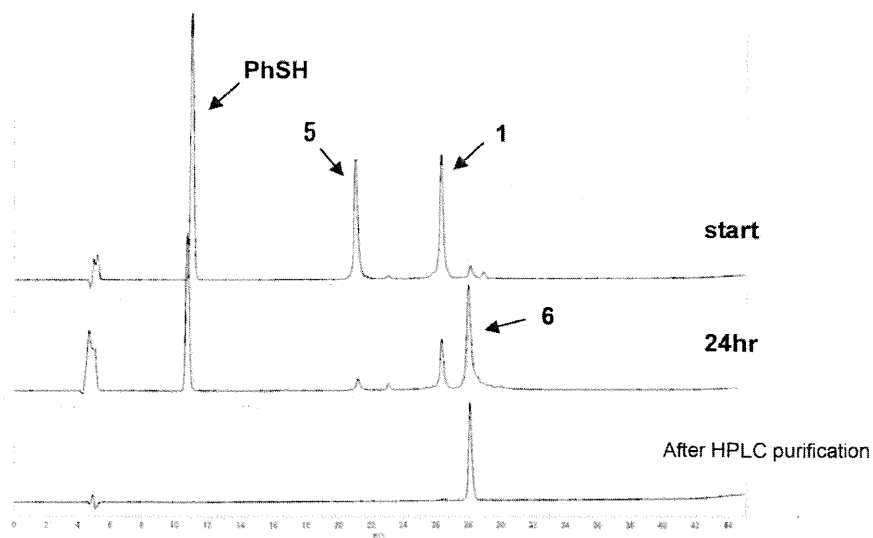
[Figure 17]

Peptide fragment (5) (SEQ ID NO. 21)

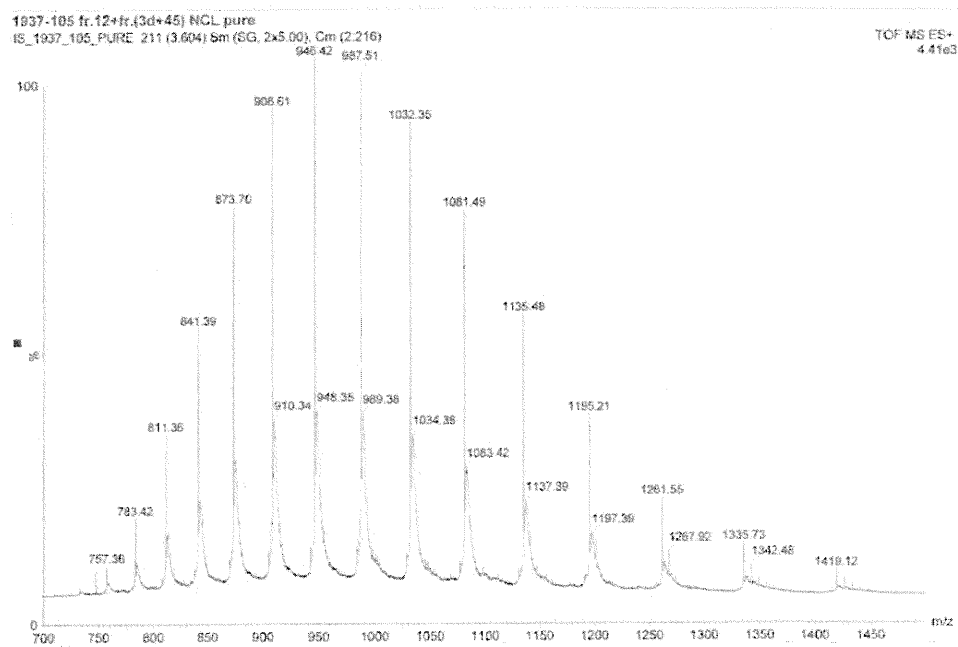
70
H₂N-Cys-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
80
Asn(protected sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-
90
Cys-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-
100
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-
110
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
120
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-
130
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 18]

A



B



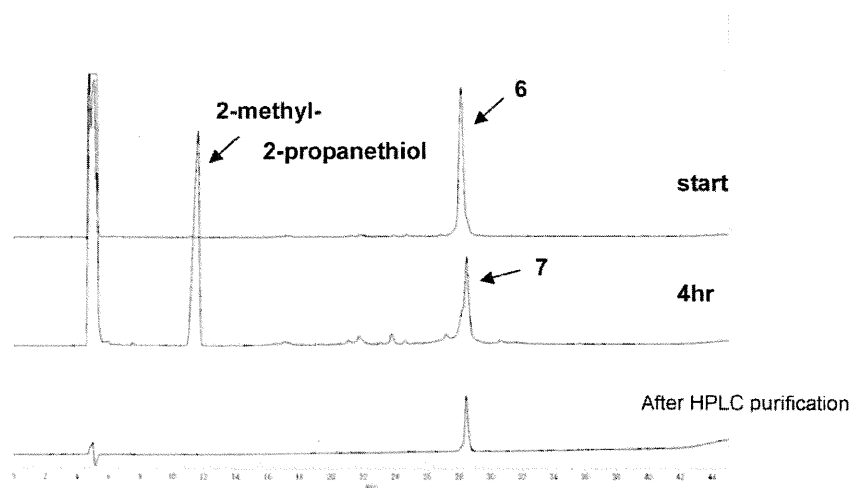
[Figure 19]

Peptide fragment (6) (SEQ ID NO. 22)

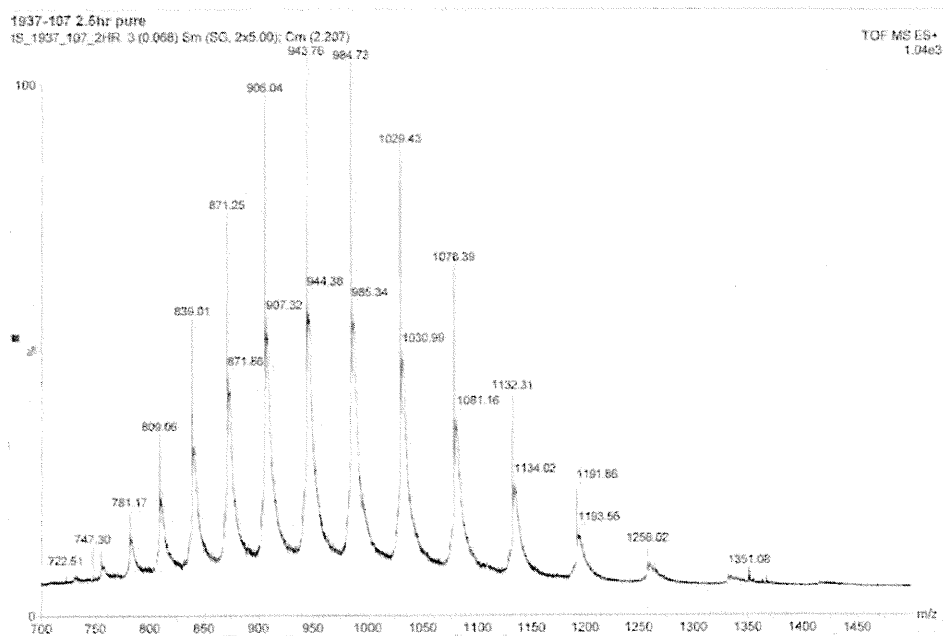
¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
Gln-Cys(Acm)-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-²⁰
Cys(Acm)-Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-³⁰
Leu-Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-⁴⁰
Gln-Asn-Ile-Phe-Cys-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-⁵⁰
Asn(protected sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-⁶⁰
Cys-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-⁷⁰
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-⁸⁰
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-⁹⁰
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-¹⁰⁰
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H¹¹⁰
¹²⁰
¹³⁰
¹⁴⁰
¹⁵⁰
¹⁶⁰

[Figure 20]

A



B



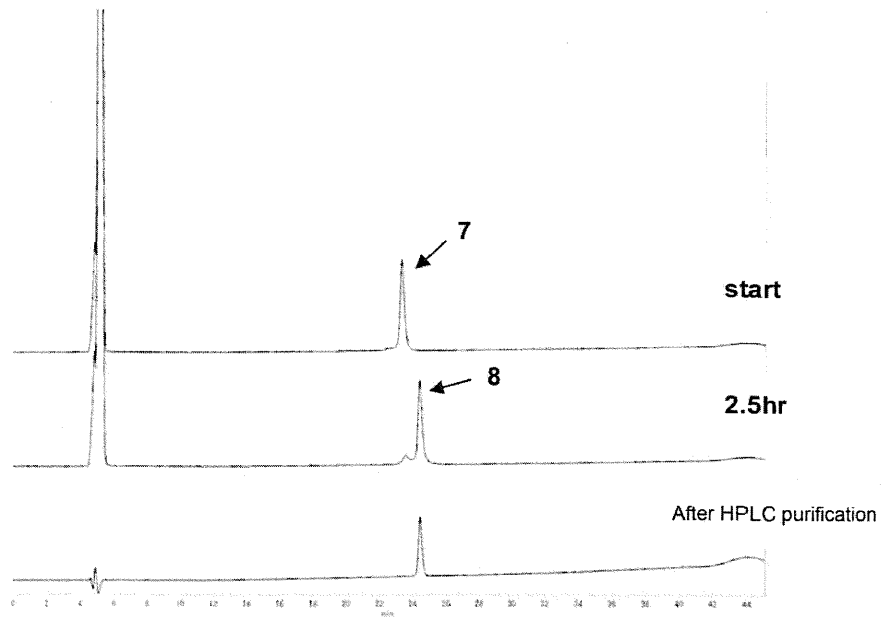
[Figure 21]

Peptide fragment (7) (SEQ ID NO. 23)

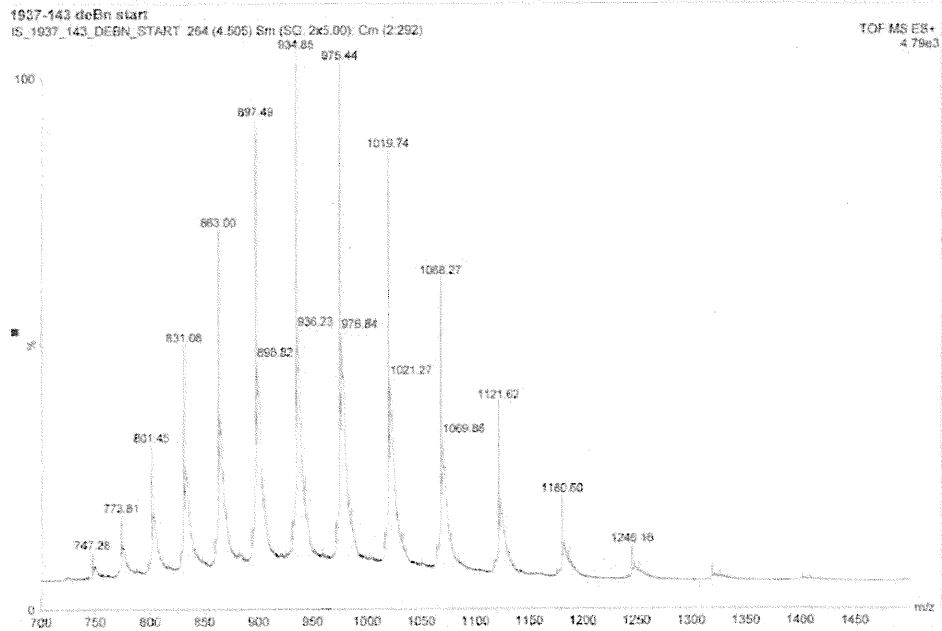
1 10
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-
20 30
Gln-Cys(Acm)-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-
40
Cys(Acm)-Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-
50 60
Leu-Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-
70
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
80
Asn(protected sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-
90 100
Ala-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-
110 120
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-
130
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
140 150
Ser-His-Cys(Acm)-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-
160
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 22]

A



B



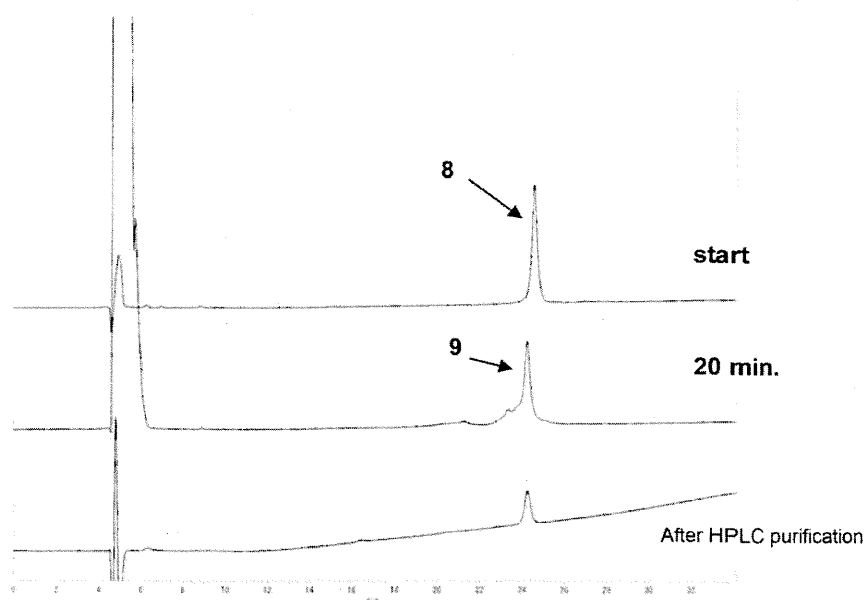
[Figure 23]

Peptide fragment (8) (SEQ ID NO. 24)

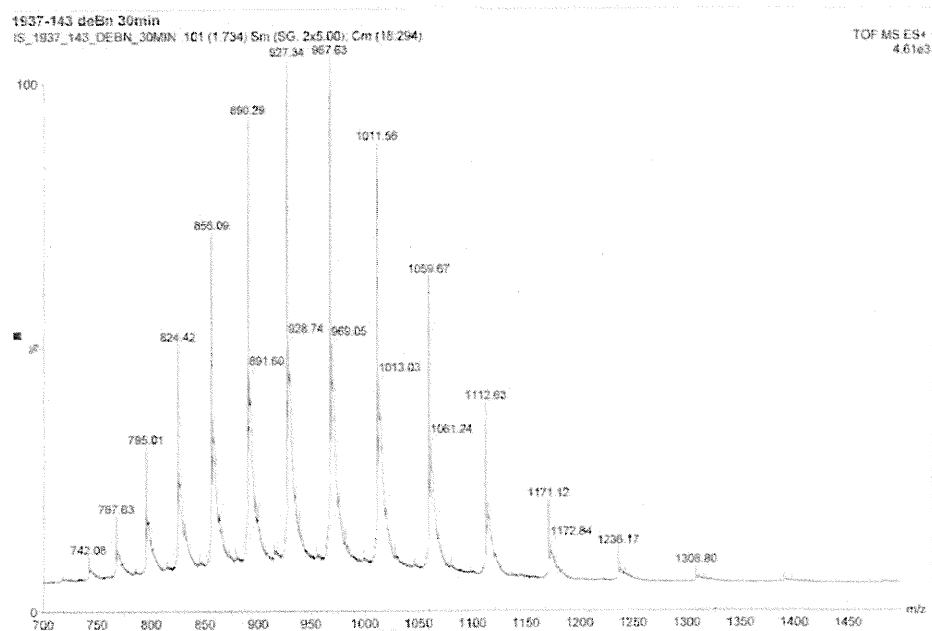
¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-Cys-³⁰
⁴⁰
Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-Leu-
⁵⁰
Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-⁶⁰
⁷⁰
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰
Asn(protected sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-
⁹⁰
Ala-Asn-Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-¹⁰⁰
¹¹⁰
Leu-Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-¹²⁰
¹³⁰
Leu-Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-
¹⁴⁰
Ser-His-Cys-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-¹⁵⁰
¹⁶⁰
Tyr-Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 24]

A



B

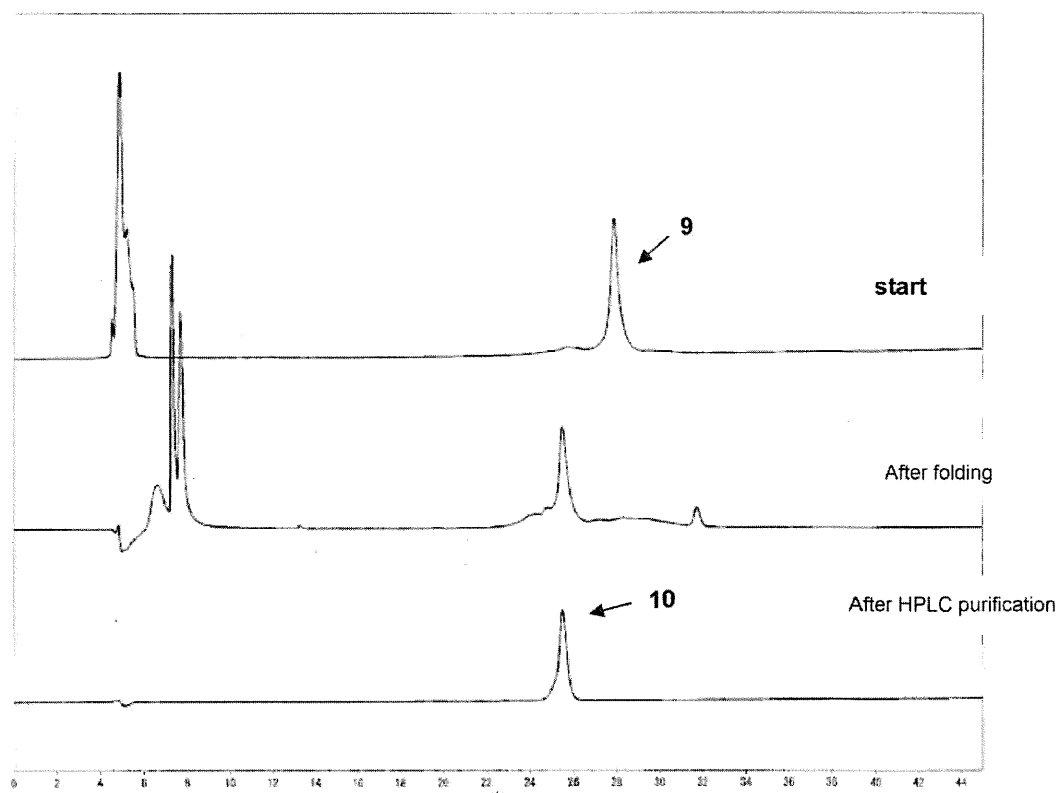


[Figure 25]

Peptide fragment (9) (SEQ ID NO. 25)

¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-Cys-³⁰
⁴⁰
Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-Leu-
⁵⁰
Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-⁶⁰
⁷⁰
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰
Asn(sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-Ala-Asn-⁹⁰
¹⁰⁰
Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-Leu-
¹¹⁰
Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-Leu-¹²⁰
¹³⁰
Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-Ser-
¹⁴⁰
His-Cys-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-Tyr-¹⁵⁰
¹⁶⁰
Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 26]

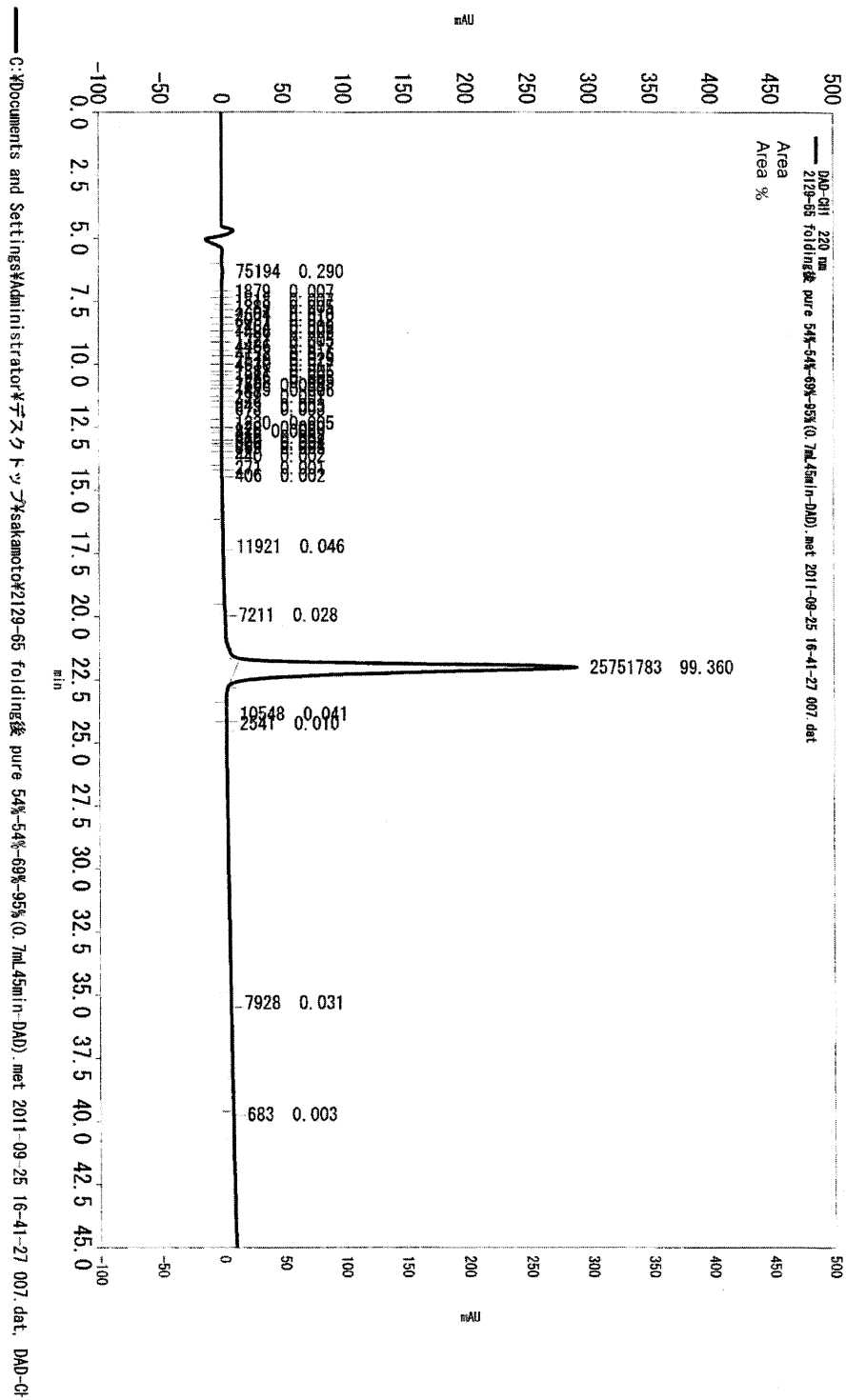


[Figure 27]

Peptide fragment (10) (SEQ ID NO. 26)

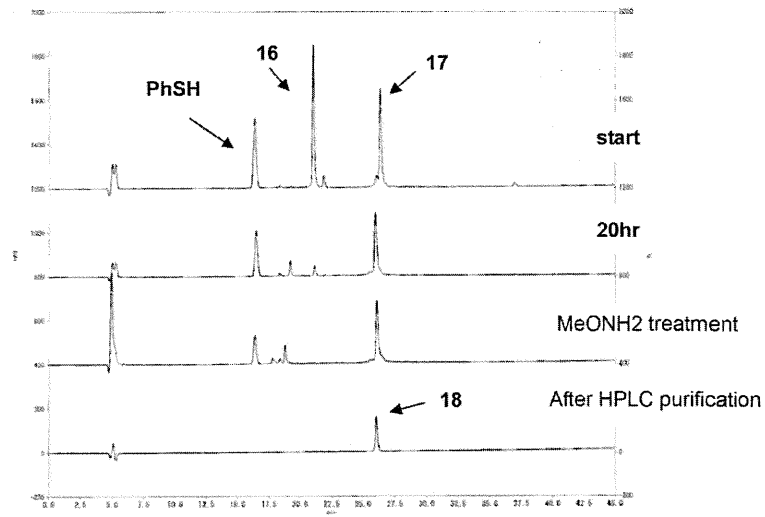
¹
H₂N-Met-Ser-Tyr-Asn-Leu-Leu-Gly-Phe-Leu-Gln-Arg-Ser-Ser-Asn-Phe-¹⁰
²⁰
Gln-Cys-Gln-Lys-Leu-Leu-Trp-Gln-Leu-Asn-Gly-Arg-Leu-Glu-Tyr-Cys-³⁰
⁴⁰
Leu-Lys-Asp-Arg-Met-Asn-Phe-Asp-Ile-Pro-Glu-Glu-Ile-Lys-Gln-Leu-
⁵⁰⁶⁰
Gln-Gln-Phe-Gln-Lys-Glu-Asp-Ala-Ala-Leu-Thr-Ile-Tyr-Glu-Met-Leu-
⁷⁰
Gln-Asn-Ile-Phe-Ala-Ile-Phe-Arg-Gln-Asp-Ser-Ser-Ser-Thr-Gly-Trp-
⁸⁰⁹⁰
Asn(sialyloligosaccharide)-Glu-Thr-Ile-Val-Glu-Asn-Leu-Leu-Ala-Asn-
¹⁰⁰
Val-Tyr-His-Gln-Ile-Asn-His-Leu-Lys-Thr-Val-Leu-Glu-Glu-Lys-Leu-
¹¹⁰¹²⁰
Glu-Lys-Glu-Asp-Phe-Thr-Arg-Gly-Lys-Leu-Met-Ser-Ser-Leu-His-Leu-
¹³⁰
Lys-Arg-Tyr-Tyr-Gly-Arg-Ile-Leu-His-Tyr-Leu-Lys-Ala-Lys-Glu-Tyr-Ser-
¹⁴⁰¹⁵⁰
His-Cys-Ala-Trp-Thr-Ile-Val-Arg-Val-Glu-Ile-Leu-Arg-Asn-Phe-Tyr-
¹⁶⁰
Phe-Ile-Asn-Arg-Leu-Thr-Gly-Tyr-Leu-Arg-Asn-CO₂H

[Figure 28]

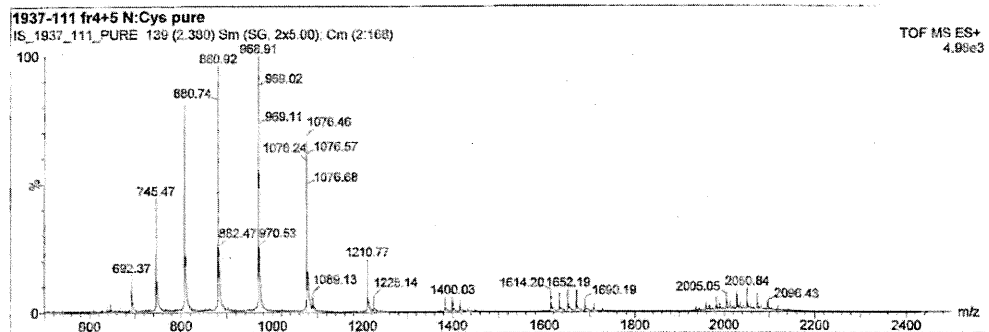


[Figure 29]

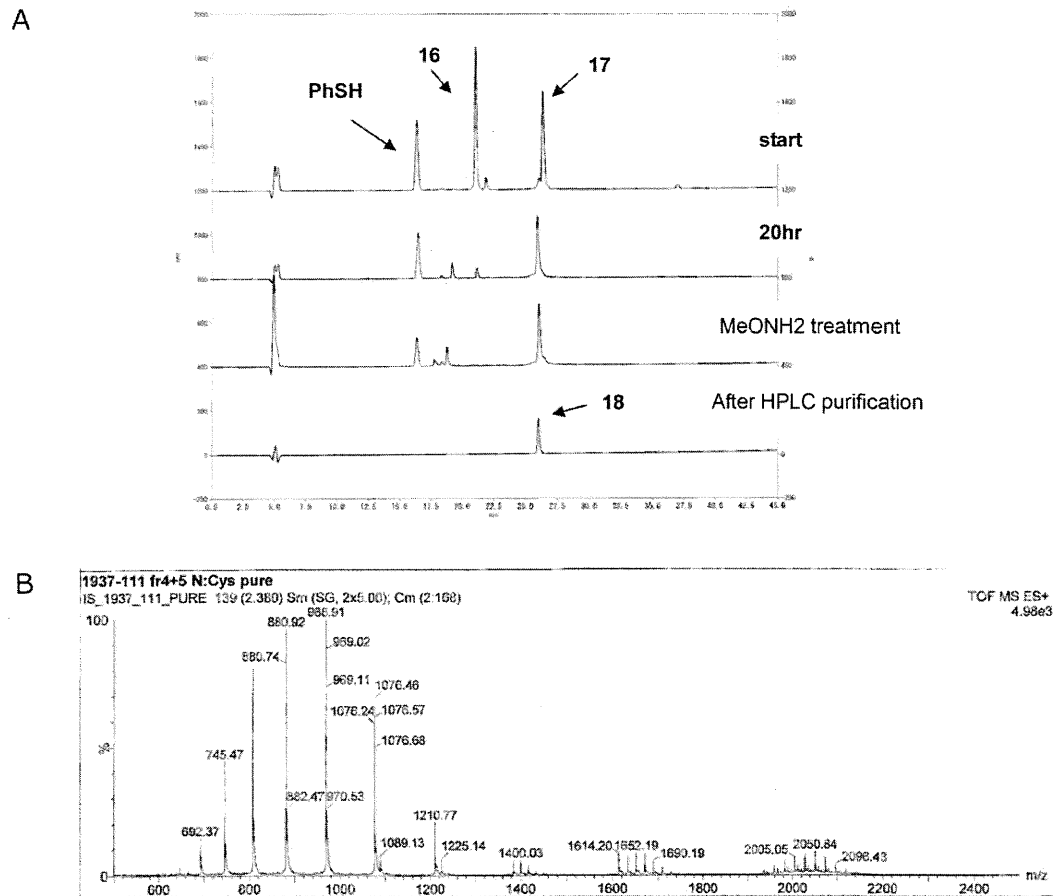
A



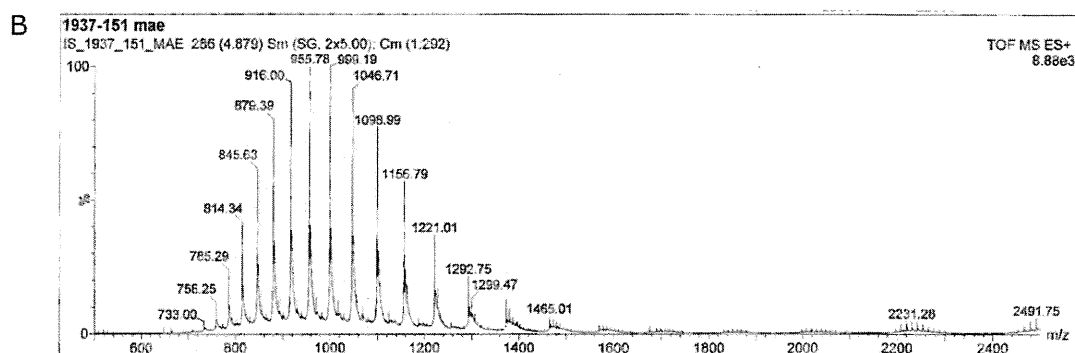
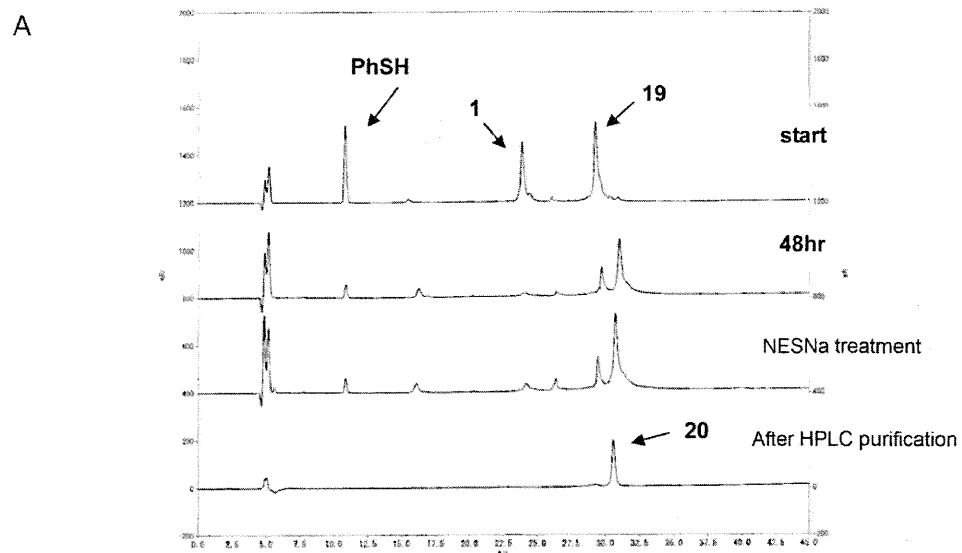
B



[Figure 30]

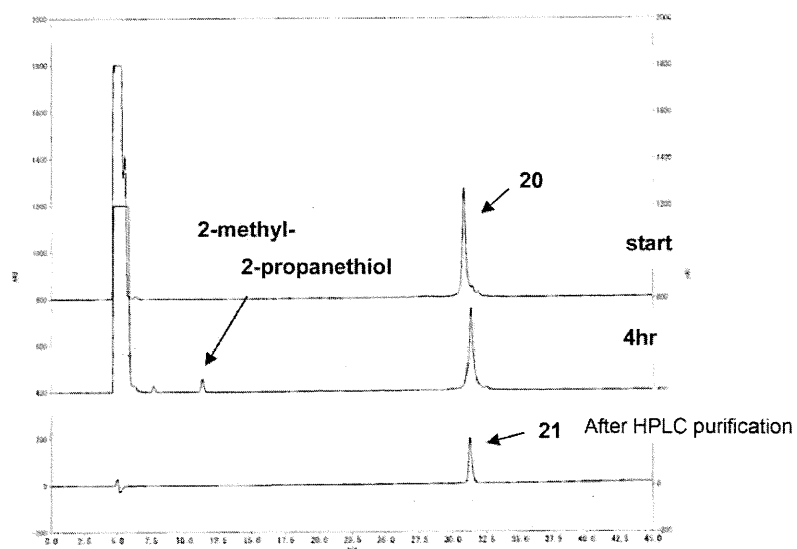


[Figure 31]

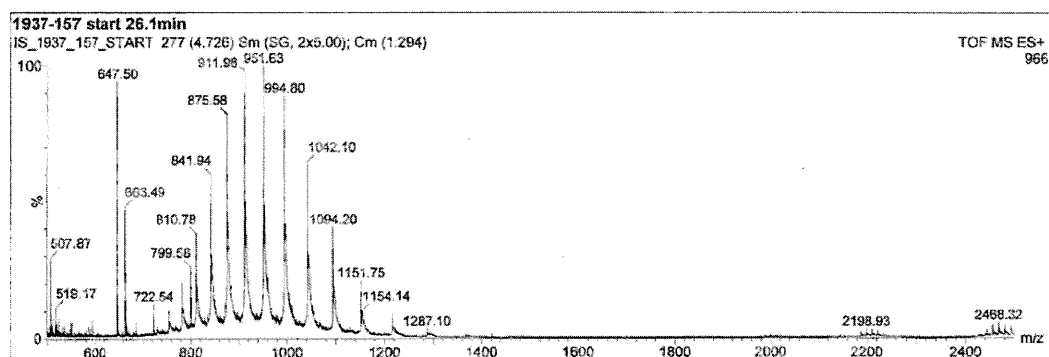


[Figure 32]

A

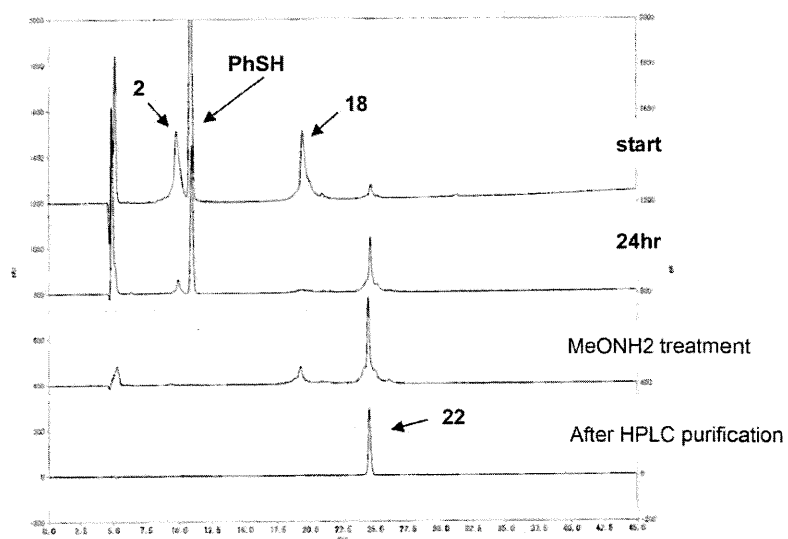


B

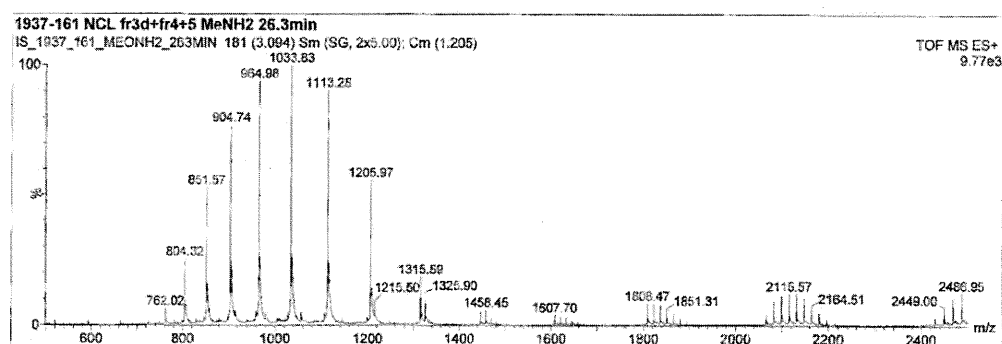


[Figure 33]

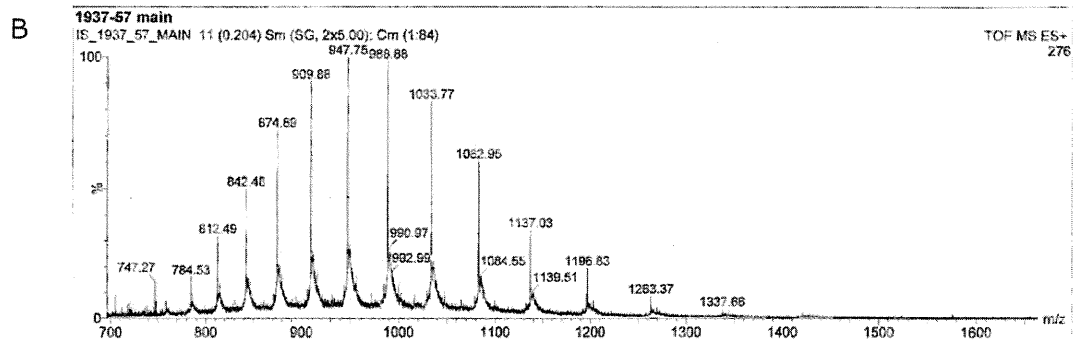
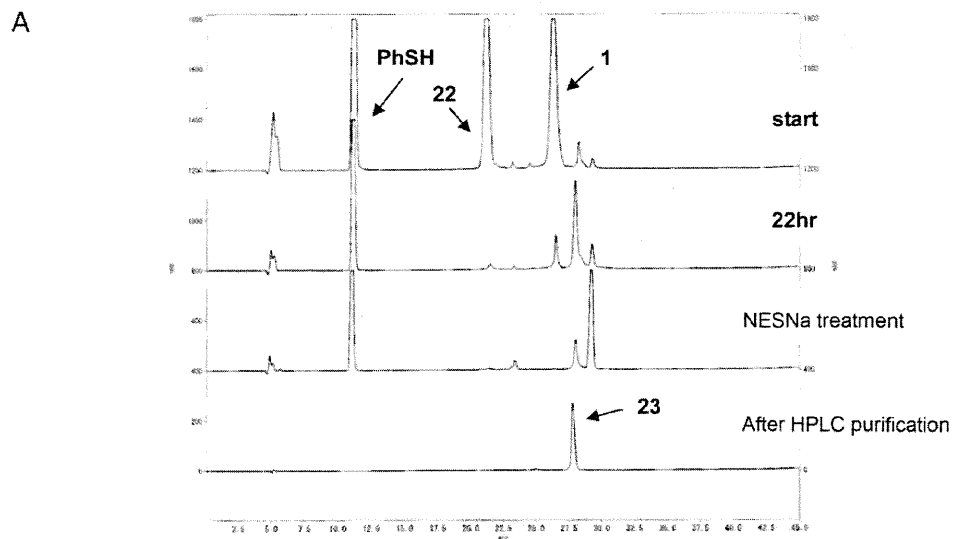
A



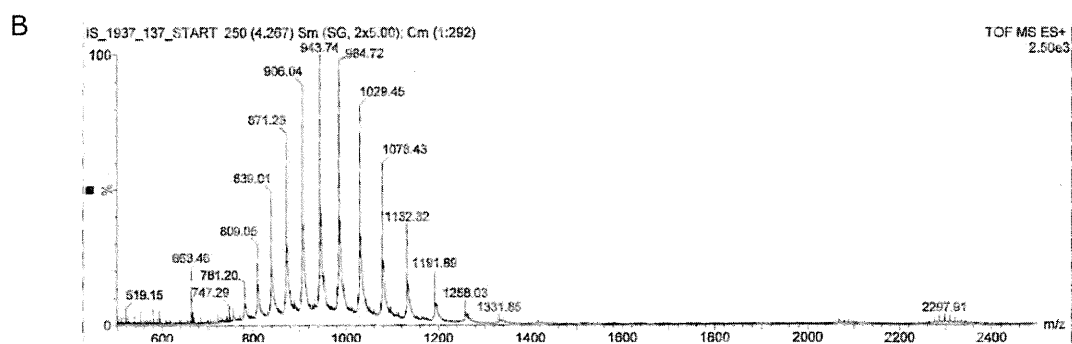
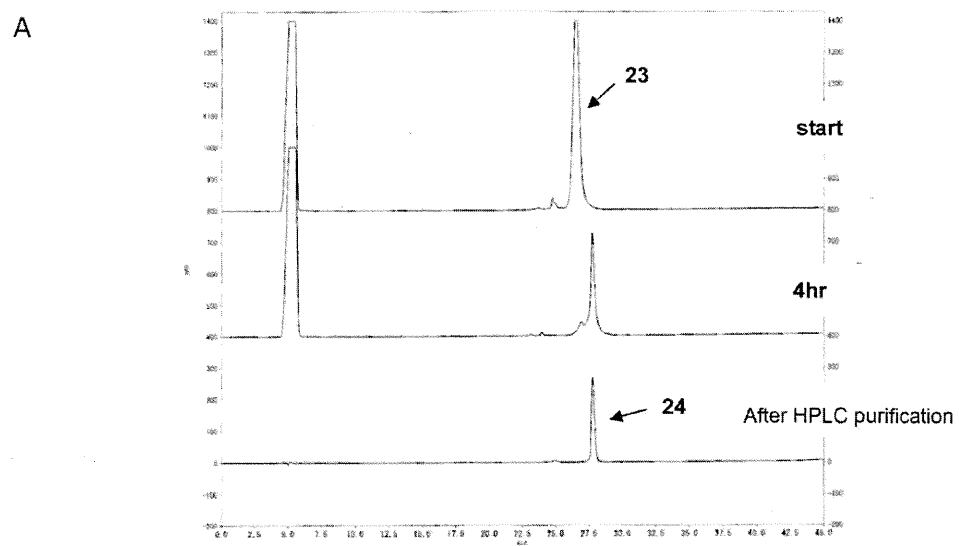
B



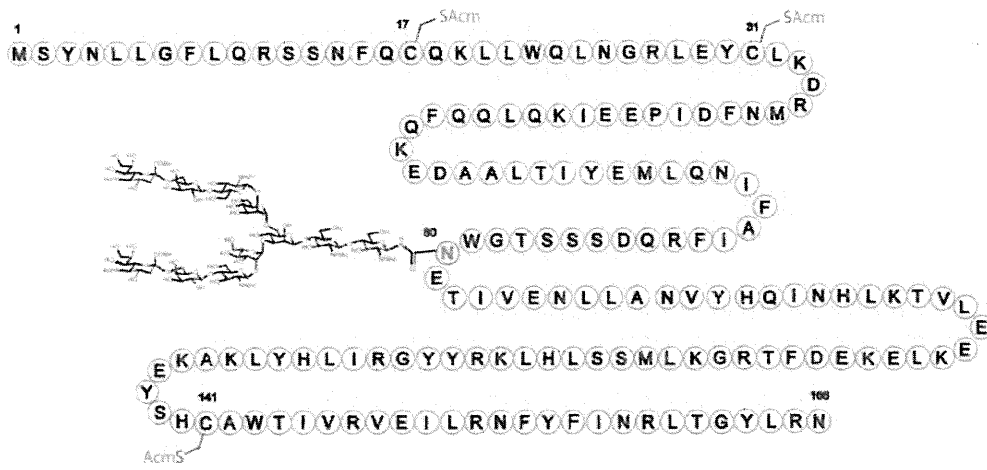
[Figure 34]



[Figure 35]

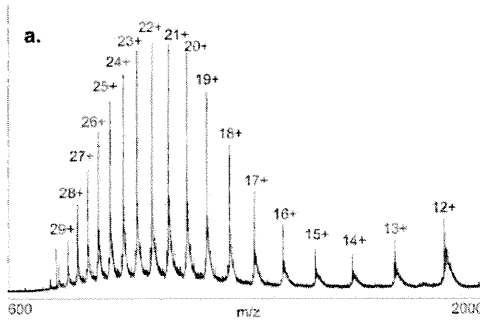


[Figure 36]

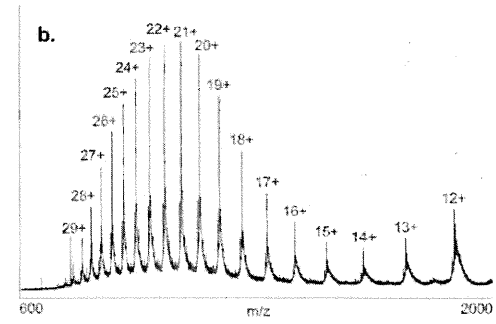


7

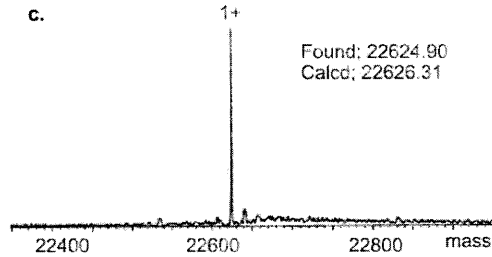
Before heat treatment



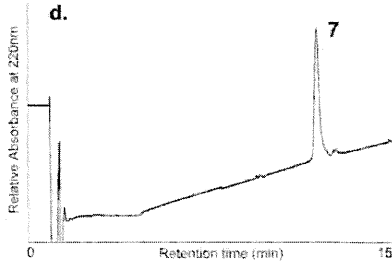
After heat treatment



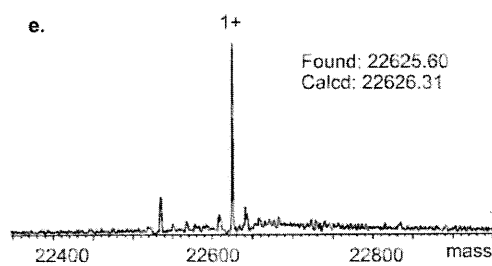
Before heat treatment



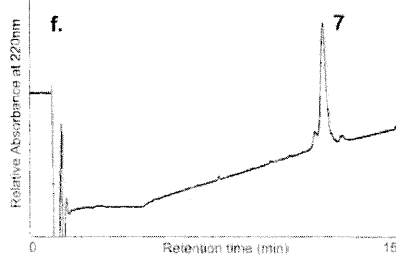
Before heat treatment



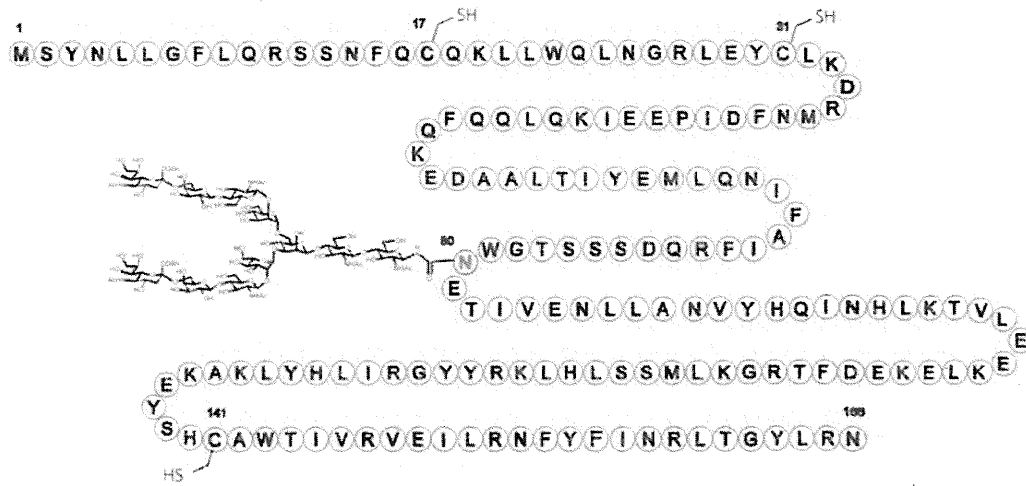
After heat treatment



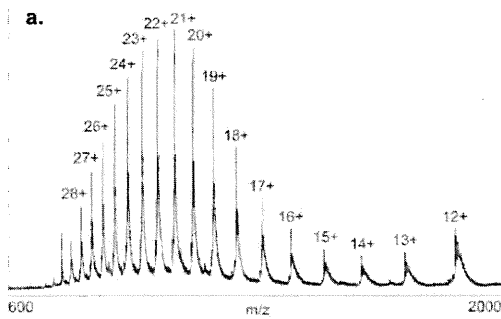
After heat treatment



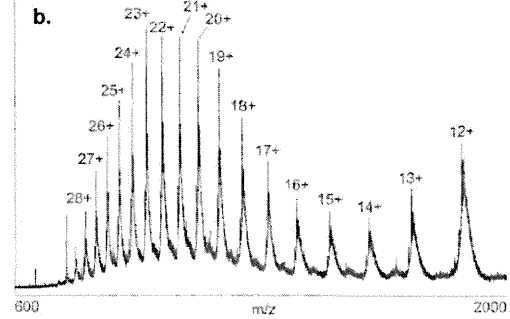
[Figure 37]



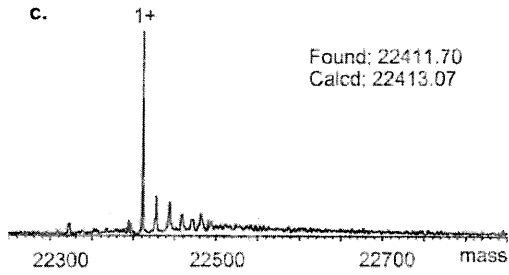
Before heat treatment



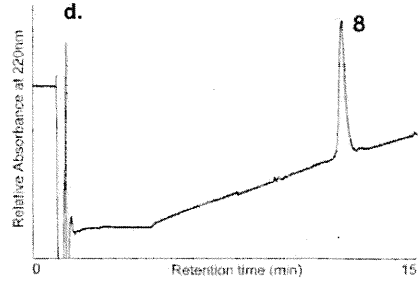
8 After heat treatment



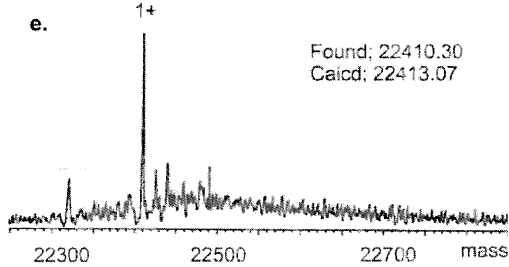
Before heat treatment



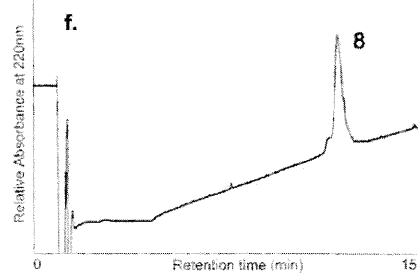
Before heat treatment



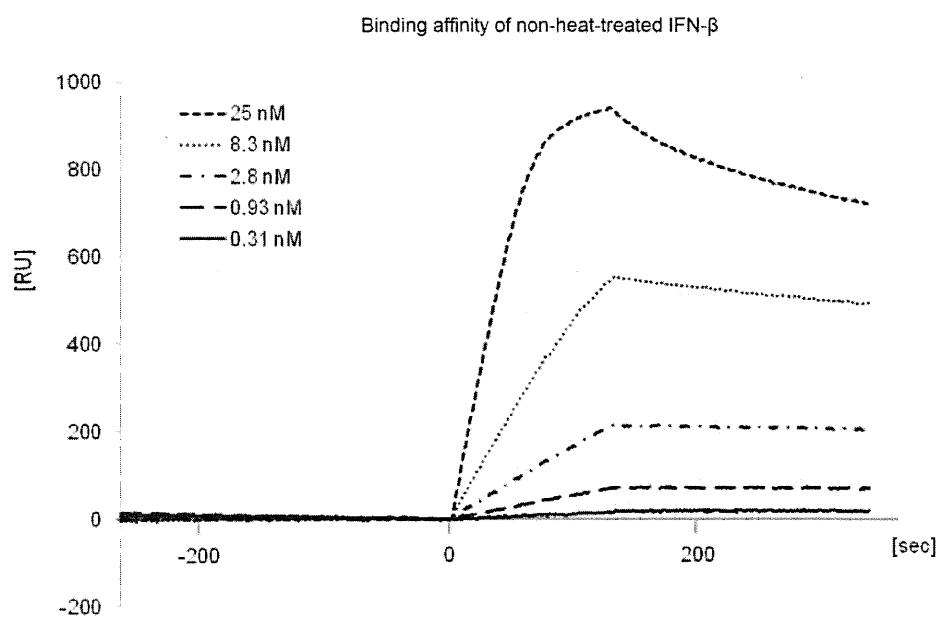
After heat treatment



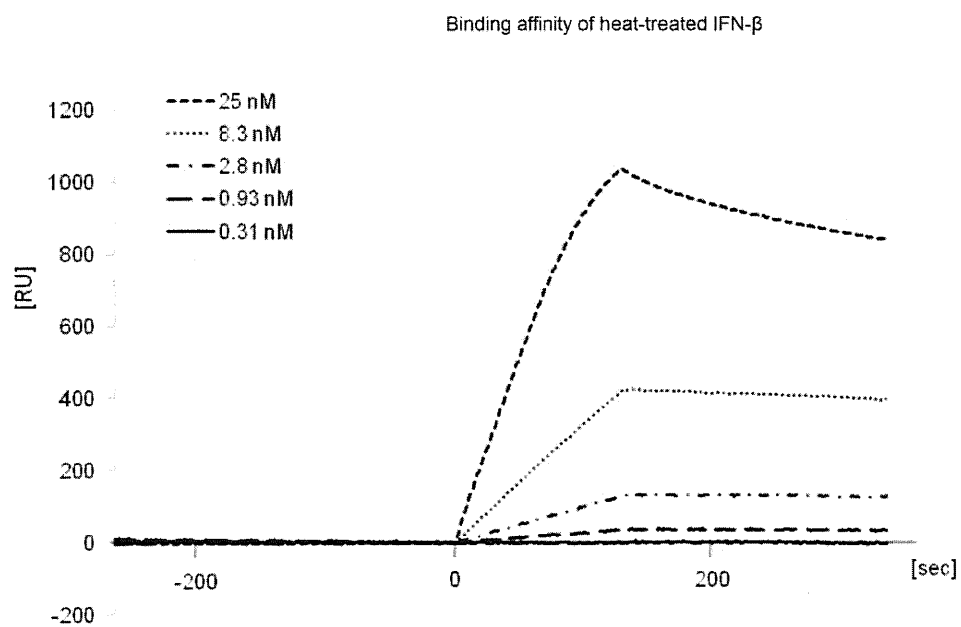
After heat treatment



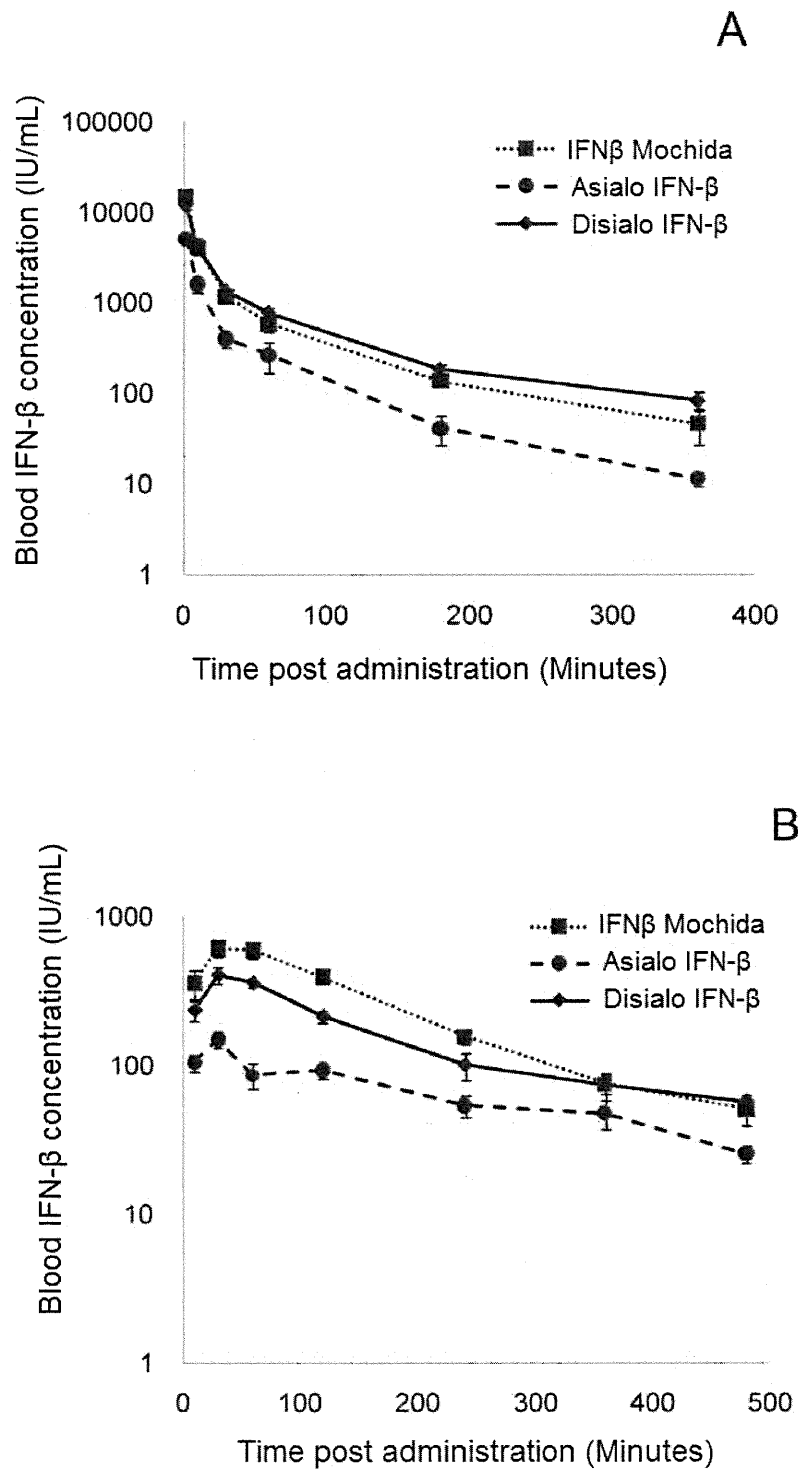
[Figure 38]



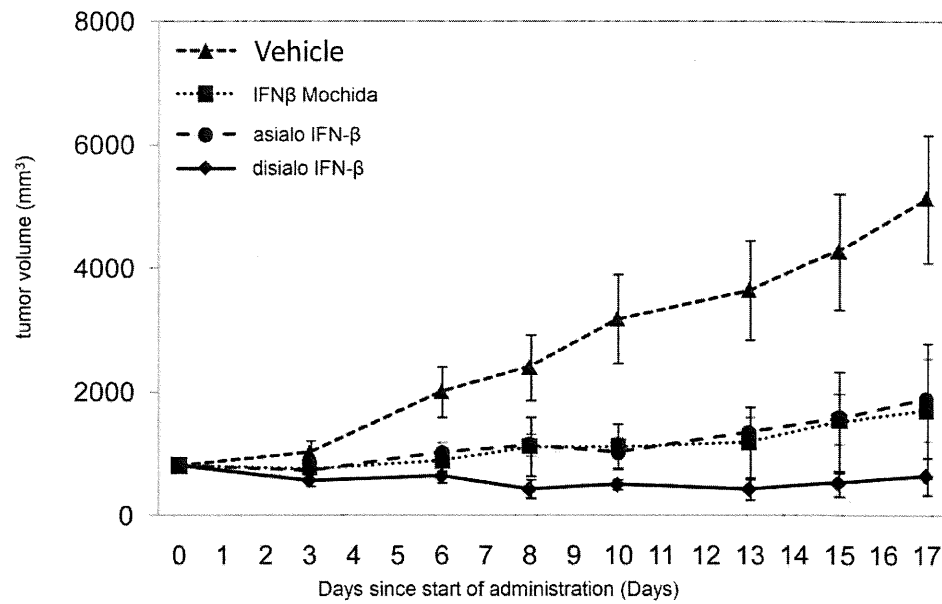
[Figure 39]



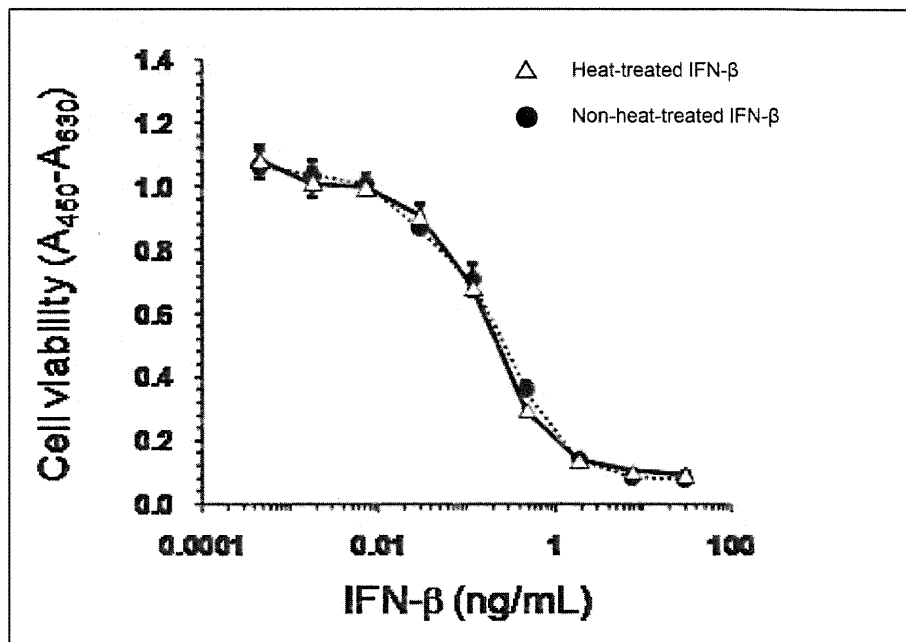
[Figure 40]



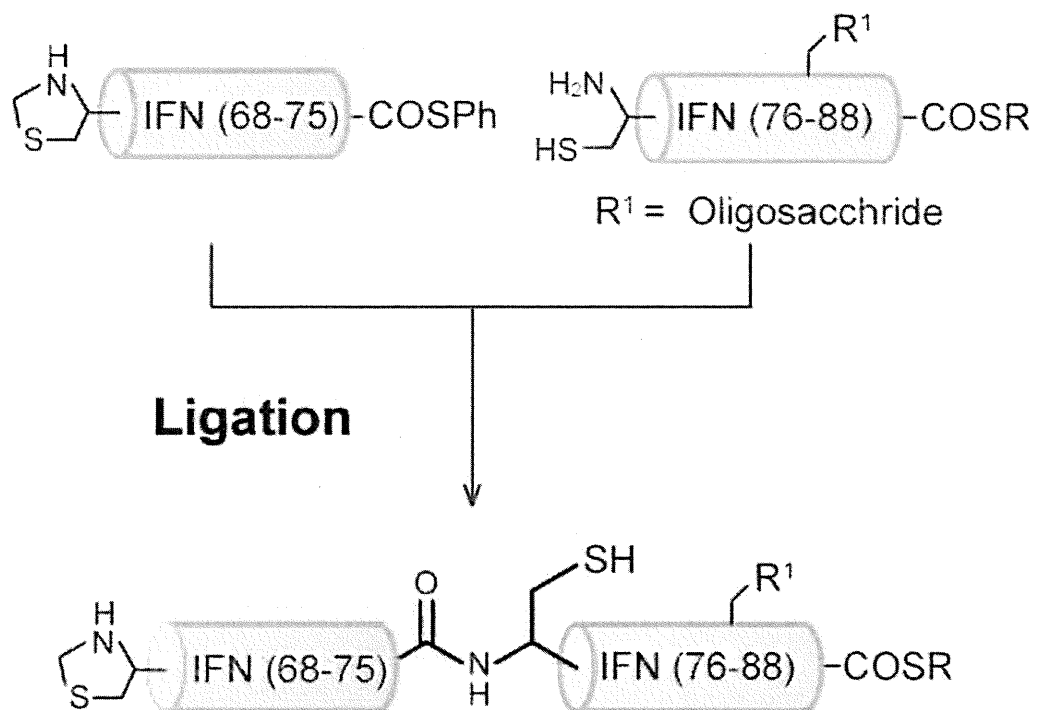
[Figure 41]



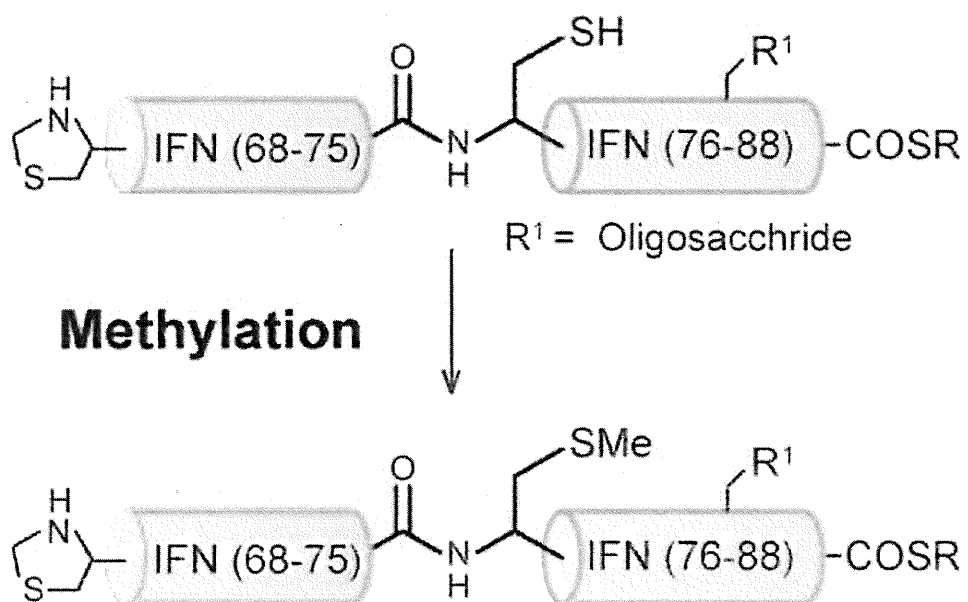
[Figure 42]



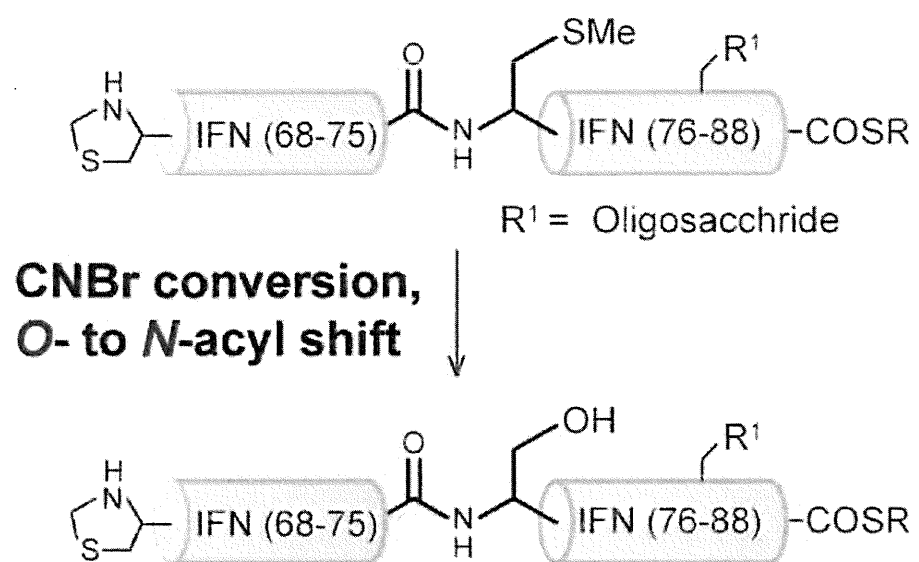
[Figure 43]



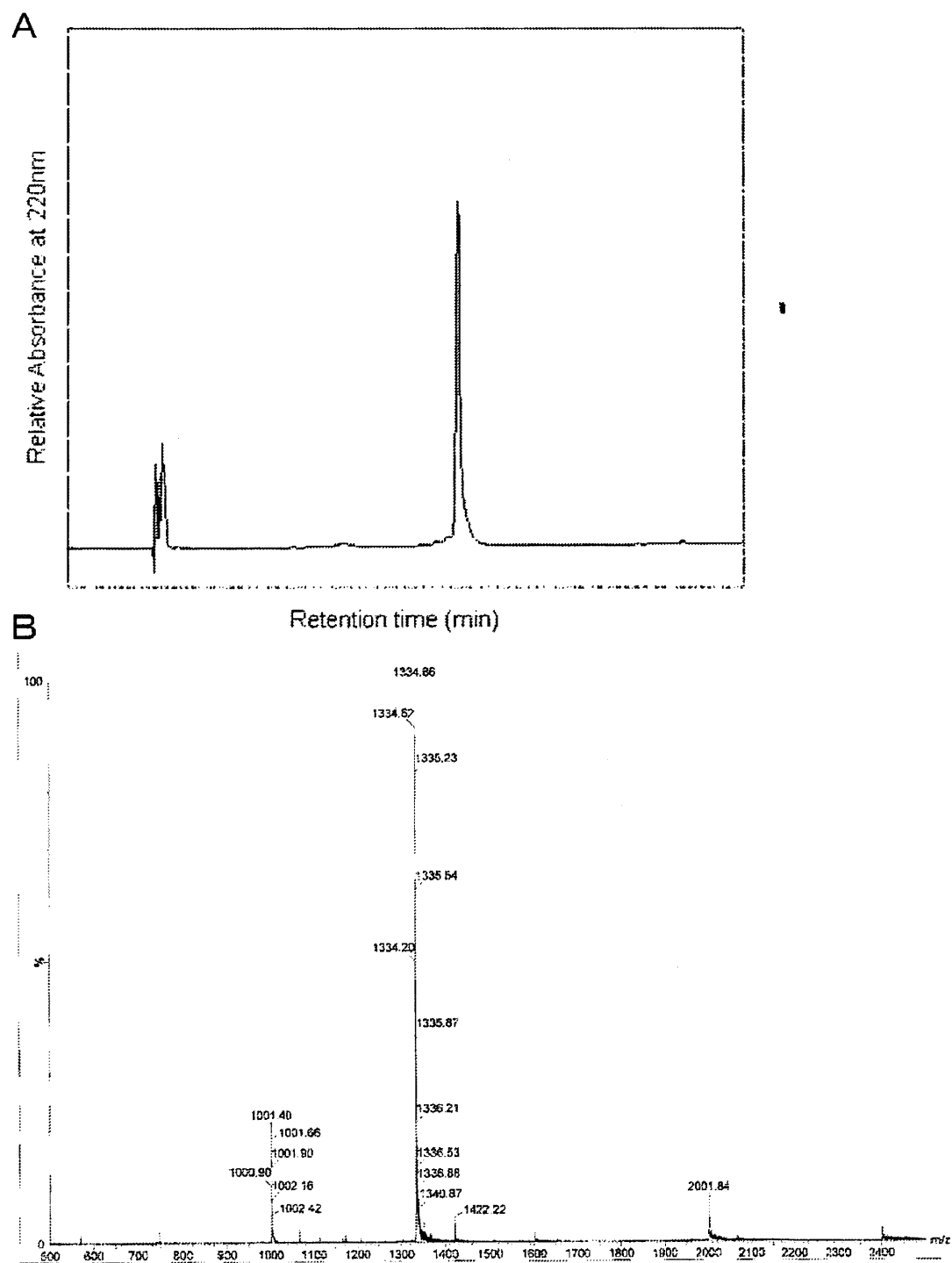
[Figure 44]



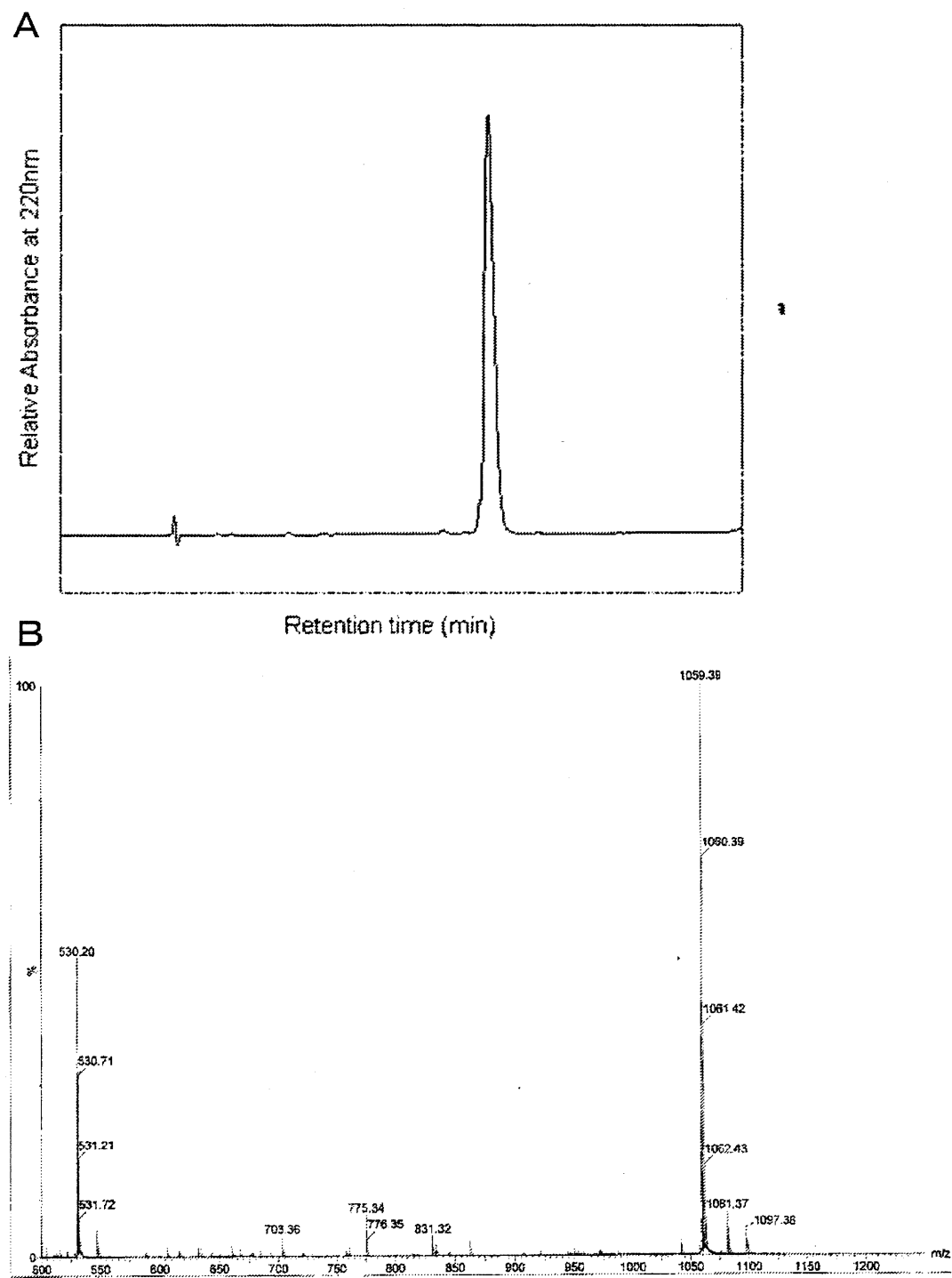
[Figure 45]



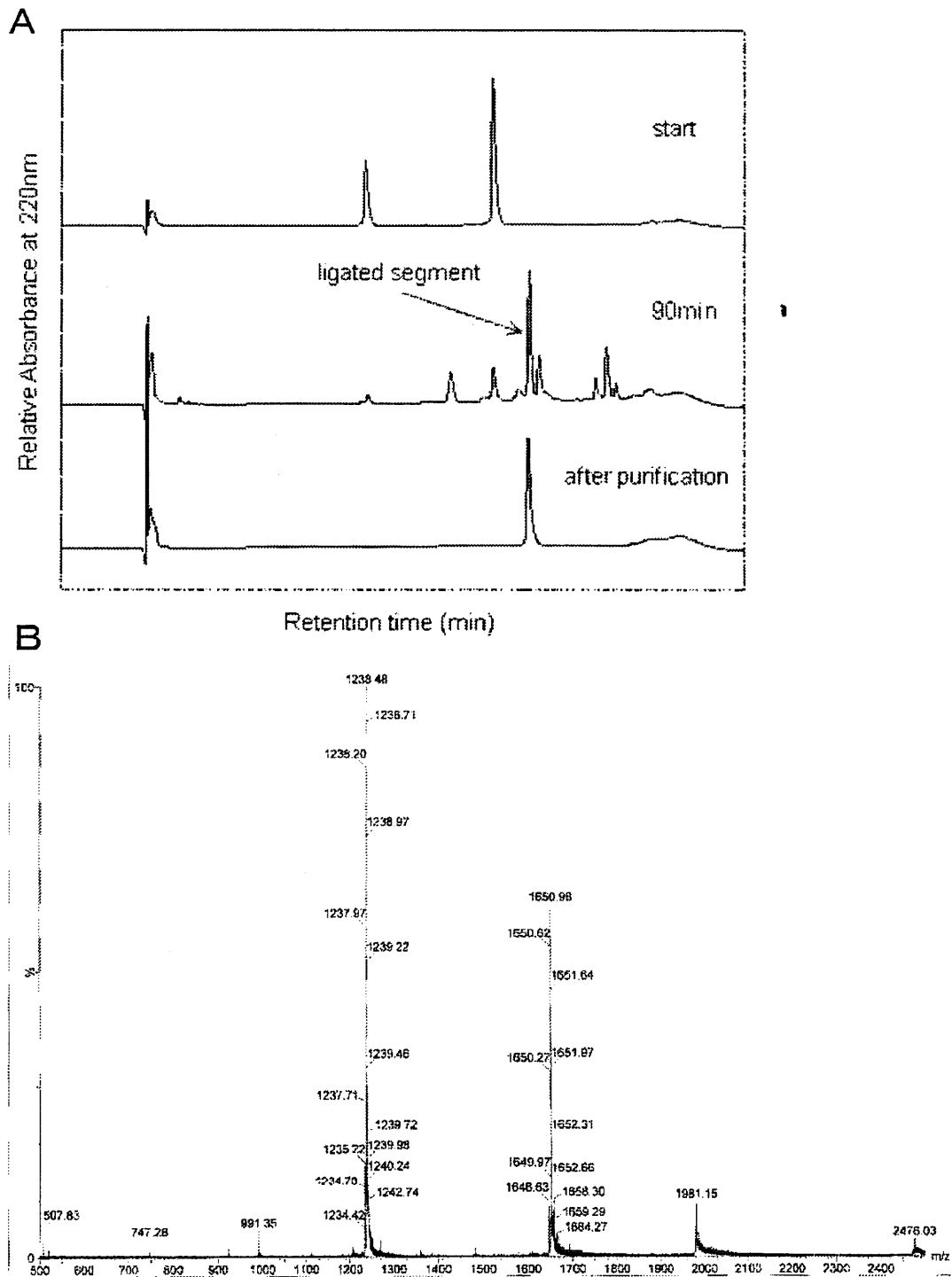
[Figure 46]



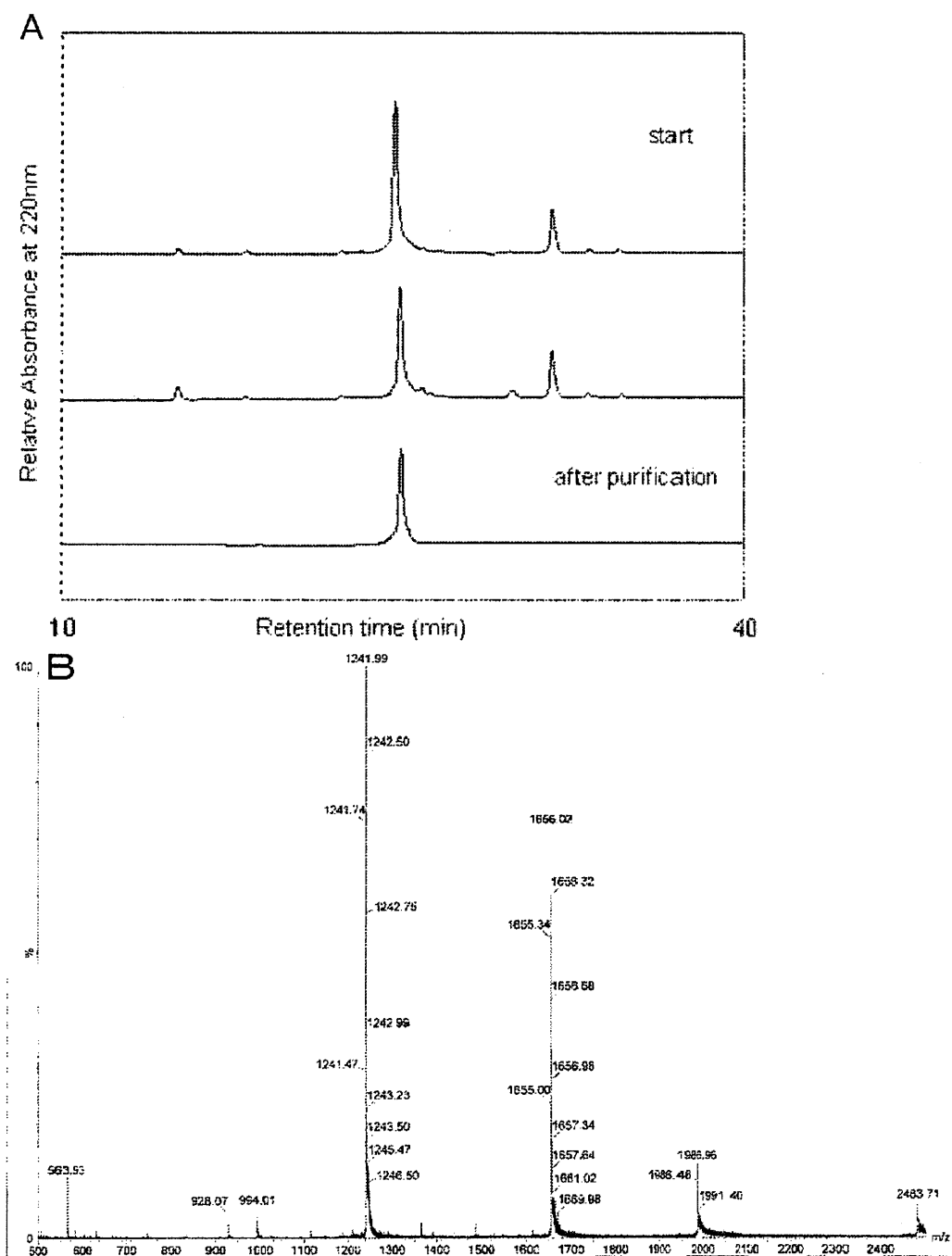
[Figure 47]



[Figure 48]



[Figure 49]



[Figure 50]

