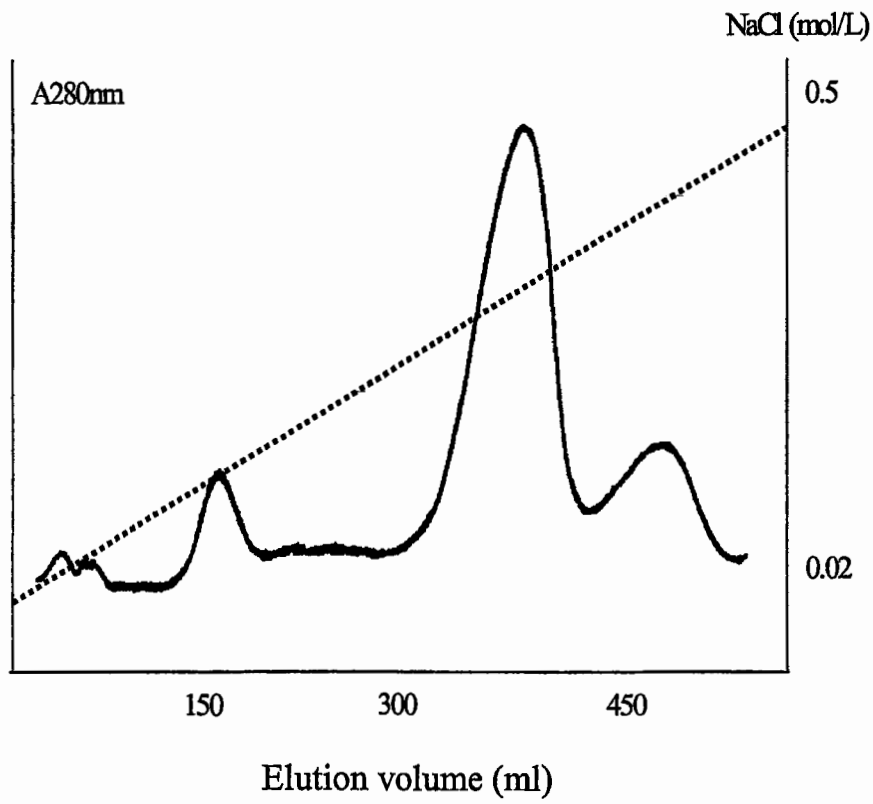
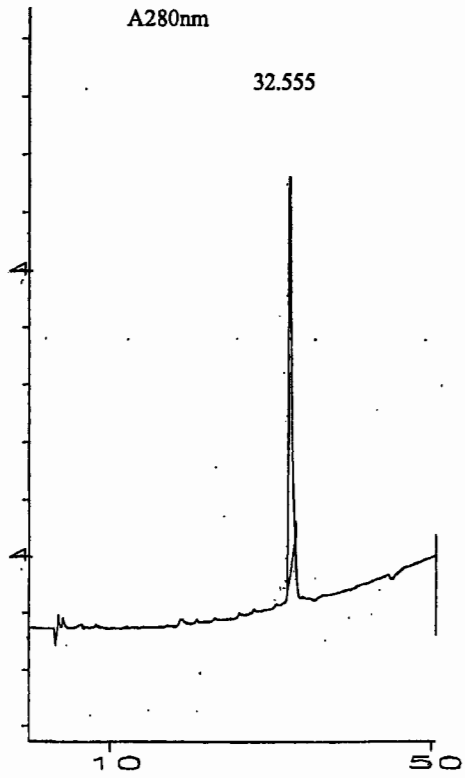


Fig 1



Fig 2



Retention time (min)

Fig 3

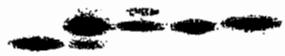


Fig 4

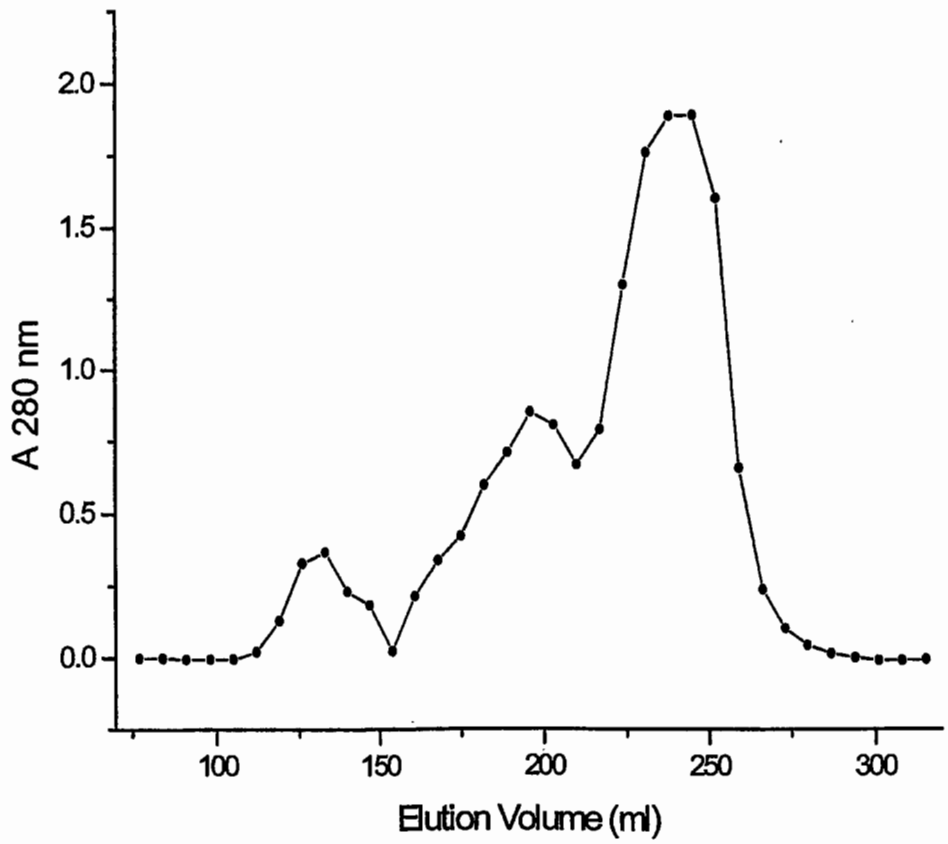
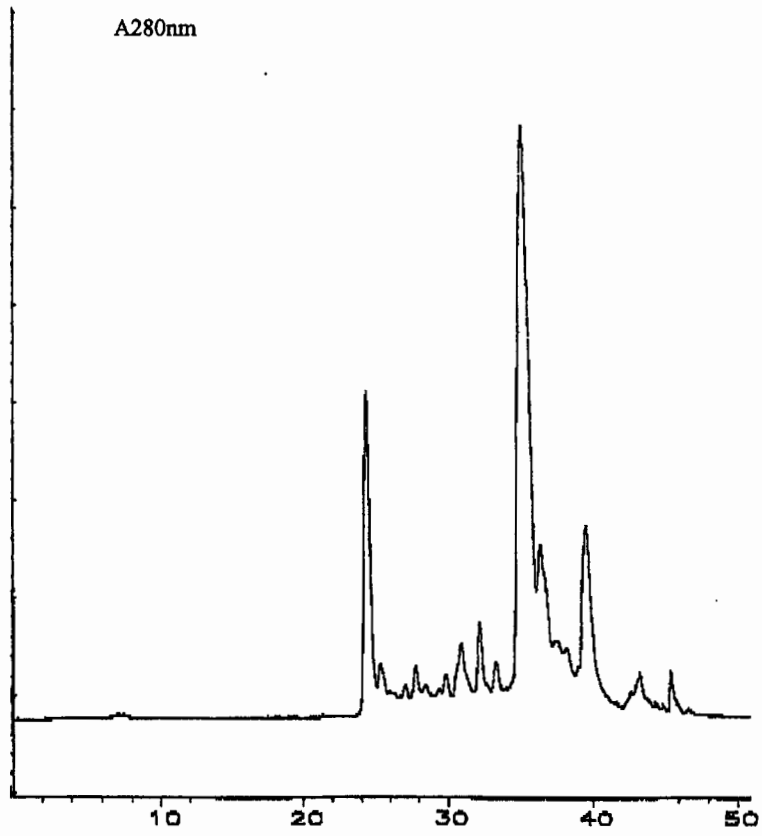
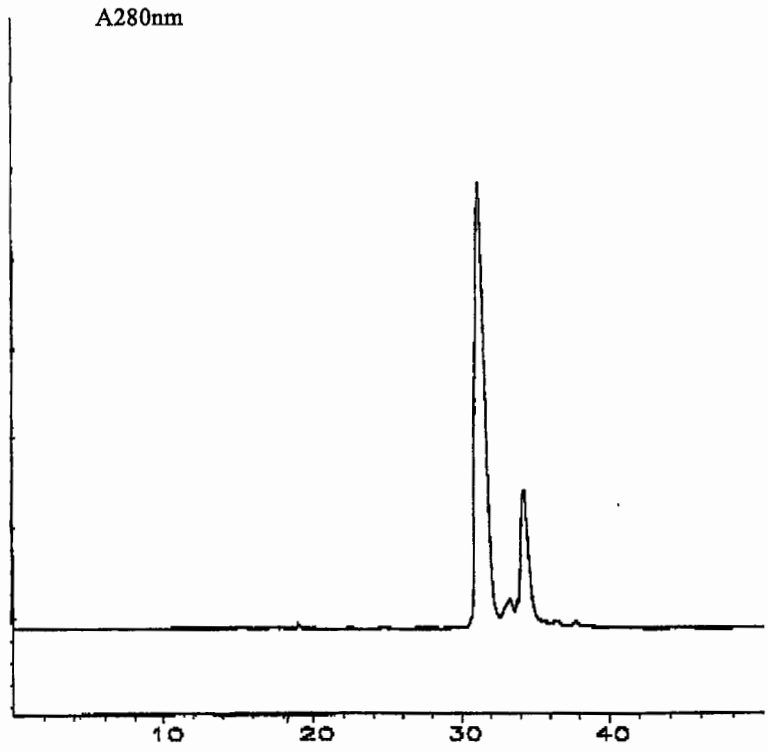


Fig 5



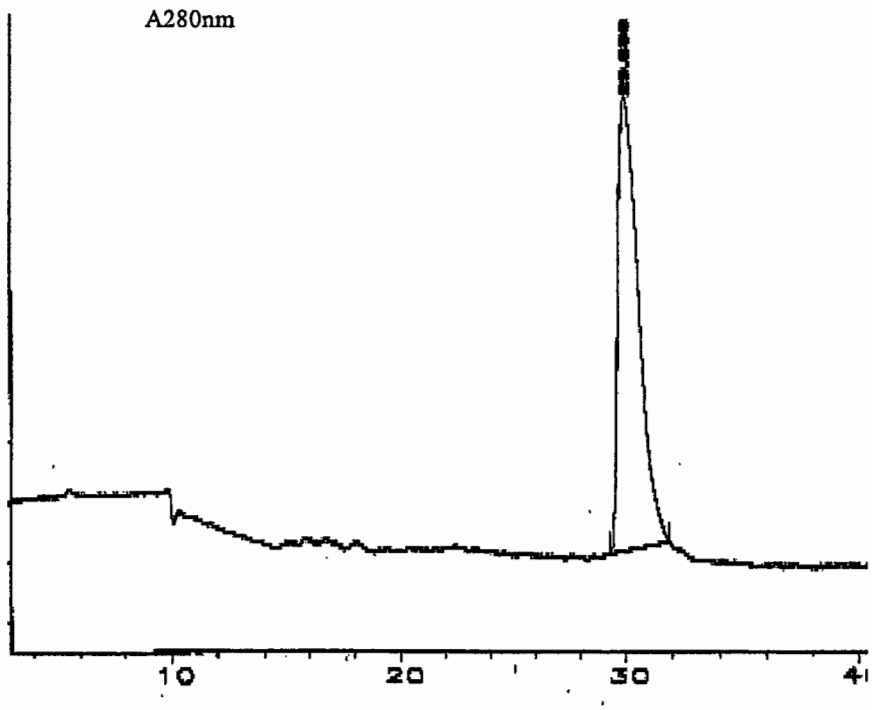
Retention time (min)

Fig 6



Retention time (min)

Fig 7



Retention time (min)

Fig 8

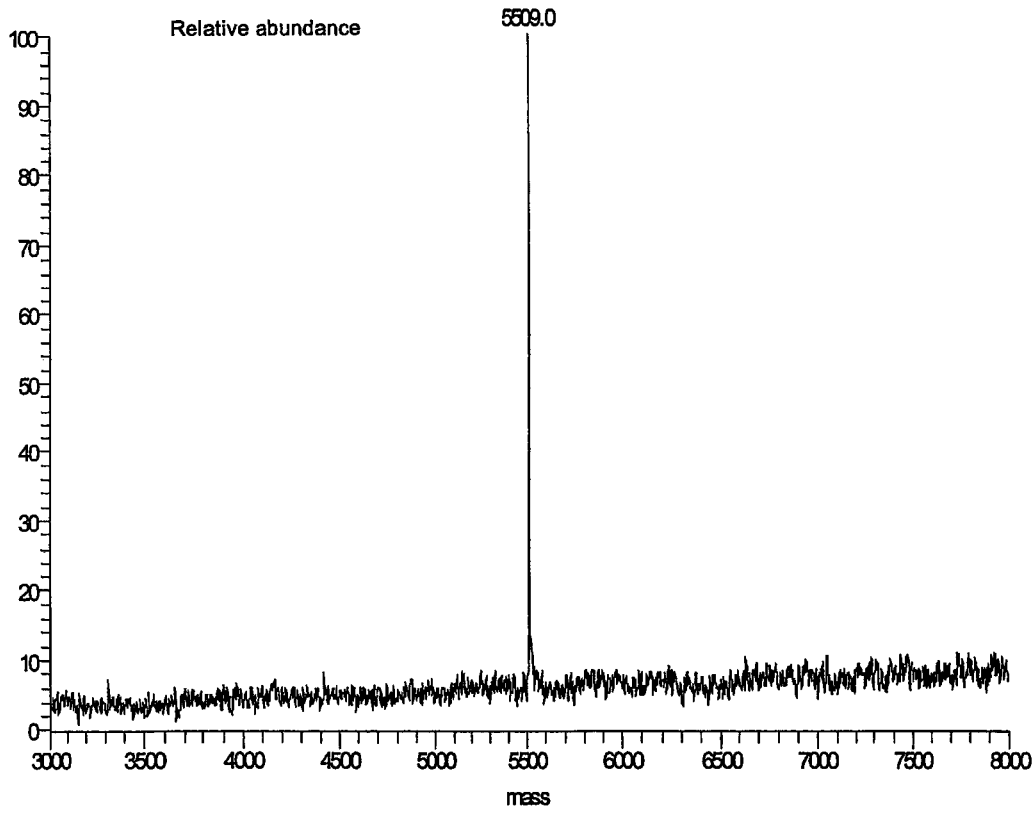
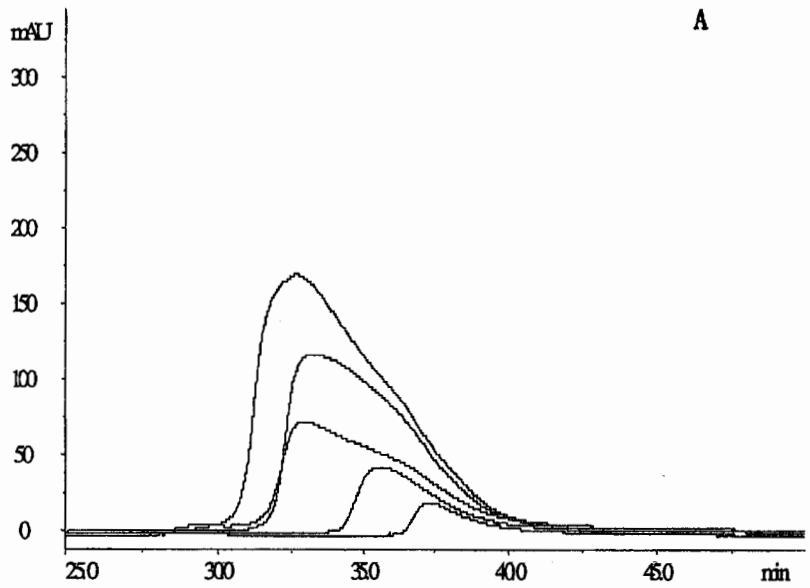
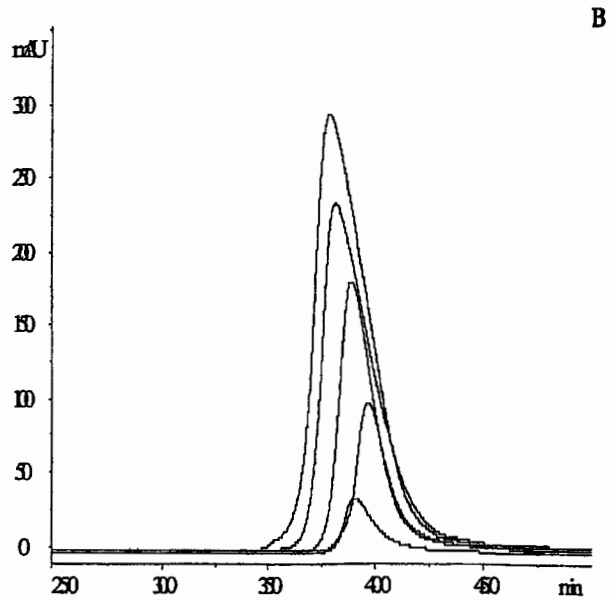

Relative abundance
5509.0
100
90
80
70
60
50
40
30
20
10
0
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
mass

Fig 9



Retention time

Fig 10A



Retention time

Fig 10 B

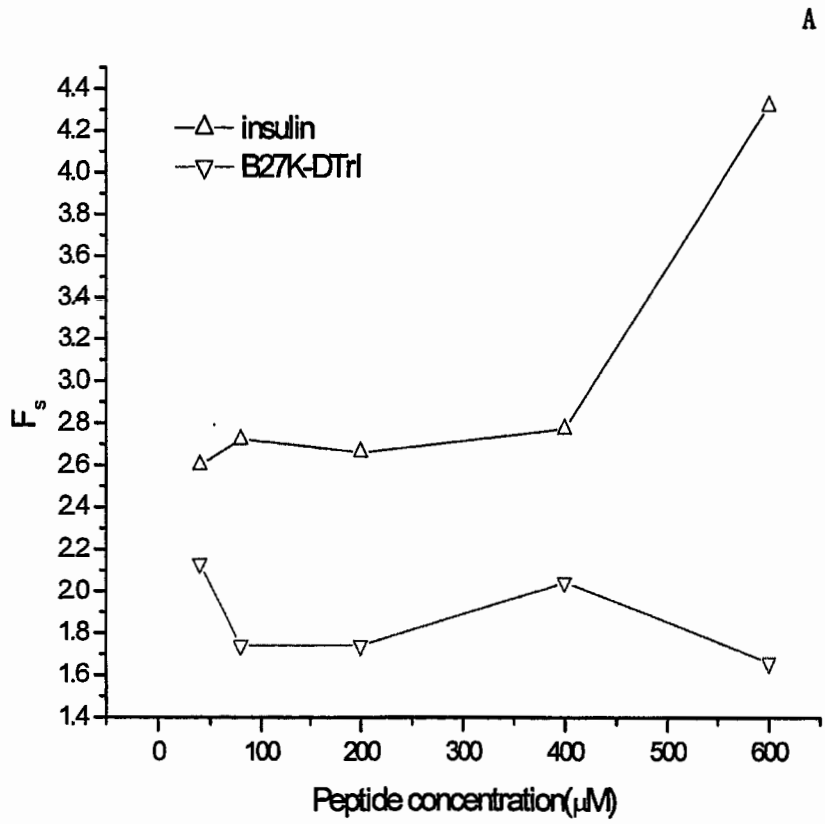

A
insulin
B27K-DTrl
F_s
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
0
100
200
300
400
500
600
Peptide concentration(μM)

Fig 11A

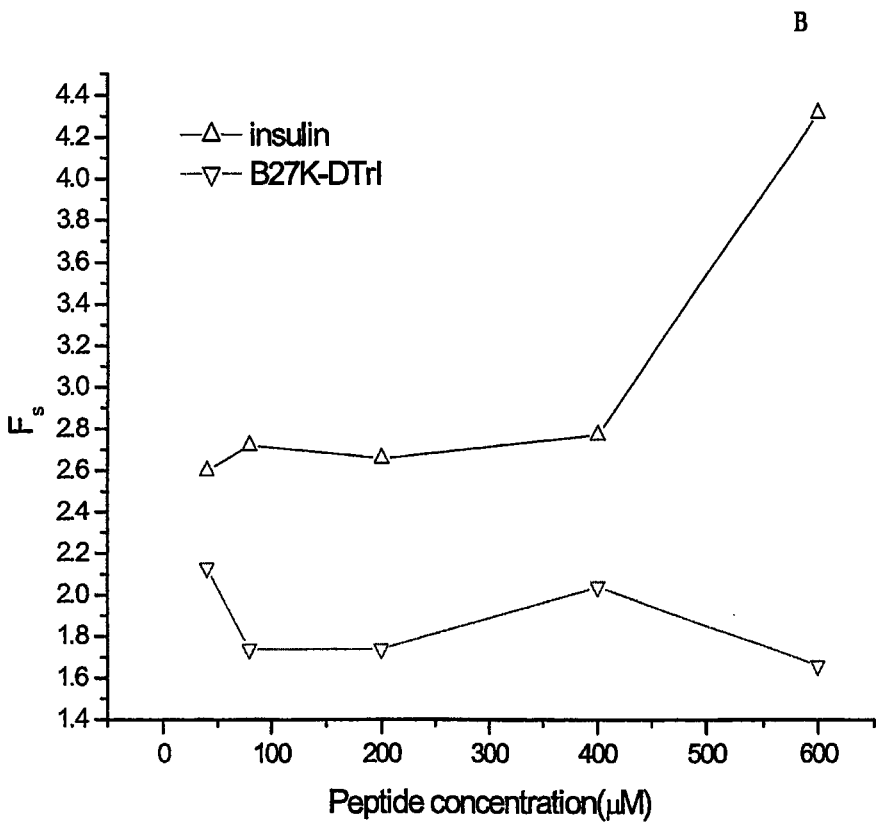

B
insulin
B27K-DTrI
F_s
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
0
100
200
300
400
500
600
Peptide concentration(μM)

Fig 11B

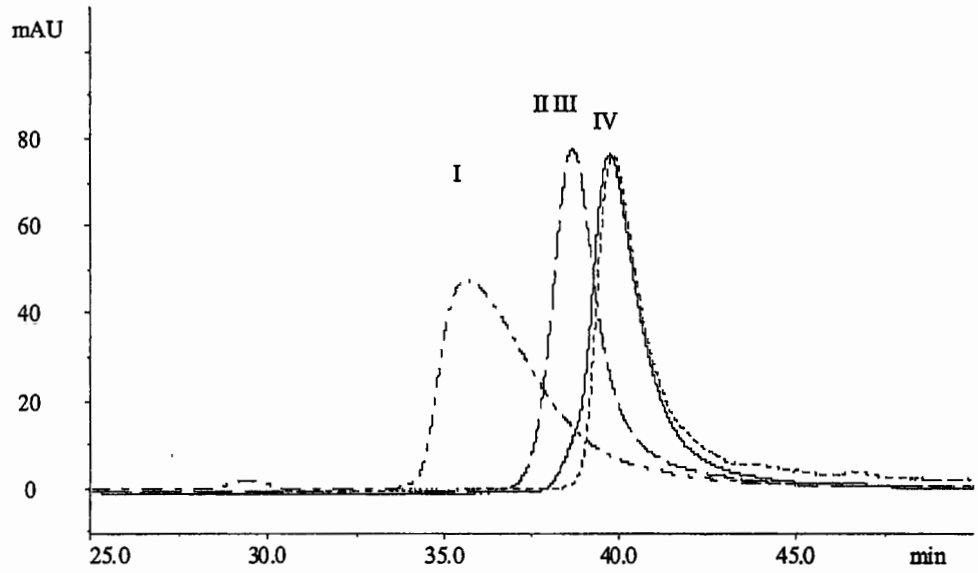

mAU
80
60
40
20
0
I
II III
IV
25.0
30.0
35.0
40.0
45.0
min
Retention time

Fig 12

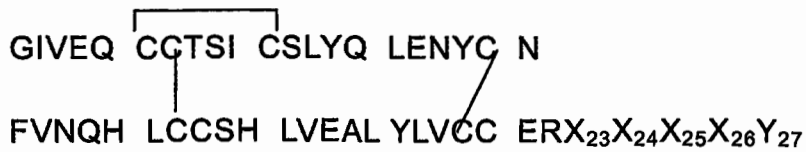

GIVEQ CQTSI CSLYQ LENYC N
FVNQH LCCSH LVEAL YLVCC ERX23X24X25X26Y27

Fig 13

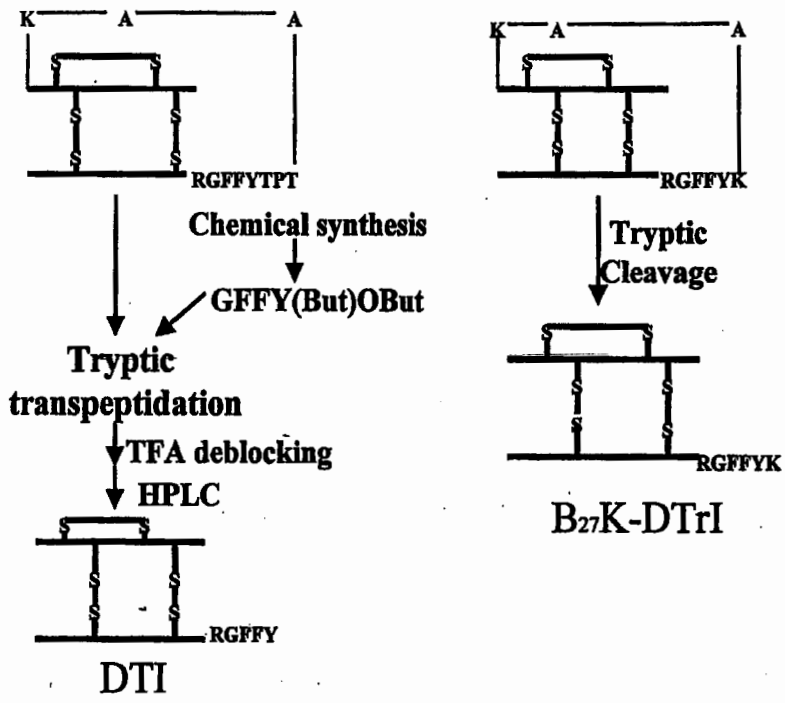

K
A
A
RGFFYTPT
Chemical synthesis
GFFY(But)OBut
Tryptic
transpeptidation
TFA deblocking
HPLC
RGFFY
DTI
K
A
A
RGFFYK
Tryptic
Cleavage
RGFFYK
B27K-DTrI

Fig 14