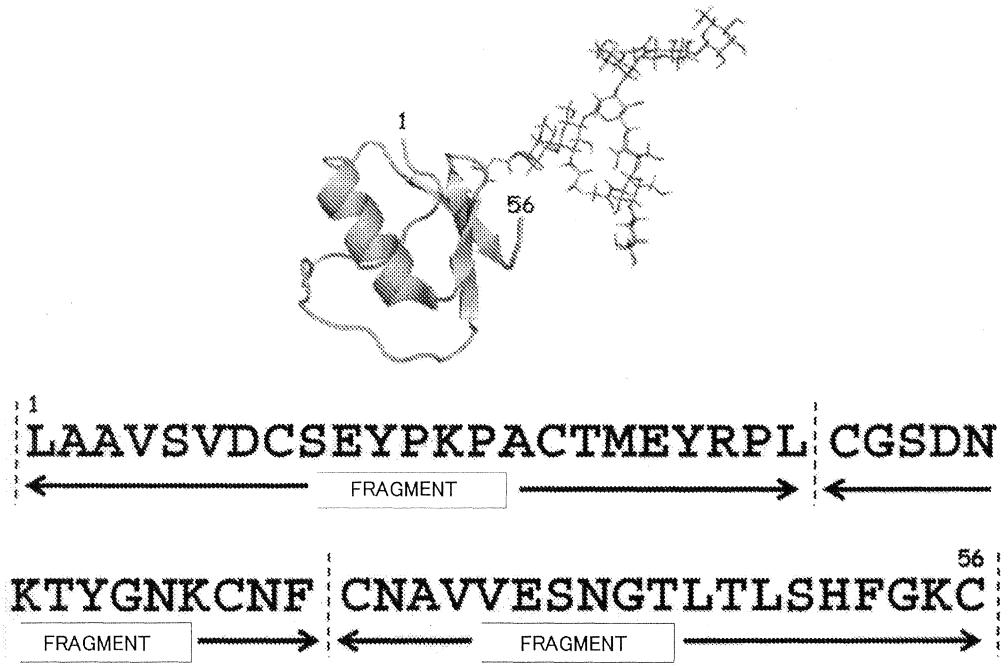
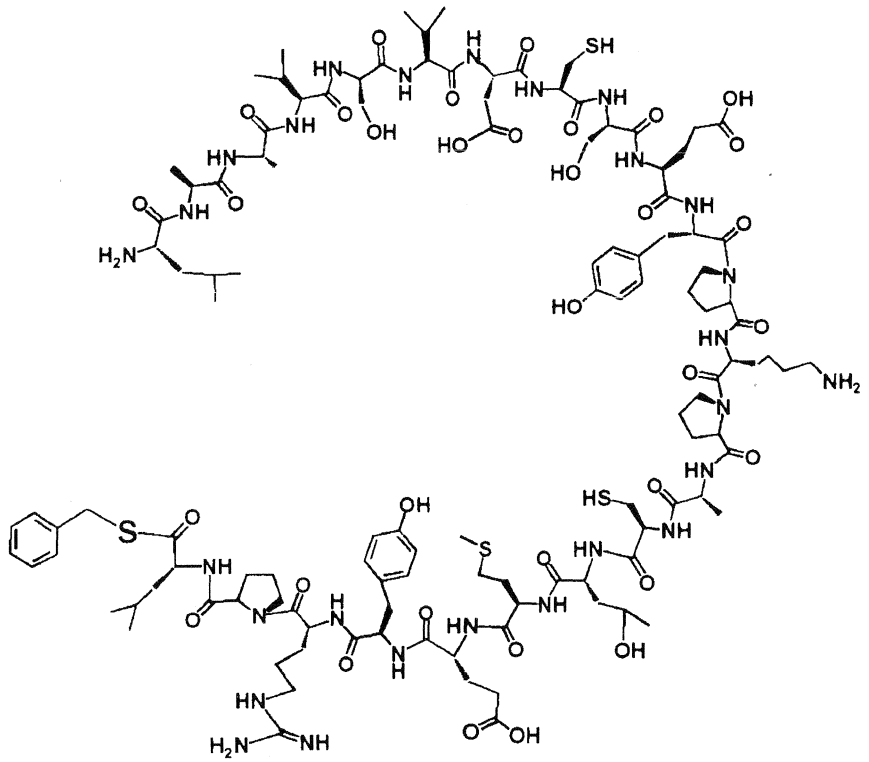
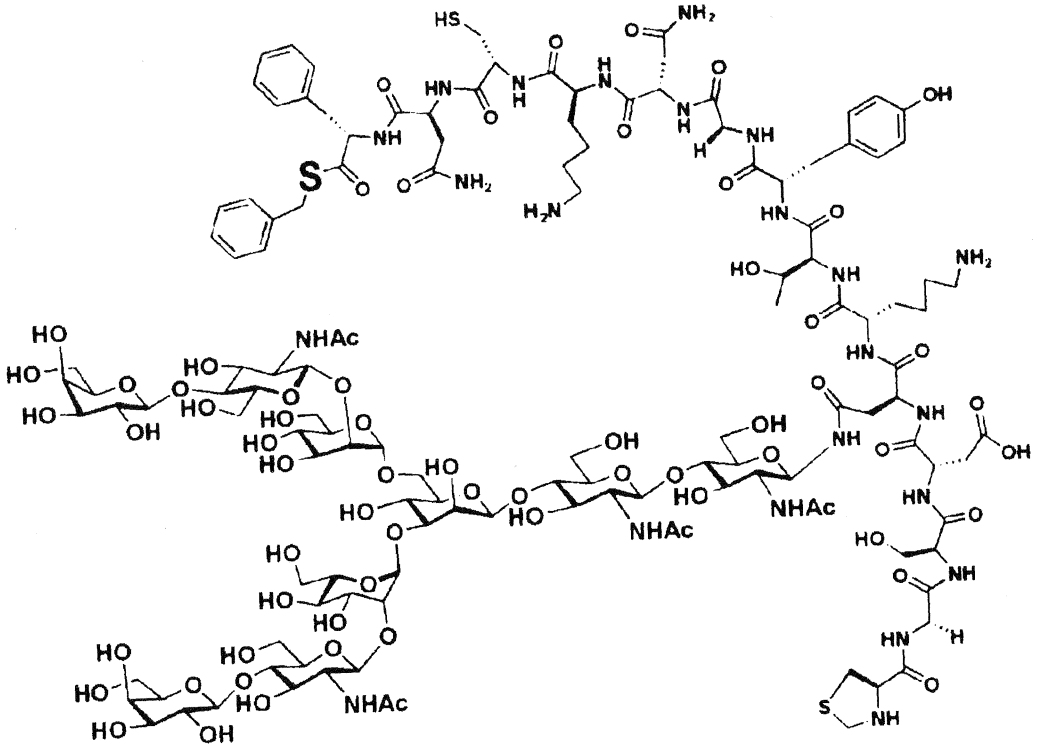
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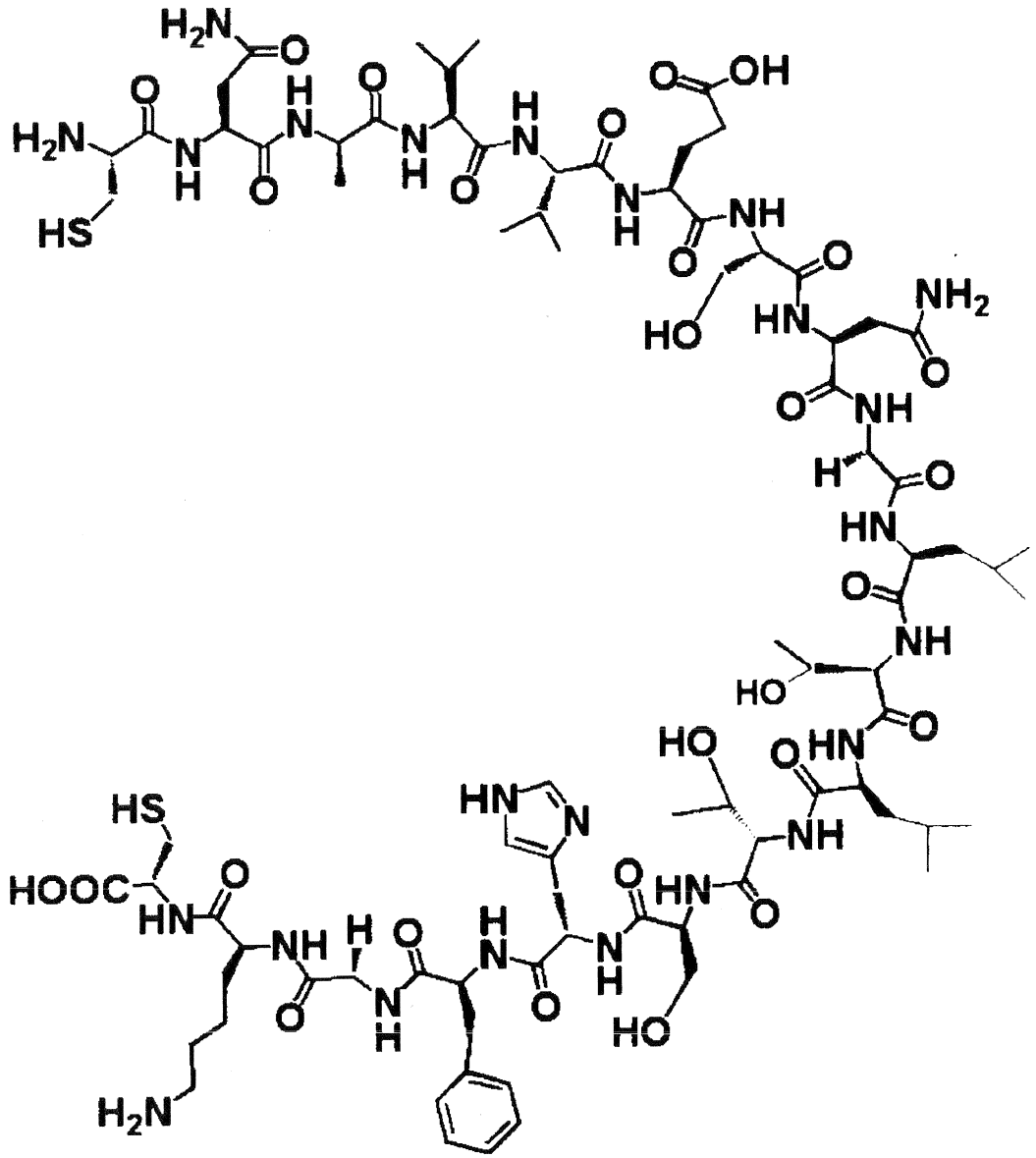
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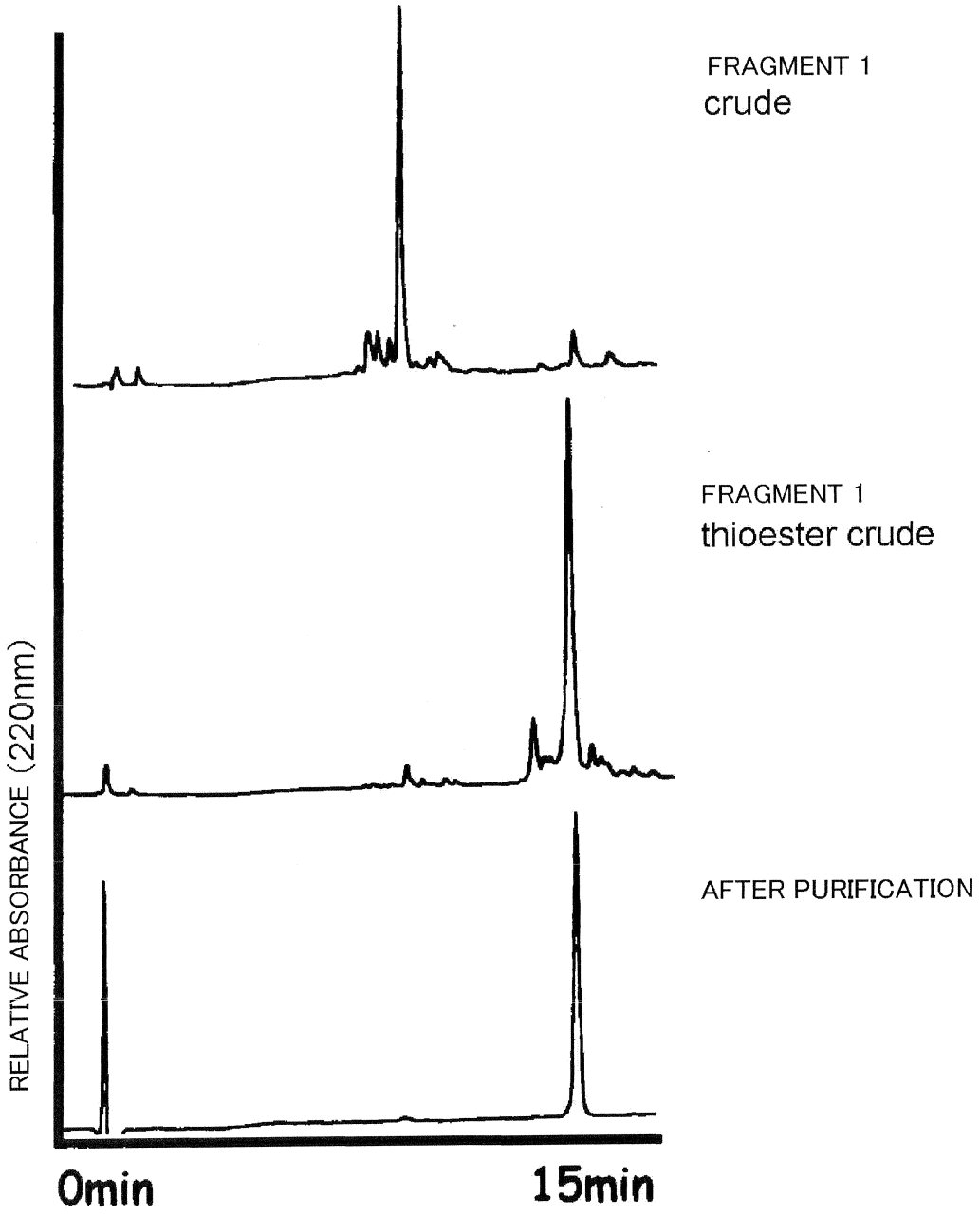
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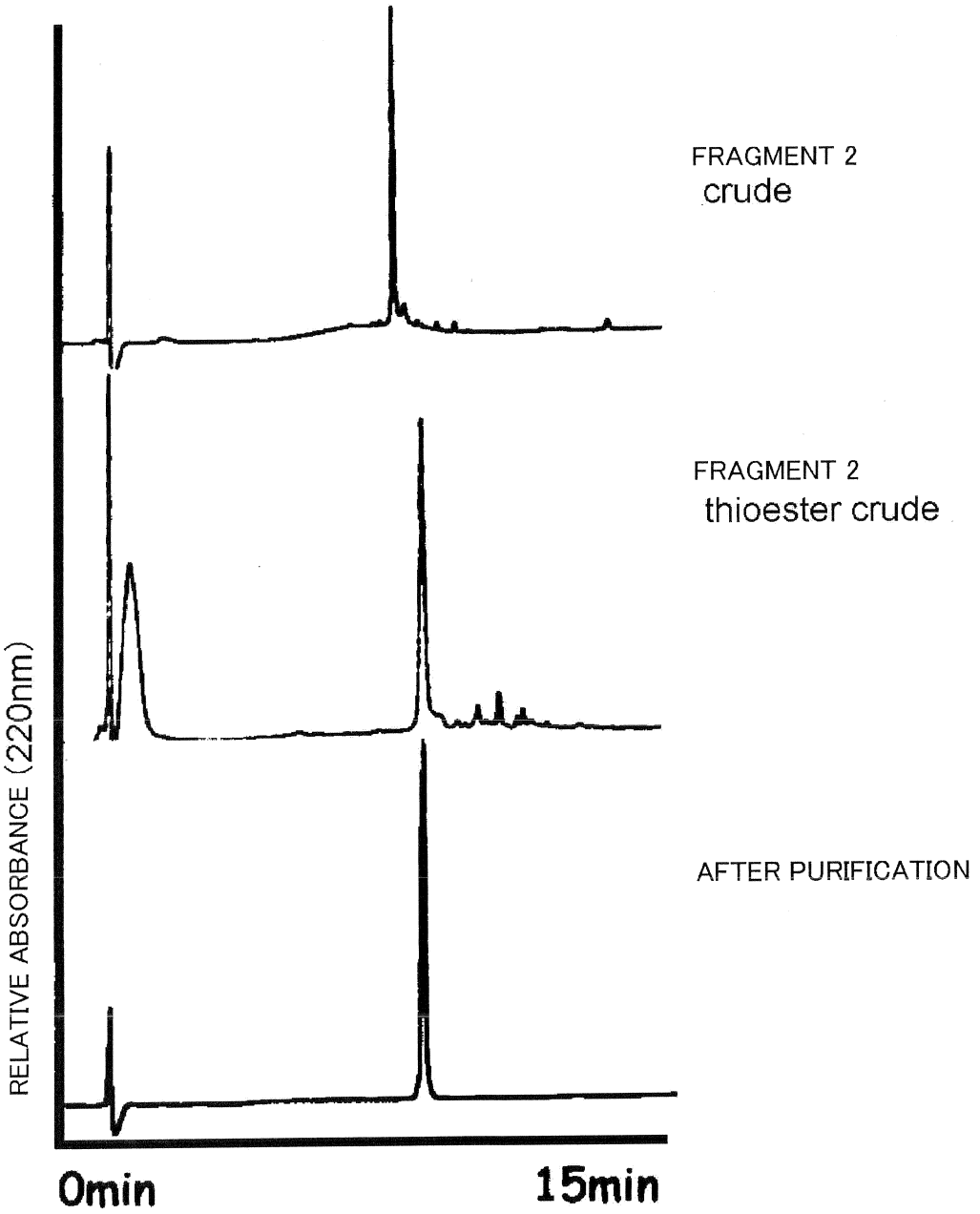
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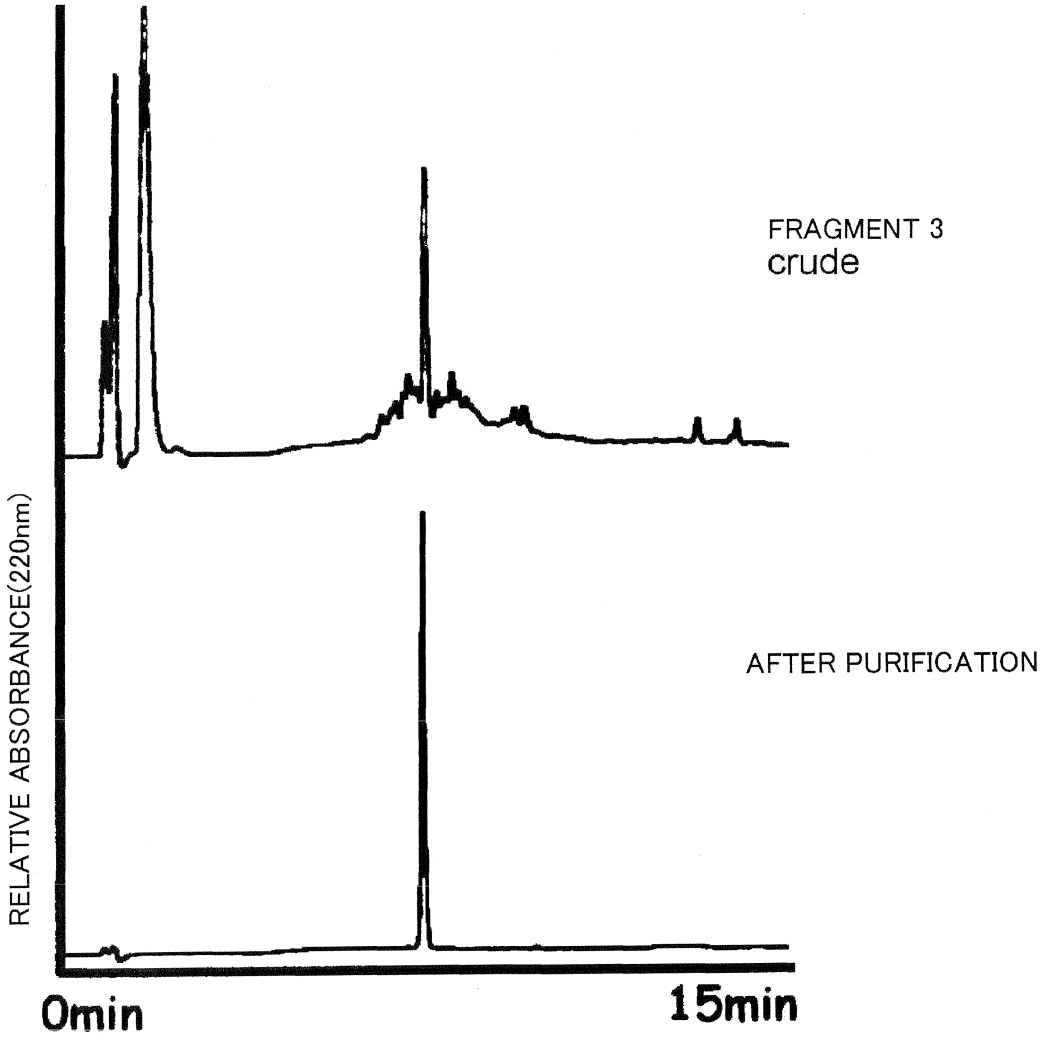
[Figure 5]


FRAGMENT 1
crude
FRAGMENT 1
thioester crude
AFTER PURIFICATION
RELATIVE ABSORBANCE (220nm)
0min
15min

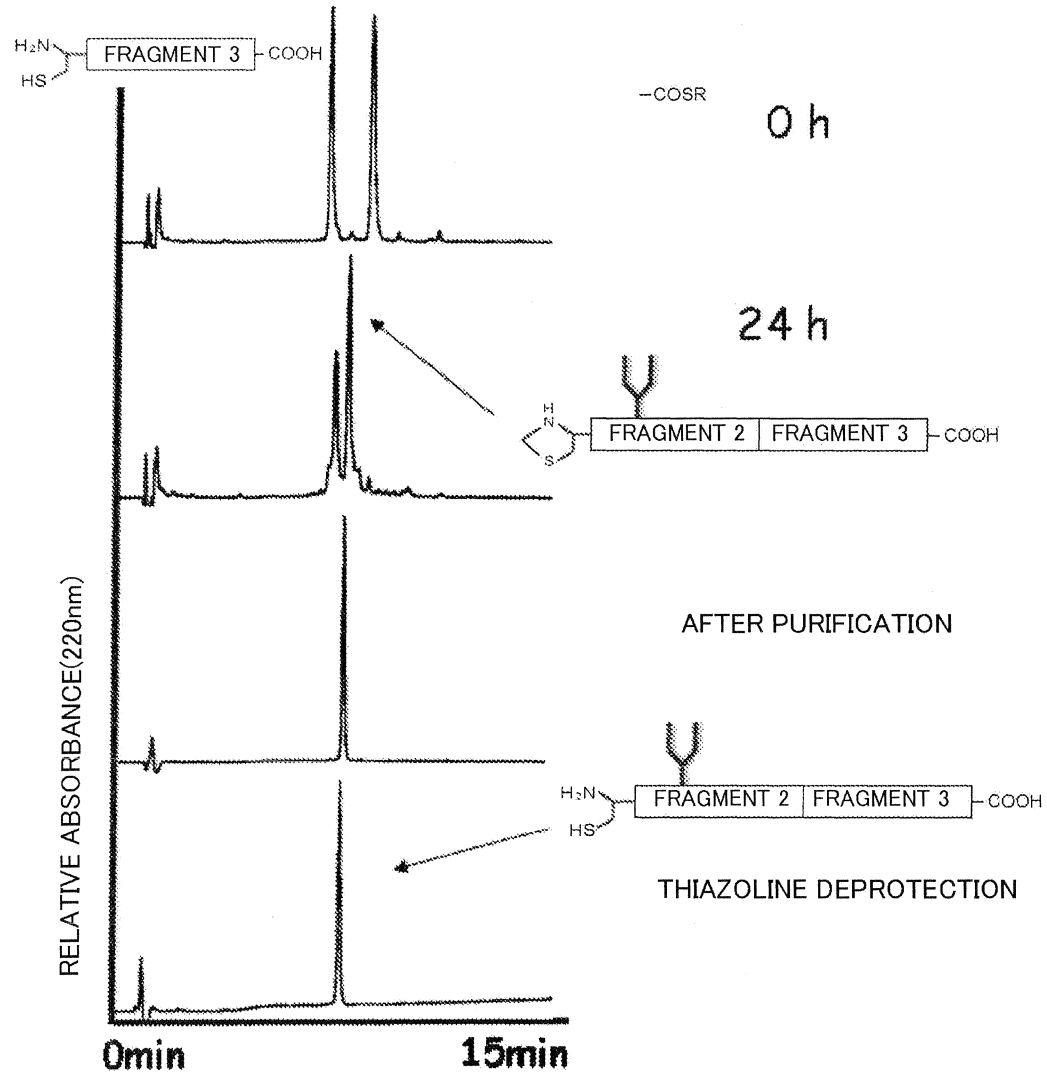
[Figure 6]


FRAGMENT 2
crude
FRAGMENT 2
thioester crude
AFTER PURIFICATION
RELATIVE ABSORBANCE (220nm)
0min
15min

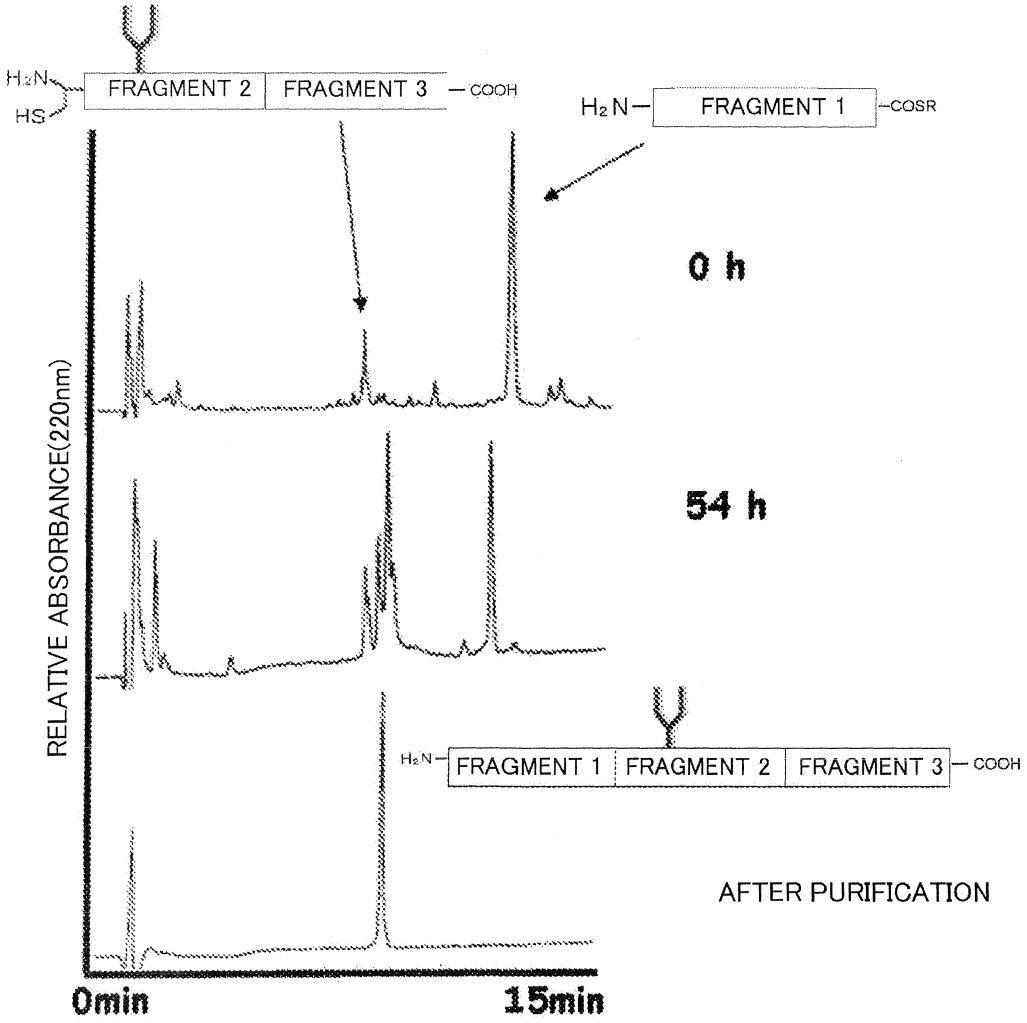
[Figure 7]


FRAGMENT 3
crude
AFTER PURIFICATION
RELATIVE ABSORBANCE(220nm)
0min
15min

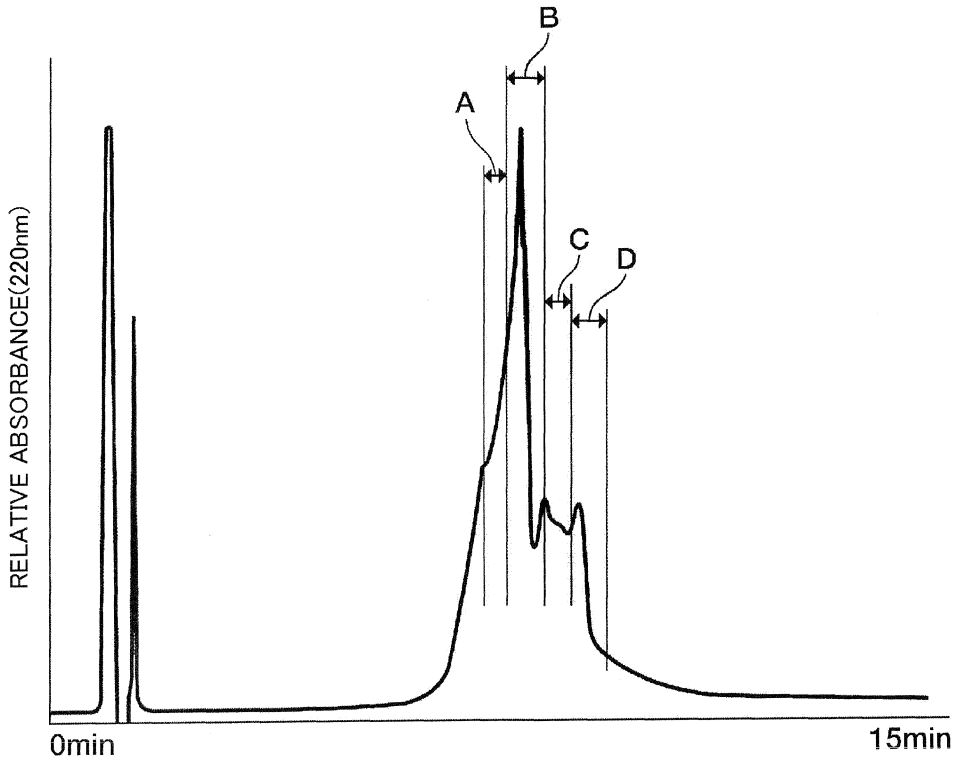
[Figure 8]


H2N
HS
FRAGMENT 3
COOH
-COSR
0 h
24 h
H
N
S
FRAGMENT 2
FRAGMENT 3
COOH
AFTER PURIFICATION
H2N
HS
FRAGMENT 2
FRAGMENT 3
COOH
THIAZOLINE DEPROTECTION
RELATIVE ABSORBANCE(220nm)
0min
15min

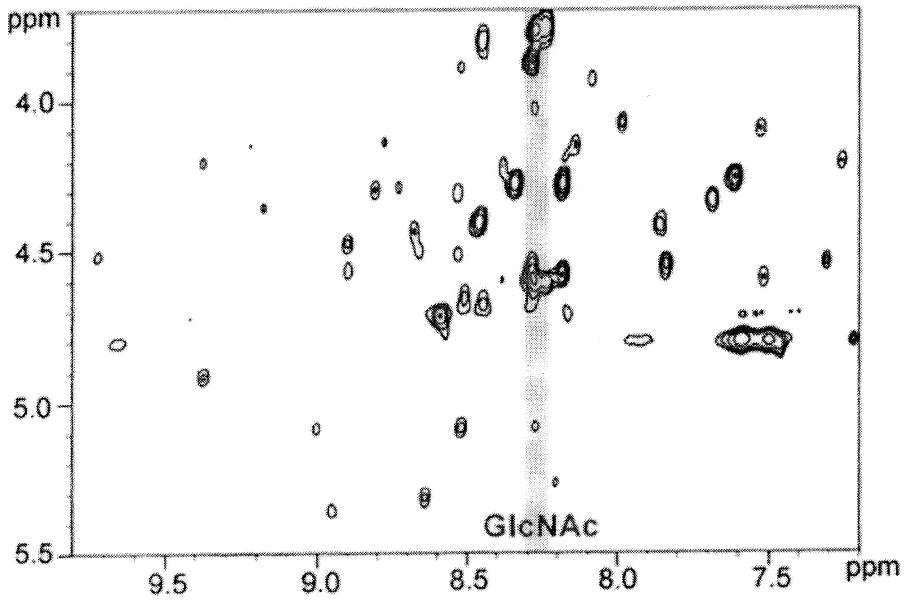
[Figure 9]


H2N
HS
FRAGMENT 2
FRAGMENT 3
COOH
H2N
FRAGMENT 1
COSR
0 h
54 h
RELATIVE ABSORBANCE(220nm)
H2N
FRAGMENT 1
FRAGMENT 2
FRAGMENT 3
COOH
AFTER PURIFICATION
0min
15min

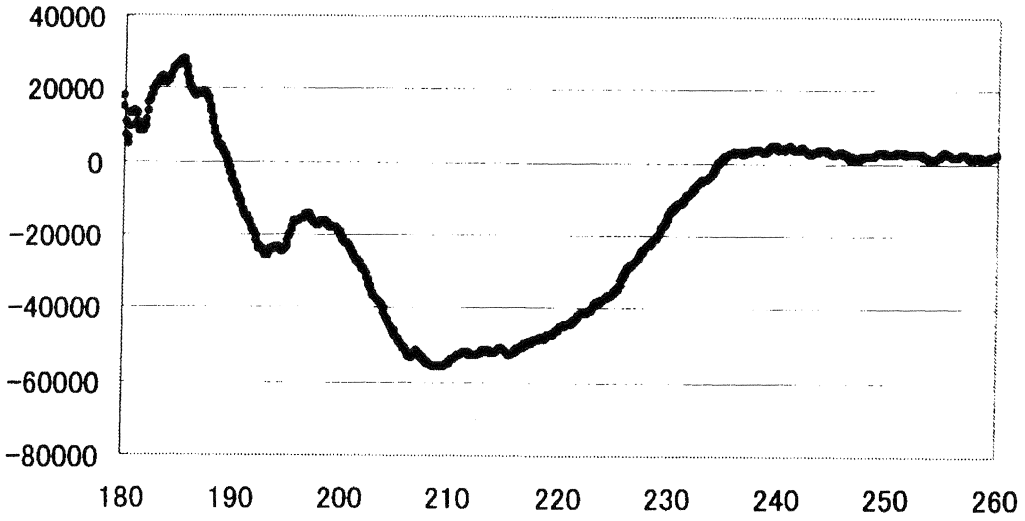
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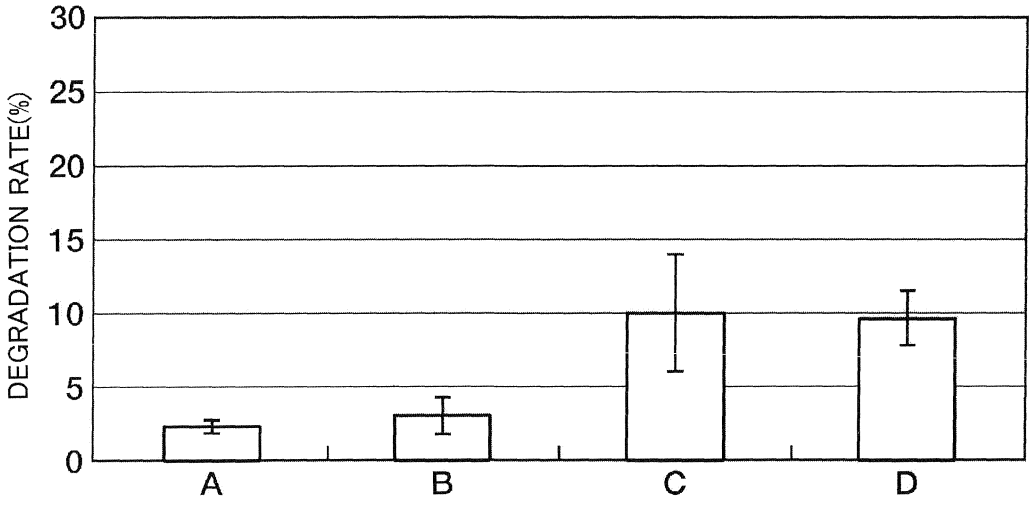
[Figure 11]



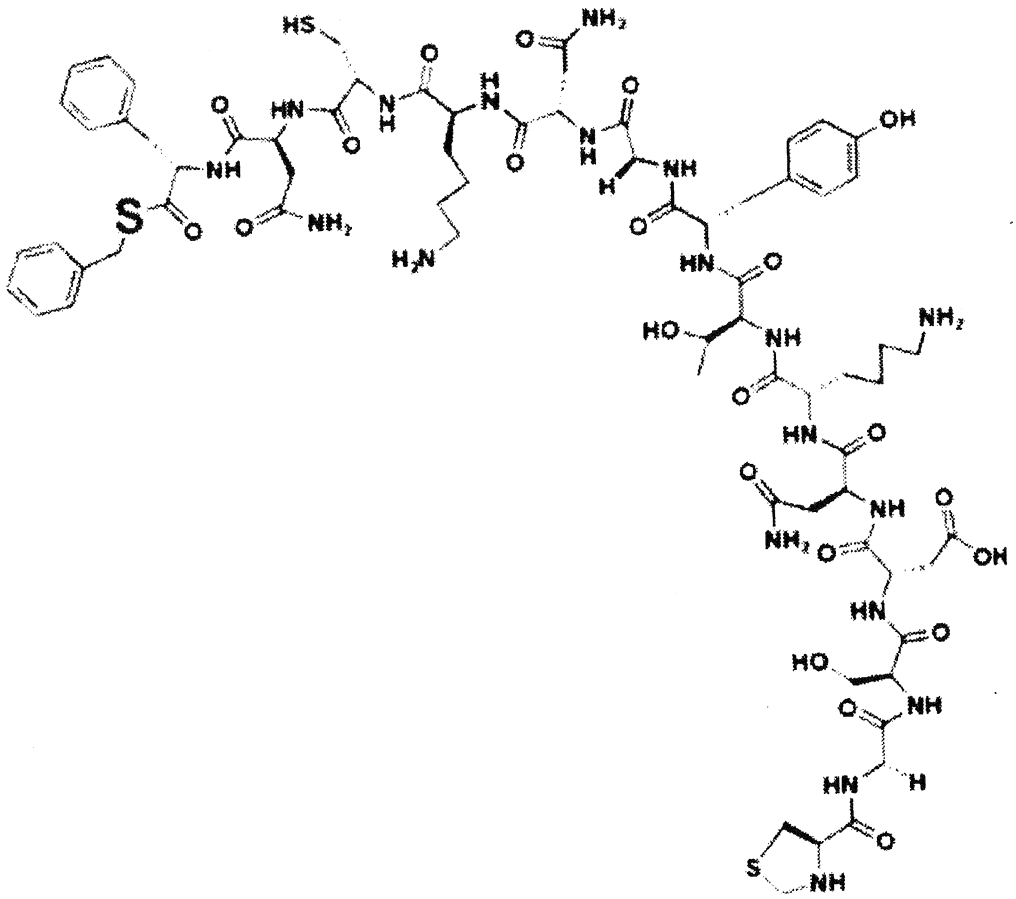
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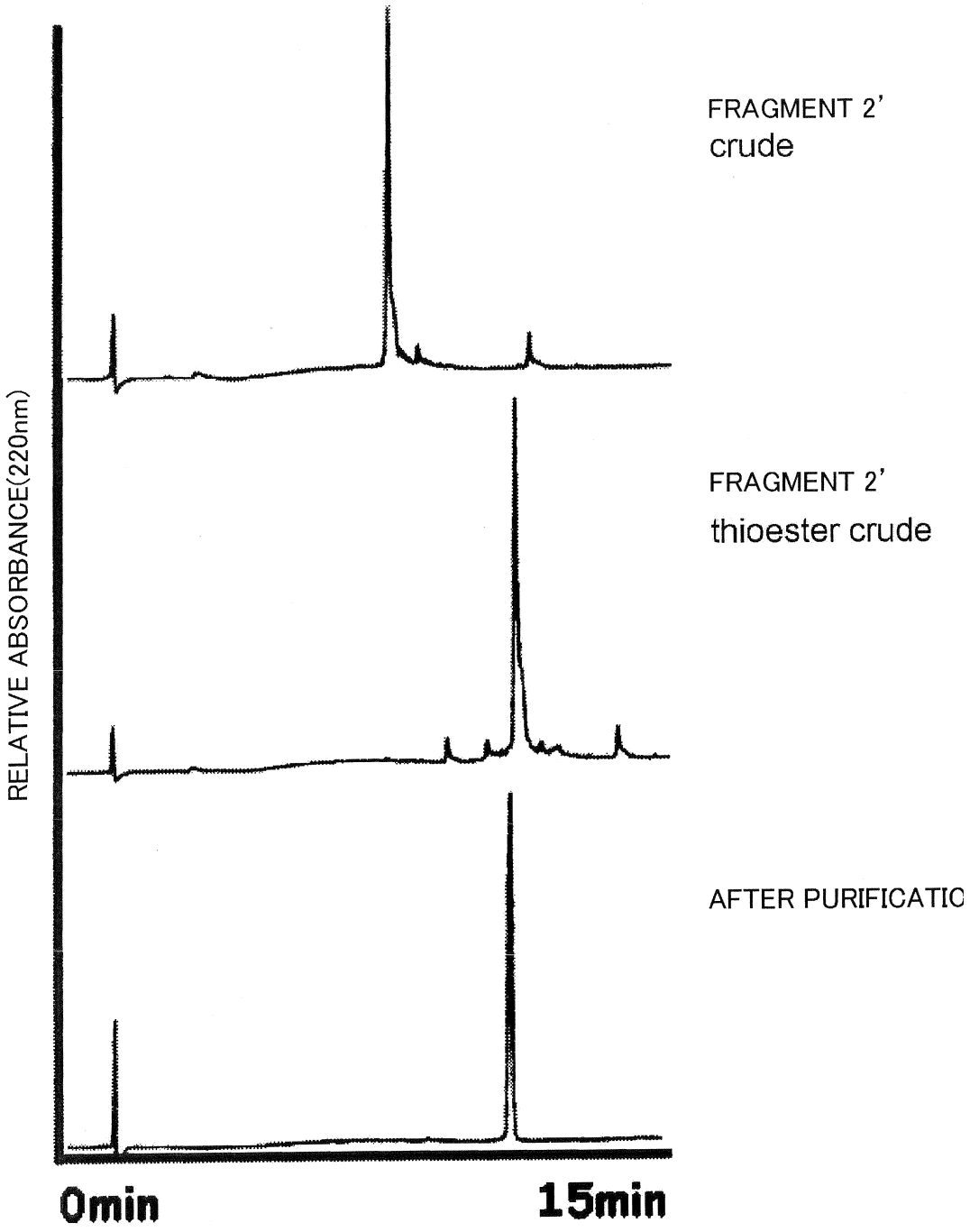
[Figure 13]



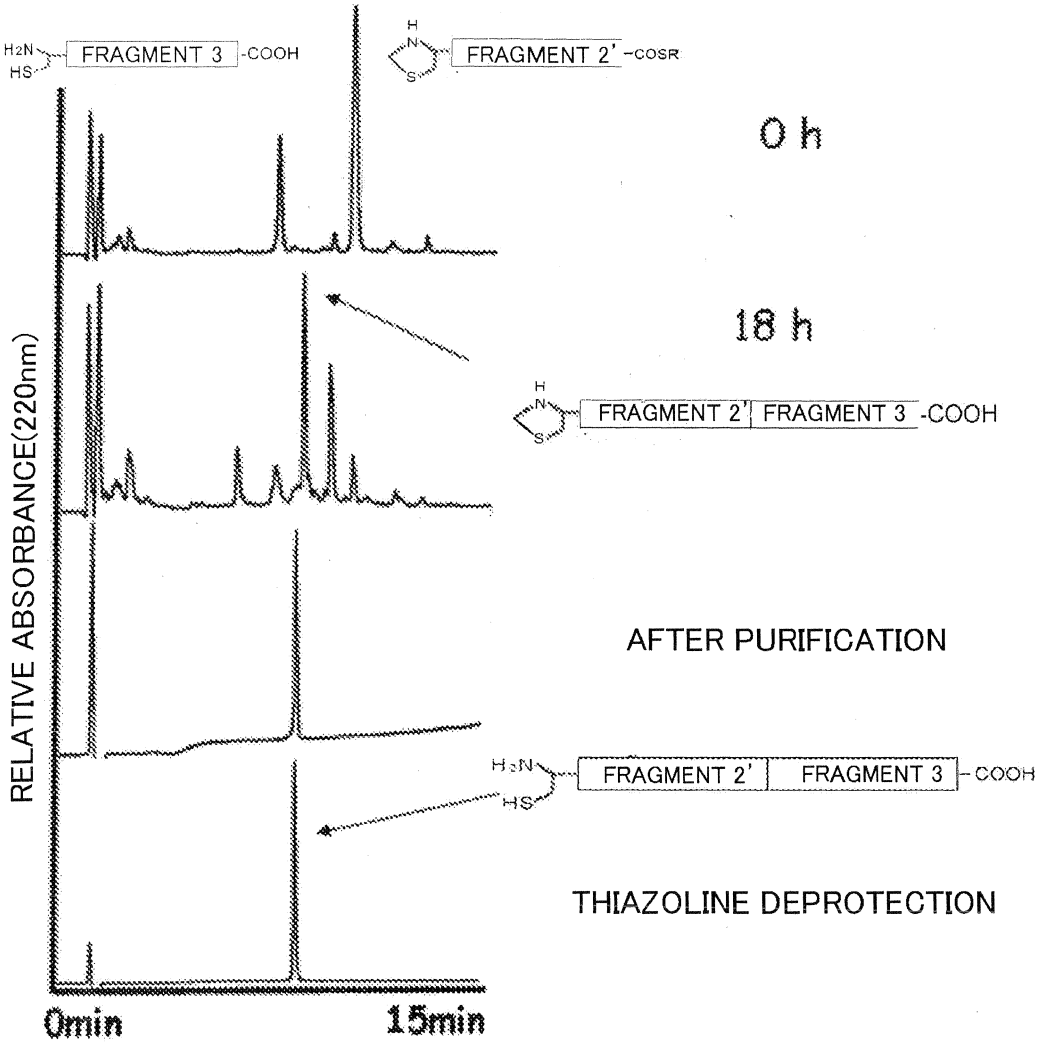
[Figure 14]



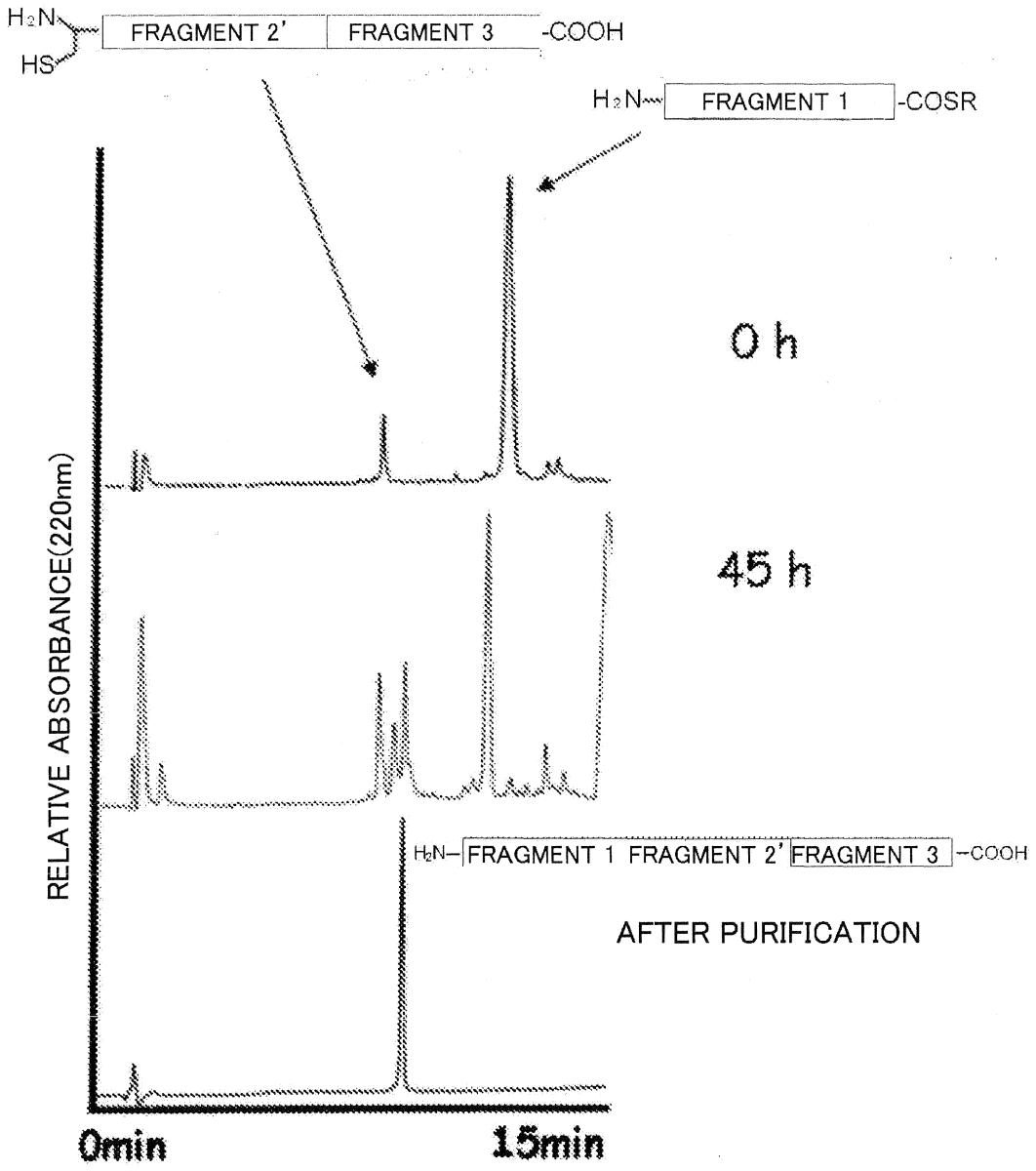
[Figure 15]


FRAGMENT 2'
crude
FRAGMENT 2'
thioester crude
AFTER PURIFICATIO
RELATIVE ABSORBANCE(220nm)
0min
15min

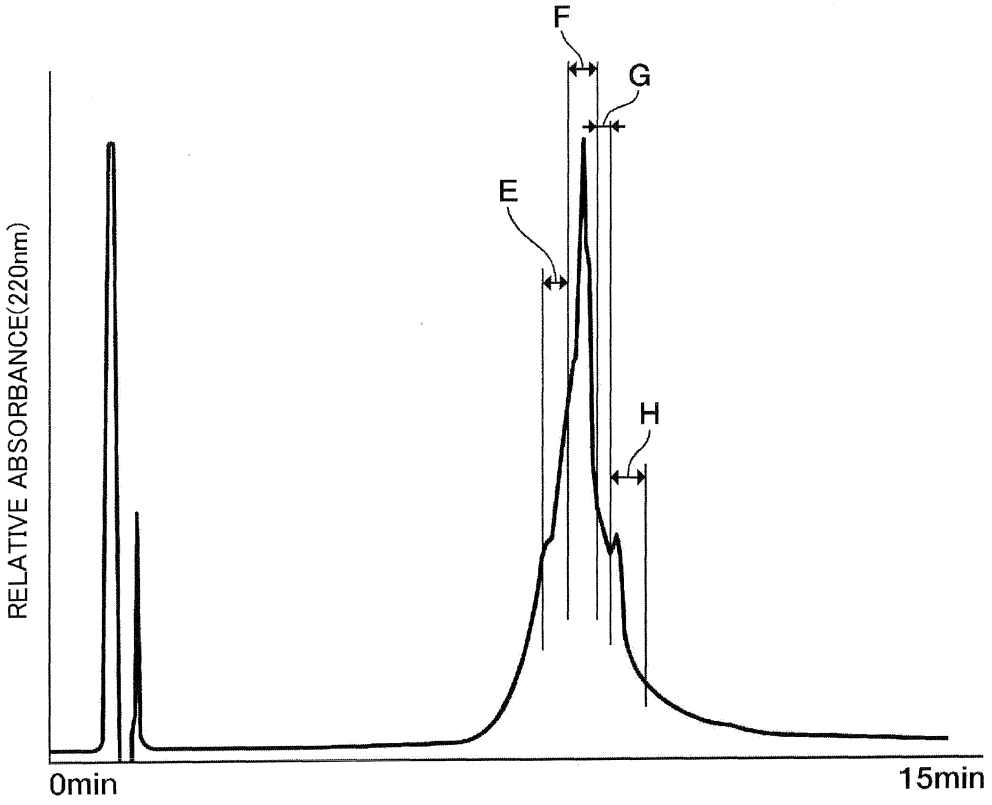
[Figure 16]


H2N
HS
FRAGMENT 3
-COOH
H
N
S
FRAGMENT 2'
-COSR
0 h
18 h
FRAGMENT 2'
FRAGMENT 3
-COOH
AFTER PURIFICATION
THIAZOLINE DEPROTECTION
RELATIVE ABSORBANCE(220nm)
0min
15min

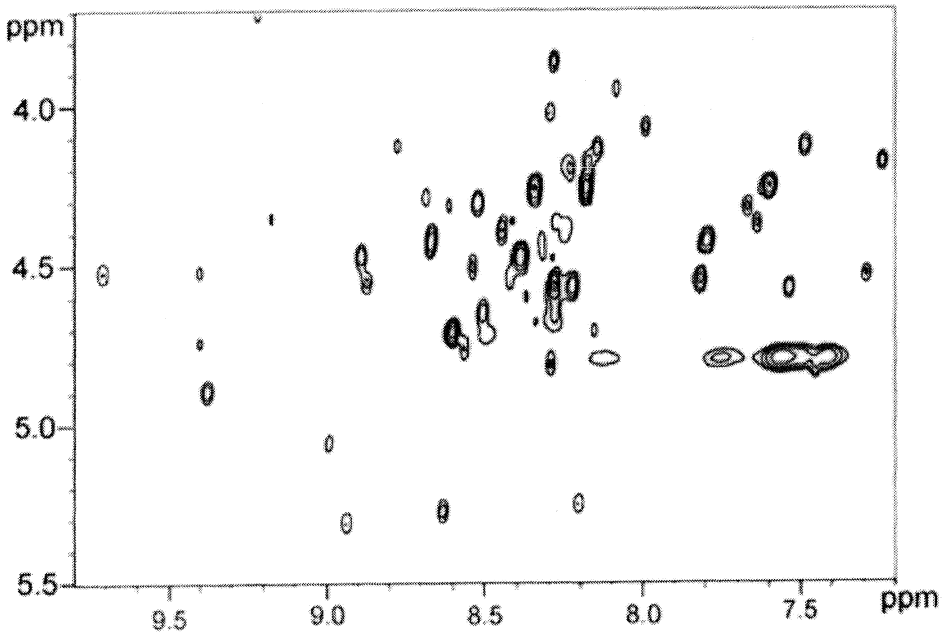
[Figure 17]


H2N
HS
FRAGMENT 2'
FRAGMENT 3
-COOH
H2N
FRAGMENT 1
-COSR
0 h
45 h
RELATIVE ABSORBANCE(220nm)
H2N-
FRAGMENT 1
FRAGMENT 2'
FRAGMENT 3
-COOH
AFTER PURIFICATION
0min
15min

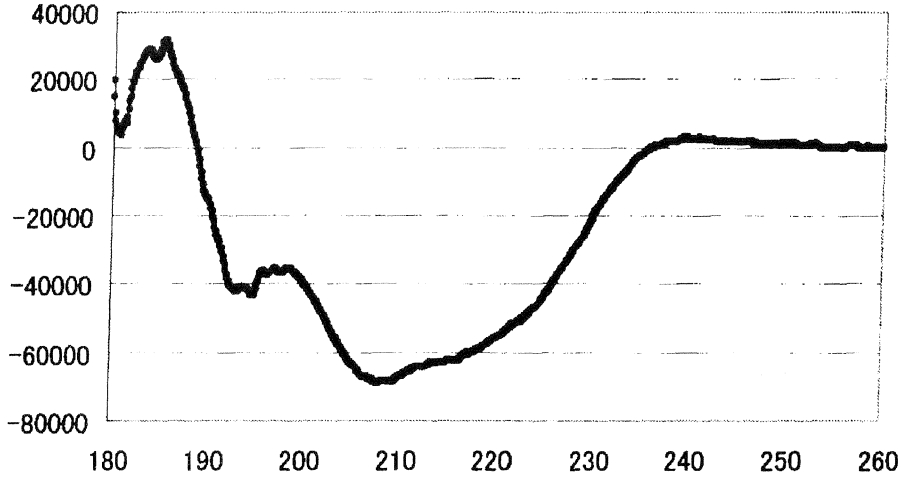
[Figure 18]



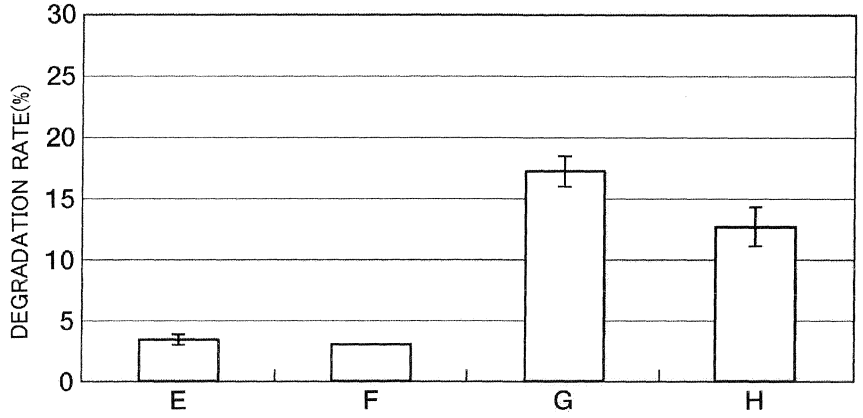
[Figure 19]



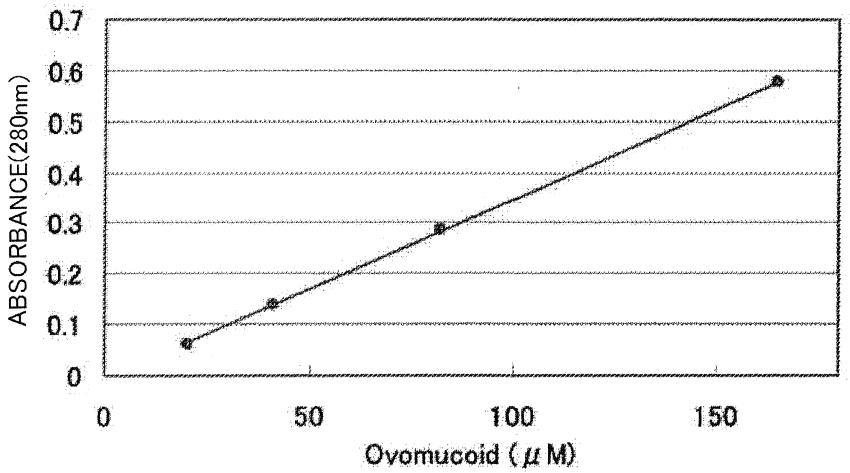
[Figure 20]



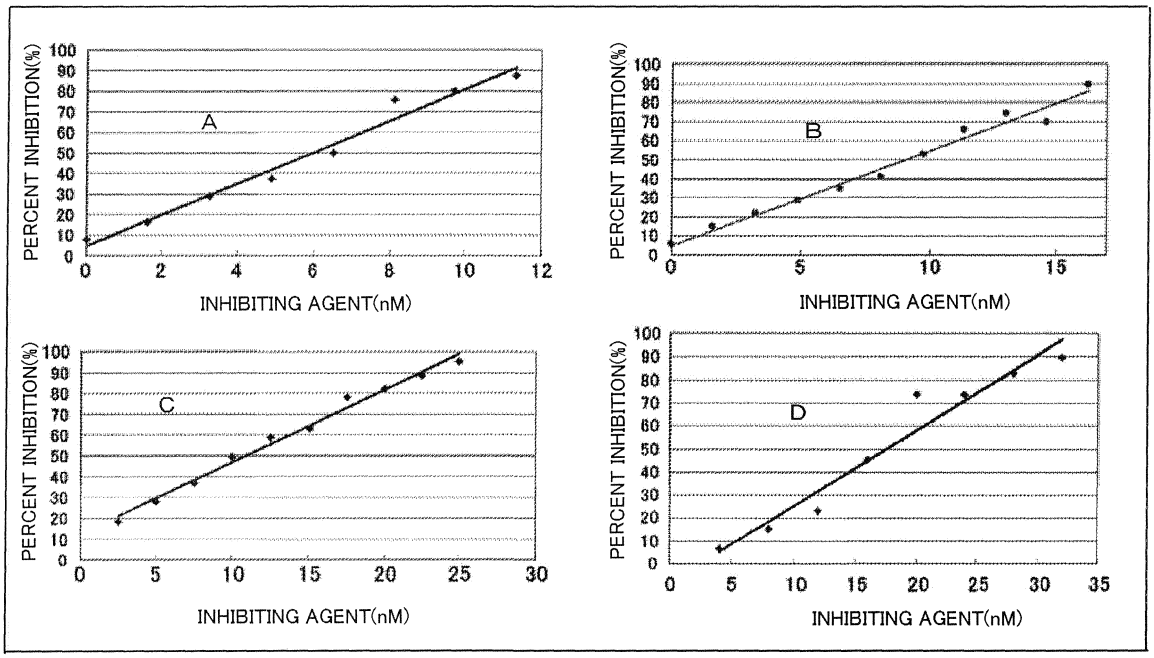
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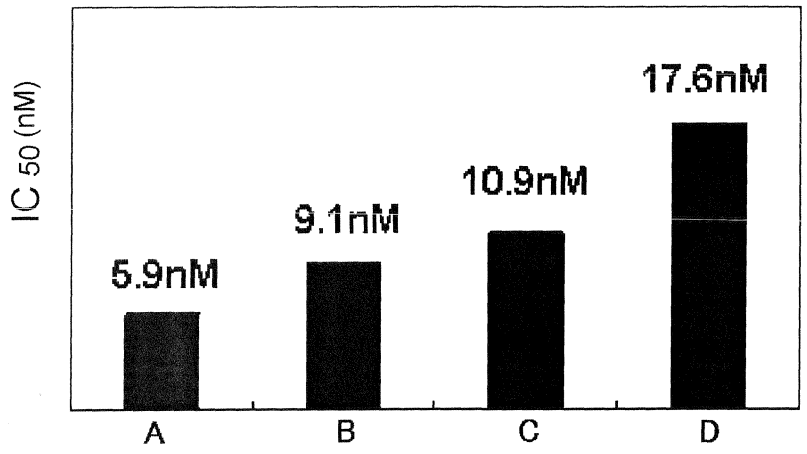
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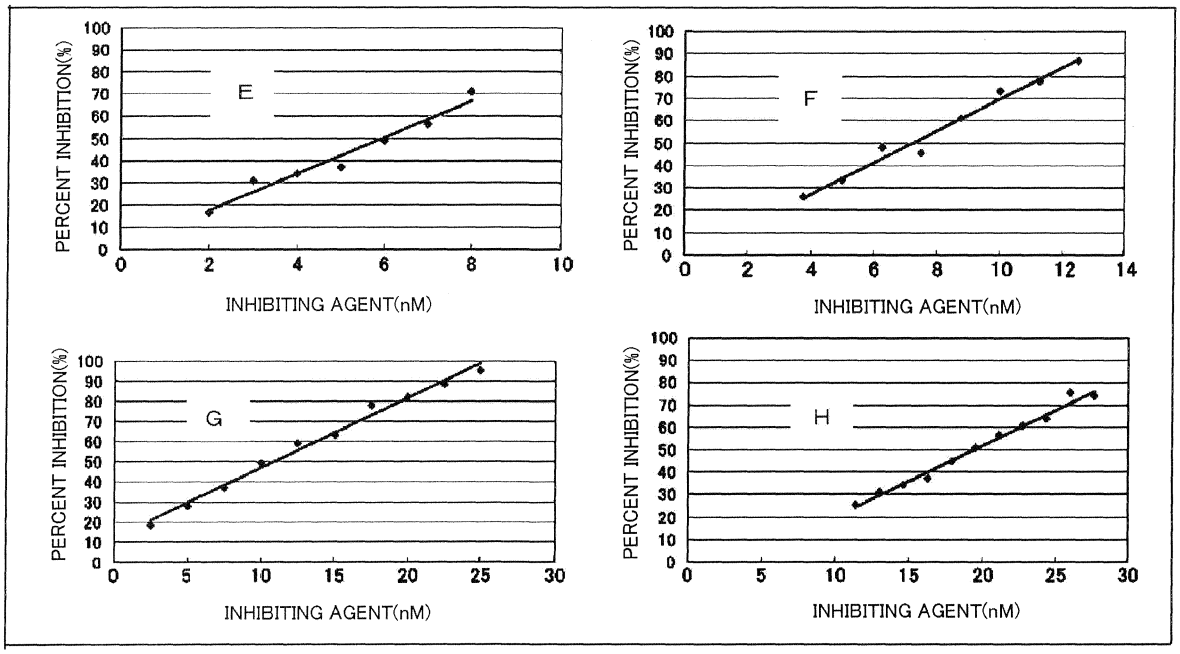
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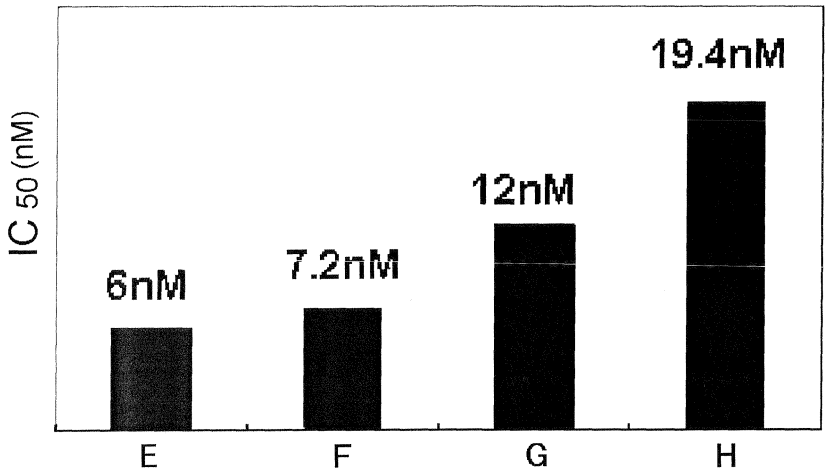
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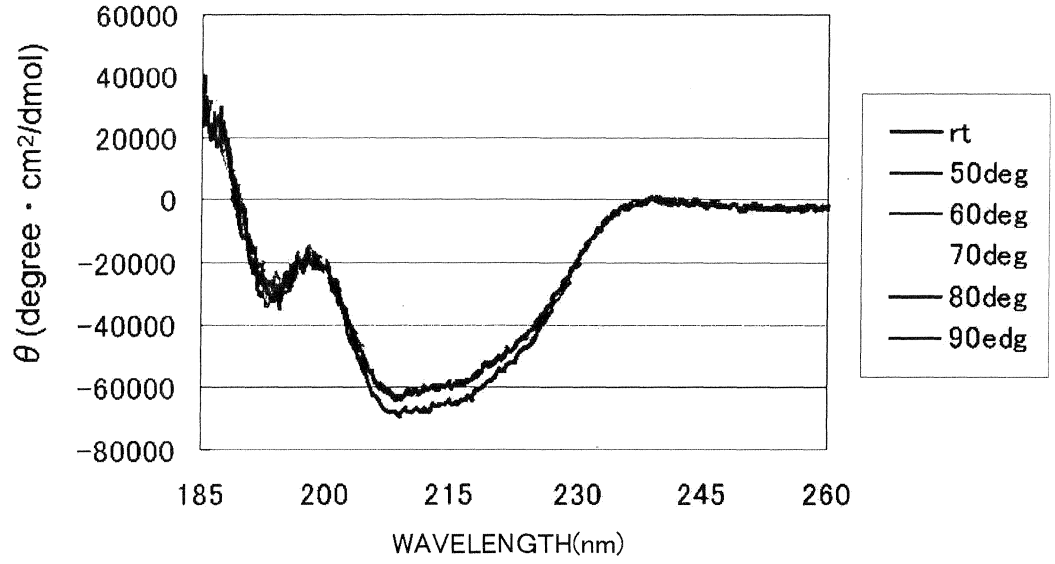
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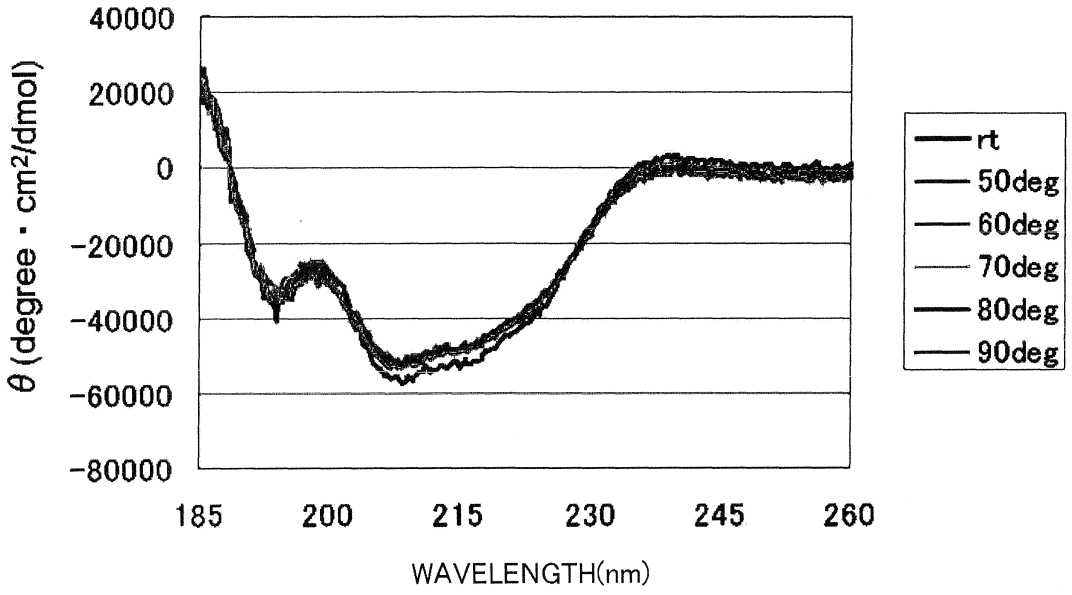
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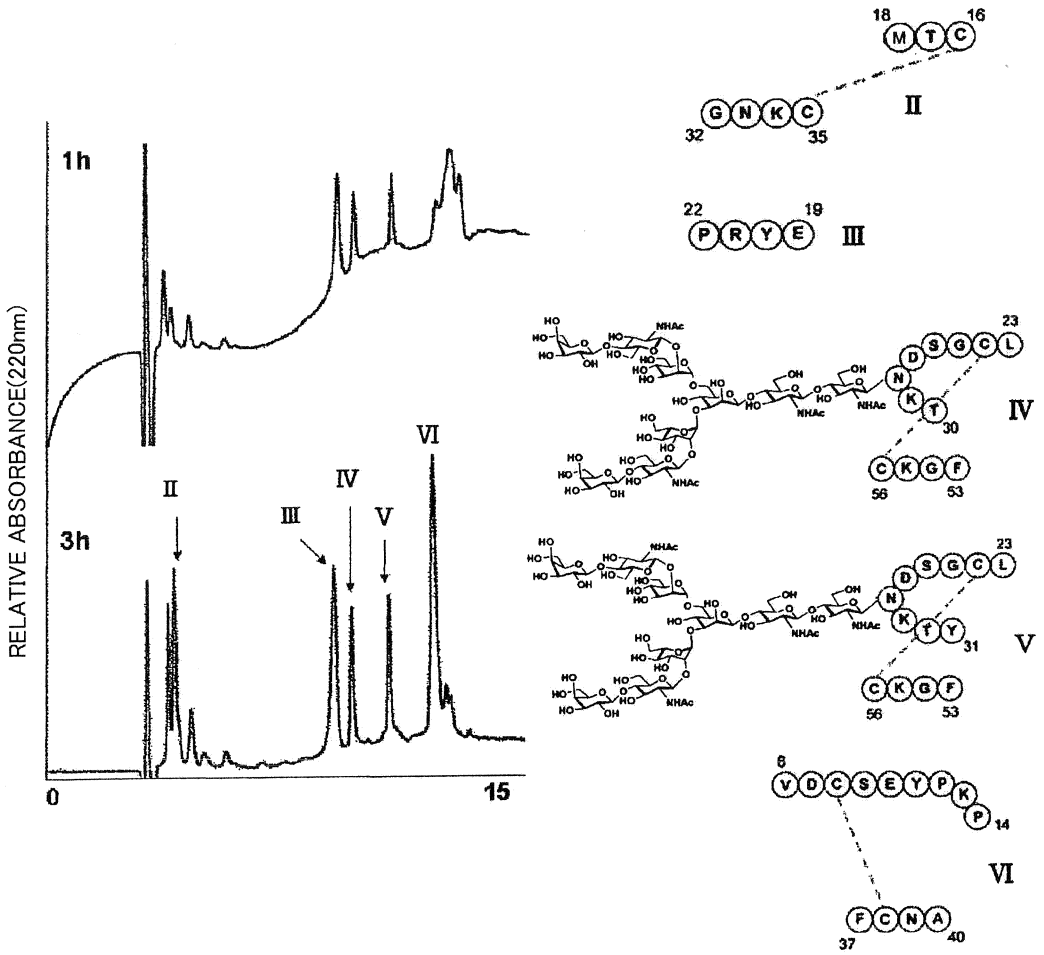
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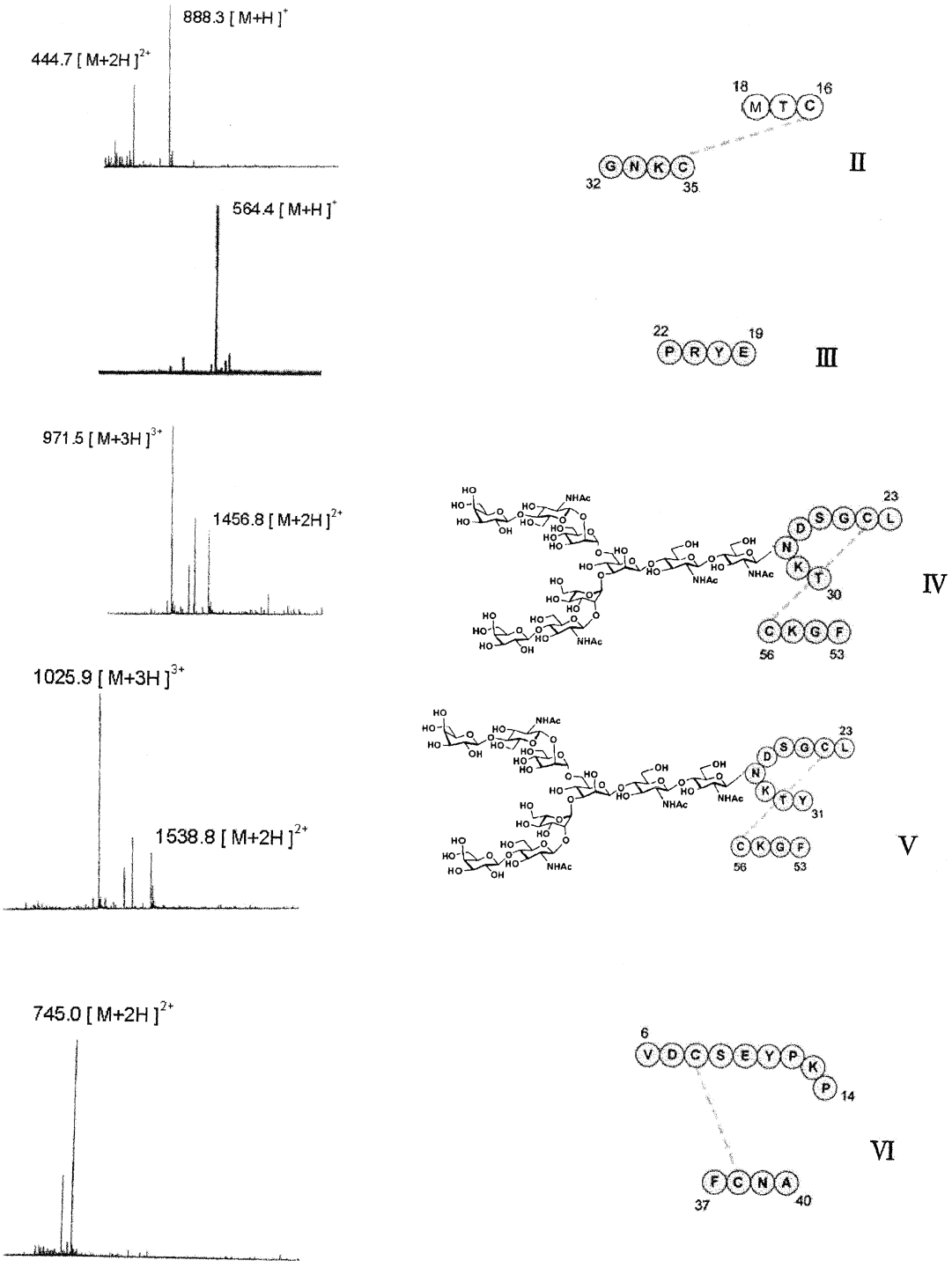
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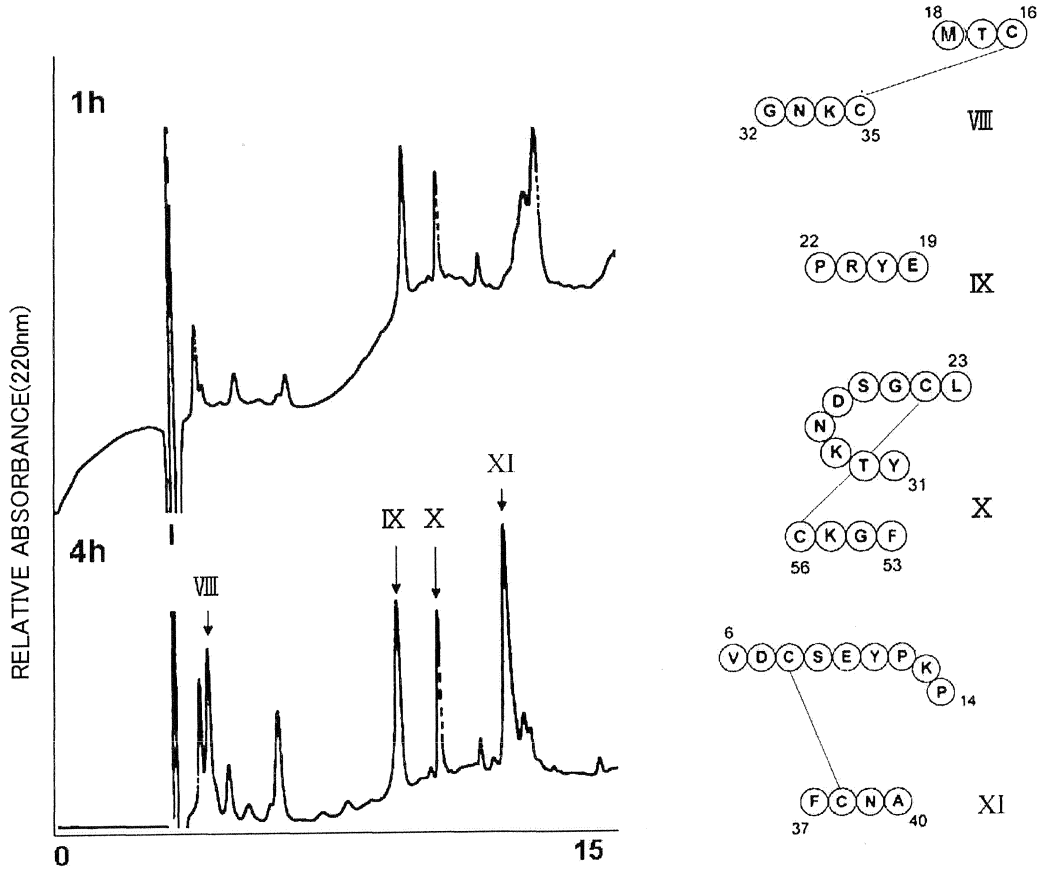
[Figure 29]


1h
3h
RELATIVE ABSORBANCE(220nm)
0
15
II
III
IV
V
VI
18
16
M T C
G N K C
32
35
II
22
19
P R Y E
III
23
D S G C L
N
K T
30
IV
C K G F
56
53
23
D S G C L
N
K T Y
31
V
C K G F
56
53
6
V D C S E Y P K P
14
VI
F C N A
37
40

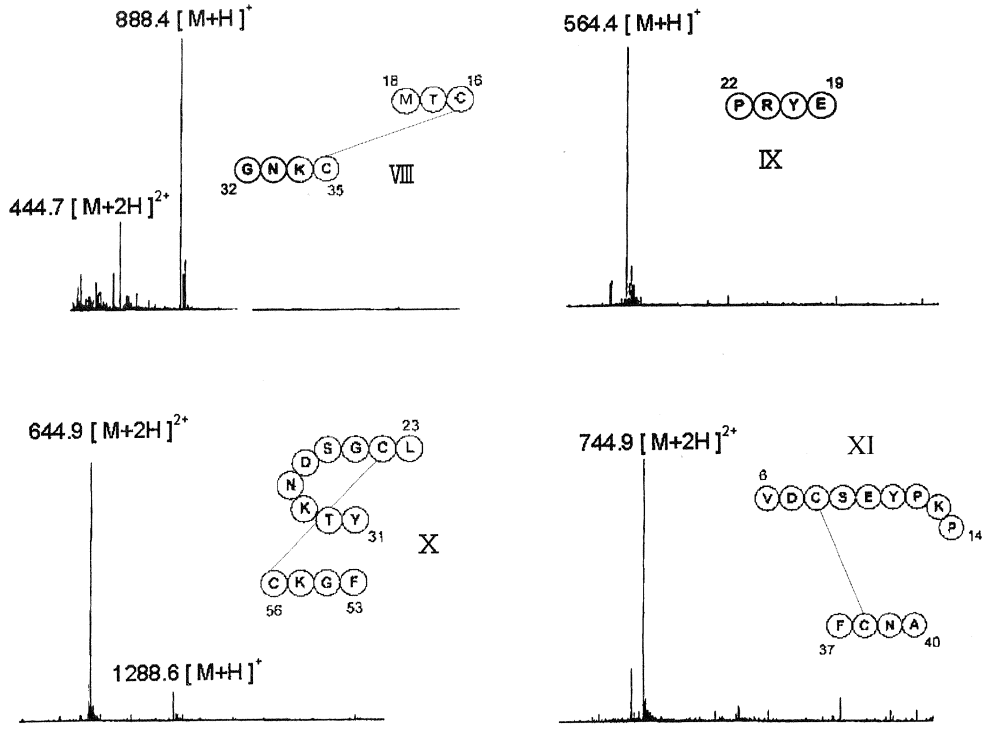
[Figure 30]


888.3 [M+H]+
444.7 [M+2H]2+
564.4 [M+H]+
971.5 [M+3H]3+
1456.8 [M+2H]2+
1025.9 [M+3H]3+
1538.8 [M+2H]2+
745.0 [M+2H]2+
II
III
IV
V
VI

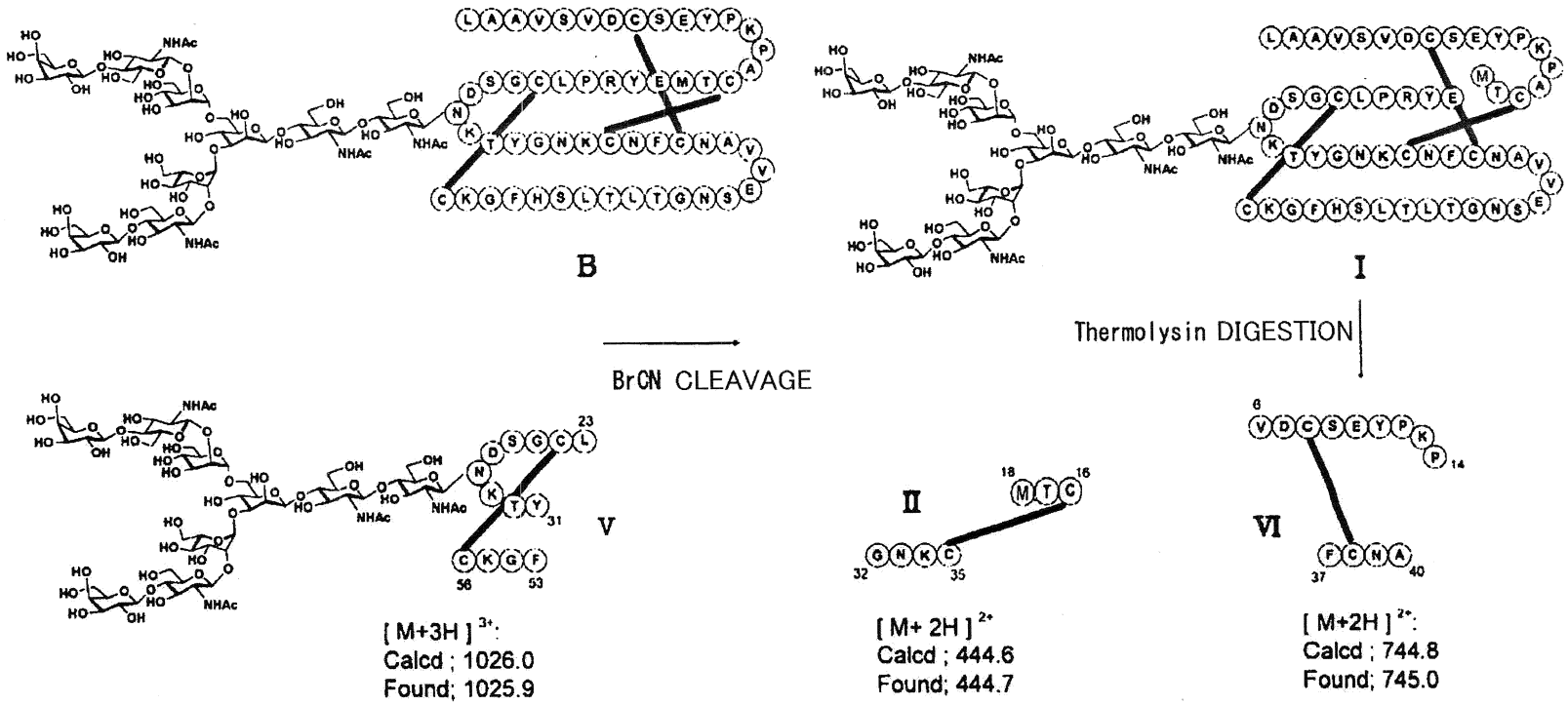
[Figure 31]


1h
4h
RELATIVE ABSORBANCE(220nm)
0
15
VIII
IX
X
XI
18
M
T
C
16
G
N
K
C
32
35
VIII
22
P
R
Y
E
19
IX
23
S
G
C
L
D
N
K
T
Y
31
C
K
G
F
56
53
X
6
V
D
C
S
E
Y
P
K
P
14
F
C
N
A
37
40
XI

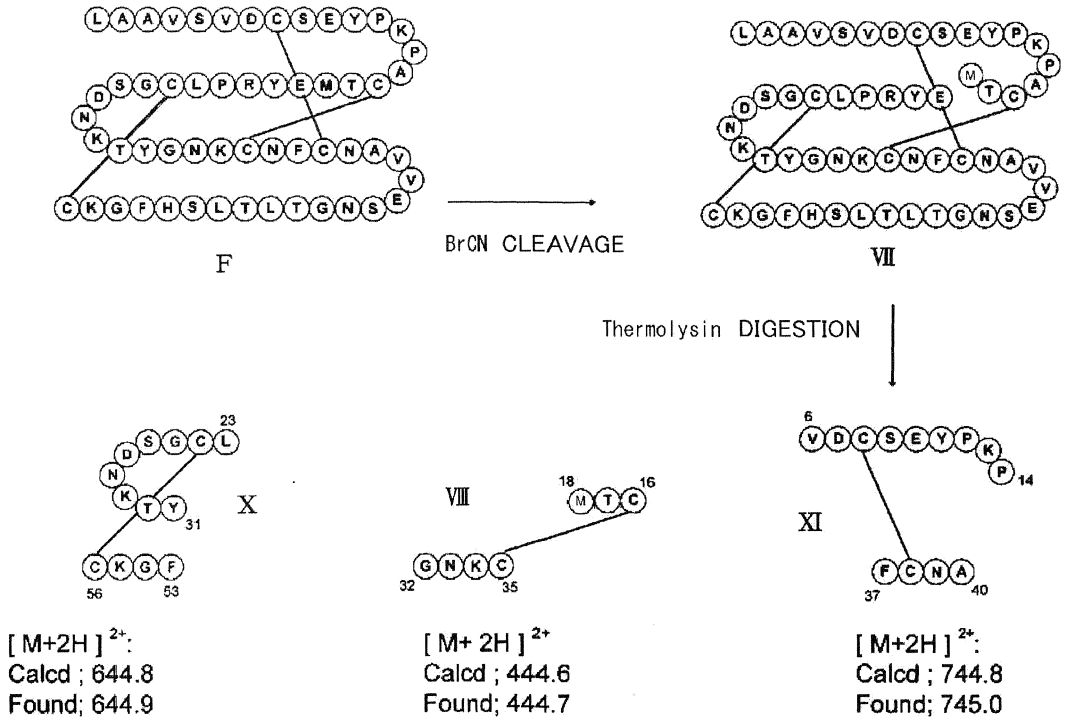
[Figure 32]


888.4 [M+H]+
444.7 [M+2H]2+
18 M T C 16
G N K C
32 35
VIII
564.4 [M+H]+
22 P R Y E 19
IX
644.9 [M+2H]2+
1288.6 [M+H]+
23 D S G C L
N
K T Y 31
C K G F
56 53
X
744.9 [M+2H]2+
XI
6 V D C S E Y P K P 14
F C N A
37 40

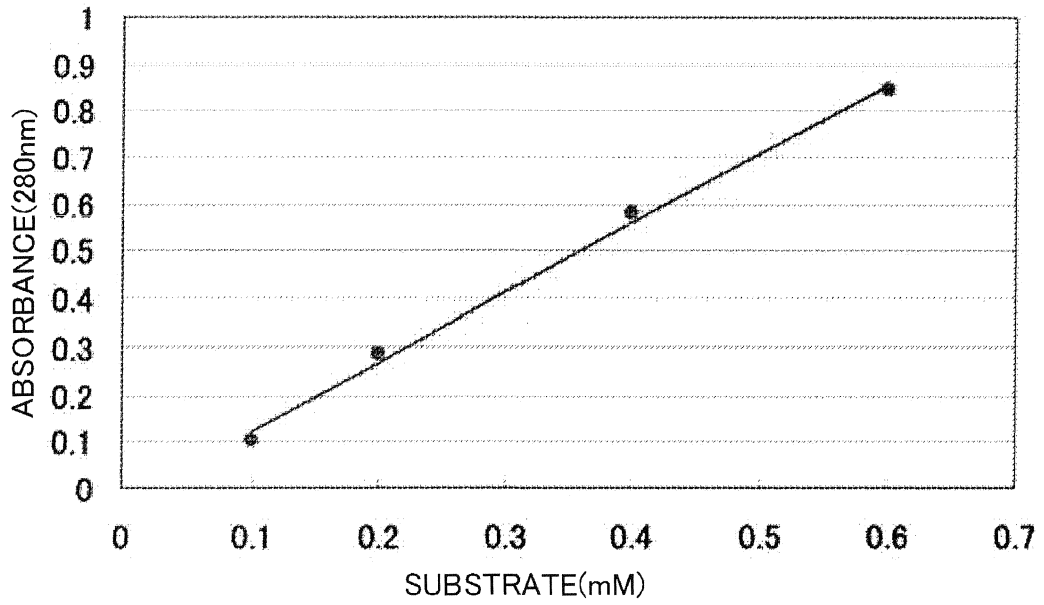
[Figure 33]


B
I
Thermolysin DIGESTION
BrCN CLEAVAGE
V
II
VI
[M+3H] 3+:
Calcd ; 1026.0
Found; 1025.9
[M+ 2H] 2+
Calcd ; 444.6
Found; 444.7
[M+2H] 2+:
Calcd ; 744.8
Found; 745.0

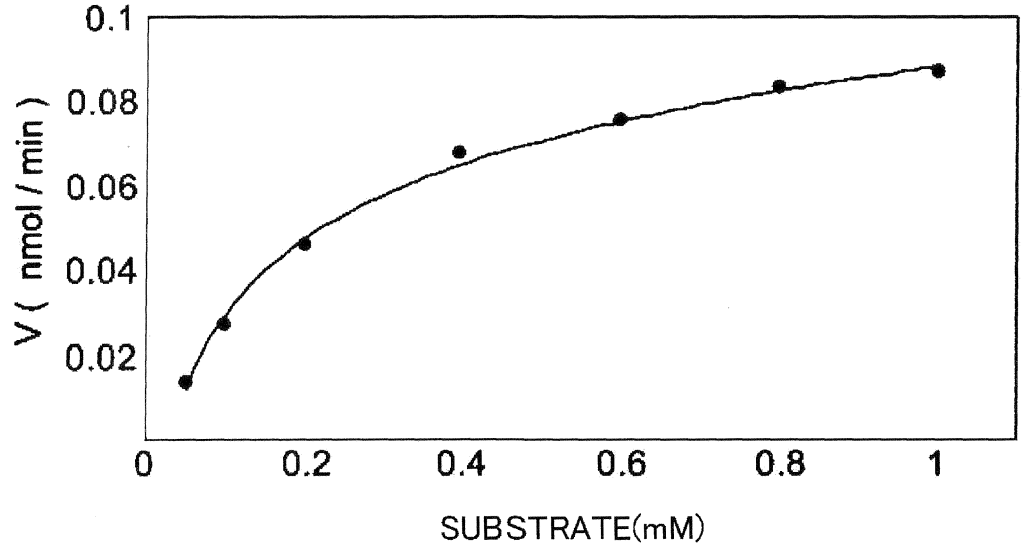
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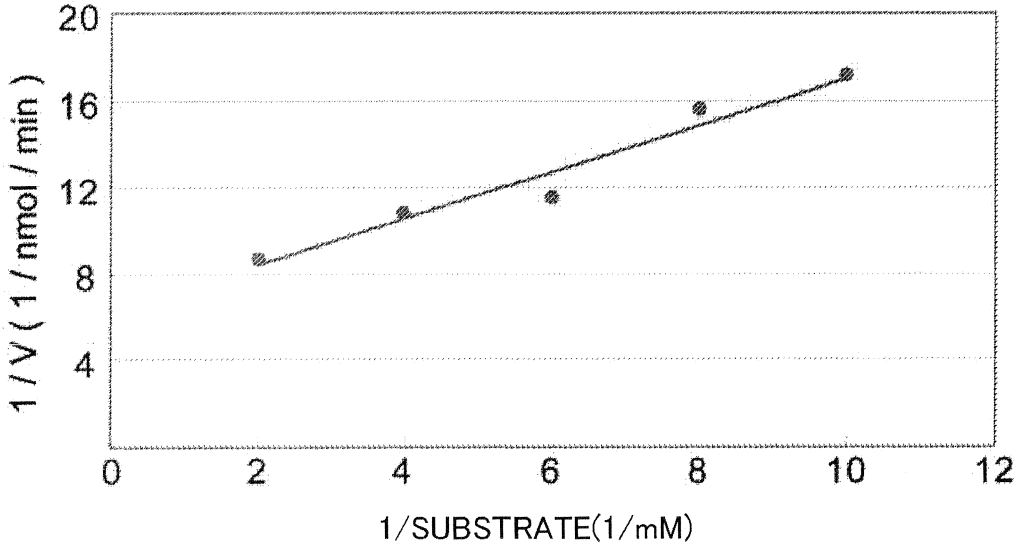
[Figure 35]



[Figure 36]



[Figure 37]



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<170> PatentIn version 3.1

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1 5 10 15

Thr Met Glu Tyr Arg Pro Leu
20

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Thr Met Glu Tyr Arg Pro Leu
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<222> (2)..(2)

<223> Thr having blocking group tBu

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<223> Tyr having blocking group tBu

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<220>
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<223> Cys having blocking group Trt

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1 5

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1 5 10

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<222> (6)..(6)
<223> Glu having blocking group OtBu

<220>
<221> MOD_RES
<222> (7)..(7)
<223> Ser having blocking group tBu

<220>
<221> MOD_RES
<222> (10)..(10)

<223> Thr having blocking group tBu

<220>
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<222> (12)..(12)
<223> Thr having blocking group tBu

<220>
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<222> (14)..(14)
<223> Ser having blocking group tBu

<220>
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<222> (15)..(15)
<223> His having blocking group Trt

<220>
<221> MOD_RES
<222> (18)..(18)
<223> Lys having blocking group Boc

<220>
<221> MOD_RES
<222> (19)..(19)
<223> Cys having blocking group Trt

<400> 6

Cys Asn Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe
1 5 10 15

Gly Lys Cys

<210> 7
<211> 19
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence (fragment 3)

<400> 7

Cys Asn Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe
1 5 10 15

Gly Lys Cys

<210> 8
<211> 33
<212> PRT
<213> silver pheasant

<220>
<223> glycosylated amino acid sequence having blocking group

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cys having blocking group Thz

<220>
<221> MOD_RES
<222> (5)..(5)
<223> Glycosylated Asn

<400> 8

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe Cys Asn
1 5 10 15

Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe Gly Lys
20 25 30

Cys

<210> 9
<211> 33
<212> PRT
<213> silver pheasant

<220>
<223> glycosylated amino acid sequence

<220>
<221> MOD_RES
<222> (5)..(5)
<223> Glycosylated Asn

<400> 9

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe Cys Asn
1 5 10 15

Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe Gly Lys
20 25 30

Cys

<210> 10
<211> 56
<212> PRT
<213> silver pheasant

<220>
<223> glycosylated amino acid sequence (glycosylated OMSVP3)

<220>
<221> MOD_RES
<222> (28)..(28)
<223> Glycosylated Asn

<400> 10

Leu Ala Ala Val Ser Val Asp Cys Ser Glu Tyr Pro Lys Pro Ala Cys
1 5 10 15

Thr Met Glu Tyr Arg Pro Leu Cys Gly Ser Asp Asn Lys Thr Tyr Gly
20 25 30

Asn Lys Cys Asn Phe Cys Asn Ala Val Val Glu Ser Asn Gly Thr Leu
35 40 45

Thr Leu Ser His Phe Gly Lys Cys
50 55

<210> 11
<211> 14
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence having blocking groups (fragment 2')

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cys having blocking groups Boc and Thz

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Ser having blocking group tBu

<220>
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<222> (4)..(4)
<223> Asp having blocking group OtBu

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Lys having blocking group Boc

<220>
<221> MOD_RES
<222> (7)..(7)
<223> Thr having blocking group tBu

<220>
<221> MOD_RES
<222> (8)..(8)
<223> Tyr having blocking group tBu

<220>
<221> MOD_RES
<222> (11)..(11)
<223> Lys having blocking group Boc

<220>
<221> MOD_RES
<222> (12)..(12)
<223> Cys having blocking group Trt

<400> 11

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe
1 5 10

<210> 12
<211> 14
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence having benzyl thioester group and blocking group (fragment 2')

<220>
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<223> Cys having blocking group Thz

<220>
<221> MOD_RES
<222> (14)..(14)
<223> Phe having benzyl thioester group

<400> 12

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe
1 5 10

<210> 13
<211> 33
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence having blocking group

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cys having blocking group Thz

<400> 13

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe Cys Asn
1 5 10 15

Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe Gly Lys
20 25 30

Cys

<210> 14
<211> 33
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence

<400> 14

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe Cys Asn
1 5 10 15

Ala Val Val Glu Ser Asn Gly Thr Leu Thr Leu Ser His Phe Gly Lys
20 25 30

Cys

<210> 15
<211> 56
<212> PRT
<213> silver pheasant

<220>
<223> amino acid sequence (non-glycosylated OMSVP3)

<400> 15

Leu Ala Ala Val Ser Val Asp Cys Ser Glu Tyr Pro Lys Pro Ala Cys
1 5 10 15

Thr Met Glu Tyr Arg Pro Leu Cys Gly Ser Asp Asn Lys Thr Tyr Gly
20 25 30

Asn Lys Cys Asn Phe Cys Asn Ala Val Val Glu Ser Asn Gly Thr Leu
35 40 45

Thr Leu Ser His Phe Gly Lys Cys
50 55

<210> 16
<211> 14
<212> PRT
<213> artificial sequence

<220>
<223> amino acid sequence having blocking group
(substrate for chymotrypsin)

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Cys having blocking group Thz

<400> 16

Cys Gly Ser Asp Asn Lys Thr Tyr Gly Asn Lys Cys Asn Phe
1 5 10