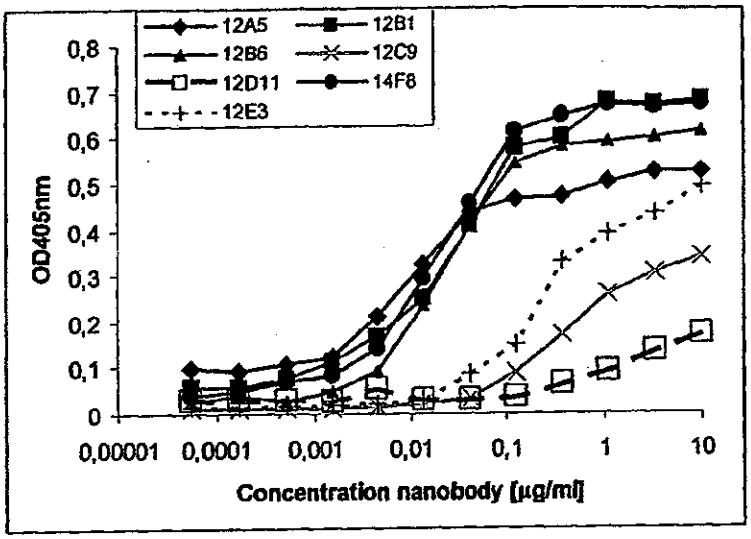


Figure 1

```
12A5  AVQLVESGGGLVQPGGSLRLSCLASGRIFSIGAMGMYRQAPGKQRELVATITSGGSTNYAD
12B4  QVQLVESGGGLVQPGGSLRLSCLASGRIFSIGAMGLYRQAPGKQRELVATITSGGSTNYAD
12E8  AVQLEESGGGLVQPGGSLRLSCLASGRIFSIGAMGLYRQAPGKQRELVATITSGGSTNYAD
12A6  QVQLVESGGGLVQPGGSLRLSCLASGRIFSIGTMGLYRQAPGKQRELVATITSGGSTNYAD
12D8  AVQLVESGGGLVQPGGSLRLSCLASGRIFSIGTMGLYRQAPGKQRELVATITSGGSTNYAD

12A5  PVKGRFTISRDGPKNTVYLQMNSLKPEDTAVYYCYANLKQGSYGYRFNDYWGQGTQVTVSS
12B4  SVKGRFTISRDGPKNTVYLQMNSLKPEDTAVYYCYANLKQGSYGYRFNDYWGQGTQVTVSS
12E8  SVKGRFTISRDGAKNTVYLQMNSLKPEDTAVYYCYANLKQGDYGYRFNDYWGQGTQVTVSS
12A6  SVKGRFTISRDGAKNTVYLQMNSLRPEDTAVYYCYANLKQGDYGYRFNDYWGQGTQVTVSS
12D8  SVKGRFTISRDGAKNTVYLQMNSLRPEDTAVYYCYANLKQGDYGYRFNDYWGQGTQVTVSS
```

Figure 2

```
12B6  QVQLVESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGKERDVVAAISRTGGSTYYAR
12A2  QVKLEESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGKERDLVAAISRTGGSTYYPD
12F2  QVKLVESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGRERDVVAAISRTGGSTYYPD
14H10 QVKLEESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGKERDVVAAISRTGGSTYYPD

12B6  SVEGRFTISRDNAKRMVYLQMNALKPEDTAVYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
12A2  SVEGRFTISRDNAKRMVYLQMNNLKPEDTAVYYCAAAGVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12F2  SVEGRFTISRDNAKRMVYLQMNNLKPEDTAVYYCAAAGVRAEDGRVRSLPSEYTFWGQGTQVTVSS
14H10 SVEGRFTISRDNAKRMVYLEMNNLKPDDTAVYYCAAAGVRAEDGRVRTLPSEYTFWGQGTQVTVSS
```

Figure 3

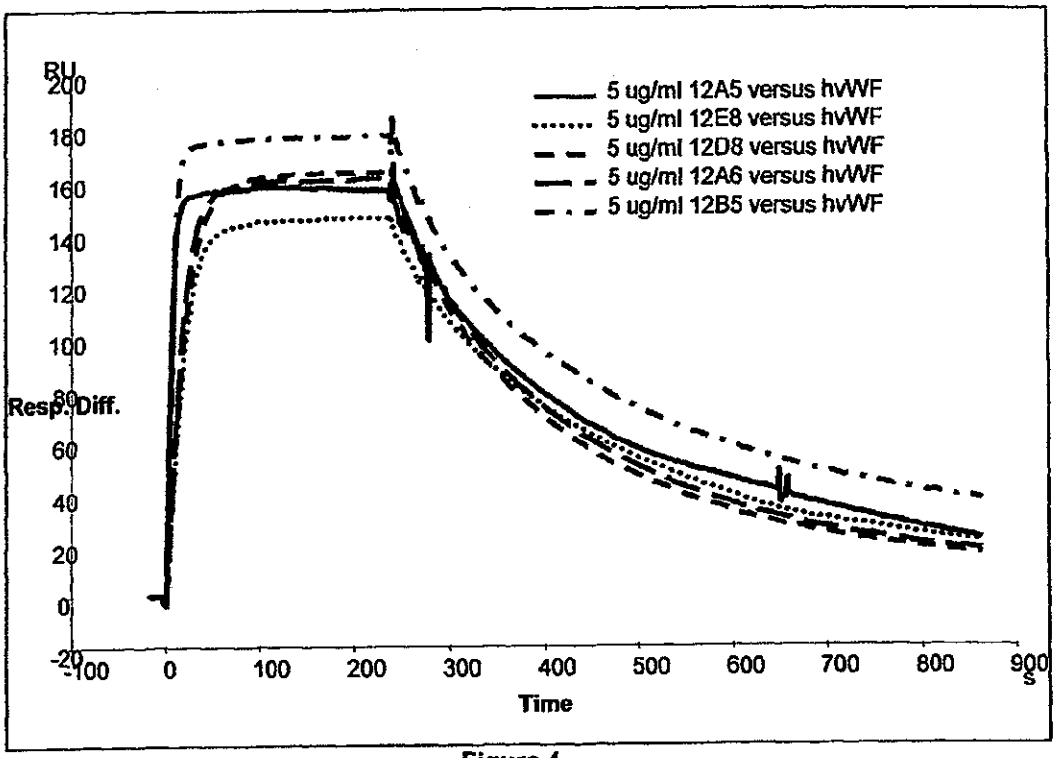


Figure 4

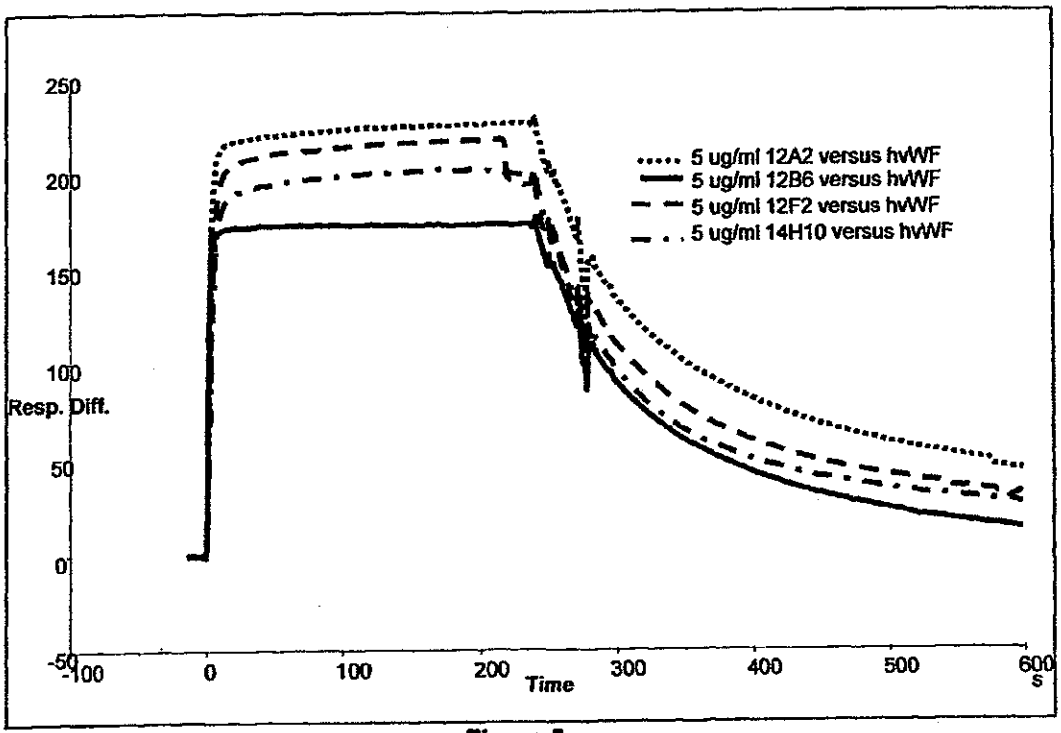


Figure 5

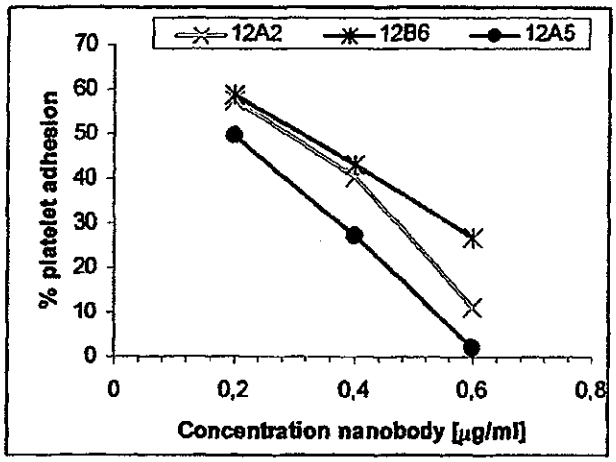


Figure 6

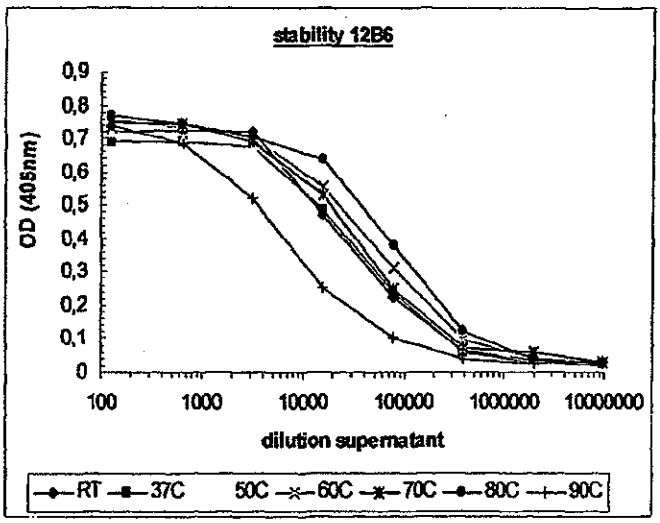


Figure 7a

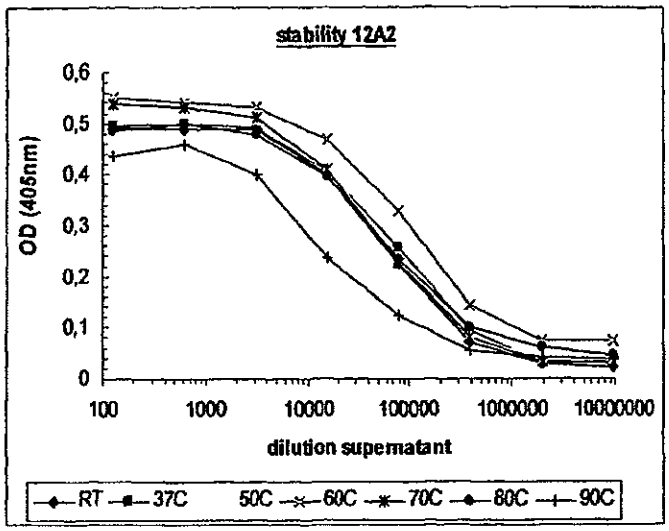


Figure 7b

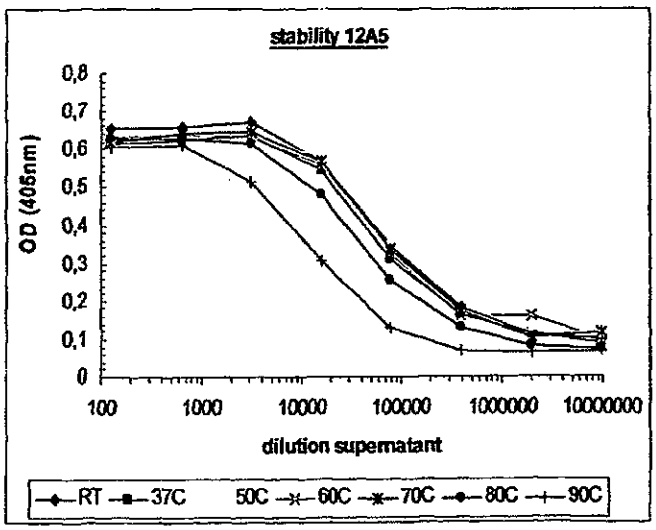


Figure 7c

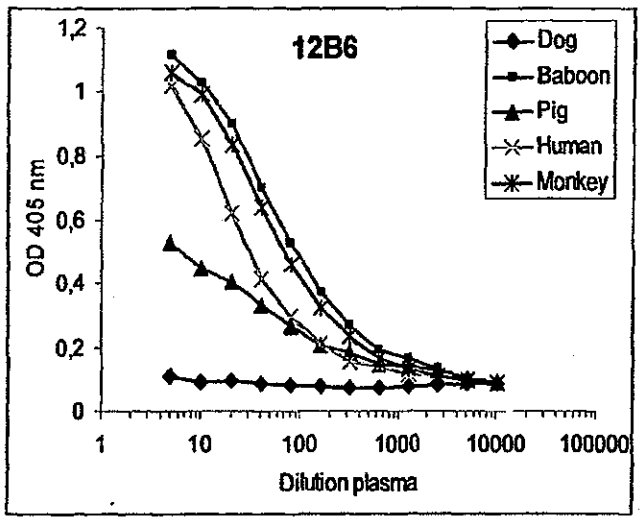


Figure 8a

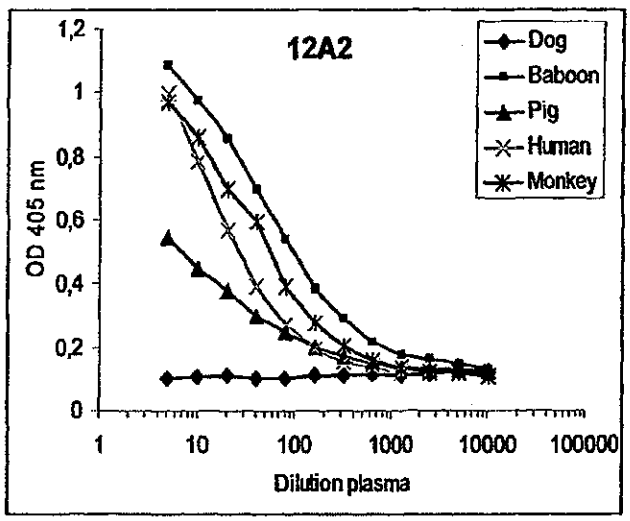


Figure 8b

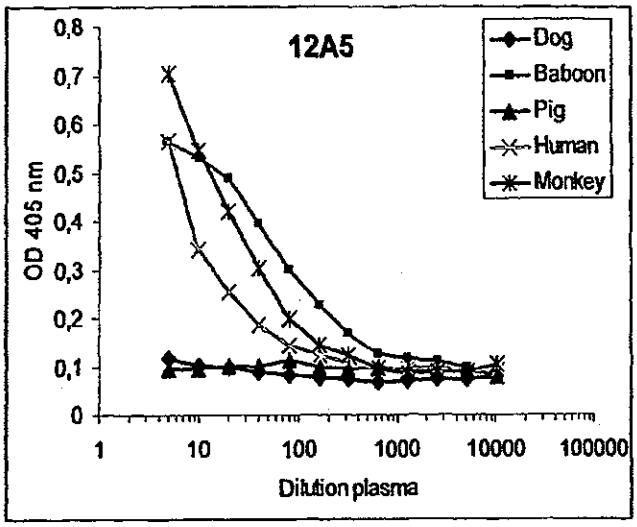


Figure 8c

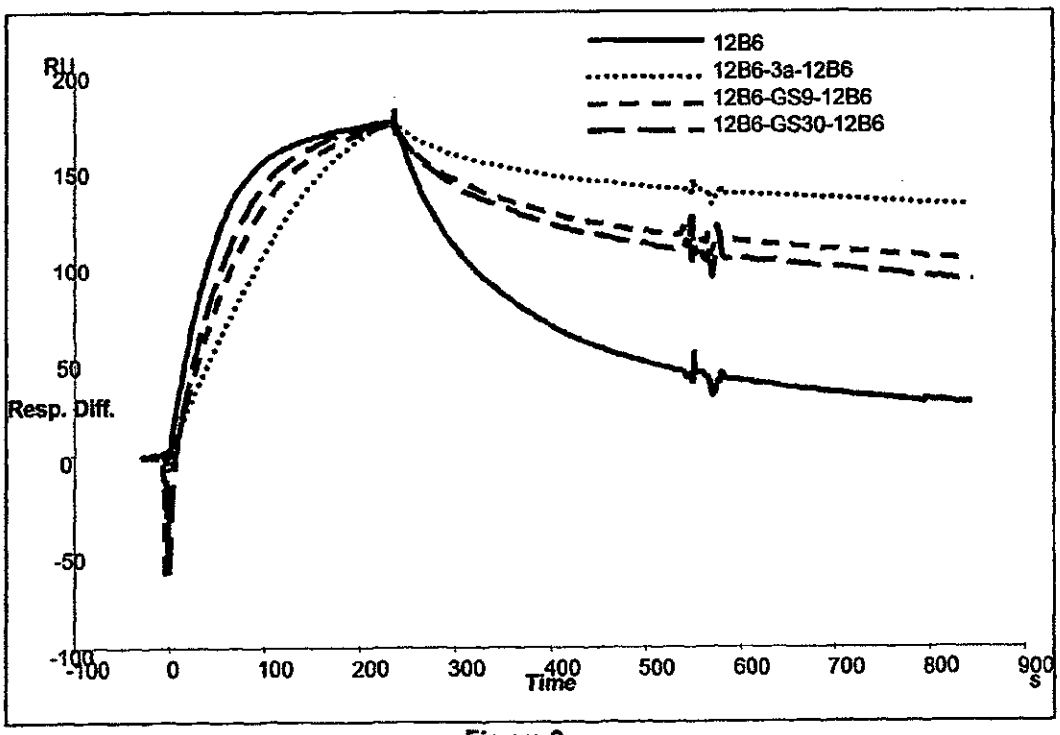


Figure 9

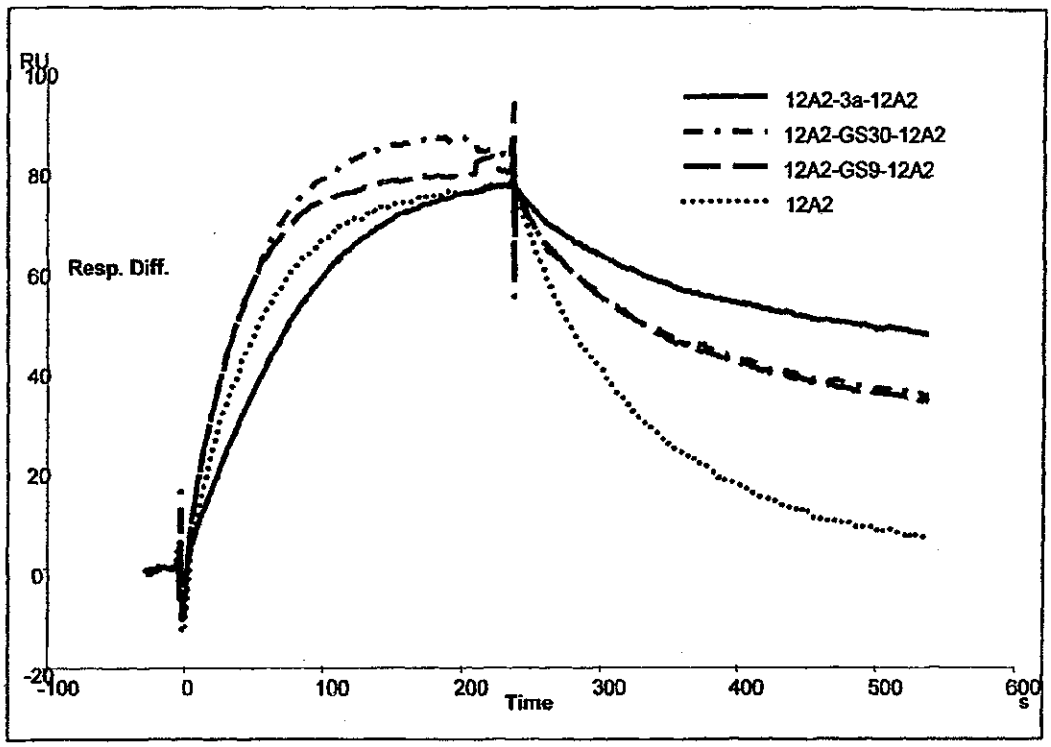


Figure 10

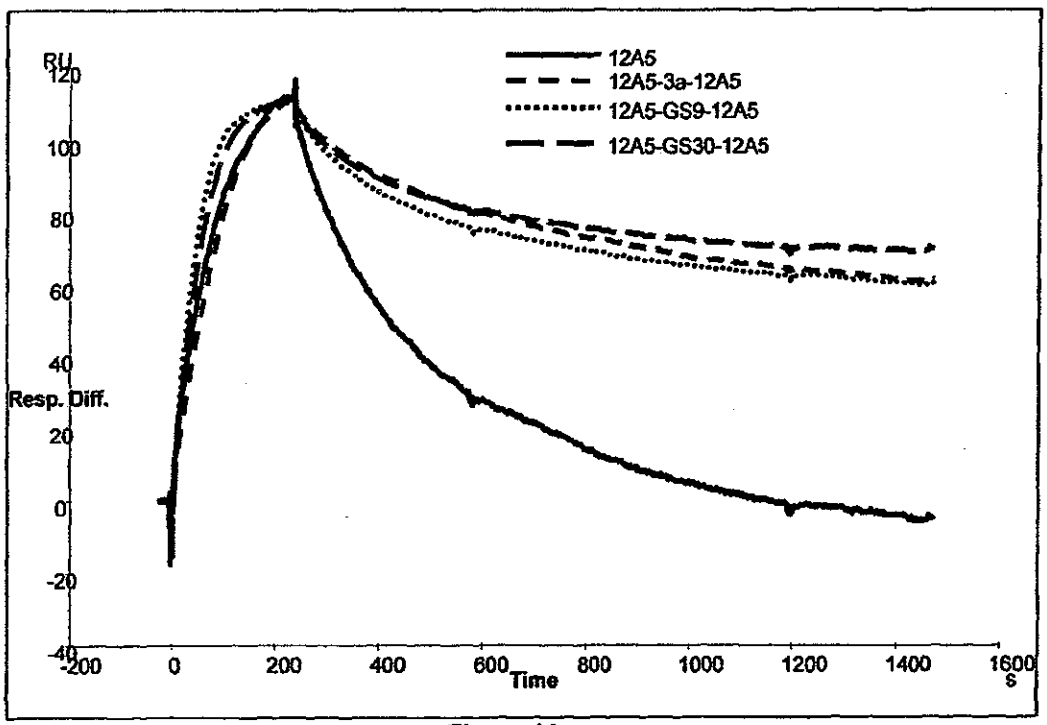
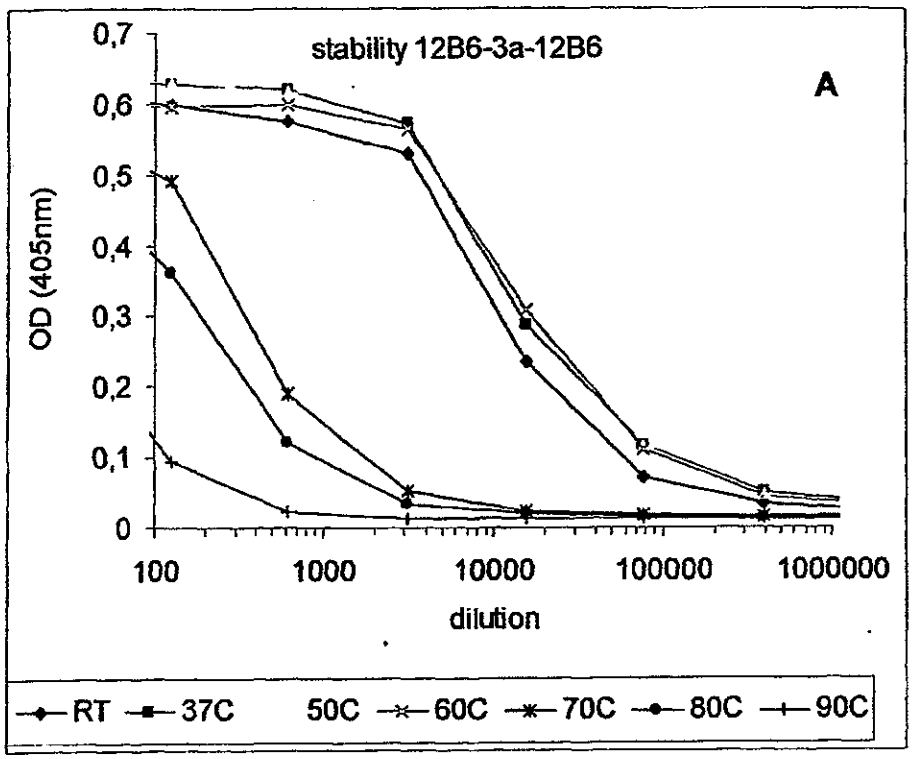


Figure 11


stability 12B6-3a-12B6
A
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
1000
10000
100000
1000000
dilution
RT
37C
50C
60C
70C
80C
90C

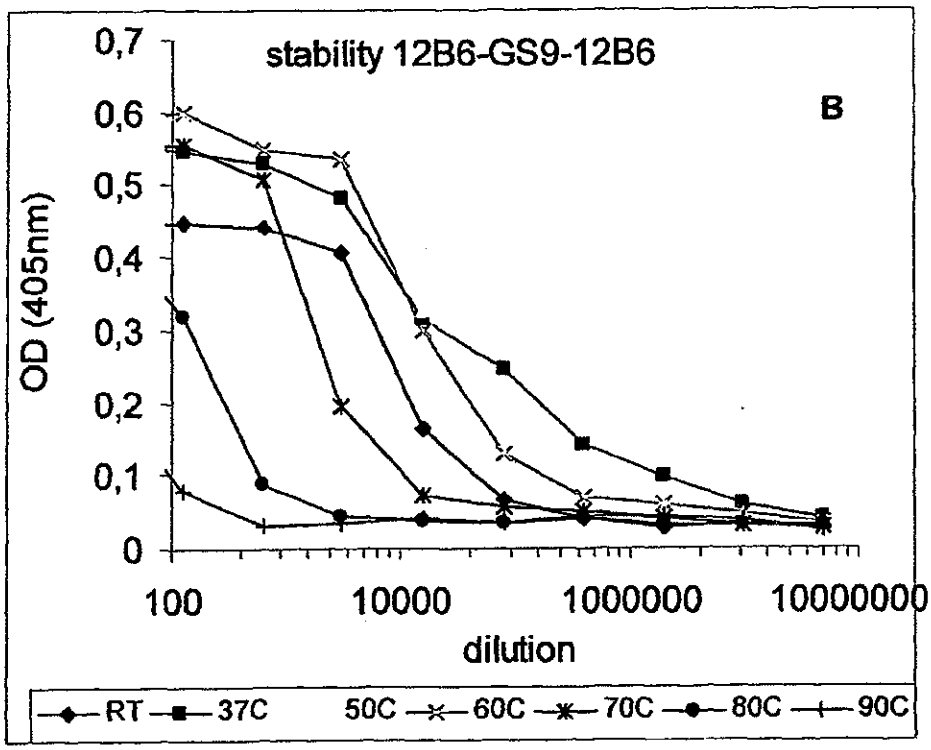

stability 12B6-GS9-12B6
B
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

FIGURE 12-1

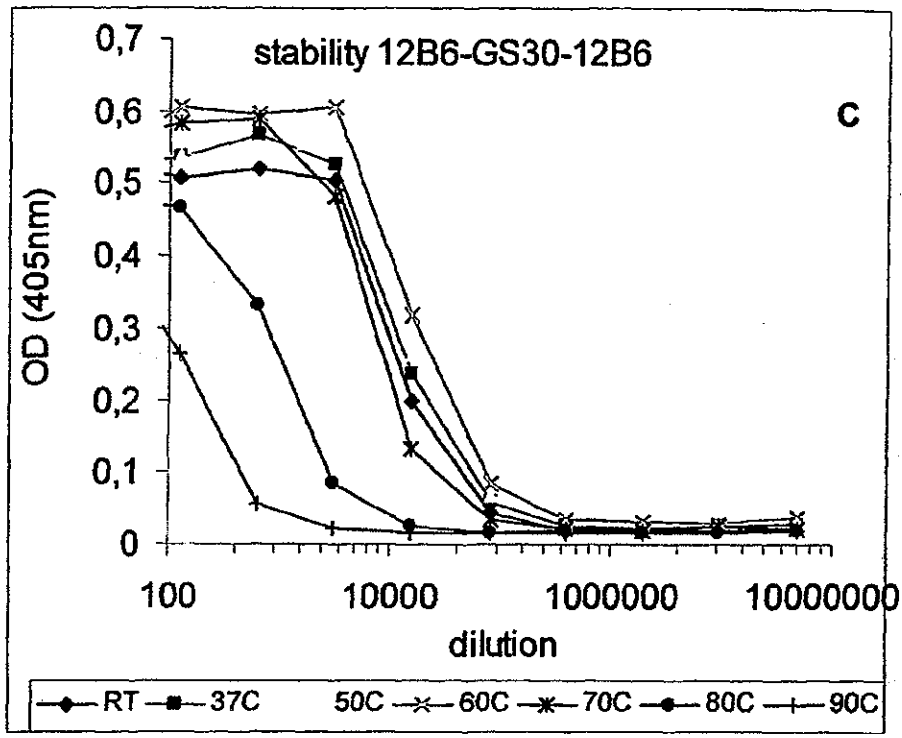
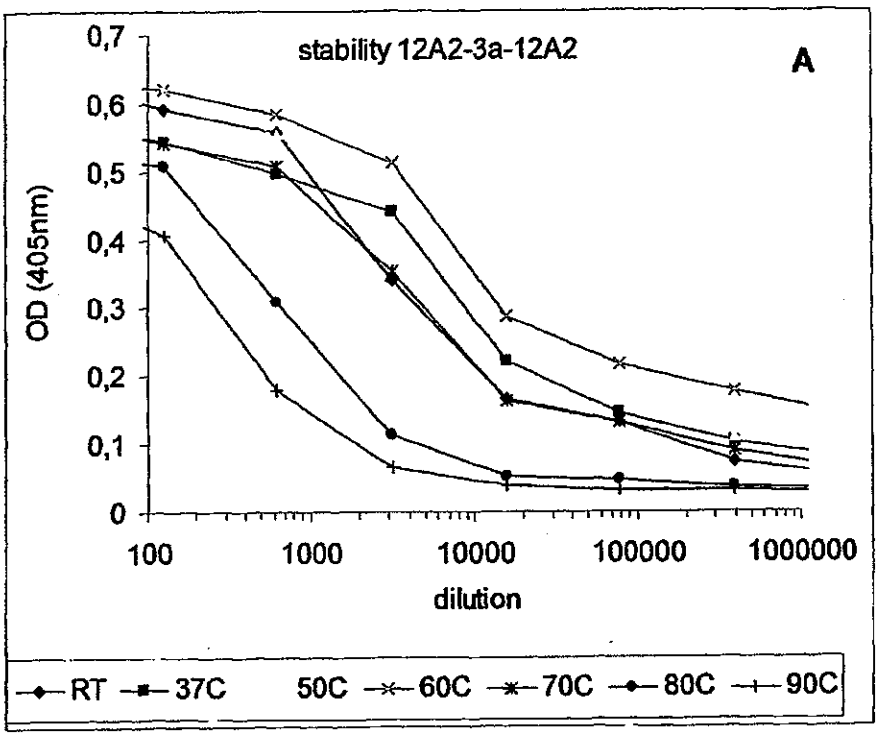

stability 12B6-GS30-12B6
C
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 12-2


stability 12A2-3a-12A2
A
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
1000
10000
100000
1000000
dilution
RT
37C
50C
60C
70C
80C
90C

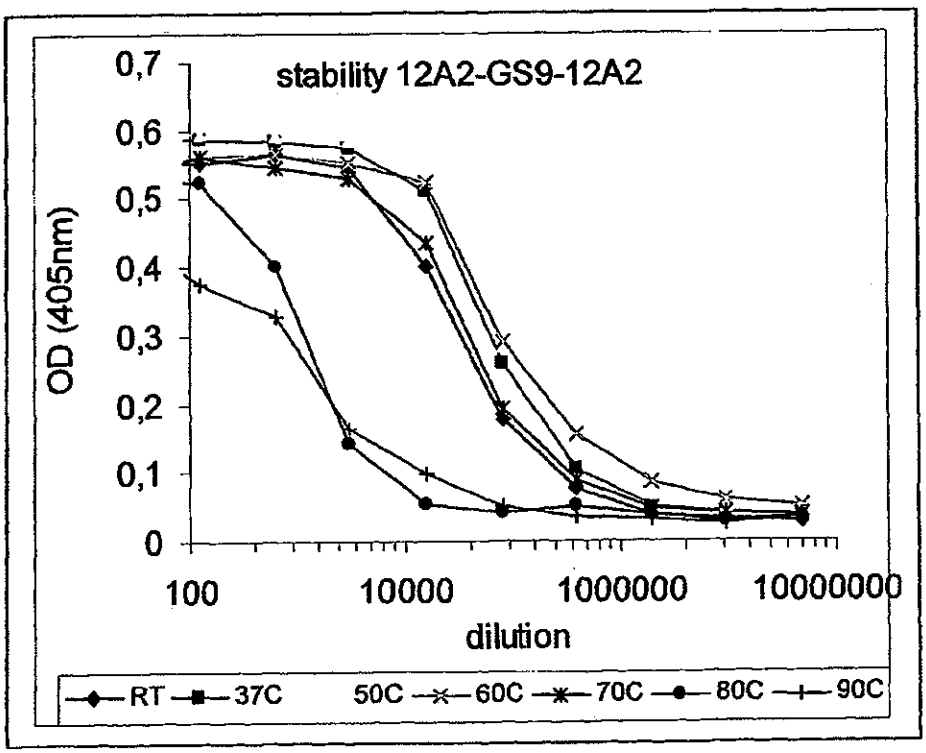

stability 12A2-GS9-12A2
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 13-1

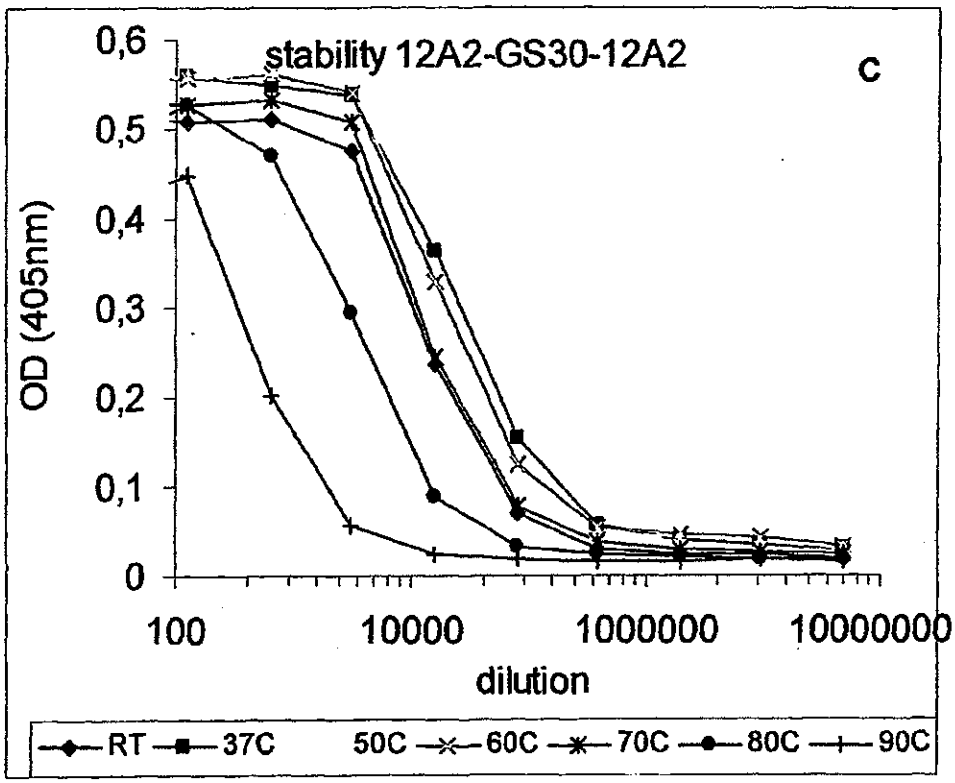

stability 12A2-GS30-12A2
C
OD (405nm)
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 13-2

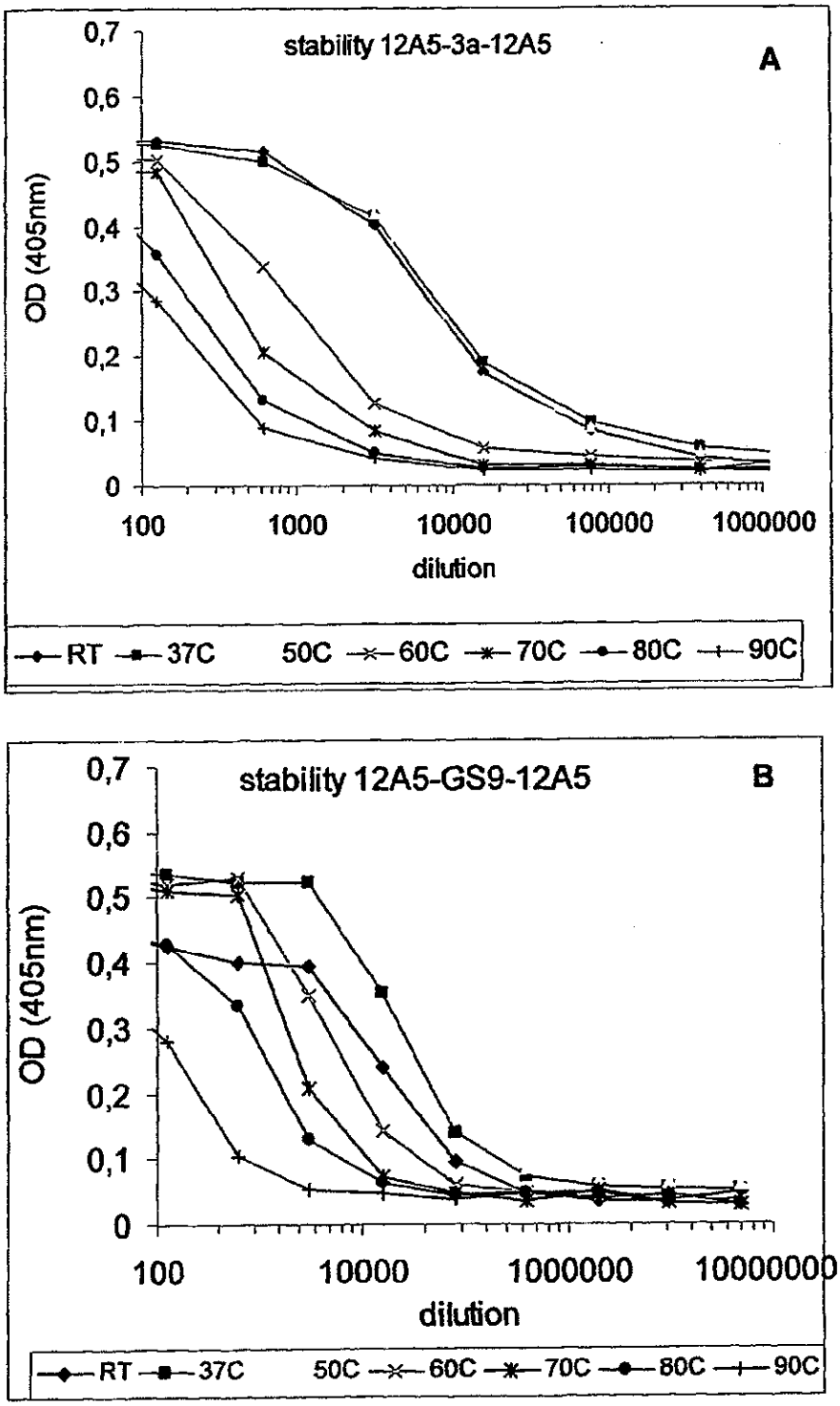

stability 12A5-3a-12A5
A
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
1000
10000
100000
1000000
dilution
RT
37C
50C
60C
70C
80C
90C
stability 12A5-GS9-12A5
B
OD (405nm)
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 14-1

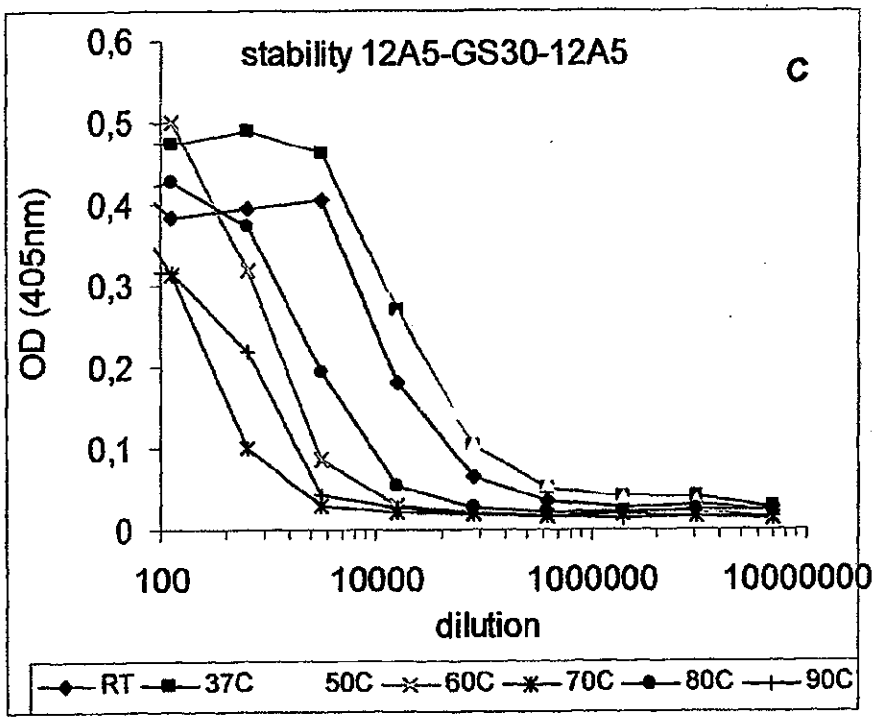

stability 12A5-GS30-12A5
C
OD (405nm)
0,6
0,5
0,4
0,3
0,2
0,1
0
100
10000
1000000
10000000
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 14-2

```
12B6        QVQLVESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGKERDVVAA
12B6H1      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRDVVAA
12B6H2      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGREVVAA
12B6H3      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRDVVAA
12B6H4      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRDVVAA

12B6        ISRTGGSTYYARSVEGRFTISRDNAKRMVYLQMNALKPEDTA
12B6H1      ISRTGGSTYYARSVEGRFTISRDNAKRMVYLQMNSLRAEDTA
12B6H2      ISRTGGSTYYARSVEGRFTISRDNAKRMVYLQMNSLRAEDTA
12B6H3      ISRTGGSTYYARSVEGRFTISRDNAKNMVYLQMNSLRAEDTA
12B6H4      ISRTGGSTYYARSVEGRFTISRDNAKRSVYLQMNSLRAEDTA

12B6        VYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
12B6H1      VYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
12B6H2      VYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
12B6H3      VYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
12B6H4      VYYCAAAGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
```

Figure 15

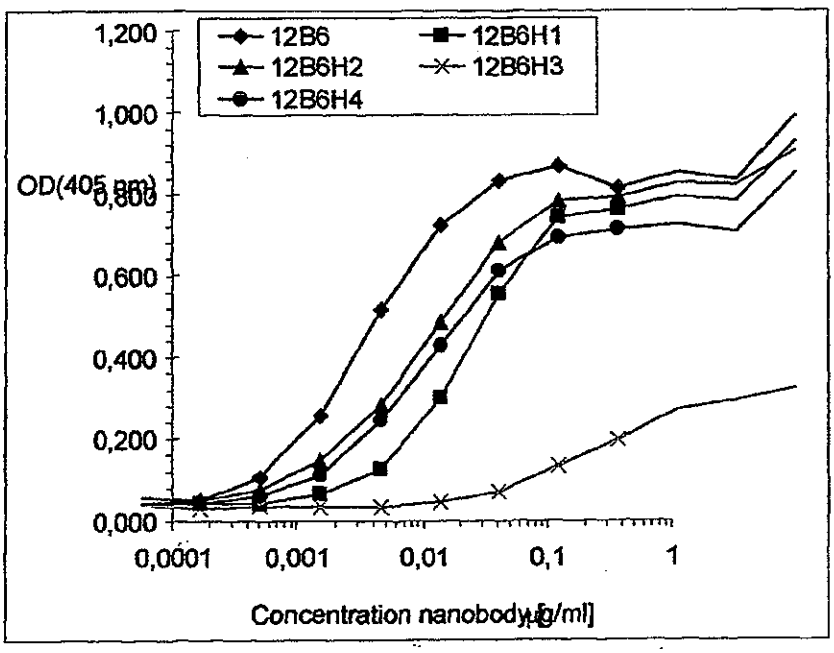


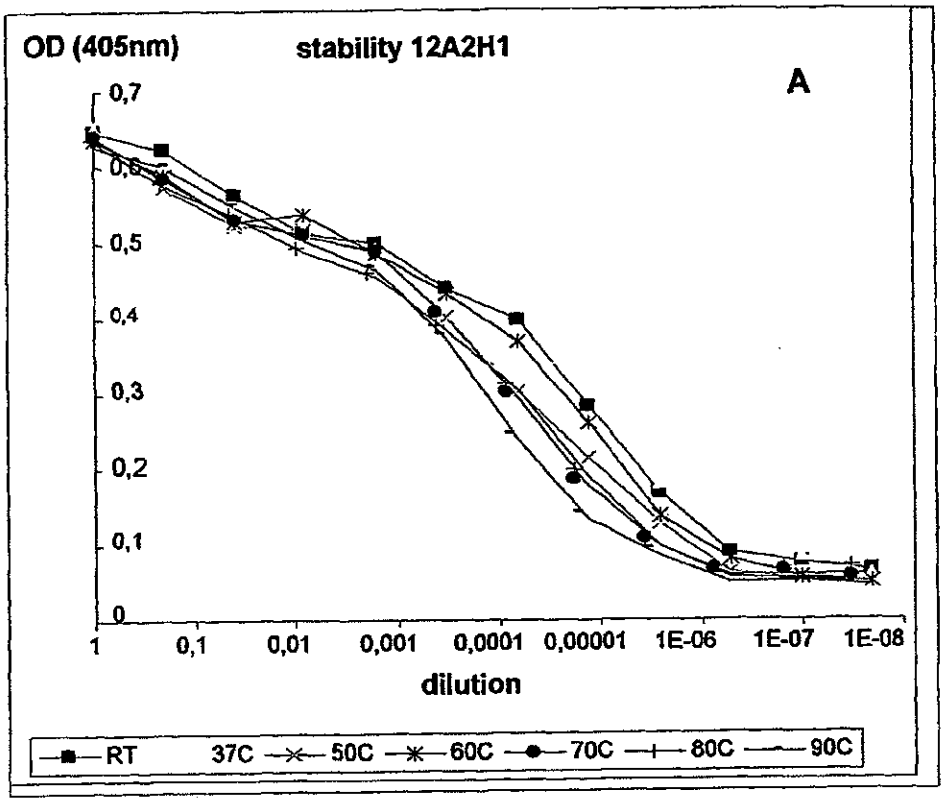
Figure 16

```
12A2        QVKLEESGGGLVQAGGALRLSCAASGRTFSYNPMGWFRQAPGKERDLVAA
12A2H1      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRELVAA
12A2H3      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRELVAA
12A2H4      EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRELVAA
12A2H11     EVQLVESGGGLVQPGGSLRLSCAASGFTFSYNPMGWFRQAPGKGRELVAA
12A2H13     EVQLVESGGGLVQPGGSLRLSCAASGFTFSYNPMGWFRQAPGKGRELVAA

12A2        ISRTGGSTYYPDSVEGRFTISRDNAKRMVYLQMNNLKPEDTAVYYCAAA
12A2H1      ISRTGGSTYYPDSVEGRFTISRDNAKRMVYLQMNSLRAEDTAVYYCAAA
12A2H3      ISRTGGSTYYPDSVEGRFTISRDNAKNMVYLQMNSLRAEDTAVYYCAAA
12A2H4      ISRTGGSTYYPDSVEGRFTISRDNAKRSVYLQMNSLRAEDTAVYYCAAA
12A2H11     ISRTGGSTYYPDSVEGRFTISRDNAKRMVYLQMNSLRAEDTAVYYCAAA
12A2H13     ISRTGGSTYYPDSVEGRFTISRDNAKNSVYLQMNSLRAEDTAVYYCAAA

12A2        GVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H1      GVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H3      GVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H4      GVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H11     GVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H13     GVRAEDGRVRTLPSEYTFWGQGTLVTVSS
```

Figure 17


OD (405nm)
stability 12A2H1
A
0,7
0,6
0,5
0,4
0,3
0,2
0,1
0
1
0,1
0,01
0,001
0,0001
0,00001
1E-06
1E-07
1E-08
dilution
RT
37C
50C
60C
70C
80C
90C

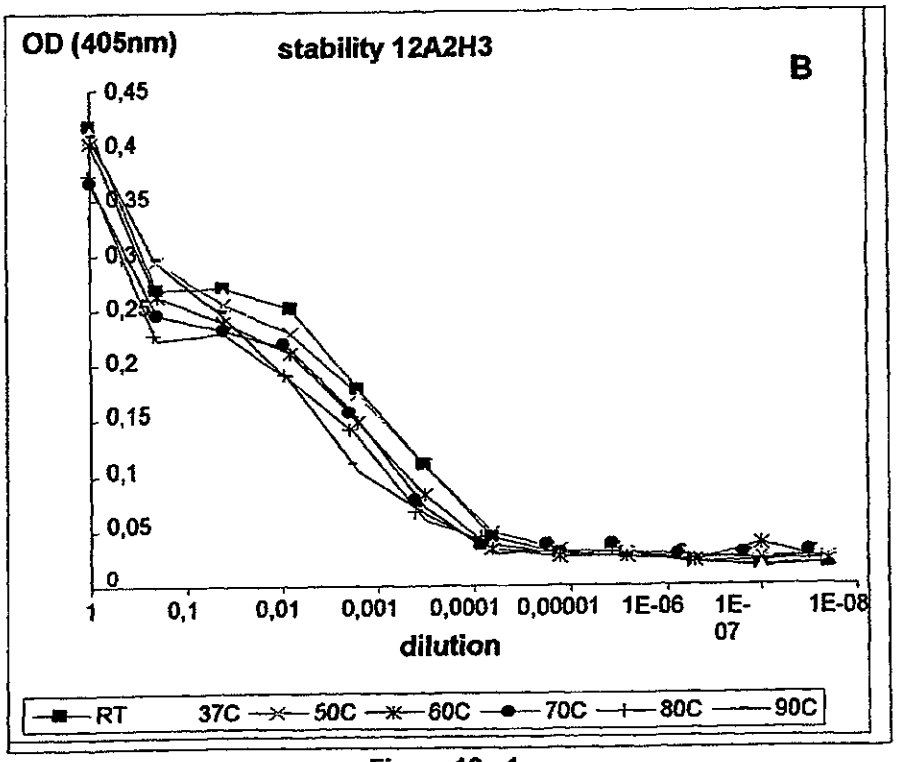
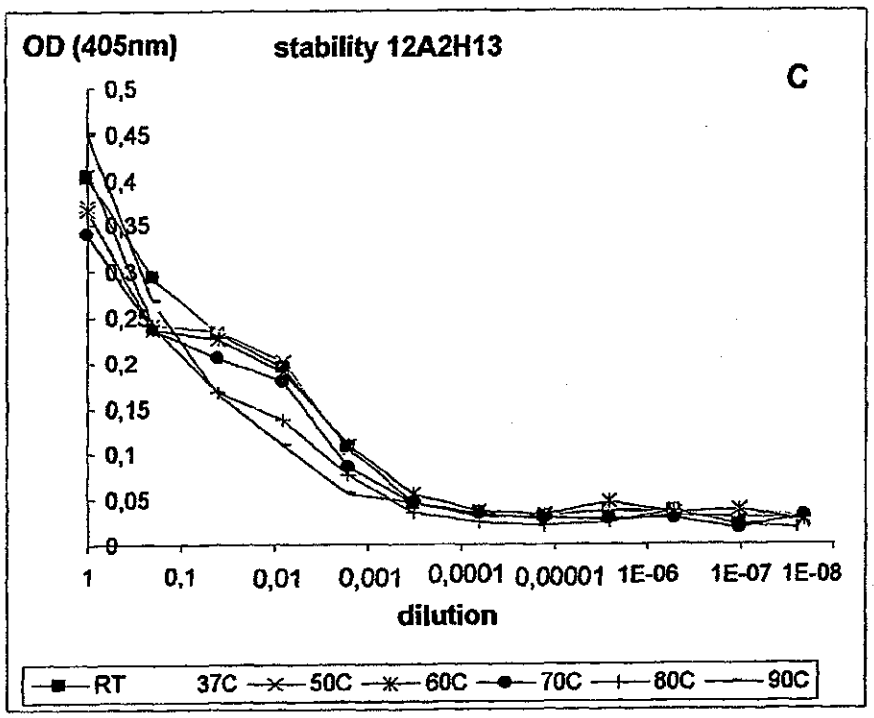

OD (405nm)
stability 12A2H3
B
0,45
0,4
0,35
0,3
0,25
0,2
0,15
0,1
0,05
0
1
0,1
0,01
0,001
0,0001
0,00001
1E-06
1E-07
1E-08
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 18 - 1


OD (405nm)
stability 12A2H13
C
0,5
0,45
0,4
0,35
0,3
0,25
0,2
0,15
0,1
0,05
0
1
0,1
0,01
0,001
0,0001
0,00001
1E-06
1E-07
1E-08
dilution
RT
37C
50C
60C
70C
80C
90C

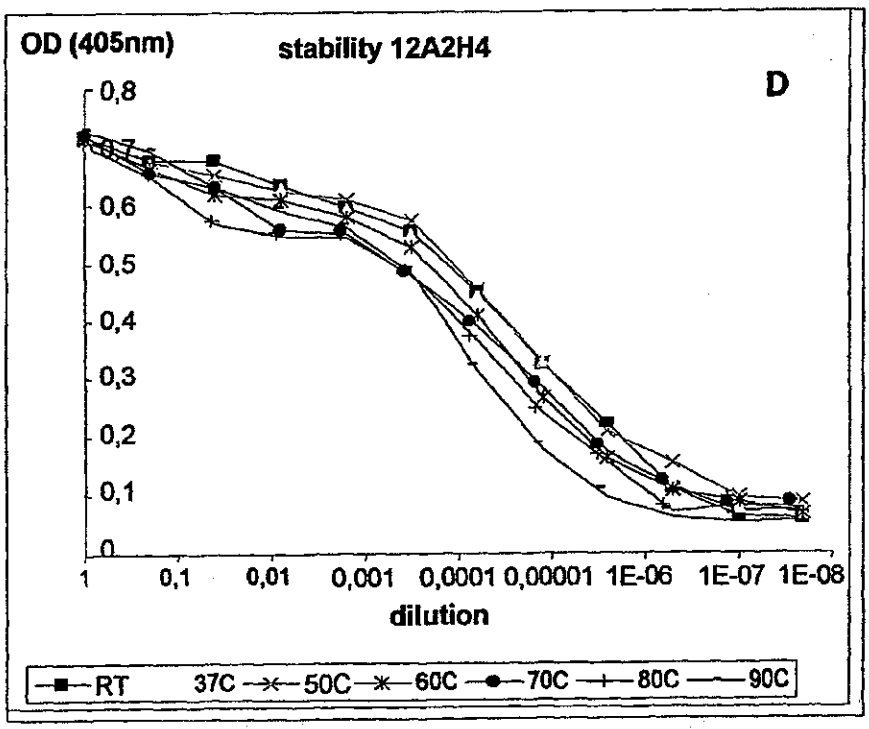

OD (405nm)
stability 12A2H4
D
0,8
0,6
0,5
0,4
0,3
0,2
0,1
0
1
0,1
0,01
0,001
0,0001
0,00001
1E-06
1E-07
1E-08
dilution
RT
37C
50C
60C
70C
80C
90C

Figure 18 - 2

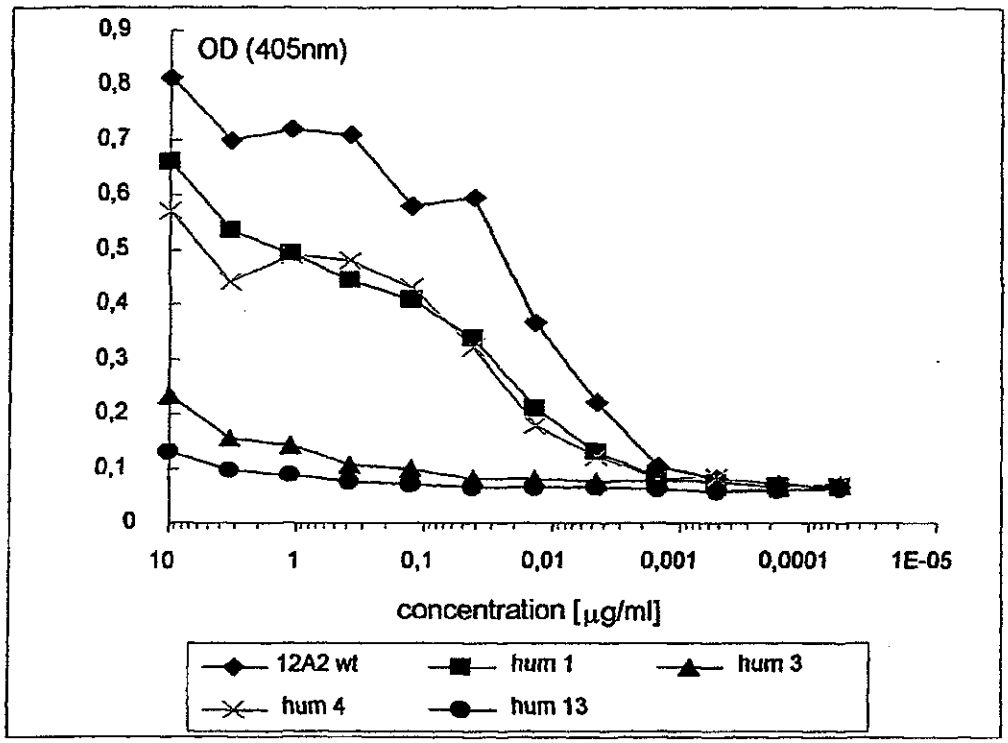


Figure 19

```
12A5        AVQLVESGGGLVQPGGSLRLSCLASGRIFSIGAMGMYRQAPGKQREL
12A5H1      EVQLVESGGGLVQPGGSLRLSCAASGRIFSIGAMGMYRQAPGKGREL
12A5H2      EVQLVESGGGLVQPGGSLRLSCAASGRIFSIGAMGMYRQAPGKGREL
12A5H3      EVQLVESGGGLVQPGGSLRLSCAASGRIFSIGAMGMYRQAPGKGREL

12A5        VATITSGGSTNYADPVKGRFTISRDGPKNTVYLQMNSLKPEDTAVYY
12A5H1      VATITSGGSTNYADPVKGRFTISRDGPKNTVYLQMNSLRAEDTAVYY
12A5H2      VATITSGGSTNYADPVKGRFTISRDGAKNTVYLQMNSLRAEDTAVYY
12A5H3      VATITSGGSTNYADPVKGRFTISRDNAKNTVYLQMNSLRAEDTAVYY

12A5        CYANLKQGSYGYRFNDYWGQGTQVTVSS
12A5H1      CYANLKQGSYGYRFNDYWGQGTQVTVSS
12A5H2      CYANLKQGSYGYRFNDYWGQGTQVTVSS
12A5H3      CYANLKQGSYGYRFNDYWGQGTQVTVSS
```

Figure 20

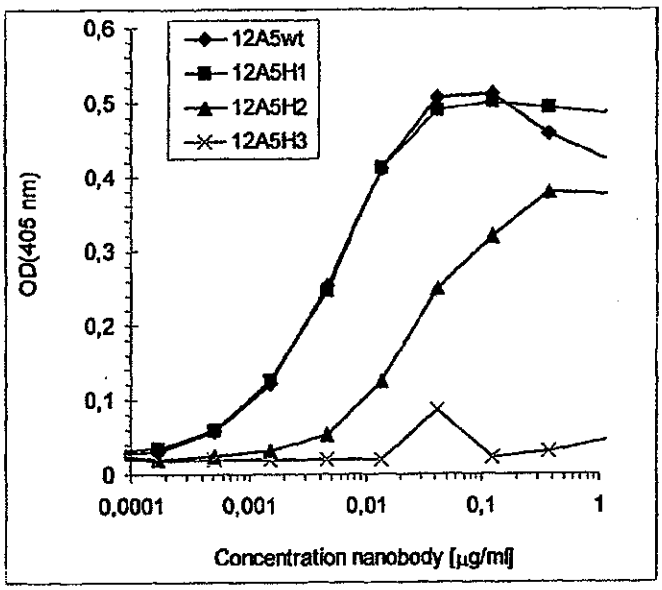


Figure 21

```
12A2H1          EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRELVA
12A2H4          EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGRELVA
12B6H2          EVQLVESGGGLVQPGGSLRLSCAASGRTFSYNPMGWFRQAPGKGREVVA

12A2H1          AISRTGGSTYYPDSVEGRFTISRDNAKRMVYLQMNSLRAEDTAVYYCAA
12A2H4          AISRTGGSTYYPDSVEGRFTISRDNAKRSVYLQMNSLRAEDTAVYYCAA
12B6H2          AISRTGGSTYYARSVEGRFTISRDNAKRMVYLQMNSLRAEDTAVYYCAA

12A2H1          AGVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12A2H4          AGVRAEDGRVRTLPSEYTFWGQGTQVTVSS
12B6H2          AGVRAEDGRVRTLPSEYNFWGQGTQVTVSS
```

Figure 22

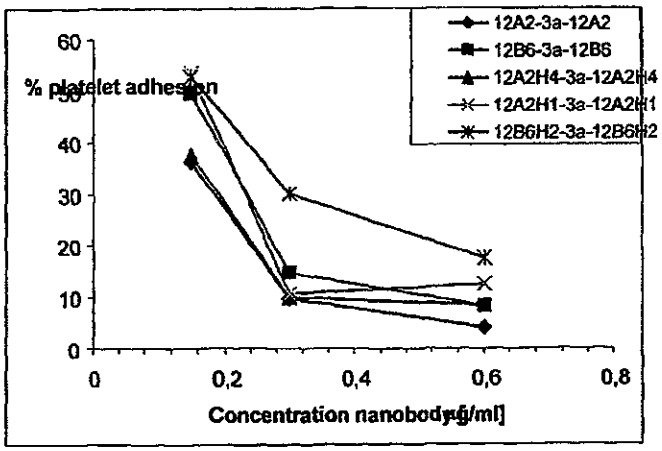


Figure 23

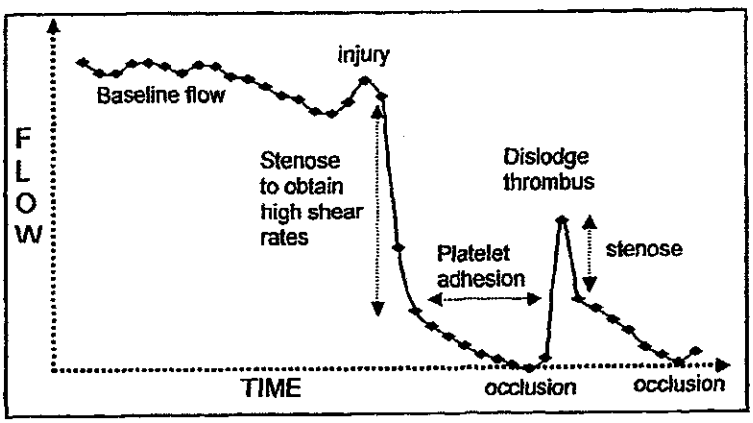


Figure 24

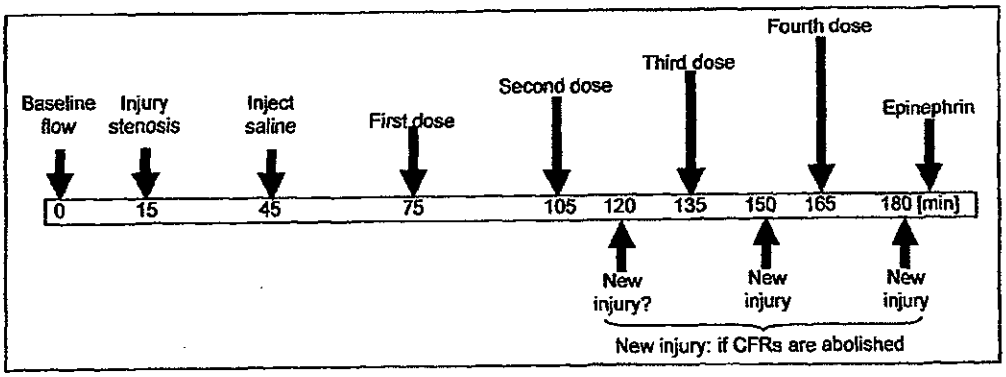


Figure 25

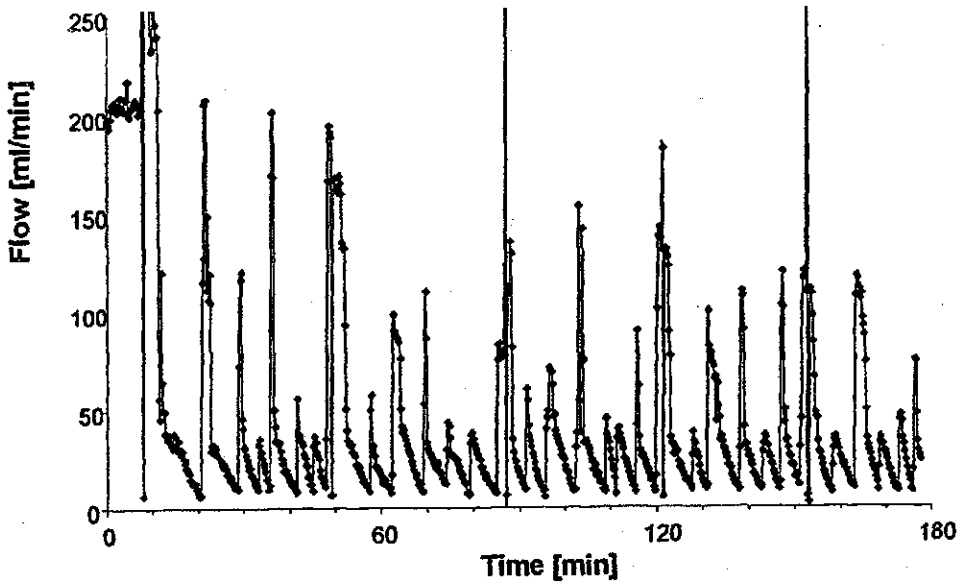


FIGURE 26

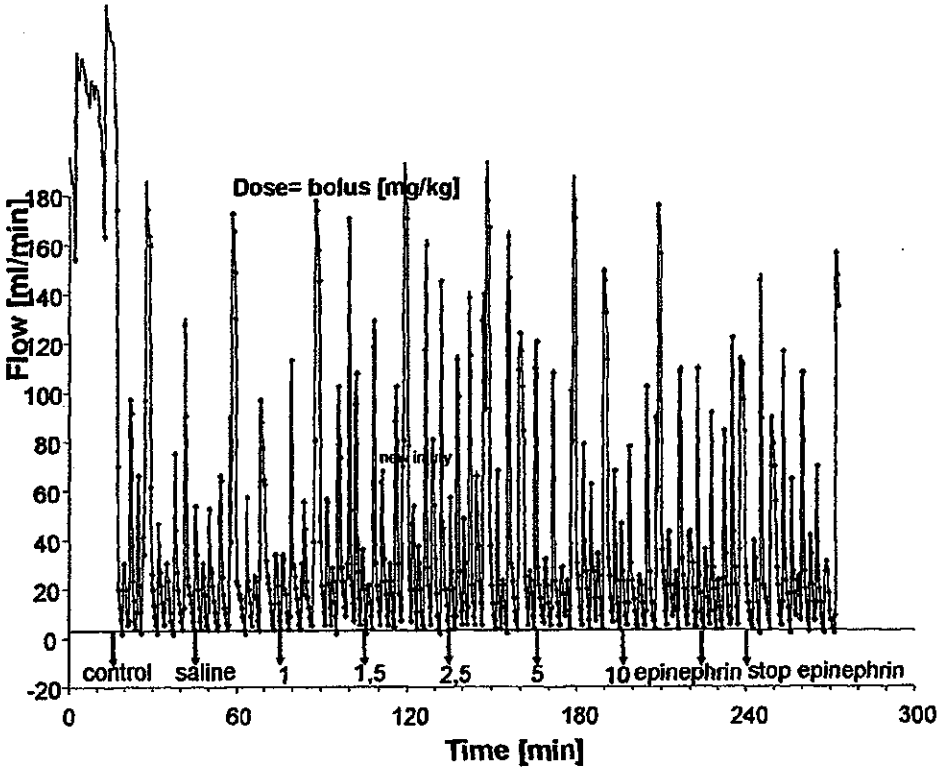

Dose= bolus [mg/kg]
Flow [ml/min]
180
160
140
120
100
80
60
40
20
0
-20
control
saline
1
1,5
2,5
5
10
epinephrin
stop epinephrin
0
60
120
180
240
300
Time [min]

FIGURE 27

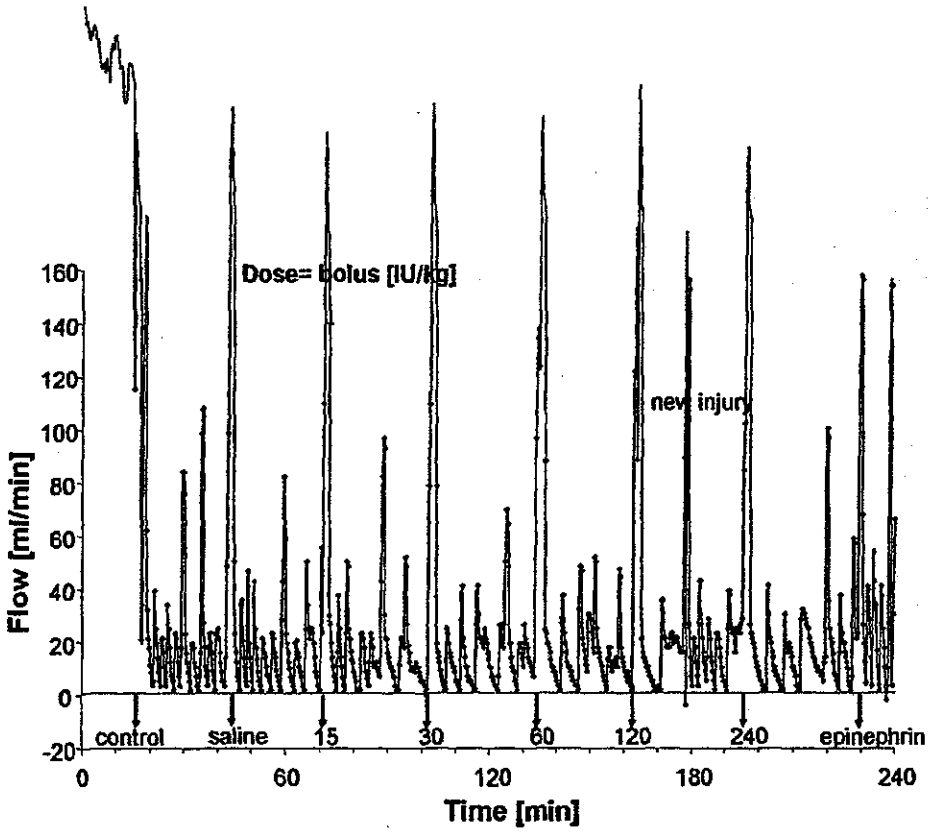

Dose= bolus [IU/kg]
nerve injury
Flow [ml/min]
160
140
120
100
80
60
40
20
0
-20
control
saline
15
30
60
120
240
epinephrin
0
60
120
180
240
Time [min]

FIGURE 28

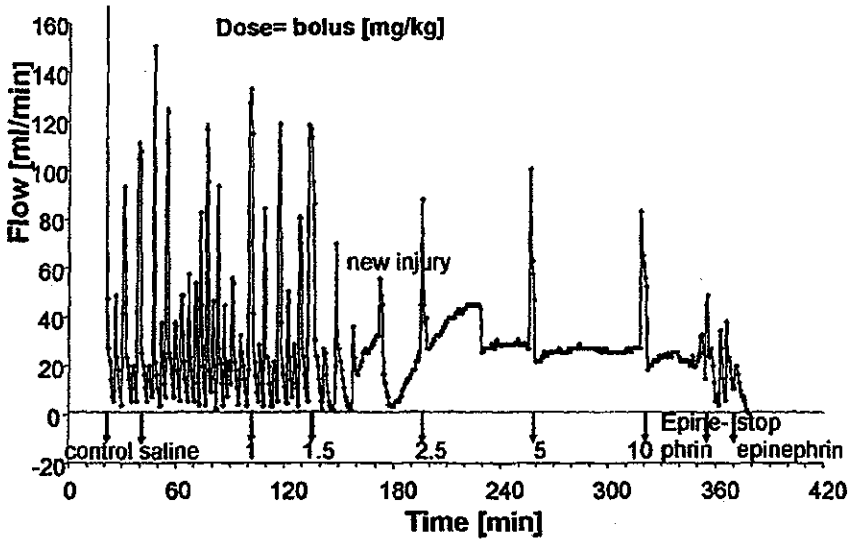

Dose= bolus [mg/kg]
Flow [ml/min]
160
140
120
100
80
60
40
20
0
-20
new injury
control saline
1
1.5
2.5
5
10
Epine-phrin
stop epinephrin
0
60
120
180
240
300
360
420
Time [min]

FIGURE 29

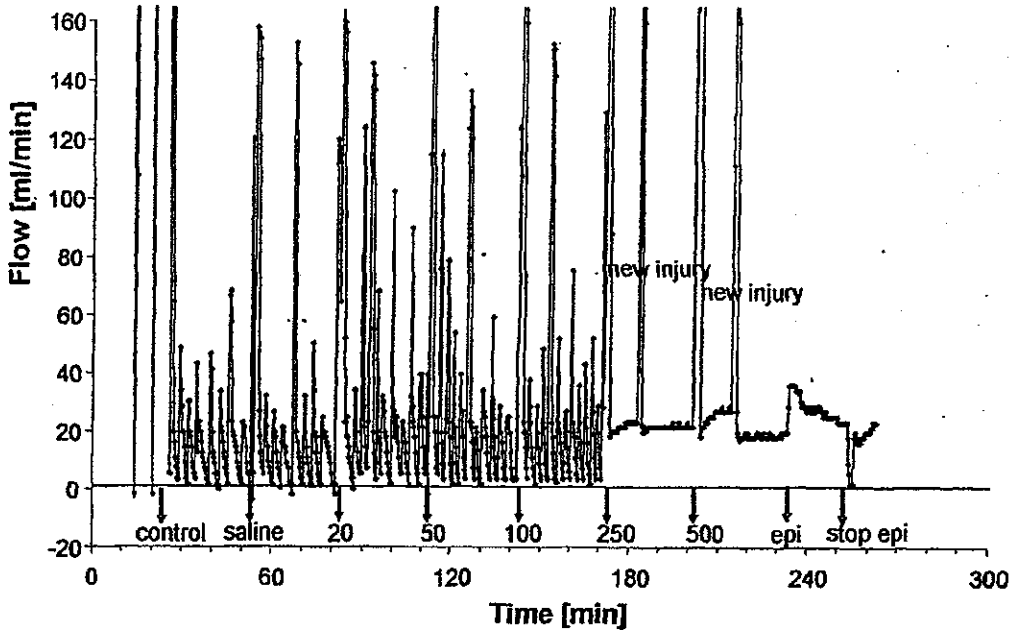

Flow [ml/min]
160
140
120
100
80
60
40
20
0
-20
new injury
new injury
control
saline
20
50
100
250
500
epi
stop epi
0
60
120
180
240
300
Time [min]

FIGURE 30

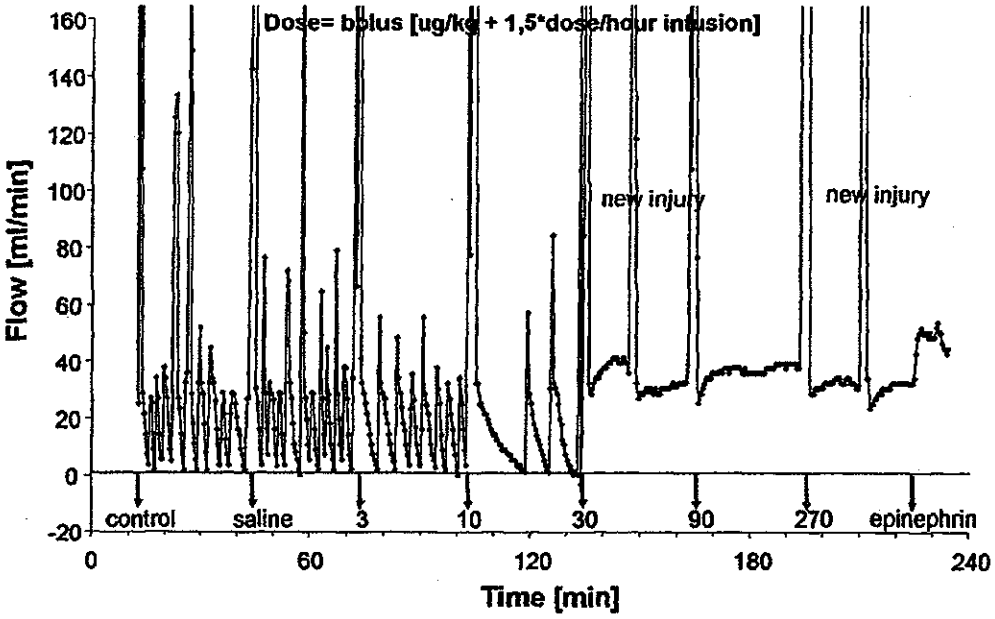

Dose= bolus [ug/kg + 1,5*dose/hour infusion]
new injury
new injury
Flow [ml/min]
160
140
120
100
80
60
40
20
0
-20
control
saline
3
10
30
90
270
epinephrin
0
60
120
180
240
Time [min]

FIGURE 31

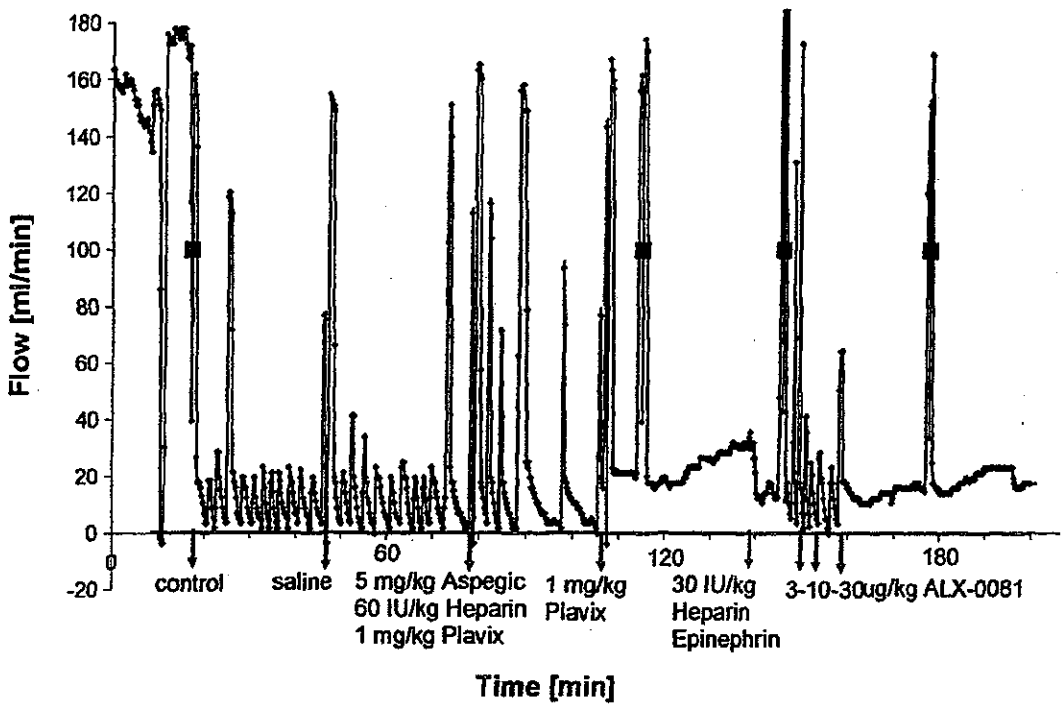

Flow [ml/min]
180
160
140
120
100
80
60
40
20
0
-20
0
60
120
180
control
saline
5 mg/kg Aspegic
60 IU/kg Heparin
1 mg/kg Plavix
1 mg/kg
Plavix
30 IU/kg
Heparin
Epinephrin
3-10-30ug/kg ALX-0081
Time [min]

FIGURE 32

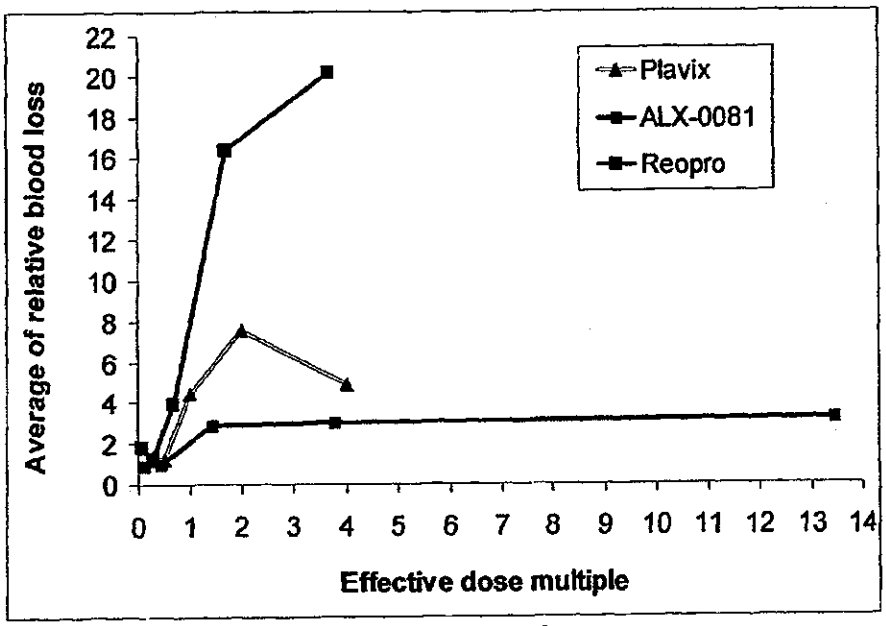

Average of relative blood loss
22
20
18
16
14
12
10
8
6
4
2
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
Effective dose multiple
Plavix
ALX-0081
Reopro

Figure 33

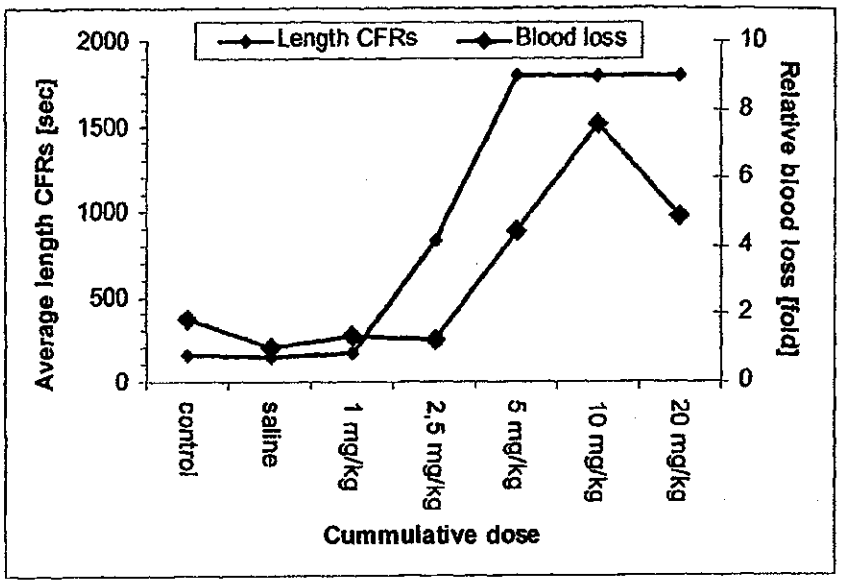

Length CFRs
Blood loss
Average length CFRs [sec]
Relative blood loss [fold]
2000
1500
1000
500
0
10
8
6
4
2
0
control
saline
1 mg/kg
2,5 mg/kg
5 mg/kg
10 mg/kg
20 mg/kg
Cummulative dose

Figure 34

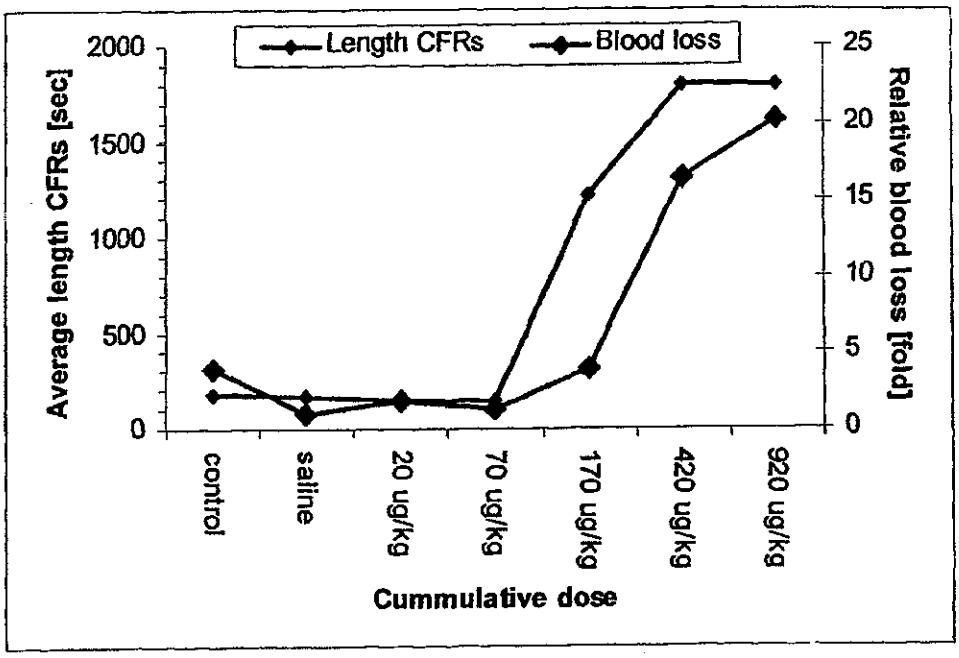

Length CFRs
Blood loss
Average length CFRs [sec]
Relative blood loss [fold]
2000
1500
1000
500
0
25
20
15
10
5
0
control
saline
20 ug/kg
70 ug/kg
170 ug/kg
420 ug/kg
920 ug/kg
Cummulative dose

Figure 35

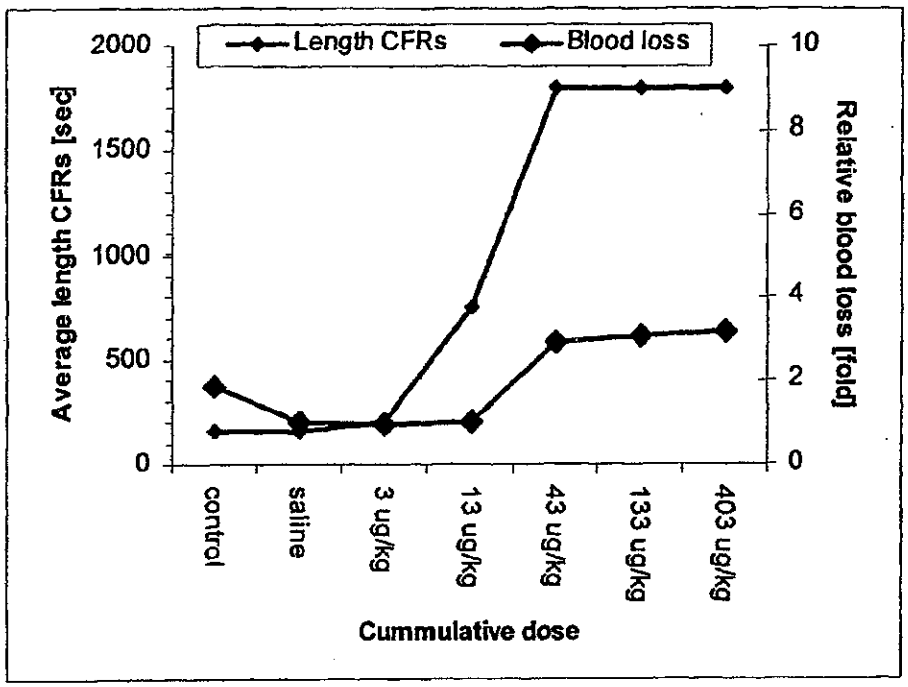

Length CFRs
Blood loss
Average length CFRs [sec]
Relative blood loss [fold]
2000
1500
1000
500
0
10
8
6
4
2
0
control
saline
3 ug/kg
13 ug/kg
43 ug/kg
133 ug/kg
403 ug/kg
Cummulative dose

Figure 36

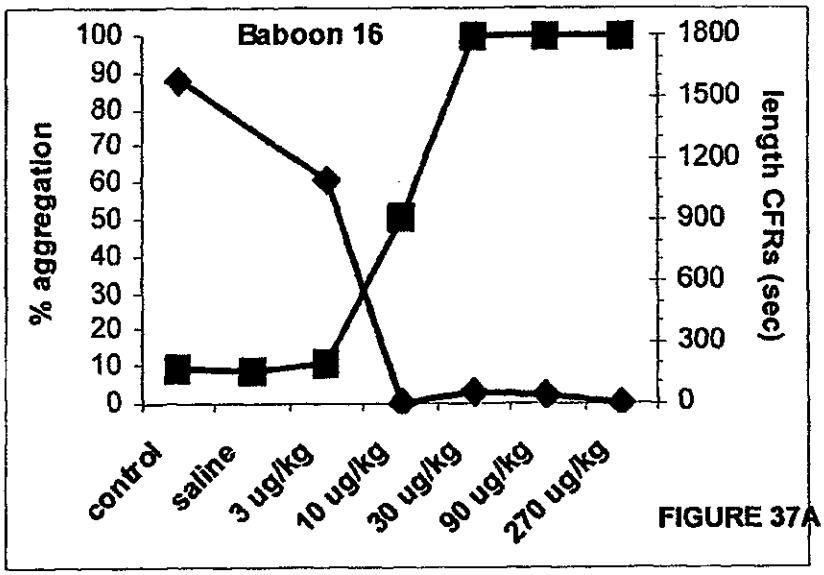

Baboon 16
% aggregation
length CFRs (sec)
100
90
80
70
60
50
40
30
20
10
0
1800
1500
1200
900
600
300
0
control
saline
3 ug/kg
10 ug/kg
30 ug/kg
90 ug/kg
270 ug/kg

FIGURE 37A

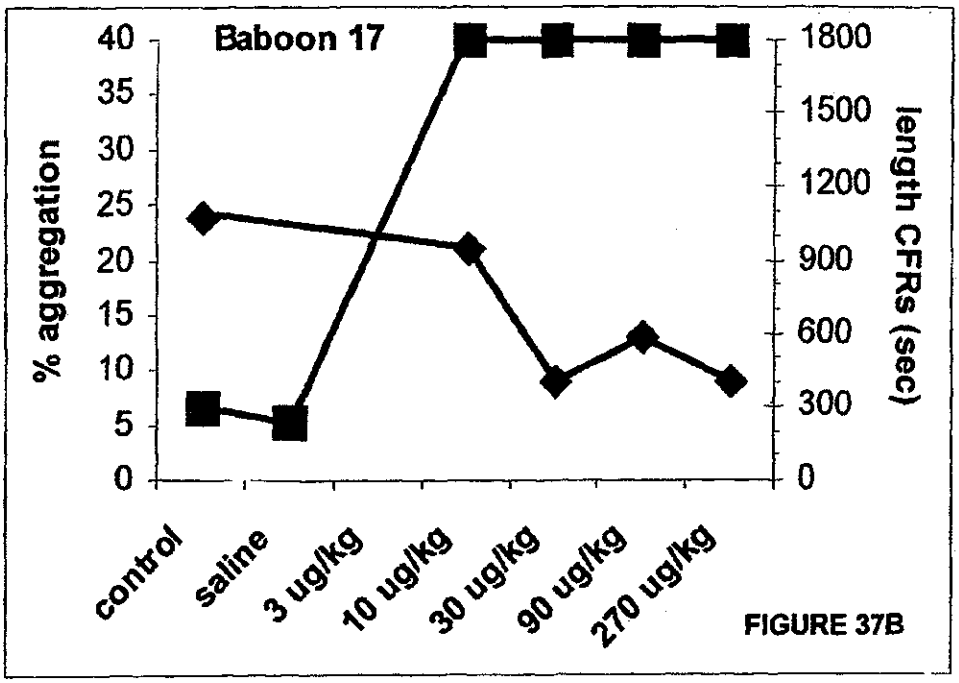


FIGURE 37B

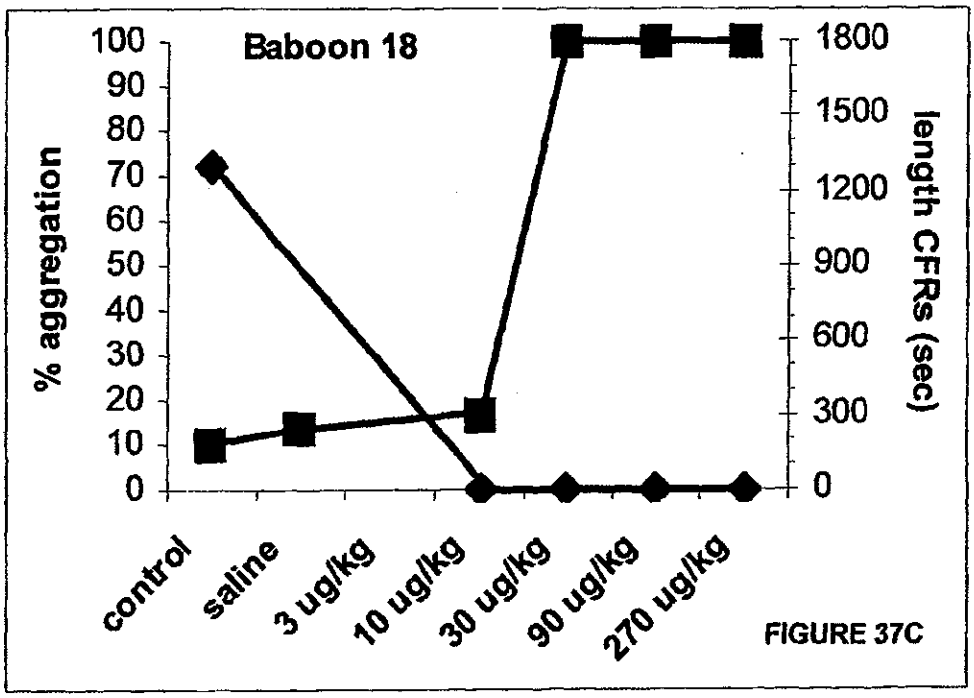


FIGURE 37C

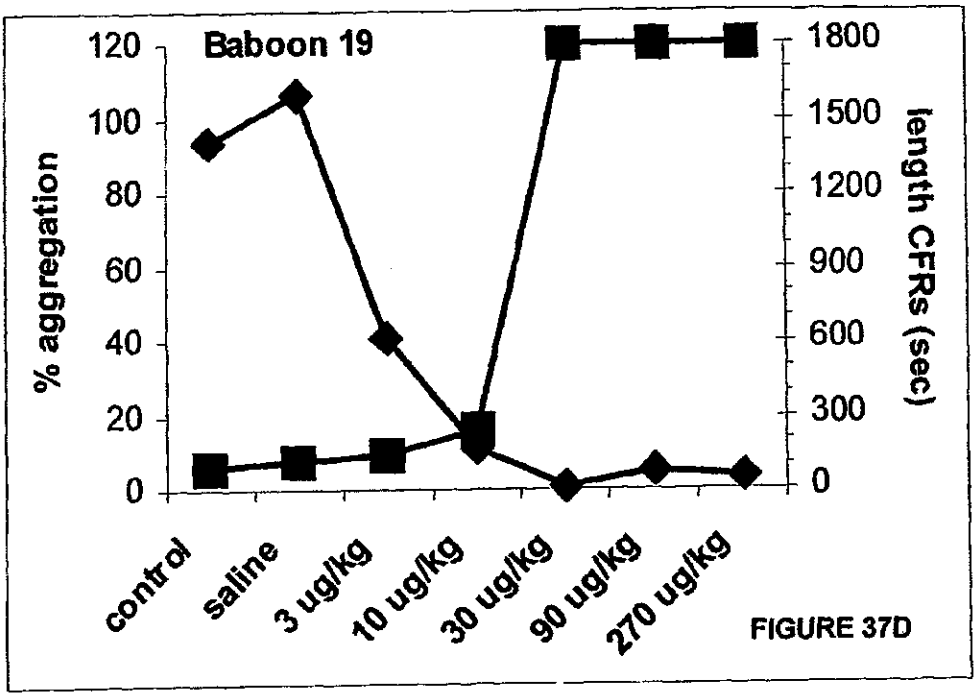


FIGURE 37D

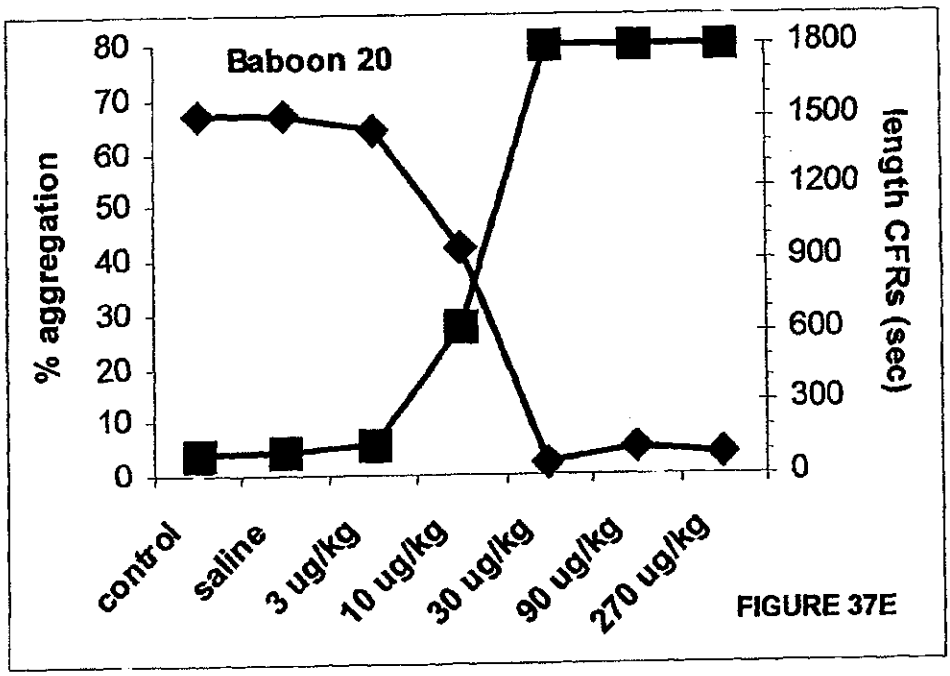


FIGURE 37E

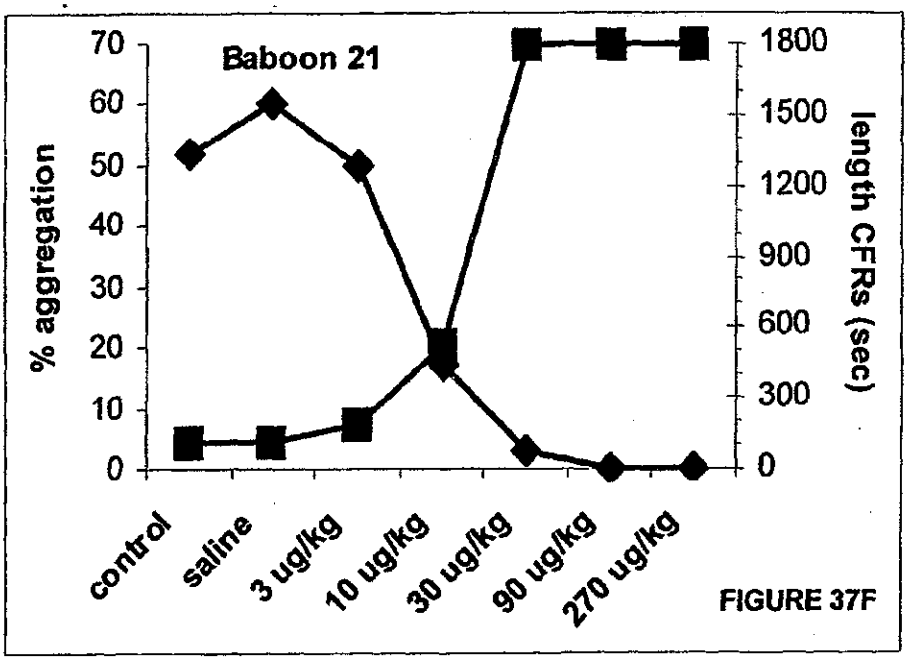


FIGURE 37F

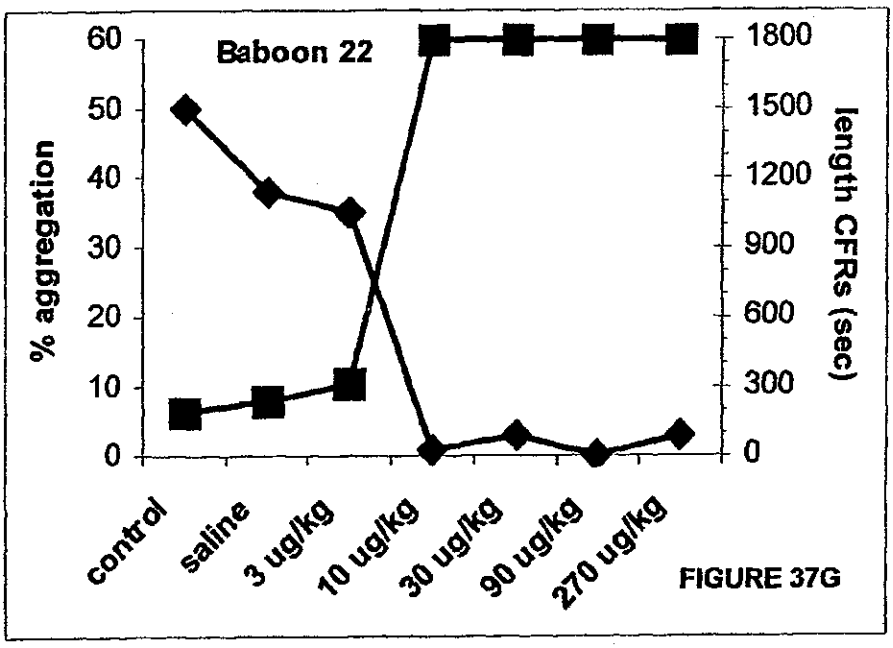


FIGURE 37G

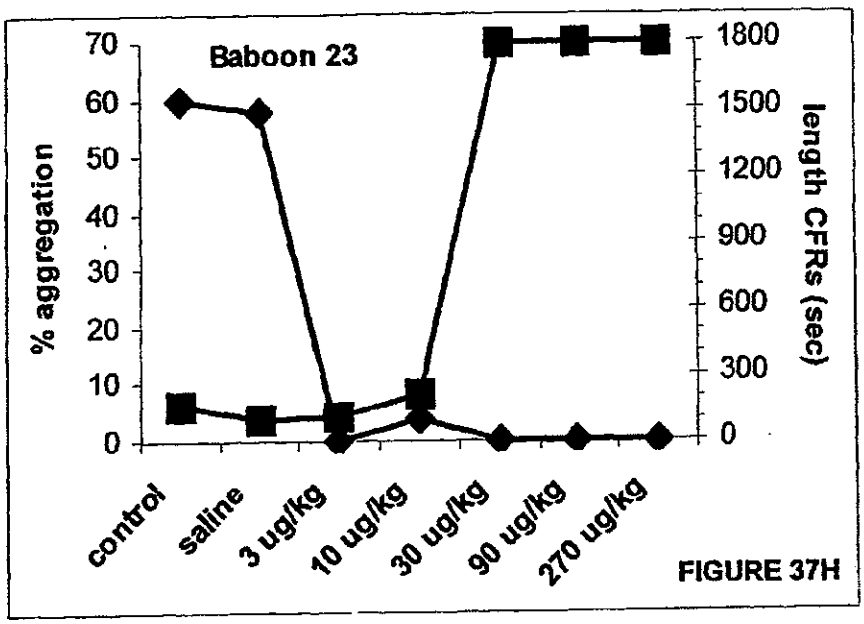


FIGURE 37H

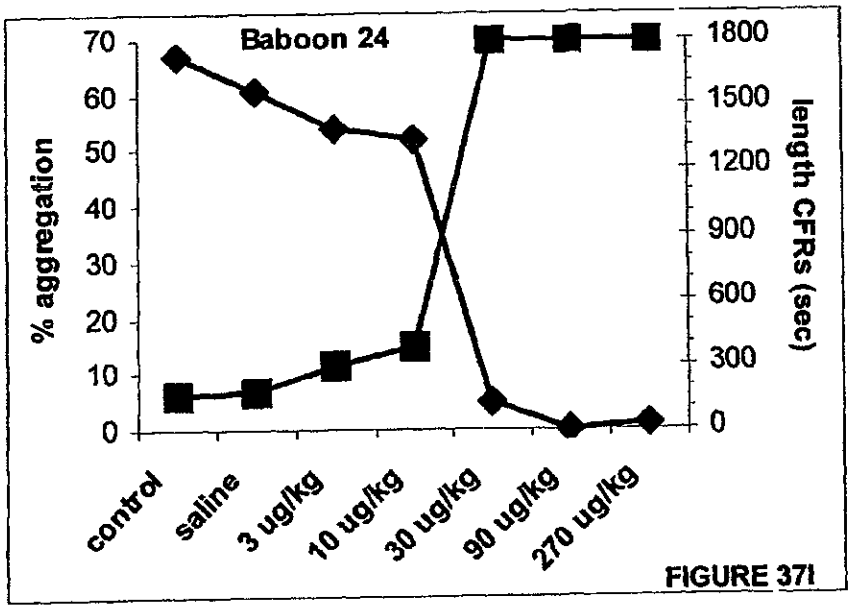


FIGURE 37I

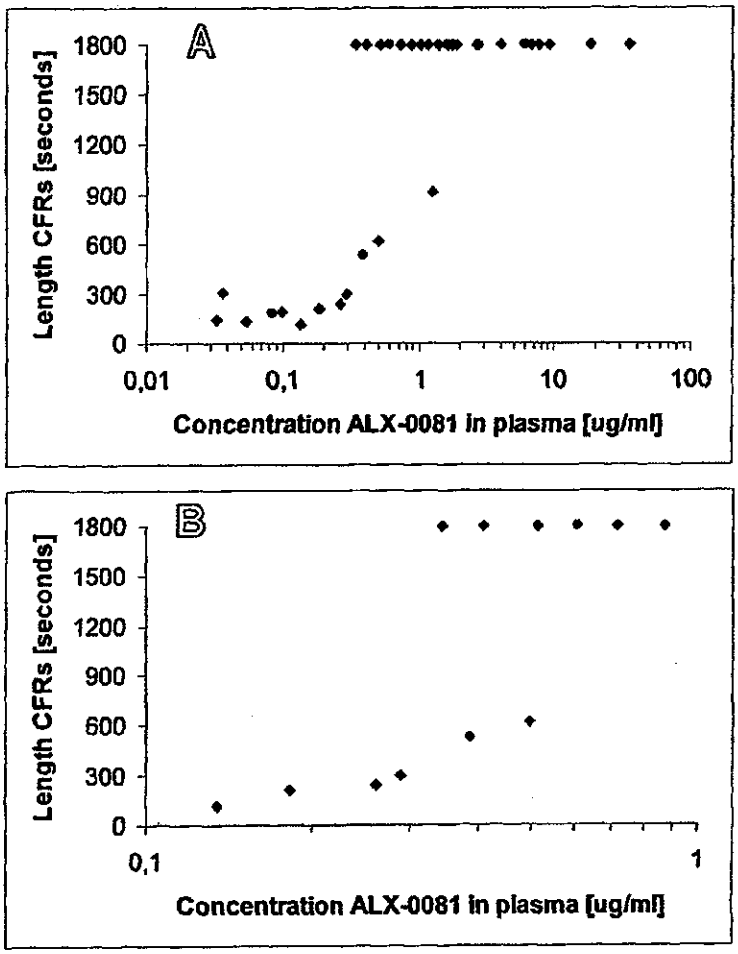

A
Length CFRs [seconds]
1800
1500
1200
900
600
300
0
0,01
0,1
1
10
100
Concentration ALX-0081 in plasma [ug/ml]
B
Length CFRs [seconds]
1800
1500
1200
900
600
300
0
0,1
1
Concentration ALX-0081 in plasma [ug/ml]

Figure 38

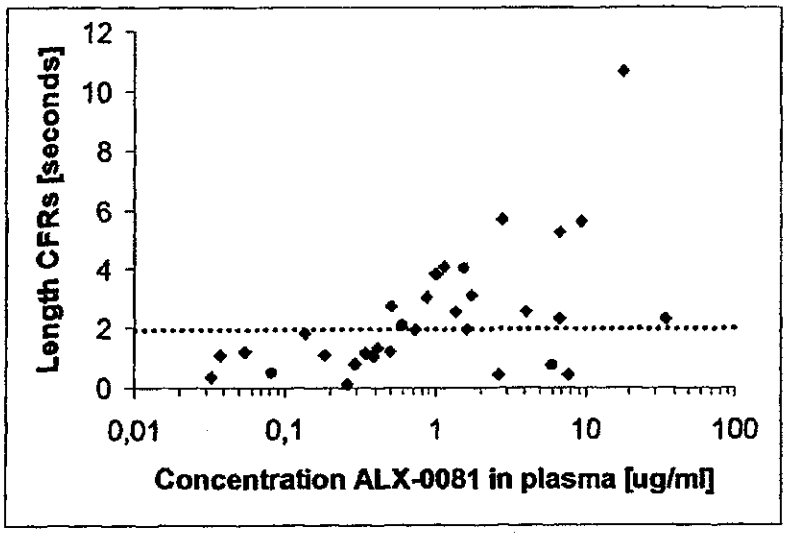

Length CFRs [seconds]
12
10
8
6
4
2
0
0,01
0,1
1
10
100
Concentration ALX-0081 in plasma [ug/ml]

Figure 39

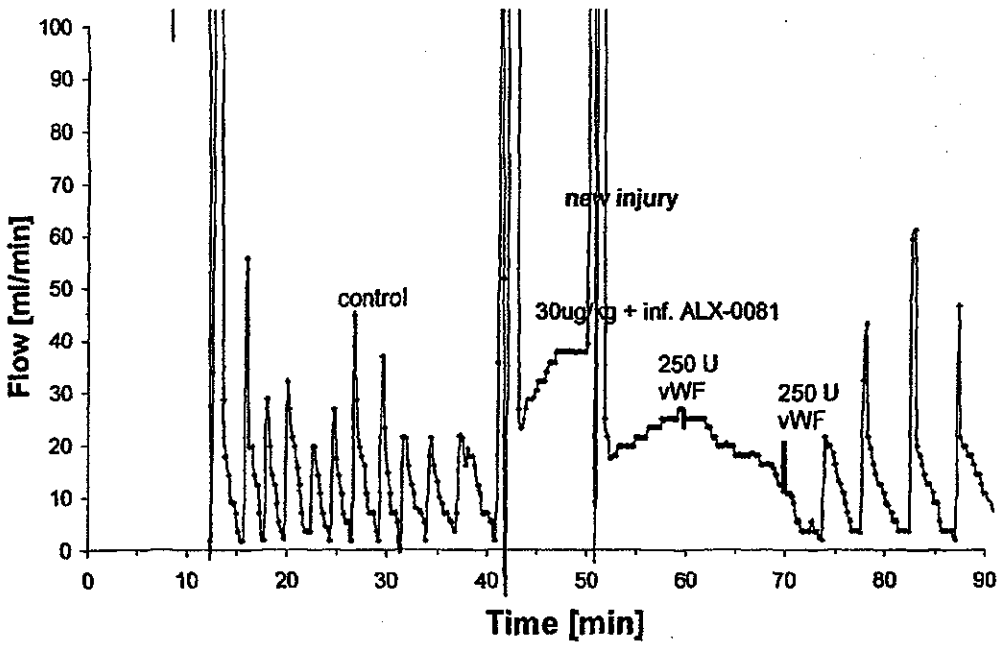

Flow [ml/min]
Time [min]
control
new injury
30ug/kg + inf. ALX-0081
250 U vWF
250 U vWF
0
10
20
30
40
50
60
70
80
90
100

FIGURE 40

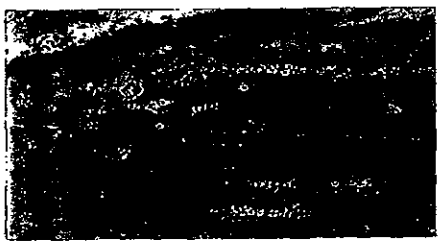


Figure 41



Figure 42

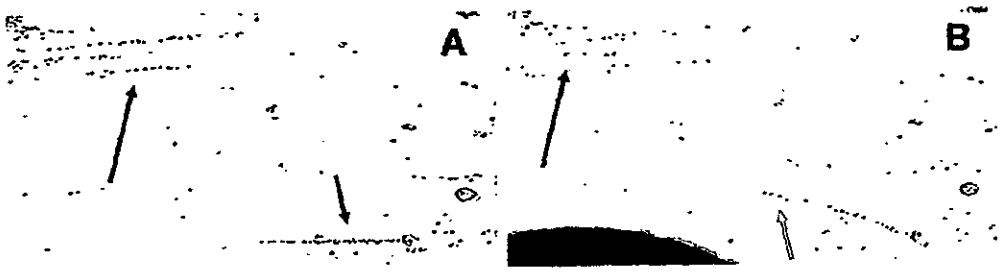


Figure 43

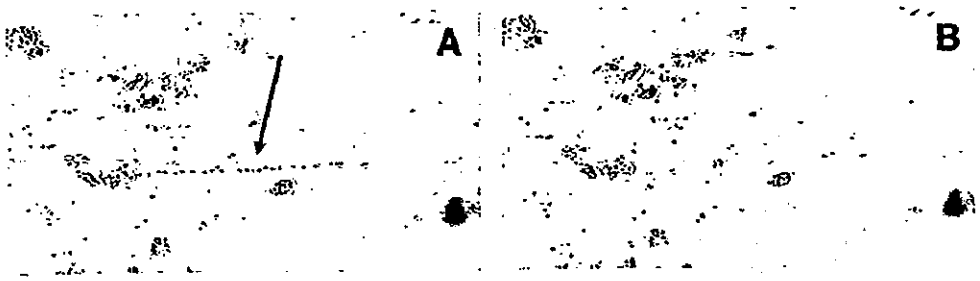


Figure 44



1: marker
2: + NPP
3: no NPP
4: + NPP + EDTA
5: + NPP + PBS
6: + NPP + 10 µg/ml ALX-0081
7: + NPP + 10 µg/ml ALX-0081
8: + NPP + 10 µg/ml ALX-0081
9: marker

Figure 45

SEQUENCE LISTING

<110> Ablynx N.V.

<120> Improved Nanobodies for the treatment of aggregation-mediated disorders

<130> P05-003 PCT

<160> 303

<170> PatentIn version 3.1

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<400> 1

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1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
20 25

<210> 2

<211> 14

<212> PRT

<213> Artificial

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<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (9)..(9)

<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (10)..(10)

<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (12)..(12)

<223> X = Hallmark residue

<400> 2

Trp Xaa Arg Gln Ala Pro Gly Lys Xaa Xaa Glu Xaa Val Ala
1 5 10

<210> 3

<211> 32

<212> PRT

<213> Artificial

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<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (22)..(22)

<223> X = Hallmark residue

<400> 3

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Xaa Xaa Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
20 25 30

<210> 4

<211> 11

<212> PRT

<213> Artificial

<220>

<221> misc_feature

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<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (2)..(2)

<223> X = Hallmark residue

<220>

<221> misc_feature

<222> (6)..(6)

<223> X = Hallmark residue

<400> 4

Xaa Xaa Gln Gly Thr Xaa Val Thr Val Ser Ser
1 5 10

<210> 5

<211> 26

<212> PRT

<213> Artificial

<400> 5

Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
20 25

<210> 6

<211> 14

<212> PRT

<213> Artificial

<400> 6

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 7

<211> 14

<212> PRT

<213> Artificial

<400> 7

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
1 5 10

<210> 8

<211> 13

<212> PRT

<213> Artificial

<400> 8

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Ala
1 5 10

<210> 9

<211> 14

<212> PRT

<213> Artificial

<400> 9

Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 10

<211> 14

<212> PRT

<213> Artificial

<400> 10

Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Phe Val Ala
1 5 10

<210> 11

<211> 13

<212> PRT

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<400> 11

Trp Tyr Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ala
1 5 10

<210> 12

<211> 32

<212> PRT

<213> Artificial

<400> 12

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
20 25 30

<210> 13

<211> 11

<212> PRT

<213> Artificial

<400> 13

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 14

<211> 11

<212> PRT

<213> Artificial

<400> 14

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

1 5 10

<210> 15

<211> 5

<212> PRT

<213> Artificial

<400> 15

Asn Tyr Gly Met Gly
1 5

<210> 16

<211> 5

<212> PRT

<213> Artificial

<400> 16

Ser Tyr Thr Leu Gly
1 5

<210> 17

<211> 5

<212> PRT

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Asn Tyr Asn Met Gly
1 5

<210> 18

<211> 5

<212> PRT

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<400> 18

Ser Ser Ala Met Ala
1 5

<210> 19

<211> 5

<212> PRT

<213> Artificial

<400> 19

Tyr Tyr Asn Thr Gly
1 5

<210> 20

<211> 5

<212> PRT

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<400> 20

Ile Gly Ala Met Gly
1 5

<210> 21

<211> 5

<212> PRT

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Ile Gly Thr Met Gly
1 5

<210> 22

<211> 5

<212> PRT

<213> Artificial

<400> 22

Tyr Asn Pro Met Gly
1 5

<210> 23

<211> 17

<212> PRT

<213> Artificial

<400> 23

Ser Ile Ser Trp Ser Gly Thr Tyr Thr Ala Tyr Ser Asp Asn Val Lys
1 5 10 15

Gly

<210> 24

<211> 17

<212> PRT

<213> Artificial

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Gly Ile Ser Trp Ser Gly Val Ser Thr Asp Tyr Ala Glu Phe Ala Lys
1 5 10 15

Gly

<210> 25

<211> 18

<212> PRT

<213> Artificial

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Thr Ser Ile Ser Trp Ser Gly Ser Tyr Thr Ala Tyr Ala Asp Asn Val
1 5 10 15

Lys Gly

<210> 26

<211> 17

<212> PRT

<213> Artificial

<400> 26

Ser Ile Ser Trp Ser Gly Met Ser Thr Tyr Tyr Thr Asp Ser Val Lys
1 5 10 15

Gly

<210> 27

<211> 16

<212> PRT

<213> Artificial

<400> 27

Thr Ile Thr Ser Gly Gly Arg Thr Ser Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 28

<211> 17

<212> PRT

<213> Artificial

<400> 28

Ala Ile Ser Trp Ser Gly Gly Leu Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 29

<211> 16

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<400> 29

Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys Gly
1 5 10 15

<210> 30

<211> 16

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Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 31

<211> 17

<212> PRT

<213> Artificial

<400> 31

Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val Glu
1 5 10 15

Gly

<210> 32

<211> 17

<212> PRT

<213> Artificial

<400> 32

Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu
1 5 10 15

Gly

<210> 33

<211> 17

<212> PRT

<213> Artificial

<400> 33

Gln Ser Arg Tyr Arg Ser Asn Tyr Tyr Asp His Asp Asp Lys Tyr Ala
1 5 10 15

Tyr

<210> 34

<211> 16

<212> PRT

<213> Artificial

<400> 34

Leu Gly Arg Tyr Arg Ser Asn Trp Arg Asn Ile Gly Gln Tyr Asp Tyr
1 5 10 15

<210> 35

<211> 17

<212> PRT

<213> Artificial

<400> 35

Gln Ser Arg Tyr Ser Ser Asn Tyr Tyr Asp His Asp Asp Lys Tyr Ala
1 5 10 15

Tyr

<210> 36

<211> 15

<212> PRT

<213> Artificial

<400> 36

Ser Asn Arg Tyr Arg Thr His Thr Thr Gln Ala Met Tyr Asn Tyr
1 5 10 15

<210> 37

<211> 8

<212> PRT

<213> Artificial

<400> 37

Val Val Asp Gly Lys Arg Ala Pro
1 5

<210> 38

<211> 16

<212> PRT

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<400> 38

Asn Arg Arg Gln Lys Thr Val Gln Met Gly Glu Arg Ala Tyr Asp Tyr
1 5 10 15

<210> 39

<211> 14

<212> PRT

<213> Artificial

<400> 39

Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr
1 5 10

<210> 40

<211> 14

<212> PRT

<213> Artificial

<400> 40

Asn Leu Lys Gln Gly Asp Tyr Gly Tyr Arg Phe Asn Asp Tyr
1 5 10

<210> 41

<211> 19

<212> PRT

<213> Artificial

<400> 41

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
1 5 10 15

Tyr Asn Phe

<210> 42

<211> 19

<212> PRT

<213> Artificial

<400> 42

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
1 5 10 15

Tyr Thr Phe

<210> 43

<211> 19

<212> PRT

<213> Artificial

<400> 43

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Ser Leu Pro Ser Glu
1 5 10 15

Tyr Thr Phe

<210> 44

<211> 5

<212> PRT

<213> Artificial

<400> 44

Ser Phe Gly Met Ser
1 5

<210> 45

<211> 5

<212> PRT

<213> Artificial

<400> 45

Leu Asn Leu Met Gly

1 5

<210> 46

<211> 5

<212> PRT

<213> Artificial

<400> 46

Ile Asn Leu Leu Gly
1 5

<210> 47

<211> 5

<212> PRT

<213> Artificial

<400> 47

Asn Tyr Trp Met Tyr
1 5

<210> 48

<211> 17

<212> PRT

<213> Artificial

<400> 48

Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 49

<211> 16

<212> PRT

<213> Artificial

<400> 49

Thr Ile Thr Val Gly Asp Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 50

<211> 16

<212> PRT

<213> Artificial

<400> 50

Thr Ile Thr Val Gly Asp Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 51

<211> 17

<212> PRT

<213> Artificial

<400> 51

Ser Ile Asn Gly Arg Gly Asp Asp Thr Arg Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 52

<211> 17

<212> PRT

<213> Artificial

<400> 52

Ala Ile Ser Ala Asp Ser Ser Thr Lys Asn Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 53

<211> 17

<212> PRT

<213> Artificial

<400> 53

Ala Ile Ser Ala Asp Ser Ser Asp Lys Arg Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 54

<211> 17

<212> PRT

<213> Artificial

<400> 54

Arg Ile Ser Thr Gly Gly Gly Tyr Ser Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 55

<211> 13

<212> PRT

<213> Artificial

<400> 55

Asp Arg Glu Ala Gln Val Asp Thr Leu Asp Phe Asp Tyr
1 5 10

<210> 56

<211> 6

<212> PRT

<213> Artificial

<400> 56

Gly Gly Ser Leu Ser Arg
1 5

<210> 57

<211> 8

<212> PRT

<213> Artificial

<400> 57

Arg Arg Thr Trp His Ser Glu Leu
1 5

<210> 58

<211> 7

<212> PRT

<213> Artificial

<400> 58

Gly Arg Ser Val Ser Arg Ser
1 5

<210> 59

<211> 5

<212> PRT

<213> Artificial

<400> 59

Gly Arg Gly Ser Pro

1 5

<210> 60

<211> 122

<212> PRT

<213> Artificial

<400> 60

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 61

<211> 126

<212> PRT

<213> Artificial

<400> 61

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Asn Tyr
20 25 30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Thr Ser Ile Ser Trp Ser Gly Thr Tyr Thr Ala Tyr Ser Asp Asn Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asp Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gln Ser Arg Tyr Arg Ser Asn Tyr Tyr Asp His Asp Asp Lys
100 105 110

Tyr Ala Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 62

<211> 128

<212> PRT

<213> Artificial

<400> 62

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 63

<211> 126

<212> PRT

<213> Artificial

<400> 63

Ala Val Gln Leu Val Asp Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Glu Arg Thr Thr Phe Ser Ser
20 25 30

Tyr Thr Leu Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe
35 40 45

Val Gly Gly Ile Ser Trp Ser Gly Val Ser Thr Asp Tyr Ala Glu Phe
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp His Ala Ala Asn Thr Val
65 70 75 80

Tyr Leu Glu Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Ala Leu Gly Arg Tyr Arg Ser Asn Trp Arg Asn Ile Gly Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 64

<211> 126

<212> PRT

<213> Artificial

<400> 64

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Asn Asn Tyr
20 25 30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Thr Ser Ile Ser Trp Ser Gly Ser Tyr Thr Ala Tyr Ala Asp Asn Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asp Ser Leu Lys Pro Gly Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gln Ser Arg Tyr Ser Ser Asn Tyr Tyr Asp His Asp Asp Lys
100 105 110

Tyr Ala Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 65

<211> 116

<212> PRT

<213> Artificial

<400> 65

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Thr Ser Gly Ser Ile Phe Ser Ser Ser
20 25 30

Ala Met Ala Trp Tyr Arg Gln Ala Ser Gly Lys Gln Arg Glu Leu Val

35 40 45

Ala Thr Ile Thr Ser Gly Gly Arg Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Asp Cys Asn
85 90 95

Phe Val Val Asp Gly Lys Arg Ala Pro Trp Gly Gln Gly Thr Gln Val
100 105 110

Thr Val Ser Ser
115

<210> 66

<211> 125

<212> PRT

<213> Artificial

<400> 66

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ser Ser Gly Arg Ala Phe Ser Tyr Tyr
20 25 30

Asn Thr Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Trp Ser Gly Gly Leu Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asp Met Val Tyr
65 70 75 80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Asn Arg Arg Gln Lys Thr Val Gln Met Gly Glu Arg Ala Tyr
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 67

<211> 122

<212> PRT

<213> Artificial

<400> 67

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 68

<211> 122

<212> PRT

<213> Artificial

<400> 68

```
Ala Val Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
            20                  25                  30

Ala Met Gly Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
        35                  40                  45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Ala Lys Asn Thr Val Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
                85                  90                  95

Ala Asn Leu Lys Gln Gly Asp Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 69

<211> 122

<212> PRT

<213> Artificial

<400> 69

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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
            20                  25                  30

Thr Met Gly Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
        35                  40                  45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys
    50                  55                  60
```

Gly Arg Phe Thr Ile Ser Arg Asp Gly Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Asp Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 70

<211> 122

<212> PRT

<213> Artificial

<400> 70

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Thr Met Gly Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Asp Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 71

<211> 128

<212> PRT

<213> Artificial

<400> 71

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 72

<211> 128

<212> PRT

<213> Artificial

<400> 72

Gln Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn

20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Arg Glu Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Ser Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 73

<211> 128

<212> PRT

<213> Artificial

<400> 73

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Glu Met Asn Asn Leu Lys Pro Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 74

<211> 259

<212> PRT

<213> Artificial

<400> 74

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

Ala Ala Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
130 135 140

Ala Gly Gly Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145 150 155 160

Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
165 170 175

Asp Leu Val Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro
180 185 190

Asp Ser Val Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg
195 200 205

Met Val Tyr Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val
210 215 220

Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg
225 230 235 240

Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr
245 250 255

Val Ser Ser

<210> 75

<211> 265

<212> PRT

<213> Artificial

<400> 75

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

```
Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
    130                 135                 140

Gly Gly Gly Leu Val Gln Ala Gly Gly Ala Leu Arg Leu Ser Cys Ala
145                 150                 155                 160

Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln
                165                 170                 175

Ala Pro Gly Lys Glu Arg Asp Leu Val Ala Ala Ile Ser Arg Thr Gly
            180                 185                 190

Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly Arg Phe Thr Ile Ser
        195                 200                 205

Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln Met Asn Asn Leu Lys
    210                 215                 220

Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala
225                 230                 235                 240

Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly
                245                 250                 255

Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 76

<211> 286

<212> PRT

<213> Artificial

<400> 76

```
Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
```

```
1               5                   10                  15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
145                 150                 155                 160

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ala Leu
                165                 170                 175

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met
            180                 185                 190

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val Ala Ala
        195                 200                 205

Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly
    210                 215                 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln
225                 230                 235                 240

Met Asn Asn Leu Lys Pro Glu Gly Thr Ala Val Tyr Tyr Cys Ala Ala
                245                 250                 255
```

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
260 265 270

Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
275 280 285

<210> 77

<211> 247

<212> PRT

<213> Artificial

<400> 77

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Ala Ala Glu Val Gln
115 120 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
130 135 140

Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly Ala Met Gly
145 150 155 160

Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala Thr Ile
165 170 175

Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys Gly Arg Phe
180 185 190

Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu Gln Met Asn
195 200 205

Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr Ala Asn Leu
210 215 220

Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp Gly Gln Gly
225 230 235 240

Thr Gln Val Thr Val Ser Ser
245

<210> 78

<211> 253

<212> PRT

<213> Artificial

<400> 78

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

```
Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Gly Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe
145                 150                 155                 160

Ser Ile Gly Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg
                165                 170                 175

Glu Leu Val Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp
            180                 185                 190

Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr
        195                 200                 205

Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
    210                 215                 220

Tyr Cys Tyr Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn
225                 230                 235                 240

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250
```

<210> 79

<211> 274

<212> PRT

<213> Artificial

<400> 79

```
Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser Ile Gly
            20                  25                  30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
```

```
          35                  40                  45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
                85                  90                  95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
145                 150                 155                 160

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Leu Ala
                165                 170                 175

Ser Gly Arg Ile Phe Ser Ile Gly Ala Met Gly Met Tyr Arg Gln Ala
            180                 185                 190

Pro Gly Lys Gln Arg Glu Leu Val Ala Thr Ile Thr Ser Gly Gly Ser
        195                 200                 205

Thr Asn Tyr Ala Asp Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
    210                 215                 220

Gly Pro Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
225                 230                 235                 240

Asp Thr Ala Val Tyr Tyr Cys Tyr Ala Asn Leu Lys Gln Gly Ser Tyr
                245                 250                 255

Gly Tyr Arg Phe Asn Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            260                 265                 270

Ser Ser
```

<210> 80

<211> 259

<212> PRT

<213> Artificial

<400> 80

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                  10                  15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Ala Ala Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Ala Gly Gly Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160

Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
                165                 170                 175

Asp Val Val Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala
            180                 185                 190
```

Arg Ser Val Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg
195 200 205

Met Val Tyr Leu Gln Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val
210 215 220

Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg
225 230 235 240

Thr Leu Pro Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr
245 250 255

Val Ser Ser

<210> 81

<211> 265

<212> PRT

<213> Artificial

<400> 81

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

```
Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
    130                 135                 140

Gly Gly Gly Leu Val Gln Ala Gly Gly Ala Leu Arg Leu Ser Cys Ala
145                 150                 155                 160

Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln
                165                 170                 175

Ala Pro Gly Lys Glu Arg Asp Val Val Ala Ala Ile Ser Arg Thr Gly
            180                 185                 190

Gly Ser Thr Tyr Tyr Ala Arg Ser Val Glu Gly Arg Phe Thr Ile Ser
        195                 200                 205

Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln Met Asn Ala Leu Lys
    210                 215                 220

Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala
225                 230                 235                 240

Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu Tyr Asn Phe Trp Gly
                245                 250                 255

Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 82

<211> 286

<212> PRT

<213> Artificial

<400> 82

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val
```

```
          35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
145                 150                 155                 160

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ala Leu
                165                 170                 175

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met
            180                 185                 190

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val Ala Ala
        195                 200                 205

Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val Glu Gly
    210                 215                 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln
225                 230                 235                 240

Met Asn Ala Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
                245                 250                 255

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
            260                 265                 270

Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        275                 280                 285
```

<210> 83

<211> 3

<212> PRT

<213> Artificial

<400> 83

Ala Ala Ala
1

<210> 84

<211> 9

<212> PRT

<213> Artificial

<400> 84

Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5

<210> 85

<211> 30

<212> PRT

<213> Artificial

<400> 85

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25 30

<210> 86

<211> 128

<212> PRT

<213> Artificial

<400> 86

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 87

<211> 128

<212> PRT

<213> Artificial

<400> 87

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 88

<211> 128

<212> PRT

<213> Artificial

<400> 88

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 89

<211> 128

<212> PRT

<213> Artificial

<400> 89

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Asp Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 90

<211> 128

<212> PRT

<213> Artificial

<400> 90

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 91

<211> 128

<212> PRT

<213> Artificial

<400> 91

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 92

<211> 128

<212> PRT

<213> Artificial

<400> 92

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 93

<211> 128

<212> PRT

<213> Artificial

<400> 93

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 94

<211> 128

<212> PRT

<213> Artificial

<400> 94

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 95

<211> 122

<212> PRT

<213> Artificial

<400> 95

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Pro Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 96

<211> 122

<212> PRT

<213> Artificial

<400> 96

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 97

<211> 122

<212> PRT

<213> Artificial

<400> 97

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser Ile Gly
20 25 30

Ala Met Gly Met Tyr Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Pro Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Tyr
85 90 95

Ala Asn Leu Lys Gln Gly Ser Tyr Gly Tyr Arg Phe Asn Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 98

<211> 259

<212> PRT

<213> Artificial

<400> 98

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val

```
     50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Ala Ala Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160

Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg
                165                 170                 175

Glu Leu Val Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro
            180                 185                 190

Asp Ser Val Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg
        195                 200                 205

Met Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg
225                 230                 235                 240

Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr
                245                 250                 255

Val Ser Ser
```

<210> 99

<211> 259

<212> PRT

<213> Artificial

<400> 99

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Ala Ala Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160

Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg
                165                 170                 175

Glu Leu Val Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro
            180                 185                 190

Asp Ser Val Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg
        195                 200                 205

Ser Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
    210                 215                 220
```

Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg
225 230 235 240

Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr
245 250 255

Val Ser Ser

<210> 100

<211> 259

<212> PRT

<213> Artificial

<400> 100

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

Ala Ala Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
130 135 140

```
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160

Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg
                165                 170                 175

Glu Val Val Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala
            180                 185                 190

Arg Ser Val Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg
        195                 200                 205

Met Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg
225                 230                 235                 240

Thr Leu Pro Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr
                245                 250                 255

Val Ser Ser
```

<210> 101

<211> 265

<212> PRT

<213> Artificial

<400> 101

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
```

65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
130 135 140

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
145 150 155 160

Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln
165 170 175

Ala Pro Gly Lys Gly Arg Glu Leu Val Ala Ala Ile Ser Arg Thr Gly
180 185 190

Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly Arg Phe Thr Ile Ser
195 200 205

Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln Met Asn Ser Leu Arg
210 215 220

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala
225 230 235 240

Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly
245 250 255

Gln Gly Thr Gln Val Thr Val Ser Ser
260 265

<210> 102

<211> 265

<212> PRT

<213> Artificial

<400> 102

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
    130                 135                 140

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
145                 150                 155                 160

Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln
                165                 170                 175

Ala Pro Gly Lys Gly Arg Glu Leu Val Ala Ala Ile Ser Arg Thr Gly
            180                 185                 190

Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly Arg Phe Thr Ile Ser
        195                 200                 205

Arg Asp Asn Ala Lys Arg Ser Val Tyr Leu Gln Met Asn Ser Leu Arg
    210                 215                 220

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala
225                 230                 235                 240
```

```
Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu Tyr Thr Phe Trp Gly
                245                 250                 255

Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 103

<211> 265

<212> PRT

<213> Artificial

<400> 103

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
    130                 135                 140

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
145                 150                 155                 160
```

Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met Gly Trp Phe Arg Gln
165 170 175

Ala Pro Gly Lys Gly Arg Glu Val Val Ala Ala Ile Ser Arg Thr Gly
180 185 190

Gly Ser Thr Tyr Tyr Ala Arg Ser Val Glu Gly Arg Phe Thr Ile Ser
195 200 205

Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln Met Asn Ser Leu Arg
210 215 220

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ala Gly Val Arg Ala
225 230 235 240

Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu Tyr Asn Phe Trp Gly
245 250 255

Gln Gly Thr Gln Val Thr Val Ser Ser
260 265

<210> 104

<211> 286

<212> PRT

<213> Artificial

<400> 104

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
145 150 155 160

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
165 170 175

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met
180 185 190

Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val Ala Ala
195 200 205

Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly
210 215 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln
225 230 235 240

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
245 250 255

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
260 265 270

Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
275 280 285

<210> 105

<211> 286

<212> PRT

<213> Artificial

<400> 105

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val
        35                  40                  45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val
    50                  55                  60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
            100                 105                 110

Ser Glu Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
145                 150                 155                 160

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
                165                 170                 175

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met
            180                 185                 190

Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Leu Val Ala Ala
        195                 200                 205

Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Glu Gly
    210                 215                 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Val Tyr Leu Gln
225                 230                 235                 240
```

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
245 250 255

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
260 265 270

Tyr Thr Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
275 280 285

<210> 106

<211> 286

<212> PRT

<213> Artificial

<400> 106

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val
35 40 45

Ala Ala Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro
100 105 110

Ser Glu Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
145 150 155 160

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
165 170 175

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Tyr Asn Pro Met
180 185 190

Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val Ala Ala
195 200 205

Ile Ser Arg Thr Gly Gly Ser Thr Tyr Tyr Ala Arg Ser Val Glu Gly
210 215 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Met Val Tyr Leu Gln
225 230 235 240

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
245 250 255

Ala Gly Val Arg Ala Glu Asp Gly Arg Val Arg Thr Leu Pro Ser Glu
260 265 270

Tyr Asn Phe Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
275 280 285

<210> 107

<211> 117

<212> PRT

<213> Artificial

<400> 107

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Gly Gly Gly
1 5 10 15

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Phe Asp Leu Asn
20 25 30

Leu Met Gly Trp Tyr Arg Gln Gly Pro Gly Asn Glu Arg Glu Leu Val
35 40 45

Ala Thr Cys Ile Thr Val Gly Asp Ser Thr Asn Tyr Ala Asp Ser Val

50 55 60

Lys Gly Arg Phe Thr Ile Ser Met Asp Tyr Thr Lys Gln Thr Val Tyr
65 70 75 80

Leu His Met Asn Ser Leu Arg Pro Glu Asp Thr Gly Leu Tyr Tyr Cys
85 90 95

Lys Ile Arg Arg Thr Trp His Ser Glu Leu Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 108

<211> 116

<212> PRT

<213> Artificial

<400> 108

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Glu Gly Gly
1 5 10 15

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Trp Asp Ile Asn
20 25 30

Leu Leu Gly Trp Tyr Arg Gln Gly Pro Gly Asn Glu Arg Glu Leu Val
35 40 45

Ala Thr Ile Thr Val Gly Asp Ser Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Tyr Asp Lys Asn Thr Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Gly Leu Tyr Tyr Cys Lys
85 90 95

Ile Arg Arg Thr Trp His Ser Glu Leu Trp Gly Gln Gly Thr Gln Val
100 105 110

Thr Val Ser Ser
115

<210> 109

<211> 115

<212> PRT

<213> Artificial

<400> 109

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 110

<211> 116

<212> PRT

<213> Artificial

<400> 110

Ala Val Gln Leu Val Asp Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Gly Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Tyr Pro Gly Lys Glu Pro Glu Trp Val
35 40 45

Ser Ser Ile Asn Gly Arg Gly Asp Asp Thr Arg Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Ser Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Glu Tyr Tyr Cys
85 90 95

Thr Ile Gly Arg Ser Val Ser Arg Ser Arg Thr Gln Gly Thr Gln Val
100 105 110

Thr Val Ser Ser
115

<210> 111

<211> 114

<212> PRT

<213> Artificial

<400> 111

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Thr Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Asp Gln Glu Trp Val
35 40 45

Ser Ala Ile Ser Ala Asp Ser Ser Thr Lys Asn Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met Leu Tyr
65 70 75 80

Leu Glu Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Ile Gly Arg Gly Ser Pro Ser Ser Pro Gly Thr Gln Val Thr Val
100 105 110

Ser Ser

<210> 112

<211> 114

<212> PRT

<213> Artificial

<400> 112

Gln Val Gln Leu Ala Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Thr Ala Ser Gly Phe Thr Phe Gly Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Ala Asp Ser Ser Asp Lys Arg Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met Leu Tyr
65 70 75 80

Leu Glu Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Ile Gly Arg Gly Ser Pro Ala Ser Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser

<210> 113

<211> 123

<212> PRT

<213> Artificial

<400> 113

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Trp Met Tyr Trp Val Arg Val Ala Pro Gly Lys Gly Leu Glu Arg Ile
35 40 45

Ser Arg Asp Ile Ser Thr Gly Gly Gly Tyr Ser Tyr Tyr Ala Asp Ser
50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu
65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr
85 90 95

Cys Ala Lys Asp Arg Glu Ala Gln Val Asp Thr Leu Asp Phe Asp Tyr
100 105 110

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 114

<211> 115

<212> PRT

<213> Artificial

<400> 114

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val

35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 115

<211> 115

<212> PRT

<213> Artificial

<400> 115

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 116

<211> 115

<212> PRT

<213> Artificial

<400> 116

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 117

<211> 115

<212> PRT

<213> Artificial

<400> 117

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
            20                  25                  30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
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<210> 118

<211> 115

<212> PRT

<213> Artificial

<400> 118

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
            20                  25                  30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
    50                  55                  60
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Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 119

<211> 115

<212> PRT

<213> Artificial

<400> 119

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 120

<211> 115

<212> PRT

<213> Artificial

<400> 120

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 121

<211> 115

<212> PRT

<213> Artificial

<400> 121

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe

20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 122

<211> 30

<212> PRT

<213> Artificial

<400> 122

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 123

<211> 30

<212> PRT

<213> Artificial

<400> 123

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 124

<211> 30

<212> PRT

<213> Artificial

<400> 124

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 125

<211> 30

<212> PRT

<213> Artificial

<400> 125

Ala Val Gln Leu Val Asp Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Glu Arg Thr Thr Phe
20 25 30

<210> 126

<211> 30

<212> PRT

<213> Artificial

<400> 126

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Asn
20 25 30

<210> 127

<211> 30

<212> PRT

<213> Artificial

<400> 127

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Thr Ser Gly Ser Ile Phe Ser
20 25 30

<210> 128

<211> 30

<212> PRT

<213> Artificial

<400> 128

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ser Ser Gly Arg Ala Phe Ser
20 25 30

<210> 129

<211> 30

<212> PRT

<213> Artificial

<400> 129

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 130

<211> 30

<212> PRT

<213> Artificial

<400> 130

Ala Val Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 131

<211> 30

<212> PRT

<213> Artificial

<400> 131

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 132

<211> 30

<212> PRT

<213> Artificial

<400> 132

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Arg Ile Phe Ser

20 25 30

<210> 133

<211> 30

<212> PRT

<213> Artificial

<400> 133

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 134

<211> 30

<212> PRT

<213> Artificial

<400> 134

Gln Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 135

<211> 30

<212> PRT

<213> Artificial

<400> 135

Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 136

<211> 30

<212> PRT

<213> Artificial

<400> 136

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 137

<211> 30

<212> PRT

<213> Artificial

<400> 137

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 138

<211> 30

<212> PRT

<213> Artificial

<400> 138

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 139

<211> 30

<212> PRT

<213> Artificial

<400> 139

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 140

<211> 30

<212> PRT

<213> Artificial

<400> 140

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 141

<211> 30

<212> PRT

<213> Artificial

<400> 141

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 142

<211> 30

<212> PRT

<213> Artificial

<400> 142

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
20 25 30

<210> 143

<211> 30

<212> PRT

<213> Artificial

<400> 143

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

<210> 144

<211> 30

<212> PRT

<213> Artificial

<400> 144

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30

<210> 145

<211> 30

<212> PRT

<213> Artificial

<400> 145

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 146

<211> 30

<212> PRT

<213> Artificial

<400> 146

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 147

<211> 30

<212> PRT

<213> Artificial

<400> 147

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ile Phe Ser
20 25 30

<210> 148

<211> 5

<212> PRT

<213> Artificial

<400> 148

Ile Gly Ala Met Gly
1 5

<210> 149

<211> 5

<212> PRT

<213> Artificial

<400> 149

Asn Tyr Gly Met Gly
1 5

<210> 150

<211> 5

<212> PRT

<213> Artificial

<400> 150

Tyr Asn Pro Met Gly
1 5

<210> 151

<211> 6

<212> PRT

<213> Artificial

<400> 151

Ser Ser Tyr Thr Leu Gly

1 5

<210> 152

<211> 5

<212> PRT

<213> Artificial

<400> 152

Asn Tyr Gly Met Gly
1 5

<210> 153

<211> 5

<212> PRT

<213> Artificial

<400> 153

Ser Ser Ala Met Ala
1 5

<210> 154

<211> 5

<212> PRT

<213> Artificial

<400> 154

Tyr Tyr Asn Thr Gly
1 5

<210> 155

<211> 5

<212> PRT

<213> Artificial

<400> 155

Ile Gly Ala Met Gly
1 5

<210> 156

<211> 5

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Ile Gly Ala Met Gly
1 5

<210> 157

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<400> 157

Ile Gly Thr Met Gly
1 5

<210> 158

<211> 5

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Ile Gly Thr Met Gly
1 5

<210> 159

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<213> Artificial

<400> 159

Tyr Asn Pro Met Gly
1 5

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Tyr Asn Pro Met Gly
1 5

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Tyr Asn Pro Met Gly
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Tyr Asn Pro Met Gly
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Tyr Asn Pro Met Gly
1 5

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Tyr Asn Pro Met Gly
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Tyr Asn Pro Met Gly
1 5

<210> 170

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<400> 163

Tyr Asn Pro Met Gly
1 5

<210> 164

<211> 5

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Tyr Asn Pro Met Gly
1 5

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Tyr Asn Pro Met Gly
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<400> 166

Tyr Asn Pro Met Gly
1 5

Tyr Asn Pro Met Gly
1 5

<210> 171

<211> 5

<212> PRT

<213> Artificial

<400> 171

Ile Gly Ala Met Gly
1 5

<210> 172

<211> 5

<212> PRT

<213> Artificial

<400> 172

Ile Gly Ala Met Gly
1 5

<210> 173

<211> 5

<212> PRT

<213> Artificial

<400> 173

Ile Gly Ala Met Gly
1 5

<210> 174

<211> 14

<212> PRT

<213> Artificial

<400> 174

Met Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 175

<211> 14

<212> PRT

<213> Artificial

<400> 175

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr
1 5 10

<210> 176

<211> 14

<212> PRT

<213> Artificial

<400> 176

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val Ala
1 5 10

<210> 177

<211> 14

<212> PRT

<213> Artificial

<400> 177

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly
1 5 10

<210> 178

<211> 14

<212> PRT

<213> Artificial

<400> 178

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr
1 5 10

<210> 179

<211> 14

<212> PRT

<213> Artificial

<400> 179

Trp Tyr Arg Gln Ala Ser Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 180

<211> 14

<212> PRT

<213> Artificial

<400> 180

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
1 5 10

<210> 181

<211> 14

<212> PRT

<213> Artificial

<400> 181

Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 182

<211> 14

<212> PRT

<213> Artificial

<400> 182

Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 183

<211> 14

<212> PRT

<213> Artificial

<400> 183

Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 184

<211> 14

<212> PRT

<213> Artificial

<400> 184

Leu Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 185

<211> 14

<212> PRT

<213> Artificial

<400> 185

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val Ala

1 5 10

<210> 186

<211> 14

<212> PRT

<213> Artificial

<400> 186

Trp Phe Arg Gln Ala Pro Gly Arg Glu Arg Asp Val Val Ala
1 5 10

<210> 187

<211> 14

<212> PRT

<213> Artificial

<400> 187

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Val Val Ala
1 5 10

<210> 188

<211> 14

<212> PRT

<213> Artificial

<400> 188

Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Asp Val Val Ala
1 5 10

<210> 189

<211> 14

<212> PRT

<213> Artificial

<400> 189

Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Val Val Ala
1 5 10

<210> 190

<211> 14

<212> PRT

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