

SEQUENCE LISTING

<110> LEVINGS, Megan
 ORBAN, Paul
 DAWSON, Nicholas
 LAMARCHE, Caroline
 BERGQVIST, Jan P

<120> ANTI-HLA-A2 ANTIBODIES AND METHODS OF USING THE SAME

<130> CDRD-003WO

<150> US 62/560,574

<151> 2017-09-19

<150> US 62/692,386

<151> 2018-06-29

<160> 224

<170> PatentIn version 3.5

<210> 1

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 1

Ser Tyr His Ile Gln

1 5

<210> 2

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 2

Gly Tyr Thr Phe Thr Ser Tyr

1 5

<210> 3

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 3

Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe Lys

1 5 10 15

Gly

<210> 4
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 4

Tyr Pro Gly Asp Gly Ser
1 5

<210> 5
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 5

Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Ser Gln Lys Phe Gln
1 5 10 15

Gly

<210> 6
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 6

Glu Gly Thr Tyr Tyr Ala Met Asp Tyr
1 5

<210> 7
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 7

Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 8
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 8

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 9
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 9

Phe Gln Gly Ser His Val Pro Arg Thr
1 5

<210> 10
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (10)..(10)
<223> Xaa is Q or K

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa is N or S

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa is E or Q

<220>
<221> misc_feature
<222> (16)..(16)
<223> Xaa is K or Q

<400> 10

Trp Ile Tyr Pro Gly Asp Gly Ser Thr Xaa Tyr Xaa Xaa Lys Phe Xaa
1 5 10 15

Gly

<210> 11
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 11

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

Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

<210> 12
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 12

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
20 25 30

<210> 13
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa is R or G

<220>
<221> misc_feature
<222> (15)..(15)
<223> Xaa is I or absent

<400> 13

Trp Val Arg Gln Ala Pro Gly Gln Xaa Leu Glu Trp Met Gly Xaa
1 5 10 15

<210> 14
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 14

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

<210> 15
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 15

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Ile
1 5 10 15

<210> 16
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 16

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

<210> 17
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa is R or G

<220>
<221> misc_feature
<222> (15)..(15)
<223> Xaa is I or absent

<400> 17

Trp Val Arg Gln Ala Pro Gly Gln Xaa Leu Glu Trp Met Gly Xaa Trp

1 5 10 15

Ile

<210> 18
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 18

Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met Gly Trp Ile
1 5 10 15

<210> 19
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 19

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Ile Trp
1 5 10 15

Ile

<210> 20
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 20

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Ile
1 5 10 15

<210> 21
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature

<222> (12)..(12)
<223> Xaa is R or G

<220>
<221> misc_feature
<222> (18)..(18)
<223> Xaa is I or absent

<400> 21

His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Xaa	Leu	Glu	Trp	Met
1				5					10					15	

Gly Xaa Trp Ile
20

<210> 22
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 22

His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Arg	Leu	Glu	Trp	Met
1				5					10					15	

Gly Trp Ile

<210> 23
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 23

His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
1				5					10					15	

Gly Ile Trp Ile
20

<210> 24
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 24

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
1 5 10 15

Gly Trp Ile

<210> 25
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa is R or G

<220>
<221> misc_feature
<222> (18)..(18)
<223> Xaa is I or absent

<400> 25

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Xaa Leu Glu Trp Met
1 5 10 15

Gly Xaa

<210> 26
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 26

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
1 5 10 15

Gly

<210> 27
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 27

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
1 5 10 15

Gly Ile

<210> 28
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 28

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
1 5 10 15

Gly

<210> 29
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa is R or absent

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is I or M

<220>
<221> misc_feature
<222> (6)..(6)
<223> Xaa is R or A

<220>
<221> misc_feature
<222> (10)..(10)
<223> Xaa is A, T or I

<220>
<221> misc_feature
<222> (16)..(16)
<223> Xaa is E or L

<220>
<221> misc_feature
<222> (19)..(19)

<223> Xaa is S or R

<220>

<221> misc_feature

<222> (23)..(23)

<223> Xaa is E or D

<220>

<221> misc_feature

<222> (25)..(25)

<223> Xaa is T or M

<400> 29

Xaa	Val	Thr	Xaa	Thr	Xaa	Asp	Thr	Ser	Xaa	Ser	Thr	Ala	Tyr	Met	Xaa
1				5					10					15	

Leu	Ser	Xaa	Leu	Arg	Ser	Xaa	Asp	Xaa	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 30

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 30

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

Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 31

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 31

Arg	Val	Thr	Ile	Thr	Ala	Asp	Thr	Ser	Ala	Ser	Thr	Ala	Tyr	Met	Leu
1				5					10					15	

Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 32

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 32

Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Thr	Ser	Thr	Val	Tyr	Met	Glu	Leu
1				5					10					15	

Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30	

<210> 33

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 33

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

Leu	Ser	Arg	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 34

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 34

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

Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Met	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 35

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<220>

<221> misc_feature

<222> (2)..(2)

<223> Xaa is Q or K

<220>

<221> misc_feature

<222> (4)..(4)
 <223> Xaa is N or S

 <220>
 <221> misc_feature
 <222> (5)..(5)
 <223> Xaa is E or Q

 <220>
 <221> misc_feature
 <222> (8)..(8)
 <223> Xaa is K or Q

 <220>
 <221> misc_feature
 <222> (10)..(10)
 <223> Xaa is R or absent

<220>
 <221> misc_feature
 <222> (13)..(13)
 <223> Xaa is I or M

<220>
 <221> misc_feature
 <222> (15)..(15)
 <223> Xaa is R or A

<220>
 <221> misc_feature
 <222> (19)..(19)
 <223> Xaa is A, T or I

<220>
 <221> misc_feature
 <222> (25)..(25)
 <223> Xaa is E or L

<220>
 <221> misc_feature
 <222> (28)..(28)
 <223> Xaa is S or R

<220>
 <221> misc_feature
 <222> (32)..(32)
 <223> Xaa is E or D

<220>
 <221> misc_feature
 <222> (34)..(34)
 <223> Xaa is T or M

<400> 35

Thr	Xaa	Tyr	Xaa	Xaa	Lys	Phe	Xaa	Gly	Xaa	Val	Thr	Xaa	Thr	Xaa	Asp
1				5					10					15	

Thr	Ser	Xaa	Ser	Thr	Ala	Tyr	Met	Xaa	Leu	Ser	Xaa	Leu	Arg	Ser	Xaa
			20					25					30		

Asp Xaa Ala Val Tyr Tyr Cys Ala Arg

<210> 36
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<220>
 <221> misc_feature
 <222> (10)..(10)
 <223> Xaa is R or absent

<220>
 <221> misc_feature
 <222> (13)..(13)
 <223> Xaa is I or M

<220>
 <221> misc_feature
 <222> (15)..(15)
 <223> Xaa is R or A

<220>
 <221> misc_feature
 <222> (19)..(19)
 <223> Xaa is A, T or I

<220>
 <221> misc_feature
 <222> (25)..(25)
 <223> Xaa is E or L

<220>
 <221> misc_feature
 <222> (28)..(28)
 <223> Xaa is S or R

<220>
 <221> misc_feature
 <222> (32)..(32)
 <223> Xaa is E or D

<220>
 <221> misc_feature
 <222> (34)..(34)
 <223> Xaa is T or M

<400> 36

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Xaa Val Thr Xaa Thr Xaa Asp
 1 5 10 15

Thr Ser Xaa Ser Thr Ala Tyr Met Xaa Leu Ser Xaa Leu Arg Ser Xaa
 20 25 30

Asp Xaa Ala Val Tyr Tyr Cys Ala Arg
 35 40

<210> 37
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (10)..(10)
<223> Xaa is R or absent

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa is I or M

<220>
<221> misc_feature
<222> (15)..(15)
<223> Xaa is R or A

<220>
<221> misc_feature
<222> (19)..(19)
<223> Xaa is A, T or I

<220>
<221> misc_feature
<222> (25)..(25)
<223> Xaa is E or L

<220>
<221> misc_feature
<222> (28)..(28)
<223> Xaa is S or R

<220>
<221> misc_feature
<222> (32)..(32)
<223> Xaa is E or D

<220>
<221> misc_feature
<222> (34)..(34)
<223> Xaa is T or M

<400> 37

Thr Lys Tyr Ser Gln Lys Phe Gln Gly Xaa Val Thr Xaa Thr Xaa Asp
1 5 10 15

Thr Ser Xaa Ser Thr Ala Tyr Met Xaa Leu Ser Xaa Leu Arg Ser Xaa
20 25 30

Asp Xaa Ala Val Tyr Tyr Cys Ala Arg
35 40

<210> 38
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 38

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
1 5 10 15

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
20 25 30

Asp Thr Ala Val Tyr Tyr Cys Ala Arg
35 40

<210> 39
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 39

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

Thr Ser Ala Ser Thr Ala Tyr Met Leu Leu Ser Ser Leu Arg Ser Glu
20 25 30

Asp Thr Ala Val Tyr Tyr Cys Ala Arg
35 40

<210> 40
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 40

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

Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
20 25 30

Thr Ala Val Tyr Tyr Cys Ala Arg

<210> 41
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 41

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

Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp
 20 25 30

Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 35 40

<210> 42
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 42

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
 1 5 10 15

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
 20 25 30

Asp Met Ala Val Tyr Tyr Cys Ala Arg
 35 40

<210> 43
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 43

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

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
 20 25 30

Asp Thr Ala Val Tyr Tyr Cys Ala Arg
35 40

<210> 44
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 44

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

<210> 45
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (44)..(44)
<223> Xaa is R or G

<220>
<221> misc_feature
<222> (50)..(50)
<223> Xaa is I or absent

<220>
<221> misc_feature
<222> (60)..(60)
<223> Xaa is Q or K

<220>
<221> misc_feature
<222> (62)..(62)
<223> Xaa is N or S

<220>
<221> misc_feature
<222> (63)..(63)
<223> Xaa is E or Q

<220>
<221> misc_feature
<222> (66)..(66)
<223> Xaa is K or Q

<220>
<221> misc_feature
<222> (68)..(68)
<223> Xaa is R or absent

<220>

```

<221> misc_feature
<222> (71)..(71)
<223> Xaa is I or M

<220>
<221> misc_feature
<222> (73)..(73)
<223> Xaa is R or A

<220>
<221> misc_feature
<222> (77)..(77)
<223> Xaa is A, T or I

<220>
<221> misc_feature
<222> (83)..(83)
<223> Xaa is E or L

<220>
<221> misc_feature
<222> (86)..(86)
<223> Xaa is S or R

<220>
<221> misc_feature
<222> (90)..(90)
<223> Xaa is E or D

<220>
<221> misc_feature
<222> (92)..(92)
<223> Xaa is T or M

<400> 45

```

```

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

```

```

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
          20          25          30

```

```

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Xaa Leu Glu Trp Met
          35          40          45

```

```

Gly Xaa Trp Ile Tyr Pro Gly Asp Gly Ser Thr Xaa Tyr Xaa Xaa Lys
          50          55          60

```

```

Phe Xaa Gly Xaa Val Thr Xaa Thr Xaa Asp Thr Ser Xaa Ser Thr Ala
65          70          75          80

```

```

Tyr Met Xaa Leu Ser Xaa Leu Arg Ser Xaa Asp Xaa Ala Val Tyr Tyr
          85          90          95

```

```

Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
          100          105          110

```

Thr Thr Val Thr Val Ser Ser
115

<210> 46
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa is V or I

<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa is S or T

<220>
<221> misc_feature
<222> (11)..(11)
<223> Xaa is L or S

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa is P or S

<220>
<221> misc_feature
<222> (15)..(15)
<223> Xaa is L or P

<220>
<221> misc_feature
<222> (23)..(23)
<223> Xaa is C or F

<400> 46

Asp Xaa Val Met Thr Gln Xaa Pro Leu Ser Xaa Xaa Val Thr Xaa Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Xaa
20

<210> 47
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 47

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly

1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
20

<210> 48
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 48

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
20

<210> 49
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 49

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
20

<210> 50
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 50

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Phe
20

<210> 51
<211> 15
<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<220>

<221> misc_feature

<222> (2)..(2)

<223> Xaa is F or Y

<220>

<221> misc_feature

<222> (3)..(3)

<223> Xaa is Q or L

<220>

<221> misc_feature

<222> (5)..(5)

<223> Xaa is R or K

<220>

<221> misc_feature

<222> (9)..(9)

<223> Xaa is S or P

<220>

<221> misc_feature

<222> (11)..(11)

<223> Xaa is R or Q

<220>

<221> misc_feature

<222> (12)..(12)

<223> Xaa is R or L

<400> 51

Trp	Xaa	Xaa	Gln	Xaa	Pro	Gly	Gln	Xaa	Pro	Xaa	Xaa	Leu	Ile	Tyr
1				5					10					15

<210> 52

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 52

Trp	Phe	Gln	Gln	Arg	Pro	Gly	Gln	Ser	Pro	Arg	Arg	Leu	Ile	Tyr
1				5					10					15

<210> 53

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 53

Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile	Tyr
1				5					10					15

<210> 54

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 54

Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile	Tyr
1				5					10					15

<210> 55

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 55

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

<210> 56

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<220>

<221> misc_feature

<222> (11)..(11)

<223> Xaa is S or A

<400> 56

Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Xaa	Gly	Thr	Asp	Phe	Thr
1				5					10					15	

Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys
			20					25					30		

<210> 57

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 57

Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr
1				5					10					15	

Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys
			20					25					30		

<210> 58

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 58

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

Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys
			20					25					30		

<210> 59

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 59

Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
1				5					10

<210> 60

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<220>

<221> misc_feature

<222> (2)..(2)

<223> Xaa is V or I

<220>

<221> misc_feature

<222> (7)..(7)

<223> Xaa is S or T

<220>

<221> misc_feature
<222> (11)..(11)
<223> Xaa is L or S

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa is P or S

<220>
<221> misc_feature
<222> (15)..(15)
<223> Xaa is L or P

<220>
<221> misc_feature
<222> (23)..(23)
<223> Xaa is C or F

<220>
<221> misc_feature
<222> (41)..(41)
<223> Xaa is F or Y

<220>
<221> misc_feature
<222> (42)..(42)
<223> Xaa is Q or L

<220>
<221> misc_feature
<222> (44)..(44)
<223> Xaa is R or K

<220>
<221> misc_feature
<222> (48)..(48)
<223> Xaa is S or P

<220>
<221> misc_feature
<222> (50)..(50)
<223> Xaa is R or Q

<220>
<221> misc_feature
<222> (51)..(51)
<223> Xaa is R or L

<220>
<221> misc_feature
<222> (72)..(72)
<223> Xaa is S or A

<400> 60

Asp Xaa Val Met Thr Gln Xaa Pro Leu Ser Xaa Xaa Val Thr Xaa Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Xaa Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Xaa Xaa Gln Xaa Pro Gly Gln Xaa
35 40 45

Pro Xaa Xaa Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 61
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 61

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 62
<211> 118

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 62

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 63
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 63

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 64
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 64

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 65
<211> 118
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 65

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 66

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 66

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Ser Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 67
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 67

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser
35 40 45

Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 68
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 68

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 69

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 69

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

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

Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 70
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 70

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

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

Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 71
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 71

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

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

Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 72

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 72

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 73
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 73

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 74

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 74

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 75
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 75

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110
 Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
 130 135 140
 Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160
 Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175
 Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
 180 185 190
 Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly
 195 200 205
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220
 Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240
 Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 245 250

<210> 76
 <211> 251
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Synthetic sequence
 <400> 76

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	1	5	10	15
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr	20	25	30	
His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Arg	Leu	Glu	Trp	Met	35	40	45	
Gly	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	Thr	Gln	Tyr	Asn	Glu	Lys	Phe	50	55	60	
Lys	Gly	Arg	Val	Thr	Ile	Thr	Arg	Asp	Thr	Ser	Ala	Ser	Thr	Ala	Tyr	65	70	75	80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	85	90	95	
Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110	
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	115	120	125	
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr	130	135	140	
Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	Leu	Gly	Gln	Pro	Ala	Ser	Ile	145	150	155	160
Ser	Phe	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	165	170	175	
Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile	180	185	190	
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	195	200	205	
Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	210	215	220	
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	225	230	235	240
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	245	250							

<210> 77
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 77

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 78
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 78

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 79

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 79

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 80
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 80

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 81

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 81

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 82

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 82

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
 50 55 60
 Phe Lys Gly Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110
 Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
 130 135 140
 Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160
 Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175
 Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
 180 185 190
 Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly
 195 200 205
 Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220
 Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240
 Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 245 250

<210> 83
 <211> 251
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 83

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 84
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 84

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 85
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 85

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 86

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 86

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 87
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 87

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 88
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 88

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

<400> 89

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 90
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 90

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
245 250

<210> 91

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 91

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Ser Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile
			180					185					190		
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly
		195					200					205			
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala
	210					215					220				
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg
225					230					235					240
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys					
				245					250						

<210> 92
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<220>
 <221> misc_feature
 <222> (44)..(44)
 <223> Xaa is R or G

<220>
 <221> misc_feature
 <222> (50)..(50)
 <223> Xaa is I or absent

<220>
 <221> misc_feature
 <222> (68)..(68)
 <223> Xaa is R or absent

<220>
 <221> misc_feature
 <222> (71)..(71)
 <223> Xaa is I or M

<220>
 <221> misc_feature
 <222> (73)..(73)
 <223> Xaa is R or A

<220>
 <221> misc_feature
 <222> (77)..(77)
 <223> Xaa is A, T or I

<220>
 <221> misc_feature
 <222> (83)..(83)

<223> Xaa is E or L

<220>

<221> misc_feature

<222> (86)..(86)

<223> Xaa is S or R

<220>

<221> misc_feature

<222> (90)..(90)

<223> Xaa is E or D

<220>

<221> misc_feature

<222> (92)..(92)

<223> Xaa is T or M

<400> 92

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

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
		20					25						30		

His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Xaa	Leu	Glu	Trp	Met
		35					40					45			

Gly	Xaa	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	Thr	Lys	Tyr	Ser	Gln	Lys
50						55					60				

Phe	Gln	Gly	Xaa	Val	Thr	Xaa	Thr	Xaa	Asp	Thr	Ser	Xaa	Ser	Thr	Ala
65					70					75					80

Tyr	Met	Xaa	Leu	Ser	Xaa	Leu	Arg	Ser	Xaa	Asp	Xaa	Ala	Val	Tyr	Tyr
				85					90					95	

Cys	Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		

Thr	Thr	Val	Thr	Val	Ser	Ser
		115				

<210> 93

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 93

Met	Asp	Phe	Gln	Val	Gln	Ile	Phe	Ser	Phe	Leu	Leu	Ile	Ser	Ala	Ser
1				5				10						15	

Val	Ile	Met	Ser	Arg	Ala	Ser	Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	
			20					25					30			
Glu	Val	Lys	Lys	Pro	Gly	Ala	Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	
		35					40					45				
Gly	Tyr	Thr	Phe	Thr	Ser	Tyr	His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	
	50					55					60					
Gly	Gln	Arg	Leu	Glu	Trp	Met	Gly	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	
65					70					75					80	
Thr	Gln	Tyr	Asn	Glu	Lys	Phe	Lys	Gly	Arg	Val	Thr	Ile	Thr	Arg	Asp	
				85					90					95		
Thr	Ser	Ala	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	
			100					105						110		
Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	
		115					120					125				
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	
	130					135					140					
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	
145					150					155					160	
Thr	Ser	Asp	Val	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	
				165					170					175		
Leu	Gly	Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	
			180					185					190			
His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Phe	Gln	Gln	Arg	Pro	Gly	
		195					200					205				
Gln	Ser	Pro	Arg	Arg	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	
	210					215					220					
Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	
225					230					235					240	
Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	
				245					250					255		
Gln	Gly	Ser	His	Val	Pro	Arg	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	
			260					265					270			

Ile Lys

<210> 94

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 94

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly

195

200

205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 95
 <211> 274
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 95

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
 20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
 65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
 85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
 100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
 115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 96
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 96

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro

50

55

60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Ser Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 97

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 97

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Phe Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 98
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 98

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Ala Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Leu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr

165

170

175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
 180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Phe Gln Gln Arg Pro Gly
 195 200 205

Gln Ser Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 99

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 99

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
 20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
 65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Ala Asp
 85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Leu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly
195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 100
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 100

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala

20

25

30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Ile Trp Ile Tyr Pro Gly Asp Gly
 65 70 75 80

Ser Thr Gln Tyr Asn Glu Lys Phe Lys Gly Val Thr Met Thr Arg Asp
 85 90 95

Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
 100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
 115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
 130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
 165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
 180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly
 195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 101
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 101

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Ile Trp Ile Tyr Pro Gly Asp Gly
65 70 75 80

Ser Thr Gln Tyr Asn Glu Lys Phe Lys Gly Val Thr Met Thr Arg Asp
85 90 95

Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 102
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 102

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Ile Trp Ile Tyr Pro Gly Asp Gly
65 70 75 80

Ser Thr Gln Tyr Asn Glu Lys Phe Lys Gly Val Thr Met Thr Arg Asp
85 90 95

Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser

130

135

140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 145 150 155 160

Thr Ser Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr
 165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
 180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
 195 200 205

Gln Ser Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 103
 <211> 274
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 103

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
 20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Ile Trp Ile Tyr Pro Gly Asp Gly
65 70 75 80

Ser Thr Gln Tyr Asn Glu Lys Phe Lys Gly Val Thr Met Thr Arg Asp
85 90 95

Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Phe Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 104

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 104

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp
85 90 95

Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly
195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe

245

250

255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 105

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 105

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
 20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
 65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp
 85 90 95

Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp
 100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
 115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
 130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
 165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 106
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 106

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp
85 90 95

Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp

100							105							110						
Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met					
		115					120					125								
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser					
	130					135					140									
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser					
145					150					155					160					
Thr	Ser	Asp	Val	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr					
			165						170					175						
Leu	Gly	Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val					
			180					185					190							
His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly					
		195					200					205								
Gln	Ser	Pro	Arg	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly					
	210					215					220									
Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu					
225					230					235					240					
Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe					
			245					250						255						
Gln	Gly	Ser	His	Val	Pro	Arg	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu					
			260					265					270							

Ile Lys

<210> 107
 <211> 274
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 107

Met	Asp	Phe	Gln	Val	Gln	Ile	Phe	Ser	Phe	Leu	Leu	Ile	Ser	Ala	Ser
1				5					10					15	
Val	Ile	Met	Ser	Arg	Ala	Ser	Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala
			20					25					30		

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
 65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp
 85 90 95

Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp
 100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
 115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
 130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
 165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Phe Arg Ser Ser Gln Ser Ile Val
 180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
 195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 108
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 108

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Met Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly
195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly

210

215

220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 109

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 109

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
 20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
 35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
 50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
 65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Arg Asp
 85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
 100 105 110

Asp Met Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
 115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
 130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr
165 170 175

Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val
180 185 190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Arg Pro Gly
195 200 205

Gln Pro Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 110
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 110

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser

65		70		75		80									
Thr	Gln	Tyr	Asn	Glu	Lys	Phe	Lys	Gly	Arg	Val	Thr	Ile	Thr	Arg	Asp
			85						90					95	
Thr	Ser	Ala	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu
			100					105					110		
Asp	Met	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met
		115					120					125			
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser
	130					135					140				
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser
145					150					155					160
Thr	Ser	Asp	Val	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr
			165						170					175	
Leu	Gly	Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val
			180					185					190		
His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly
		195					200					205			
Gln	Ser	Pro	Arg	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly
	210					215					220				
Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu
225					230					235					240
Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe
				245					250					255	
Gln	Gly	Ser	His	Val	Pro	Arg	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu
			260					265					270		

Ile Lys

<210> 111
 <211> 274
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 111

Met	Asp	Phe	Gln	Val	Gln	Ile	Phe	Ser	Phe	Leu	Leu	Ile	Ser	Ala	Ser	1	5	10	15
Val	Ile	Met	Ser	Arg	Ala	Ser	Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	20	25	30	
Glu	Val	Lys	Lys	Pro	Gly	Ala	Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	35	40	45	
Gly	Tyr	Thr	Phe	Thr	Ser	Tyr	His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	50	55	60	
Gly	Gln	Arg	Leu	Glu	Trp	Met	Gly	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	65	70	75	80
Thr	Gln	Tyr	Asn	Glu	Lys	Phe	Lys	Gly	Arg	Val	Thr	Ile	Thr	Arg	Asp	85	90	95	
Thr	Ser	Ala	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	100	105	110	
Asp	Met	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	115	120	125	
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	130	135	140	
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	145	150	155	160
Thr	Ser	Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	165	170	175	
Leu	Gly	Gln	Pro	Ala	Ser	Ile	Ser	Phe	Arg	Ser	Ser	Gln	Ser	Ile	Val	180	185	190	
His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	195	200	205	
Gln	Pro	Pro	Arg	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	210	215	220	
Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	225	230	235	240
Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	245	250	255	

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
260 265 270

Ile Lys

<210> 112
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 112

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Val Gln Ser Gly Ala
20 25 30

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Arg Gln Ala Pro
50 55 60

Gly Gln Arg Leu Glu Trp Met Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Lys Tyr Ser Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Arg Asp
85 90 95

Thr Ser Ala Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
165 170 175

Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val

180

185

190

His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly
 195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly
 210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe
 245 250 255

Gln Gly Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu
 260 265 270

Ile Lys

<210> 113
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 113

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 1 5 10 15

Val Ile Met Ser Arg Ala Ser
 20

<210> 114
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 114

Val Asp Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
 1 5 10 15

Gly Gly Ser Thr Ser
 20

<210> 115

<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 115

Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe Val Pro Val
1 5 10 15

Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr
20 25 30

Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala
35 40 45

Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp
50 55 60

<210> 116
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 116

Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser Leu
1 5 10 15

Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val
20 25

<210> 117
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 117

Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met Thr
1 5 10 15

Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala Pro
20 25 30

Pro Arg Asp Phe Ala Ala Tyr Arg Ser
35 40

<210> 118
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 118

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
1 5 10 15

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
35 40 45

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 119
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 119

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
 130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile
 180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 120

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 120

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

20

25

30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro

275

280

285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 121

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 121

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 122
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 122

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly

195

200

205

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys

450

455

460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 123

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 123

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
 130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
 180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 124
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 124

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly

115

120

125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
 130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile
 180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala

370

375

380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 125

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 125

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

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

Met	Leu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	85	90	95
Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	115	120	125
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr	130	135	140
Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly	Gln	Pro	Ala	Ser	Ile	145	150	155
Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	165	170	175
Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile	180	185	190
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	195	200	205
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	210	215	220
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	225	230	235
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly	245	250	255
Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His	260	265	270
Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro	275	280	285
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	290	295	300
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg	305	310	315
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val	325	330	335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 126
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 126

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

His Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

35

40

45

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
 50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
 130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
 180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu

290

295

300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 127

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 127

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	
1				5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr	
			20					25						30		
His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met	
		35					40					45				
Gly	Ile	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	Thr	Gln	Tyr	Asn	Glu	Lys	
	50					55					60					
Phe	Lys	Gly	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Thr	Ser	Thr	Val	Tyr	
65					70					75					80	
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
				85					90					95		
Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	
			100					105					110			
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	
			115				120						125			
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr	
	130					135					140					
Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	Leu	Gly	Gln	Pro	Ala	Ser	Ile	
145					150					155					160	
Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	
				165					170					175		
Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile	
			180					185					190			
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	
		195					200					205				
Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	
	210					215					220					
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	
225					230					235					240	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly	
				245					250					255		

Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His
			260					265					270		
Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro
		275					280					285			
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu
	290					295					300				
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg
305					310					315					320
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val
				325					330					335	
Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile	Phe	Trp
			340					345					350		
Val	Arg	Ser	Lys	Arg	Ser	Arg	Leu	Leu	His	Ser	Asp	Tyr	Met	Asn	Met
		355					360					365			
Thr	Pro	Arg	Arg	Pro	Gly	Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro	Tyr	Ala
	370					375					380				
Pro	Pro	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Ser	Leu	Glu	Arg	Val	Arg	Val
385					390					395					400
Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn
				405					410					415	
Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val
			420					425					430		
Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg
		435					440					445			
Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys
	450					455					460				
Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg
465					470					475					480
Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys
				485					490					495	
Asp	Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg		
			500					505					510		

<210> 128
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 128

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala

210

215

220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg

465 470 475 480
 Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495
 Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

 <210> 129
 <211> 510
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic sequence

 <400> 129

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

 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

 Gly Ile Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys
 50 55 60

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

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

 Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

 Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

 Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
 130 135 140

 Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160

 Ser Phe Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
 180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 130

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 130

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr

130

135

140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
 180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val

385 390 395 400

 Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

 Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

 Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

 Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

 Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

 Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

 Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

 <210> 131
 <211> 510
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic sequence

 <400> 131

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

 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

 Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

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

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

Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110	
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	115	120	125	
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr	130	135	140	
Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	Leu	Gly	Gln	Pro	Ala	Ser	Ile	145	150	155	160
Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	165	170	175	
Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile	180	185	190	
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	195	200	205	
Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	210	215	220	
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	225	230	235	240
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly	245	250	255	
Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His	260	265	270	
Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro	275	280	285	
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	290	295	300	
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg	305	310	315	320
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val	325	330	335	
Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile	Phe	Trp	340	345	350	

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 132

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 132

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe

50

55

60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg

305		310		315		320									
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val
				325					330					335	
Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile	Phe	Trp
			340					345					350		
Val	Arg	Ser	Lys	Arg	Ser	Arg	Leu	Leu	His	Ser	Asp	Tyr	Met	Asn	Met
		355					360					365			
Thr	Pro	Arg	Arg	Pro	Gly	Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro	Tyr	Ala
	370					375					380				
Pro	Pro	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Ser	Leu	Glu	Arg	Val	Arg	Val
385					390					395					400
Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn
				405					410					415	
Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val
			420					425					430		
Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg
		435					440					445			
Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys
	450					455					460				
Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg
465					470					475					480
Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys
				485					490					495	
Asp	Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg		
			500					505					510		
<210>	133														
<211>	510														
<212>	PRT														
<213>	Artificial Sequence														
<220>															
<223>	Synthetic sequence														
<400>	133														
Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr	20	25	30
His	Ile	Gln	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met	35	40	45
Gly	Trp	Ile	Tyr	Pro	Gly	Asp	Gly	Ser	Thr	Gln	Tyr	Asn	Glu	Lys	Phe	50	55	60
Lys	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr	65	70	75
Met	Glu	Leu	Ser	Arg	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	85	90	95
Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	115	120	125
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr	130	135	140
Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	Leu	Gly	Gln	Pro	Ala	Ser	Ile	145	150	155
Ser	Phe	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	165	170	175
Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile	180	185	190
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	195	200	205
Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	210	215	220
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	225	230	235
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly	245	250	255
Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His	260	265	270

Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro	275	280	285
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	290	295	300
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg	305	310	315
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val	325	330	335
Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile	Phe	Trp	340	345	350
Val	Arg	Ser	Lys	Arg	Ser	Arg	Leu	Leu	His	Ser	Asp	Tyr	Met	Asn	Met	355	360	365
Thr	Pro	Arg	Arg	Pro	Gly	Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro	Tyr	Ala	370	375	380
Pro	Pro	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Ser	Leu	Glu	Arg	Val	Arg	Val	385	390	395
Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn	405	410	415
Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val	420	425	430
Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg	435	440	445
Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys	450	455	460
Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg	465	470	475
Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys	485	490	495
Asp	Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg			500	505	510

<210> 134
 <211> 510
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 134

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg

225		230		235		240
Thr Phe Gly Gly Gly	Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly					
	245		250		255	
Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His						
	260		265		270	
Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro						
	275		280		285	
Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu						
	290		295		300	
Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg						
	305		310		315	
Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val						
	325		330		335	
Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp						
	340		345		350	
Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met						
	355		360		365	
Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala						
	370		375		380	
Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val						
	385		390		395	
Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn						
	405		410		415	
Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val						
	420		425		430	
Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg						
	435		440		445	
Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys						
	450		455		460	
Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg						
	465		470		475	
Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys						

485

490

495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 135

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 135

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Ile Val Met Thr
 130 135 140

Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln Pro Ala Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
 180 185 190

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

Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly
 245 250 255

Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His
 260 265 270

Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro
 275 280 285

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
 290 295 300

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
 305 310 315 320

Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val
 325 330 335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 136

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 136

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Val Met Thr
130 135 140

Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile

145		150		155		160
Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr						
		165		170		175
Leu Glu Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Arg Leu Leu Ile						
		180		185		190
Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly						
		195		200		205
Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala						
		210		215		220
Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg						
		225		230		235
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asn Arg Ile Arg Gly						
		245		250		255
Val Thr Val Ser Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His						
		260		265		270
Phe Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro						
		275		280		285
Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu						
		290		295		300
Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg						
		305		310		315
Gly Leu Asp Pro Phe Gly Phe Trp Val Leu Val Val Val Gly Gly Val						
		325		330		335
Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp						
		340		345		350
Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met						
		355		360		365
Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala						
		370		375		380
Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val						
		385		390		395
Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn						

405

410

415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 137

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 137

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly		
		115					120						125				
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr		
	130					135					140						
Gln	Thr	Pro	Leu	Ser	Ser	Pro	Val	Thr	Leu	Gly	Gln	Pro	Ala	Ser	Ile		
145					150					155					160		
Ser	Phe	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr		
				165					170					175			
Leu	Glu	Trp	Tyr	Gln	Gln	Arg	Pro	Gly	Gln	Pro	Pro	Arg	Leu	Leu	Ile		
			180					185					190				
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly		
		195					200					205					
Ser	Gly	Ala	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala		
	210					215					220						
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg		
225					230					235					240		
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly		
				245					250					255			
Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His		
			260					265					270				
Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro		
		275					280						285				
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu		
	290					295					300						
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg		
305					310					315					320		
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val		
				325					330					335			
Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile	Phe	Trp		
			340					345					350				
Val	Arg	Ser	Lys	Arg	Ser	Arg	Leu	Leu	His	Ser	Asp	Tyr	Met	Asn	Met		
		355					360					365					

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
500 505 510

<210> 138
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 138

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Ser Gln Lys Phe
50 55 60

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

65	70					75					80				
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Glu	Gly	Thr	Tyr	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr
			100					105					110		
Thr	Val	Thr	Val	Ser	Ser	Val	Asp	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly
		115					120					125			
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Thr	Ser	Asp	Ile	Val	Met	Thr
		130					135				140				
Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly	Gln	Pro	Ala	Ser	Ile
145					150					155					160
Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr
				165					170					175	
Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile
			180					185					190		
Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly
		195					200					205			
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala
	210					215					220				
Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg
225					230					235					240
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Asn	Arg	Ile	Arg	Gly
				245					250					255	
Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe	Ser	His
			260					265					270		
Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro	Ala	Pro
		275					280					285			
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu
	290					295					300				
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg
305					310					315					320
Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly	Gly	Val

325

330

335

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
 340 345 350

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
 355 360 365

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
 370 375 380

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val
 385 390 395 400

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
 405 410 415

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
 420 425 430

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
 435 440 445

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
 450 455 460

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 465 470 475 480

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 485 490 495

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 500 505 510

<210> 139

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 139

atggatttcc aagttcaaat cttcagtttc ttgcttatca gtgcttctgt tattatgtca 60

cgagcaagtc aagttcaact cgtacagtct ggagccgagg tgaaaaaacc gggagcgtcc 120

gtgaaagtga gttgcaaggc gagtggatac accttcactt cataccatat acaatgggtt 180

cggcaggcgc ctggtcaacg gctggaatgg atgggctgga tttatcccgg agatgggttc 240

acgcagtaca atgagaaatt caaagggaga gtgacaatca cccgagatac cagtgcctct	300
acggcatata tggaactgag tagtctgcgg tctgaagata cggcgggtgta ttattgtgcg	360
agagaaggga cgtactacgc catggattat tggggacaag gaacaacagt cacagtctcc	420
agcgttgatt cctcaggcgg gggcggaagt gggggcgggc gatctggcgg cggcgggtct	480
acgtctgacg tggatcatgac ccaatctcca ttgtctttgc cagttactct gggacagcct	540
gcaagtatca gttgccgac ctcccaatct atcgtccatt caaacgggaa cacttatttg	600
gaatggtttc aacagagacc tgggcaaagt ccgcgccgac tgatatataa ggtcagtaac	660
cgtttttcag gcgtccccga tcgattcagt ggatctgggt cagggactga cttcactctg	720
aaaatatcaa gagtcgaagc tgaagatgtc ggagtatatt actgtttcca ggggtctcac	780
gtccctcggga cgtttgagg cggaactaag gttgagataa aa	822

<210> 140
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 140	
atggattttc aggttcaaatt ctttagcttt ctcttgatth cgcctccgt aataatgagt	60
cgggccagtc aggtacagct cgttcaatct ggggctgaag taaaaaagcc tggagcgtct	120
gtaaagggtat cttgcaaagc gagcggctac acattcacia gttatcacat ccaatgggtg	180
agacaggccc caggacaacg cttggagtgg atgggggtgga tttaccctgg cgacggcagc	240
acacagtaca atgagaaatt taaaggccgg gtgactatca ctccggacac ctccgccagc	300
acggcttata tggagcttag cagtttgaga tccgaagata cagcgggtata ttactgcgcg	360
agagaaggaa cgtactacgc tatggactat tggggtcagg gcacaaccgt tacagtctcc	420
tctgtggaca gctccggagg tgggggttca ggaggggggtg gaagcgggtg tgggtggcagt	480
acaagcgata tagtaatgac ccaaaccgcc ctctctctga gcgtcacgcc aggacaacca	540
gcataaatct cttgccgcag tagtcaatcc atcgttact ctaatggaaa cacatacctt	600
gagtgggtatc ttcagaaacc aggtcagagc cctcagctcc tcatctataa agtctctaac	660
cggttctcag gtgttccgga ccggttcagt ggttccggct caggaaacaga cttcaccttg	720
aagatcagtc gagtagaagc cgaagacgtg ggtgtatatt attgctttca gggttcccac	780
gttccgcgca ccttcggcgg cgggaccaa gttgagatca aa	822

<210> 141
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 141

atggactttc aagtccaaat cttctcattc ctcctgatct ctgcgtcagt aatcatgtcc	60
agagcgtcac aagtgcaact cgttcaatcc ggagctgagg taaagaagcc cggcgccagc	120
gtgaaagtct cctgcaaagc gagcggctac acgttcacct catatcacat tcaatgggta	180
agacaagcac ctgggcaacg actcgagtgg atgggggtgga tctaccctgg ggacgggagc	240
acgcagtata atgagaaatt caaaggcagg gttacaatta cagccgatac cagtgcattc	300
acggccttata tgctcctctc ctcactccgg tctgaggaca cagcggttta ttattgcgca	360
cgggagggaa cgtactacgc gatggactat tgggggcaag gcaccacagt tacagtgagc	420
tcagttgact catcaggagg cggaggatca gggggagggtg gtagtggggg cgggtgggagc	480
acatcagatg ttgtcatgac tcagagccca ctttctttgc cggtgacgct ggggcagccc	540
gcttcaatct cttgccgctc atcacagtct atcgttcata gcaatggtaa cacttacttg	600
gaatggttcc aacaaagacc ggggtcaaagt ccacggcgct tgatatataa agtatcaaat	660
agattttcag gggtgctga tcggttcagc ggttctggat ctggcaccga cttcacgctt	720
aaaataagta gggtagaagc cgaagacgtg ggagtgtatt attgtttcca ggggtcacac	780
gtccctcgca cgttcggcgg aggcactaaa gtggagatca aa	822

<210> 142

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 142

atggactttc aagtccaaat cttcagcttt ctccttatat ctgcgtctgt cattatgagt	60
agagcaagtc aagtccagct cgtacaaagt ggagctgagg tgaaaaagcc gggcgcgagt	120
gtgaaagtct catgcaaggc gagtggatac acctttacct cttaccacat tcaatggggtg	180
cggcaggcgc ctgggcagcg cttggaatgg atgggctgga tatatcctgg cgacggaagt	240
accagttaca acgaaaaatt caaaggtagg gttaccatca ctgctgatac ctccgcgtcc	300
actgcttata tgcttcttag ctccttgcca agcgaggata cagccgtgta ttattgtgcc	360
agagagggga cttattatgc catggactat tggggtcagg gtacaacggc cactgtctca	420
tctgttgaca gtagcggggg aggggggtct ggaggagggg gttccggggg gggaggttcc	480
acgagcgata tagttatgac gcaaacgccc ttgagcctca gtgttacacc cgggtcaacct	540
gcctctatta gctgtcgctc ctcccaatca attgtgcata gcaatggaaa tacctacctt	600
gaatggtatc tccaaaagcc cgggcagagt cctcaacttc tcatctacaa agtatccaat	660

cgattcagtg gcgttcctga caggttcagc ggaagtgggt cagggaccga ttttaccctc	720
aaaattagtc gcgtcgaagc tgaggatggt ggggtgtatt actgcttcca agggtcacac	780
gtaccacgca cattcggggg aggcacgaag gttgaaatta ag	822

<210> 143
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 143	
atggatttcc aagtccaaat attcagtttc cttttgataa gtgcttcagt tatcatgtcc	60
cgagcaagcc aggtacagct tgtgcaaagc ggggcggaag ttaagaaacc gggagcctca	120
gttaaagtat cttgcaaagc cagcggttat acattcactt cataccacat acagtgggtg	180
cgccaagcac cggggcagag actggaatgg atgggatgga tttatcccgg tgatggtagt	240
acgcaatata atgaaaaatt caaaggaagg gtgactatca cgcgagacac aagcgcgtcc	300
acggcctata tggaactgag cagtctgaga tccgaggaca ccgctgtgta ttattgcgcc	360
cgagagggga cctactacgc catggattat tgggggtcaag ggaccactgt gacagtctct	420
tctgtcgatt ccagcggcgg aggagggagt ggaggggggtg ggtccggggg gggaggggtct	480
acgagcgaca ttgtcatgac acagacgccg cttagctccc cagttacact cggacagccc	540
gcaagtatta gttgcagaag tagccagtct atcgtacatt caaatggaaa cacctatttg	600
gaatggtatc aacaacggcc tggacagccg cccaggctgc tcatatacaa agtctccaac	660
cgcttcagcg gagtaccga ccgcttttcc ggctccggag caggaaactga ctttaccttg	720
aaaattagta gggtcgaagc agaggatgtc ggggtatatt attgtttcca aggtagtcac	780
gtcccacgga cgtttggtgg tgggacgaag gttgagatca aa	822

<210> 144
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 144	
atggacttcc aggtgcagat attttccttt cttctcatat ctgcatctgt aataatgtca	60
agggccagcc aggtccagct cgttcaaagc ggagccgagg taaaaaaacc aggcgcttcc	120
gtcaaggat catgcaaagc gtccggctat accttcacaa gttaccatat ccaatgggtt	180
cgacaggcac ccggacaaag acttgaatgg atgggttgga tataccccgg agacggctcc	240
actcagtata acgaaaagtt taaggggaga gtcacgatca ctagggacac atcagcttct	300

acggcgtata	tggaactcag	ttctttgcga	tccgaggata	ctgccgtata	ttactgcgcc	360
agagaaggca	cgtactacgc	aatggattac	tgggggcaag	ggacaactgt	taccgtctca	420
agcgtcgatt	catcaggagg	cggagggtcc	ggagggtggg	gatctggcgg	tgggggttct	480
acgtccgatg	ttgtgatgac	acagtcccca	ctctctcttc	cagtgcgct	gggacagccc	540
gcgagcatct	cctgtcgcag	ctctcagtcc	atagtacaca	gtaatggtaa	cacctatctt	600
gagtggatc	agcaacgacc	cggtcagtct	cccaggttgc	ttatttataa	ggttagtaac	660
cgtttttcag	gtgttccaga	cagatttagc	gggagtgggt	ccggtacgga	tttcacattg	720
aaaatcagcc	gcgtcgaagc	cgaggacgtg	ggtgtttact	actgcttcca	gggatctcac	780
gtaccgagga	ccttcggcgg	aggaacgaaa	gtagaaatta	ag		822

<210> 145
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 145	
atggattttc	aagtacaaat cttttccttc ctgcttattt ccgcaagcgt tattatgagt 60
agagccagcc	aagtacaact ggtacagtcc ggcgcggagg tgaagaagcc cggagcaagt 120
gtgaaggat	cttgcaaggc gtcaggctat acctttactt cataccatat acagtgggtg 180
cgacaggctc	ccggccagcg actcgaatgg atgggctgga tttatcccgg agatggatct 240
acgcagtata	atgagaaatt caagggtcgg gtcacgatta cacgagacac gagtgccttc 300
acagcttata	tggaactttc tagcctgagg tctgaggata ctgccgttta ctattgtgca 360
cgagaaggga	catactatgc gatggattac tggggacagg gcaccactgt cacagtttcc 420
agcgtggact	caagtggagg cgggtgatct ggtggtggcg ggtccggggg gggaggcagc 480
accagtgaca	ttgtaatgac tcaaacacct ctcagtagcc cagtcactct cggtcagccg 540
gcgagtatct	cttttaggtc ctcaaatct atagtgcact ctaacggcaa tacttatctt 600
gaatggatc	aacaaagacc ggggcagcca cctcgccttc tcatctacaa agtaagcaat 660
cgtttctccg	gtgtccccga tcgcttctcc ggttcaggag caggaaactga cttcacattg 720
aagatttcca	gagtggaggc cgaagacgta ggggtatatt attgctttca aggggtcccat 780
gtgcccagaa	cctttggggg aggaacgaaa gttgagatta aa 822

<210> 146
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

```

<400> 146
atggatttcc aagtgcagat tttctctttt ctctcataa ggcctccgt aattatgtct      60
agagctagtc aagtccaatt ggtgcaatcc ggtgccgagg ttaaaaagcc cggcgcaagt      120
gtaaaagtct cctgtaaggc cagtggctac actttcacca gctaccatat acagtgggtg      180
cggcaggcgc ctggtcaggg tctggagtgg atgggtatth ggatttatcc cggagatgga      240
agtactcaat acaatgagaa attcaagggt gtcactatga caagggatac gagcacttct      300
accgtatata tggagttgtc atctttgcga tcagaggata ccgctgtata ttattgcgca      360
cgggaaggta catattatgc catggactac tggggccaag gaaccaccgt gacggtaagc      420
tctgtcgtat ctagcgggtg cgggggctct ggcgggtggg gtagcggggg tggcggatct      480
acatcagata ttgtaatgac acagaccctt ctttcacttt ccgtaacgcc aggacagccg      540
gcatcaataa gttgccgatc aagccagtct atcgtacact ccaatggtaa cacatacttg      600
gaatggtatc ttcaaaagcc cggccagagc ccgcagcttt tgatatataa agtgtccaac      660
agattcagtg gggtgccgga ccgctttagt ggatctggtt caggaacgga cttcacattg      720
aaaattagta gaggtaagc ggaagacgtg ggagtctact actgtttcca gggttcacat      780
gtgcctcggg cctttggggg aggcaccaag gttgagataa aa                        822

```

```

<210> 147
<211> 822
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic sequence

```

```

<400> 147
atggacttcc aagtccaaat cttttctttt ttgttgataa ggcgatcagt tattatgtct      60
cgcgccagtc aagtacaact ggtgcagtcc ggagctgaag tgaaaaaacc aggagcaagc      120
gtgaaagtaa gttgtaaggc aagtggttac actttcacia gctaccatat tcaatgggtc      180
cgacaggctc ctggacaggg cttggagtgg atgggcataat ggatttaccg tggtgacggg      240
tccaccagtc ataataaaaa gttcaaggga gtcacgatga ccaggggacac ctctacatct      300
accgtgtata tggagctctc tagtttgcga tccgaagaca ctgccgttta ttactgtgca      360
agagaaggaa cttattacgc gatggactac tggggtcagg ggacaacagt caccgttagc      420
tccgtcgtat ccagcggggg aggtggctca ggcgggggtg gttctggggg gggcgggagc      480
acttcagata ttgtaatgac ccaaaccaca ctgagtagtc cagtcacgct tggtaaccg      540
gcaagcattt cttgcaggag ctctcagagt attgtccact ctaacgggaa tacatatttg      600
gagtggatat agcaaagacc gggccaacca ccacgcctct tgatttataa ggtgagcaat      660
aggttttcag gcgtgccaga taggttctca ggctccggag cgggaaccga cttcacctc      720

```

aagataagtc gggtggaagc cgaagacgta ggagtttact actgctttca aggatctcat	780
gttccacgaa cgtttgagg aggaaccaag gtggaaataa aa	822

<210> 148
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 148	
atggactttc aggtccaaat tttttccttc ttgctcatat ccgcgagtgt catcatgtca	60
agagcaagtc aagttcaact cgttcaatca ggagctgagg tgaaaaaacc aggggcgtct	120
gtcaaagtaa gctgcaaagc atcagggtat acgttcacga gttatcatat ccagtgggtt	180
aggcaggcgc cagggcaggg attggaatgg atgggtatct ggatttaccg gggtgacggc	240
agcactcaat acaatgagaa attcaaaggc gtaacaatga caagggacac gagcacaagc	300
acagtgtaca tggagcttag ctctttgagg tcagaggata ccgctgttta ctattgtgct	360
cgggagggtta cttactatgc aatggactac tgggggcaag gcacgaccgt tacagtgagt	420
agcgtagatt cctccggggg tggcgggtca ggcggcggag gctcaggcgg aggaggggtca	480
acatccgatg tcgtaatgac tcagtcccct ctgtcattgc cggtgacttt gggacagcca	540
gcgtctatat cttgtaggtc ctctcaatca atagtgcatt ccaacggtaa cacctatctg	600
gaatgggtatc agcaaaggcc aggacaaagt ccacgcctgc ttatatataa ggtgtctaata	660
cgattcagtg gggttcccga taggttttcc ggctctggta gcgggactga tttcacgttg	720
aaaatatcac gcgtggaagc ggaagatgtt ggggtctatt actgctttca gggtagtcat	780
gtccctcgaa cttttggcgg tggtaaaaag gtagaaatca aa	822

<210> 149
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 149	
atggattttc aggtacagat attctcattt ctcccttatct cagctagtgt cataatgtcc	60
agggcgagtc aagtacaact tgtccagtca ggcgcagagg tcaagaagcc gggcgcaagc	120
gttaagggtt cctgcaaagc atccggctat acattcacgt cctatcacat ccaatgggtc	180
aggcaagcac ccggtcaagg acttgagtgg atgggcatct ggatttaccg tggagatggc	240
agtactcagt acaacgaaaa attcaaagggt gtaaccatga cccgcgacac atctacttcc	300
acagtttata tggaactcag cagtttgccg agcgaagata ccgctgttta ctactgtgcc	360

cgagaggggaa cttactacgc catggactat tgggggtcaag gaacgacagt aacagttagt	420
tctgtagatt ccagtggcgg cgggtgggagc ggggggtgggg gatctggcgg aggcggaagt	480
acaagtgaca tcgttatgac tcagacaccc cttagtagtc ccgttacgtt gggccaaccc	540
gcgagcattt cctttcgatc ctctcagtct atagttcact caaatgggaa tacttatttg	600
gagtgggtatc aacagcgccc cggacaacca ccaaggctcc tgatatacaa ggtgtccaat	660
cgattctctg gggcgcctga tagatttagc ggaagtggag ccggtacaga ttttaccctg	720
aaaatatcac gggtagaagc cgaagatgtc ggcgtctact actgtttcca gggttcccat	780
gtaccgcgaa cgttcggggg cggaacaaaa gttgagatca ag	822

<210> 150
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 150	
atggattttcc aggttcagat atttagtttc ctcttgattt ctgccagtgt catcatgagc	60
agggcttccc aagttcagtt ggtgcaaagt ggcgctgaag tcaaaaaacc tggggcttcc	120
gttaaagtat cttgcaaggc gtccggctac actttcacat cctaccacat tcaatgggtc	180
cggcaagcgc ccggtcaggg gctcgaatgg atgggggtgga tatacccagg agatggatct	240
actcagtaca acgagaaatt taaaggacgg gtgacgatga cgcgcgacac ttcaataagc	300
actgcataca tggaactgtc ccggcttagg tcagatgaca ccgcggtcta ctattgtgcg	360
agagagggta cttactatgc tatggactac tgggggcaag gcacgacggt tacagtttcc	420
tcagtcgata gttcaggcgg aggcggctcc gggggcggtg gtagtggagg gggtaggatct	480
acttccgaca ttgtcatgac ccagaccccg ttgagccttt cagtgcgcc cggtaaccc	540
gccagcataa gttgtcgatc aagccagtct attgtacact ccaatggaaa cacatatttg	600
gagtgggtatc tccaaaaacc cggccaaagc cctcaactgc tcatctacaa ggtctcaaac	660
aggttttagcg gggcccga tcgcttctca gggtcaggat ctggtacgga ctttacactg	720
aaaatttccc gagtcgaagc ggaagacgtg ggtgtatatt actgcttcca ggggagtcac	780
gttccaagaa cctttggggg aggtacaaag gtcgaaataa aa	822

<210> 151
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 151

atggattttc aggtccaaat tttttccttc ttgcttatca gcgcaagtgt aatcatgtcc	60
cgcgcggtccc aagtacaact tgtgcaatct ggcgcgaggg tgaaaaaacc tggagcttcc	120
gtcaagggttt cttgtaaggc ctctggctac accttcacgt cctaccacat tcagtggggtt	180
cgacaggcgc cgggccaaagg actggagtggt atgggatgga tataatccagg agatgggttct	240
actcagtata atgagaaatt caagggtcgc gtaacaatga cgagggatac atcaatctcc	300
accgcgtaca tggaactttc aagactccgg tcagatgaca cggcggttta ctactgtgct	360
cgggaggggca cttactatgc tatggactac tgggggcaag ggacaacggt aacggtatct	420
agtgtggatt ctagtggcgg cggcggttca ggaggaggtg gttcaggcgg ggggggtagt	480
acaagtgata ttgtgatgac ccaaacaccc ctttctagcc ctgttactct ggggtcaaccc	540
gcgtccataa gttgtcgaag tagtcaatcc atcgtgcata gcaacggcaa cacttacctt	600
gaatggatatc aacaacgacc cggacagccc ccgcgactgc ttatctataa agtatcaaac	660
aggttcagtg gcgtgccaga tcgattctcc ggctctgggg caggcacaga tttcacgttg	720
aaaattttctc gggtcgaggc cgaggacgtg ggcgtttatt actgtttcca ggggagtcac	780
gtccccagga cgttcggagg aggaactaaa gtcgaaataa ag	822

<210> 152
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 152	
atggacttcc aggtccaaat attcagcttc ctccctatctt ccgccagtgt aataatgtcc	60
agagcctcac aagtacagtt gggttcagagc ggggctgagg ttaagaaacc aggcgcgagc	120
gtcaagggtat cctgcaaggc gagtgggttat actttcacta gttatcacat tcagtgggtc	180
cgacaggccc ccggtcaagg cctggagtggt atgggggtgga tataatccggg agatgggttct	240
acccaatata atgagaagtt taaggggaga gtcacaatga caagggacac cagtattagc	300
accgcgtata tggagctttc ccgcctgcga tcagatgaca cggccgtgta ctactgtgct	360
agggaggggaa cctattatgc gatggattac tggggacagg gtactacagt cacgggtctct	420
agcgtggaca gttccggggg cgggtggaagc ggtgggtggc gttcagggtg aggaggctct	480
acgagtgatg ttgtgatgac tcagtccccg ctttcacttc ccgtcaccct tgggcaaccc	540
gcaagcatct catgccgatc ctcccagtct atagtacata gtaatggcaa cacatatctt	600
gaatggatatc agcagaggcc gggtcagtct ccccgactcc ttatatataa agtgagcaac	660
agattctccg gagtaccgga tagattttcc ggctctggga gcggcaccga ctttacactg	720
aaaattttcac gggttgaagc tgaagatgtt ggggtatact attgtttcca gggttctcac	780

gtccccgagga cattcggggg aggaacgaaa gtcgaaataa ag

822

<210> 153

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 153

atggattttc aggtacaaat cttcagcttc ctgctcatct ccgcgagcgt aatcatgtct	60
agggcgctccc aggtgcagtt ggtgcaatca ggtgcagagg tgaagaagcc tgggtgcatcc	120
gttaaagtaa gttgtaaggc aagcggatat actttttacat cctatcatat tcaatgggtc	180
agacaagcac ctggacaggg tcttgagtgg atgggctgga tctatccagg cgatgggtca	240
actcaatata acgagaagtt caaggggagg gttactatga ccagggatac gtctattttcc	300
actgcgtaca tggaactctc cagggtgaga agtgatgata ccgcggttta ctactgcgt	360
agagaaggaa cgtactacgc tatggattac tgggggcagg gtacaactgt caccgtctca	420
agtgtggatt cttctggggg tgggggatca ggagggggag gctccggtgg gggcgggtca	480
accagcgaca ttgtcatgac tcaaaccccc ctgagcagcc ctgtcaccct gggtcagcct	540
gcctcaatat cttttagaag ctcccaaagc atcgtccatt caaatggtaa tacctatctg	600
gagtggatat agcaaaggcc tgggtcaaccc ccgcgccttc tcatttaciaa ggtgtcaaac	660
aggttctccg gcgtaccgga taggttttcc ggaagcggtg ctggaaccga ctttactctc	720
aaaatctcta ggggtggaagc tgaggacgtc ggtgtatact attgttttca aggctcccat	780
gttcccagga catttggtgg gggaacgaag gtagaaatca ag	822

<210> 154

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 154

atggactttc aggttcagat tttctctttc ttgttgatct ccgctagtgt cataatgtca	60
cgggcaagtc aggtacaact cgttcagagt ggtgccgaag tgaagaaacc ggggtgcctcc	120
gtaaagggtgt catgtaaagc tagtggctat acattcaciaa gttatcatat ccaatgggta	180
cgacaagcac cgggacagcg actggaatgg atgggatgga tctatcctgg ggacggatct	240
acacagtaca atgagaaatt taagggacgg gtcacgataa ccagggacac atctgcttcc	300
acggcettaca tggagctttc ctccctgcgg agcgaggaca tggctgttta ctattgcgt	360
cgcgaaggga catactacgc aatggattat tggggccaag gcactaccgt gacggtctct	420

tctgtcgata gttccggagg aggtggttca gggggaggcg gttcagggtg ggggtggatct	480
acctcagata ttgtcatgac acagacacct ttgtccttga gtgtgacacc gggtaaccg	540
gcgagtataa gctgtcgcag ctcaacaatct attgtgcata gcaacgggaa tacatatctc	600
gaatggatatc tccaaaagcc gggccaatcc ccccaacttc tcatttacia agttttctaat	660
cgatttttcag gtgtaccaga tcggtttttcc ggggtctggct cagggtactga cttcaccttg	720
aaaatatcaa gggttgaagc tgaggatgta ggtgtgtact attgcttcca ggggtctcac	780
gttcctcggg cttttggggg gggcacaaaa gtagagatta aa	822

<210> 155
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 155	
atggatttcc aggtgcaaat cttctcattt cttttgataa gtgcgtcagt gataatgtct	60
cgggccagtc aagtacagct tgtccaaagt ggcgctgaag tcaagaagcc gggagcctca	120
gttaagggtta gctgcaaggc ctcagggtat actttttacct cctatcatat acagtgggta	180
cgacaagcac cgggacagcg actggagtgg atggggttga tatatccggg agatggttca	240
accaggtata atgagaagtt caaggggcca gttacgataa cccgcgatac gagtgcatac	300
acagcgtaca tggagttgag ttccctccgc agcgaggaca tggcggtata ctattgtgcc	360
agggagggga cttattatgc catggactac tgggggcagg gcacaaccgt aacagtctct	420
tctgtagaca gttcaggagg gggcggaagt ggaggtggcg gatctgggtg aggtggatct	480
acttccgaca tcgttatgac ccaaacacca ctttcatctc ccgttactct cgggcaacct	540
gctagtattt cctgtagatc ctcaacaatct atagtacata gcaatggcaa tacctacctg	600
gagtggatatc aacaacgccc agggccaacca cctcgcctgc ttatctataa agtaagcaat	660
agattcagtg gtgtaccgga taggttctct ggttccggag caggaaactga ctttacactc	720
aaaatcagta ggggtggaggc ggaagacgtg ggagtatatt attgctttca aggttcacat	780
gtacctcgaa catttggcgg aggaactaag gttgagatta aa	822

<210> 156
 <211> 822
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 156	
atggatttcc aagtcagat attcagtttt cttttgataa gcgcttctgt aatcatgtct	60

cgggcggtccc aagtacaact ggtgcaatca ggggcagaag tgaaaaaacc aggtgcatcc	120
gttaaggtga gttgcaaggc ttccggctat acctttacat catatcatat tcaatgggtc	180
aggcaagcac ctgggtcagcg attggaatgg atggggttga tatatcctgg tgatgggtct	240
acacaatata acgaaaaatt caaggggcga gtgaccatca caagagatac atcagcgtca	300
acagcgtata tggaactgtc atcccttaga tcagaggaca tggcgggtcta ttactgtgcc	360
agagaaggca cttattatgc aatggattat tggggacaag gaaccactgt cactgtttcc	420
agcgtagact cctccggtgg tgggtggaagt ggcggcggtg ggtcaggagg ggggtgggtca	480
acttctgatg tagtgatgac acagagccct ctgagcttgc ctgtgacctt gggtcagccg	540
gcctcaataa gttgtcgatc tagtcagtca atcgtccata gtaatgggaa cacatacctt	600
gaatggtatc agcaaagacc tggacaatct ccacgactcc ttatatacaa agttagcaac	660
cgatttagcg gagtgccaga ccgcttttct ggttccgggt ctggcacaga ttttaccctt	720
aagatctccc gcgtggaggc ggaagacgtt ggtgtttact attgcttcca ggggtcacac	780
gttccacgca ctttggagg aggtacgaag gtcgagatta ag	822

<210> 157

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 157

atggattttc agtacagat cttctctttc ttgcttattt cagcgagcgt aatcatgagt	60
agggcatctc aagttcaact cgttcagtca ggtgctgagg taaaaaacc aggggcttcc	120
gttaaagtta gctgtaaggc atctgggtac acatttacta gctaccatat ccagtgggtg	180
cgacaagccc cggggcagcg cttggaatgg atgggctgga tttaccagg tgacggctcc	240
acgcaatata atgagaaatt taagggtaga gttactatta ccagggacac aagtgcttca	300
actgcctata tggaactgag cagccttcgg agtgaagata tggccgtata ttactgcgca	360
agggagggga cttactatgc aatggactac tggggctcagg gaacgactgt gaccgtgtcc	420
tcagttgact ccagcggtgg tggcggctct ggaggtgggg gttccggcgg aggcggaagc	480
acatctgata tagtgatgac gcaaacgcct ctttcttccc cggtaactct gggacagcca	540
gcgtcaatth catttaggtc ctcccagtc atcgtacata gtaatggaaa tacttacctg	600
gaatggtatc aacaacgacc agggcaaccg ccccgattgt tgatctataa agtgagcaat	660
cgccttttctg gcgtgcccga tcggttctca gggctctggag ctgggactga cttcacattg	720
aaaatttcca gggttgaggc cgaggatgtg ggggtttatt actgcttcca aggctccac	780
gtcccccgca ctttcggagg gggaaccaa gtcgaaataa ag	822

<210> 158
<211> 822
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 158
atggattttc aagttcagat attctcattt ttgcttatat cagcctccgt aattatgtca 60
cgggcaagtc aagttcagtt ggtgcagtcc ggagcagaag ttaagaagcc cggtgcttct 120
gtgaaagtct cctgcaaagc gtctgggtac accttcacga gctaccatat acagtgggtc 180
cggcaagcgc ctgggcagag gctggagtgg atgggctgga tttaccagg agatgggagt 240
acaaagtata gtcagaagtt tcaaggcgga gtgacgataa ccagagatac gagtgcgaagt 300
actgcataca tggaactgag ctcccttgagg tccgaggata cagcgggtga ctattgcgct 360
cgggaaggga catattatgc tatggactat tggggacaag ggacaacggt aacggtgagt 420
tccgtcgatt cctcaggtgg cggaggcagt gggggcgggg gttccggcgg tggcgggtcc 480
acgagtgata tagttatgac acagaccccc ctccagccttt ctgtgacccc aggacaacct 540
gctagtatct cttgccgcag ttctcagtcc atagtacaca gtaacggaaa tacctatctt 600
gagtgggtatc ttcaaaagcc cggccagagc cctcaactct tgatatataa agtgtcaaat 660
cgattttcag gtgtgcctga tcgattctca gggctctggt cagggacaga tttcacgctt 720
aagataagca gagtagaggc tgaagacgtg ggagtctact attgttttca ggggtcacac 780
gttccccgca cttttggtgg gggaaccaag gtggaaatca aa 822

<210> 159
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 159
tcttcagcgc tgagcaactc catcatgtac ttcagccact tcgtgccggt cttcctgcca 60
gcgaagccca ccacgacgcc agcgccgcga ccaccaacac cggcgccac catcgcgctc 120
cagccccctgt ccctgcgccc agaggcgtgc cggccagcgg cggggggcgc agtgcacacg 180
agggggctgg ac 192

<210> 160
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 160
 ttttgggtgc tgggtgggtgg tgggtggagtc ctggccttgct atagccttgct agtaacagtg 60
 gcctttatta ttttctgggt g 81

<210> 161
 <211> 123
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 161
 aggagtaaga ggagcaggct cctgcacagt gactacatga acatgactcc ccgccgcccc 60
 gggcccaccc gcaagcatta ccagccctat gccccaccac gcgacttcgc agcctatcgc 120
 tcc 123

<210> 162
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 162
 agagtgaagt tcagcaggag cgcagacgcc cccgcgtacc agcagggcca gaaccagctc 60
 tataacgagc tcaatctagg acgaagagag gagtacgatg ttttggacaa gagacgtggc 120
 cgggaccctg agatgggggg aaagccgaga aggaagaacc ctcaggaagg cctgtacaat 180
 gaactgcaga aagataagat ggcggaggcc tacagtgaga ttgggatgaa aggcgagcgc 240
 cggaggggca aggggcacga tggcctttac caggggtctca gtacagccac caaggacacc 300
 tacgacgccc ttcacatgca ggccctgccc cctcgc 336

<210> 163
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 163
 atggatttcc aagttcaaact cttcagtttc ttgcttatca gtgcttctgt tattatgtca 60
 cgagcaagtc aagttcaact cgtacagtct ggagccgagg tgaaaaaacc gggagcgtcc 120
 gtgaaagtga gttgcaaggc gagtggatac accttcactt cataccatat acaatggggtt 180
 cggcaggcgc ctgggtcaacg gctggaatgg atgggctgga tttatcccgg agatggttcc 240
 acgcagtaca atgagaaatt caaagggaga gtgacaatca cccgagatac cagtgcctct 300

acggcatata	tggaactgag	tagtctgcgg	tctgaagata	cggcggtgta	ttattgtgcg	360
agagaaggga	cgtactacgc	catggattat	tggggacaag	gaacaacagt	cacagtctcc	420
agcgttgatt	cctcagggcg	gggcggaagt	gggggcggcg	gatctggcgg	cggcgggtct	480
acgtctgacg	tggtcatgac	ccaatctcca	ttgtctttgc	cagttactct	gggacagcct	540
gcaagtatca	gttgccgata	ctcccaatct	atcgccatt	caaacgggaa	cacttatttg	600
gaatggtttc	aacagagacc	tgggcaaagt	ccgcgccgac	tgatatataa	ggtcagtaac	660
cgtttttcag	gcgtccccga	tcgattcagt	ggatctgggt	cagggactga	cttcactctg	720
aaaatatcaa	gagtcgaagc	tgaagatgtc	ggagtatat	actgtttcca	ggggtctcac	780
gtccctcggg	cgtttgagg	cggaactaag	gttgagataa	aaaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 164
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	164	
atggattttc	aggttcaa	ctttagcttt
ctcttgattt	ccgcctccgt	aataatgagt
		60
cgggccagtc	aggtacagct	cgttcaatct
ggggctgaag	taaaaaagcc	tggagcgtct
		120
gtaaaggat	cttgcaaagc	gagcggctac
acattcacaa	gttatcacat	ccaatgggtg
		180
agacaggccc	caggacaacg	cttgagtggt
atggggtgga	tttaccctgg	cgacggcagc
		240
acacagtaca	atgagaaatt	taaaggccgg
gtgactatca	ctcgggacac	ctccgccagc
		300

acggccttata tggagcttag cagtttgaga tccgaagata cagcgggtata ttactgcgcg	360
agagaaggaa cgtactacgc tatggactat tggggtcagg gcacaaccgt tacagtctcc	420
tctgtggaca gctccggagg tgggggttca ggagggggtg gaagcgggtg tggtaggcagt	480
acaagcgata tagtaatgac ccaaaccgcc ctctctctga gcgtcacgcc aggacaacca	540
gcatcaatct cttgccgcag tagtcaatcc atcgttcact ctaatggaaa cacatacctt	600
gagtggatatc ttcagaaacc aggtcagagc cctcagctcc tcatctataa agtctctaac	660
cggttctcag gtgttccgga ccggttcagt ggttccggct caggaacaga cttcaccttg	720
aagatcagtc gagtagaagc cgaagacgtg ggtgtatatt attgctttca gggttcccac	780
gttccgcgca ccttcggcgg cgggaccaa gttgagatca aaaaccggat ccgtggggtc	840
accgtctctt cagcgtctgag caactccatc atgtacttca gccacttcgt gccggtcttc	900
ctgccagcga agcccaccac gacgccagcg ccgcgaccac caacaccggc gccaccatc	960
gcgtcgcagc ccctgtccct gcgcccagag gcgtgccggc cagcggcggg gggcgcagtg	1020
cacacgaggg ggctggacce ctttgggttt tgggtgctgg tggtaggttg tggagtcctg	1080
gcttgctata gcttgctagt aacagtggcc tttattattt tctgggtgag gagtaagagg	1140
agcaggctcc tgcacagtga ctacatgaac atgactcccc gccgccccgg gccaccgcc	1200
aagcattacc agccctatgc cccaccacgc gacttcgcag cctatcgctc cctcgagaga	1260
gtgagagtga agttcagcag gagcgcagac gccccgcgt accagcaggg ccagaaccag	1320
ctctataacg agctcaatct aggacgaaga gaggagtacg atgttttgga caagagacgt	1380
ggccgggacc ctgagatggg gggaaagccg agaaggaaga accctcagga aggcctgtac	1440
aatgaactgc agaaagataa gatggcggag gcctacagtg agattgggat gaaaggcgag	1500
cgcgggaggg gcaaggggca cgatggcctt taccagggtc tcagtacagc caccaaggac	1560
acctacgacg cccttcacat gcaggccctg cccctcgc	1599

<210> 165
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 165	
atggactttc aagtccaaat cttctcattc ctctgatct ctgcgtcagt aatcatgtcc	60
agagcgtcac aagtgcaact cgttcaatcc ggagctgagg taaagaagcc cggcgccagc	120
gtgaaagtct cctgcaaagc gagcggctac acgttcacct catatcacat tcaatgggta	180
agacaagcac ctgggcaacg actcgagtgg atggggtgga tctaccctgg ggacgggagc	240
acgcagtata atgagaaatt caaaggcagg gttacaatta cagccgatac cagtgcattc	300

acggccttata	tgctcctctc	ctcactccgg	tctgaggaca	cagcggttta	ttattgcgca	360
cgggaggggaa	cgtactacgc	gatggactat	tgggggcaag	gcaccacagt	tacagtgagc	420
tcagttgact	catcaggagg	cggaggatca	gggggaggtg	gtagtggggg	cgggtgggagc	480
acatcagatg	ttgtcatgac	tcagagccca	ctttctttgc	cggtgacgct	ggggcagccc	540
gcttcaatct	cttgccgctc	atcacagtct	atcgttcata	gcaatggtaa	cacttacttg	600
gaatggttcc	aacaaagacc	gggtcaaagt	ccacggcgct	tgatatataa	agtatcaaat	660
agatttttcag	gggtgcctga	tcggttcagc	ggttctggat	ctggcaccga	cttcacgctt	720
aaaataagta	gggtagaagc	cgaagacgtg	ggagtgtatt	attgtttcca	ggggtcacac	780
gtccctcgca	cgttcggcgg	aggcactaaa	gtggagatca	aaaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggaccc	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtccctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 166
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	166	
atggactttc	aagtccaaat	cttcagcttt
ctccttata	ctgcgtctgt	cattatgagt
		60
agagcaagtc	aagtccagct	cgtacaaagt
ggagctgagg	tgaaaaagcc	gggcgcgagt
		120
gtgaaagtct	catgcaaggc	gagtggatac
acctttacct	cttaccacat	tcaatgggtg
		180
cggcaggcgc	ctgggcagcg	cttggaatgg
atgggctgga	tatatcctgg	cgacggaagt
		240
accagtagca	acgaaaaatt	caaaggtagg
gttaccatca	ctgctgatac	ctccgcgtcc
		300

actgcttata	tgcttcttag	ctccttgcca	agcgaggata	cagccgtgta	ttattgtgcc	360
agagagggga	cttattatgc	catggactat	tggggtcagg	gtacaacggg	cactgtctca	420
tctgttgaca	gtagcggggg	aggggggtct	ggaggagggg	gttccggggg	gggaggttcc	480
acgagcgata	tagttatgac	gcaaacgccc	ttgagcctca	gtgttacacc	cggccaacct	540
gcctctatta	gctgtcgctc	ctcccaatca	attgtgcata	gcaatggaaa	tacctacctt	600
gaatggatat	tccaaaagcc	cgggcagagt	cctcaacttc	tcatctacaa	agtatccaat	660
cgattcagtg	gcgttcctga	caggttcagc	ggaagtgggt	cagggaccga	ttttaccctc	720
aaaattagtc	gcgtcgaagc	tgaggatggt	gggggtgtatt	actgcttcca	agggtcacac	780
gtaccacgca	cattcggggg	aggcacgaag	gttgaaatta	agaaccggat	ccgtgggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgccggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 167
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	167					
atggatttcc	aagtccaaat	attcagtttc	cttttgataa	gtgcttcagt	tatcatgtcc	60
cgagcaagcc	aggtacagct	tgtgcaaagc	ggggcggaag	ttaagaaacc	gggagcctca	120
gttaaagtat	cttgcaaagc	cagcggttat	acattcactt	cataccacat	acagtgggtg	180
cgccaagcac	cggggcagag	actggaatgg	atgggatgga	tttatcccgg	tgatggtagt	240
acgcaataca	atgaaaaatt	caaaggaagg	gtgactatca	cgcgagacac	aagcgcgtcc	300

acggcctata	tggaactgag	cagtctgaga	tccgaggaca	ccgctgtgta	ttattgcgcc	360
cgagagggga	cctactacgc	catggattat	tggggctcaag	ggaccactgt	gacagtctct	420
tctgtcgatt	ccagcggcgg	aggagggagt	ggagggggtg	gggccggggg	gggaggggtct	480
acgagcgaca	ttgtcatgac	acagacgccg	cttagctccc	cagttacact	cggacagccc	540
gcaagtatta	gttgcagaag	tagccagtct	atcgtaacatt	caaattggaaa	cacctatttg	600
gaatggatatc	aacaacggcc	tggacagccg	cccaggctgc	tcatatacaa	agtctccaac	660
cgtttcagcg	gagtacccga	ccgcttttcc	ggctccggag	caggaactga	ctttaccttg	720
aaaattagta	gggtcgaagc	agaggatgtc	ggggatatatt	attgtttcca	aggtagtcat	780
gtcccacgga	cgtttggtgg	tgggacgaag	gttgagatca	aaaaccggat	ccgtgggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 168
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	168	
atggacttcc	aggtgcagat	atcttccttt
atgtctcatat	ctgcatctgt	aataatgtca
		60
agggccagcc	aggtccagct	cggtcaaagc
ggagccgagg	taaaaaaacc	aggcgcttcc
		120
gtcaaggtat	catgcaaagc	gtccggctat
accttcacaa	gttaccatat	ccaatgggtt
		180
cgacaggcac	ccggacaaag	acttgaatgg
atgggttgga	tataccccgg	agacggctcc
		240
actcagtata	acgaaaagtt	taaggggaga
gtcacgatca	ctagggacac	atcagcttct
		300

acggcgtata	tggaactcag	ttctttgcga	tccgaggata	ctgccgtata	ttactgcgcc	360
agagaaggca	cgtactacgc	aatggattac	tgggggcaag	ggacaactgt	taccgtctca	420
agcgtcgatt	catcaggagg	cggagggtcc	ggagggtggg	gatctggcgg	tgggggttct	480
acgtccgatg	ttgtgatgac	acagtcccca	ctctctcttc	cagtgcgct	gggacagccc	540
gcgagcatct	cctgtcgcag	ctctcagtcc	atagtacaca	gtaatggtaa	cacctatctt	600
gagtggatc	agcaacgacc	cggtcagtct	cccaggttgc	ttatttataa	ggttagtaac	660
cgtttttcag	gtgttccaga	cagatttagc	gggagtgggt	ccggtacgga	tttcacattg	720
aaaatcagcc	gcgtcgaagc	cgaggacgtg	ggtgtttact	actgcttcca	gggatctcac	780
gtaccgagga	ccttcggcgg	aggaacgaaa	gtagaaatta	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 169
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	169					
atggattttc	aagtacaaat	cttttccttc	ctgcttattt	ccgcaagcgt	tattatgagt	60
agagccagcc	aagtacaact	ggtacagtcc	ggcgcggagg	tgaagaagcc	cggagcaagt	120
gtgaaggat	cttgcaaggc	gtcaggctat	acctttactt	cataccatat	acagtgggtg	180
cgacaggctc	ccggccagcg	actcgaatgg	atgggctgga	tttatcccgg	agatggatct	240
acgcagtata	atgagaaatt	caagggtcgg	gtcacgatta	cacgagacac	gagtgccttc	300

acagcttata	tggaactttc	tagcctgagg	tctgaggata	ctgccgttta	ctattgtgca	360
cgagaagggg	catactatgc	gatggattac	tggggacagg	gcaccactgt	cacagtttcc	420
agcgtggact	caagtggagg	cggtggatct	ggtggtggcg	ggtccggggg	gggaggcagc	480
accagtgaca	ttgtaatgac	tcaaacacct	ctcagtagcc	cagtcactct	cggtcagccg	540
gcgagtatct	cttttaggtc	ctcacaatct	atagtgcact	ctaacggcaa	tacttatctt	600
gaatggtatc	aacaaagacc	ggggcagcca	cctcgccttc	tcatctacaa	agtaagcaat	660
cgcttctccg	gtgtccccga	tcgcttctcc	ggttcaggag	caggaactga	cttcacattg	720
aagatttcca	gagtggaggc	cgaagacgta	ggggatatatt	attgctttca	aggggtcccat	780
gtgcccagaa	cctttggggg	aggaacgaaa	gttgagatta	aaaaccggat	ccgtgggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattattt	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgcg	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgccggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 170
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	170					
atggatttcc	aagtgcagat	tttctctttt	ctcctcataa	gcgcctccgt	aattatgtct	60
agagctagtc	aagtccaatt	ggtgcaatcc	ggtgccgagg	ttaaaaagcc	cggcgcaagt	120
gtaaaagtct	cctgtaaggc	cagtggctac	actttcacca	gctaccatat	acagtgggtg	180
cggcaggcgc	ctggtcaggg	tctggagtgg	atgggtattt	ggatttatcc	cggagatgga	240
agtactcaat	acaatgagaa	attcaagggt	gtcactatga	caaggggatac	gagcacttct	300

accgtatata tggagttgtc atctttgcga tcagaggata ccgctgtata ttattgcgca	360
cggaaggtg catattatgc catggactac tggggccaag gaaccaccgt gacggtaagc	420
tctgtcgatt ctagcggtgg cgggggctct ggcgggtggg gtagcggggg tggcggatct	480
acatcagata ttgtaatgac acagaccct ctttcacttt ccgtaacgcc aggacagccg	540
gcatcaataa gttgccgatc aagccagtct atcgtacact ccaatggtaa cacatacttg	600
gaatggtatc ttcaaaagcc cggccagagc ccgcagcttt tgatatataa agtgtccaac	660
agattcagtg gggtgccgga ccgctttagt ggatctgggt caggaacgga cttcacattg	720
aaaattagta gagttgaagc ggaagacgtg ggagtctact actgtttcca gggttcacat	780
gtgcctcggg cctttggggg aggcaccaag gttgagataa aaaaccggat ccgtggggtc	840
accgtctctt cagcgctgag caactccatc atgtacttca gccacttcgt gccggtcttc	900
ctgccagcga agcccaccac gacgccagcg ccgcgaccac caacaccggc gccaccatc	960
gcgtcgcagc ccctgtccct gcgcccagag gcgtgccggc cagcggcggg gggcgcagtg	1020
cacacgaggg ggctggacce ctttgggttt tgggtgctgg tggtggttg tggagtcctg	1080
gcttgctata gcttgctagt aacagtggcc tttattatct tctgggtgag gagtaagagg	1140
agcaggctcc tgcacagtga ctacatgaac atgactcccc gccgccccgg gccaccgcgc	1200
aagcattacc agccctatgc cccaccacgc gacttcgcag cctatcgctc cctcgagaga	1260
gtgagagtga agttcagcag gagcgcagac gccccgcgt accagcaggg ccagaaccag	1320
ctctataacg agctcaatct aggacgaaga gaggagtacg atgttttgga caagagacgt	1380
ggccgggacc ctgagatggg gggaaagccg agaaggaaga accctcagga aggcctgtac	1440
aatgaactgc agaaagataa gatggcggag gcctacagtg agattgggat gaaaggcgag	1500
cgcgggaggg gcaaggggca cgatggcctt taccagggtc tcagtacagc caccaaggac	1560
acctacgacg cccttcacat gcaggccctg cccctcgc	1599

<210> 171
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 171	
atggacttcc aagtccaaat cttttctttt ttgttgataa gcgcatcagt tattatgtct	60
cgcgccagtc aagtacaact ggtgcagtc ggagctgaag tgaaaaaacc aggagcaagc	120
gtgaaagtaa gttgtaaggc aagtggttac actttcacia gctaccatat tcaatgggtc	180
cgacaggctc ctggacaggg cttggagtgg atgggcatat ggatttacc tggtgacggg	240
tccacccagt ataatgaaaa gttcaaggga gtcacgatga ccaggggacac ctctacatct	300

accgtgtata tggagctctc tagtttgcca tccgaagaca ctgccgttta ttactgtgca	360
agagaaggaa cttattacgc gatggactac tggggtcagg ggacaacagt caccgttagc	420
tccgtcgatt ccagcggggg aggtggctca ggcgggggtg gttctggggg gggcgggagc	480
acttcagata ttgtaatgac ccaaacccca ctgagtagtc cagtcacgct tggccaaccg	540
gcaagcattt cttgcaggag ctctcagagt attgtccact ctaacgggaa tacatatattg	600
gagtggatat agcaaagacc gggccaacca ccacgcctct tgatttataa ggtgagcaat	660
aggttttcag gcgtgccaga taggttctca ggctccggag cgggaaccga cttcaccctc	720
aagataagtc gggtggaagc cgaagacgta ggagtttact actgctttca aggatctcat	780
gttccacgaa cgtttgagg aggaaccaag gtggaaataa aaaaccggat ccgtggggtc	840
accgtctctt cagcgctgag caactccatc atgtacttca gccacttcgt gccggtcttc	900
ctgccagcga agcccaccac gacgccagcg ccgcgaccac caacaccggc gccaccatc	960
gcgtcgcagc ccctgtccct gcgcccagag gcgtgccggc cagcggcggg gggcgcagtg	1020
cacacgaggg ggctggacce ctttgggttt tgggtgctgg tggtggttg tggagtcctg	1080
gcttgctata gcttgctagt aacagtggcc tttattattt tctgggtgag gagtaagagg	1140
agcaggctcc tgcacagtga ctacatgaac atgactcccc gccgccccgg gccaccgcgc	1200
aagcattacc agccctatgc cccaccacgc gacttcgcag cctatcgctc cctcgagaga	1260
gtgagagtga agttcagcag gagcgcagac gccccgcgt accagcaggg ccagaaccag	1320
ctctataacg agctcaatct aggacgaaga gaggagtacg atgttttgga caagagacgt	1380
ggccgggacc ctgagatggg gggaaagccg agaaggaaga accctcagga aggcctgtac	1440
aatgaactgc agaaagataa gatggcggag gcctacagtg agattgggat gaaaggcgag	1500
cgcgggaggg gcaaggggca cgatggcctt taccagggtc tcagtacagc caccaaggac	1560
acctacgacg cccttcacat gcaggccctg cccctcgc	1599

<210> 172
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 172	
atggactttc aggtccaaat tttttccttc ttgctcatat ccgcgagtgt catcatgtca	60
agagcaagtc aagttcaact cgttcaatca ggagctgagg tgaaaaaacc aggggcgtct	120
gtcaaagtaa gctgcaaagc atcagggtat acgttcacga gttatcatat ccagtggggt	180
aggcaggcgc cagggcaggg attggaatgg atgggtatct ggatttaccg gggtgacggc	240
agcactcaat acaatgagaa attcaaaggc gtaacaatga caagggacac gagcacaagc	300

acagtgtaca tggagcttag ctctttgagg tcagaggata ccgctgttta ctattgtgct	360
cgggagggta cttactatgc aatggactac tgggggcaag gcacgaccgt tacagtgagt	420
agcgtagatt cctccggggg tggcggttca ggcggcggag gctcaggcgg aggagggta	480
acatccgatg tcgtaatgac tcagtcccct ctgtcattgc cggtgacttt gggacagcca	540
gcgtctatat cttgtaggtc ctctcaatca atagtgcatt ccaacggtaa cacctatctg	600
gaatggtatc agcaaaggcc aggacaaagt ccacgcctgc ttatatataa ggtgtcta	660
cgattcagtg gggttcccga taggttttcc ggctctggta gcgggactga tttcacgttg	720
aaaatatcac gcgtggaagc ggaagatgtt ggggtctatt actgctttca gggtagtcat	780
gtccctcgaa cttttggcgg tggtagaaag gtagaaatca aaaaccggat ccgtggggtc	840
accgtctctt cagcgctgag caactccatc atgtacttca gccacttcgt gccggtcttc	900
ctgccagcga agcccaccac gacgccagcg ccgcgaccac caacaccggc gccaccatc	960
gcgtcgcagc ccctgtccct gcgcccagag gcgtgccggc cagcggcggg gggcgcagt	1020
cacacgaggg ggctggacce ctttgggttt tgggtgctgg tggtggttg tggagtcctg	1080
gcttgctata gcttgctagt aacagtggcc tttattattt tctgggtgag gagtaagagg	1140
agcaggctcc tgcacagtga ctacatgaac atgactcccc gccgccccgg gccacccgc	1200
aagcattacc agccctatgc cccaccacgc gacttcgcag cctatcgctc cctcgagaga	1260
gtgagagtga agttcagcag gagcgcagac gccccgcgt accagcaggg ccagaaccag	1320
ctctataacg agctcaatct aggacgaaga gaggagtacg atgttttgga caagagacgt	1380
ggccgggacc ctgagatggg gggaaagccg agaaggaaga accctcagga aggcctgtac	1440
aatgaactgc agaaagataa gatggcggag gcctacagtg agattgggat gaaaggcgag	1500
cgcgggaggg gcaaggggca cgatggcctt taccagggtc tcagtacagc caccaaggac	1560
acctacgacg cccttcacat gcaggccctg cccctcgc	1599

<210> 173
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 173	
atggattttc aggtacagat attctcattt ctccttatct cagctagtgt cataatgtcc	60
agggcgagtc aagtacaact tgtccagtca ggcgcagagg tcaagaagcc gggcgcaagc	120
gttaaggttt cctgcaaagc atccggctat acattcacgt cctatcacat ccaatgggtc	180
aggcaagcac ccggtcaagg acttgagtgg atgggcatct ggatttacc tggagatggc	240
agtactcagt acaacgaaaa attcaaaggt gtaaccatga cccgcgacac atctacttcc	300

acagtttata	tggaactcag	cagtttgcgg	agcgaagata	ccgctgttta	ctactgtgcc	360
cgagagggaa	cttactacgc	catggactat	tgggggtcaag	gaacgacagt	aacagttagt	420
tctgtagatt	ccagtggcgg	cggtgggagc	gggggtgggg	gatctggcgg	aggcggaagt	480
acaagtgaca	tcgttatgac	tcagacaccc	cttagtagtc	ccgttacgtt	gggccaaccc	540
gcgagcattt	cctttcgatc	ctctcagtct	atagttcact	caaattggga	tacttatttg	600
gagtggatc	aacagcgccc	cggacaacca	ccaaggctcc	tgatatacaa	ggtgtccaat	660
cgattctctg	gggtgcctga	tagatttagc	ggaagtggag	ccggtacaga	ttttaccctg	720
aaaatatcac	gggtagaagc	cgaagatgtc	ggcgtctact	actgtttcca	gggttcccat	780
gtaccgcgaa	cgttcggggg	cggacaacaaa	gttgagatca	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggaccc	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattattt	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 174
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 174	
atggatttcc	aggttcagat atttagtttc ctcttgattt ctgccagtgt catcatgagc 60
agggcttccc	aagttcagtt ggtgcaaagt ggcgctgaag tcaaaaaacc tggggcttcc 120
gttaaagtat	cttgcaaggc gtccggctac actttcacat cctaccacat tcaatgggtc 180
cggcaagcgc	ccggtcaggg gctcgaatgg atggggtgga tatacccagg agatggatct 240
actcagtaca	acgagaaatt taaaggacgg gtgacgatga cgcgcgacac ttcaataagc 300

actgcataca	tggaactgtc	ccggccttagg	tcagatgaca	ccgcggtcta	ctattgtgcg	360
agagagggta	cttactatgc	tatggactac	tgggggcaag	gcacgacggg	tacagtttcc	420
tcagtcgata	gttcaggcgg	aggcggctcc	gggggcgggtg	gtagtggagg	gggtggatct	480
acttccgaca	ttgtcatgac	ccagaccccg	ttgagccttt	cagtgcgccc	cggccaaccc	540
gccagcataa	gttgctgata	aagccagtct	attgtacact	ccaatggaaa	cacatatttg	600
gagtggatat	tccaaaaacc	cggccaaagc	cctcaactgc	tcatctacaa	ggtctcaaac	660
aggtttagcg	gggtcccgga	tcgcttctca	gggtcaggat	ctggtacgga	ctttacactg	720
aaaatttccc	gagtcgaagc	ggaagacgtg	ggtgtatat	actgcttcca	ggggagtcac	780
gttccaagaa	cctttggggg	aggtaaaaag	gtcgaaataa	aaaaccggat	ccgtgggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggaccc	ctttgggttt	tgggtgctgg	tgggtggttg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgcg	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccggt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 175
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	175					
atggattttc	aggtccaaat	tttttccttc	ttgcttatca	gcgcaagtgt	aatcatgtcc	60
cgcgcgtccc	aagtacaact	tgtgcaatct	ggcgcggagg	tgaaaaaacc	tggagcttcc	120
gtcaaggttt	cttgtaaggc	ctctggctac	accttcacgt	cctaccacat	tcagtgggtt	180
cgacaggcgc	cgggccaagg	actggagtgg	atgggatgga	tatatccagg	agatggttct	240
actcagtata	atgagaaatt	caagggtcgc	gtaacaatga	cgagggatac	atcaatctcc	300

accgcgtaca	tggaactttc	aagactccgg	tcagatgaca	cggcggttta	ctactgtgct	360
cgggaggggca	cttactatgc	tatggactac	tgggggcaag	ggacaacggt	aacggtatct	420
agtgtggatt	ctagtggcgg	cggcggttca	ggaggaggtg	gttcaggcgg	ggggggtagt	480
acaagtgata	ttgtgatgac	ccaaacaccc	ctttctagcc	ctgttactct	gggtcaaccc	540
gcgtccataa	gttgctgaag	tagtcaatcc	atcgtgcata	gcaacggcaa	cacttacctt	600
gaatggtatc	aacaacgacc	cggacagccc	ccgcgactgc	ttatctataa	agtatcaaac	660
aggttcagt	gcgtgccaga	tcgattctcc	ggctctgggg	caggcacaga	tttcacgttg	720
aaaatttctc	gggtcgaggc	cgaggacgtg	ggcgtttatt	actgtttcca	ggggagtcac	780
gtccccagga	cgttcggagg	aggaactaaa	gtcgaaataa	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagt	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagt	agattgggat	gaaaggcgag	1500
cgccggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 176

<211> 1599

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 176

atggacttcc	aggtccaaat	attcagcttc	ctcctcattt	ccgccagtgt	aataatgtcc	60
agagcctcac	aagtacagtt	ggttcagagc	ggggctgagg	ttaagaaacc	aggcgcgagc	120
gtcaaggat	cctgcaaggc	gagtggttat	actttcacta	gttatcacat	tcagtgggtc	180
cgacaggccc	ccggtcaagg	cctggagtgg	atggggtgga	tatatccggg	agatggttct	240
acccaatata	atgagaagtt	taaggggaga	gtcacaatga	caagggacac	cagtattagc	300

accgcgtata tggagctttc ccgcctgcga tcagatgaca cggccgtgta ctactgtgct	360
agggaggggaa cctattatgc gatggattac tggggacagg gtactacagt cacggtctct	420
agcgtggaca gttccggggg cggtggaagc ggtggtggcg gttcaggtgg aggaggctct	480
acgagtgatg ttgtgatgac tcagtccccg ctttcacttc ccgtcaccct tgggcaaccc	540
gcaagcatct catgccgatc ctcccagtct atagtacata gtaatggcaa cacatatctt	600
gaatggtatc agcagaggcc gggtcagtct ccccgactcc ttatatataa agtgagcaac	660
agattctccg gagtaccgga tagattttcc ggctctggga gcggcaccga ctttactctg	720
aaaatttcac gggttgaagc tgaagatgtt ggggtatact attgtttcca gggttctcac	780
gtcccgagga cattcggggg aggaacgaaa gtcgaaataa agaaccggat ccgtggggtc	840
accgtctctt cagcgctgag caactccatc atgtacttca gccacttcgt gccggtcttc	900
ctgccagcga agcccaccac gacgccagcg ccgcgaccac caacaccggc gccaccatc	960
gcgtcgcagc ccctgtccct gcgcccagag gcgtgccggc cagcggcggg gggcgcagtg	1020
cacacgaggg ggctggacce ctttgggttt tgggtgctgg tggtggttg tggagtcctg	1080
gcttgctata gcttgctagt aacagtggcc tttattattt tctgggtgag gagtaagagg	1140
agcaggctcc tgcacagtga ctacatgaac atgactcccc gccgccccgg gccacccgc	1200
aagcattacc agccctatgc cccaccacgc gacttcgcag cctatcgctc cctcgagaga	1260
gtgagagtga agttcagcag gagcgcagac gcccccgct accagcagg ccagaaccag	1320
ctctataacg agctcaatct aggacgaaga gaggagtacg atgttttgga caagagacgt	1380
ggccgggacc ctgagatggg gggaaagccg agaaggaaga accctcagga aggcctgtac	1440
aatgaactgc agaaagataa gatggcggag gcctacagtg agattgggat gaaaggcgag	1500
cgcgggaggg gcaaggggca cgatggcctt taccagggtc tcagtacagc caccaaggac	1560
acctacgacg cccttcacat gcaggccctg cccctcgc	1599

<210> 177
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 177	
atggattttc aggtacaaat cttcagcttc ctgctcatct ccgcgagcgt aatcatgtct	60
agggcgtccc aggtgcagtt ggtgcaatca ggtgcagagg tgaagaagcc tgggtgcatcc	120
gttaaagtaa gttgtaaggc aagcggatat acttttacat cctatcataat tcaatgggtc	180
agacaagcac ctggacaggg tcttgagtgg atgggctgga tctatccagg cgatggctca	240
actcaatata acgagaagtt caaggggagg gttactatga ccagggatac gtctattttc	300

actgcgtaca	tggaactctc	caggttgaga	agtgatgata	ccgcggttta	ctactgcgct	360
agagaaggaa	cgtactacgc	tatggattac	tgggggcagg	gtacaactgt	caccgtctca	420
agtgtggatt	cttctggggg	tgggggatca	ggagggggag	gctccggtgg	gggcgggtca	480
accagcgaca	ttgtcatgac	tcaaaccccc	ctgagcagcc	ctgtcaccct	gggtcagcct	540
gcctcaatat	cctttagaag	ctcccaaagc	atcgctcatt	caaattggtaa	tacctatctg	600
gagtggatat	agcaaaggcc	tgggtcaaccc	ccgcgccttc	tcattttacaa	ggtgtcaaac	660
aggttctccg	gcgtaccgga	taggttttcc	ggaagcgggtg	ctggaaccga	ctttactctc	720
aaaatctcta	gggtggaagc	tgaggacgtc	ggtgtatact	attgttttca	aggctcccat	780
gttcccagga	catttggtgg	gggaacgaag	gtagaaatca	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattattt	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgcg	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcggt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccggggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 178
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 178	
atggactttc	aggttcagat
tttctctttc	ttgttgatct
ccgctagtgt	cataatgtca
60	
cgggcaagtc	aggtacaact
cgttcagagt	ggtgccgaag
tgaagaaacc	gggtgcctcc
120	
gtaaaggtgt	catgtaaagc
tagtggctat	acattcacaa
gttatcatat	ccaatgggta
180	
cgacaagcac	cgggacagcg
actggaatgg	atgggatgga
tctatcctgg	ggacggatct
240	
acacagtaca	atgagaaatt
taagggacgg	gtcacgataa
ccagggacac	atctgcttcc
300	

acggccttaca	tggagctttc	ctccctgcgg	agcgaggaca	tggctgttta	ctattgcgct	360
cgcggaaggga	catactacgc	aatggattat	tggggccaag	gcactaccgt	gacggtctct	420
tctgtcgata	gttccggagg	aggtggttca	gggggaggcg	gttcaggtgg	gggtggatct	480
acctcagata	ttgtcatgac	acagacacct	ttgtccttga	gtgtgacacc	gggtcaaccg	540
gcgagtataa	gctgtcgcag	ctcacaatct	attgtgcata	gcaacgggaa	tacatatctc	600
gaatggtatc	tccaaaagcc	gggccaatcc	ccccaaacttc	tcattttacaa	agttttcta	660
cgatttttcag	gtgtaccaga	tcggtttttcc	gggtctggct	caggtactga	cttcaccttg	720
aaaatatcaa	gggttgaagc	tgaggatgta	ggtgtgtact	attgcttcca	ggggtctcac	780
gttcctcggga	cttttggggg	gggcacaaaa	gtagagatta	aaaaccggat	ccgtgggggc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgccggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 179
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	179	
atggatttcc	aggtgcaa	attctcattt cttttgataa gtgcgtcagt gataatgtct 60
cgggccagtc	aagtacag	ctgtccaaagt ggcgctgaag tcaagaagcc gggagcctca 120
gttaagggtta	gctgcaagg	ctcagggtat actttttacct cctatcatac acagtgggta 180
cgacaagcac	cgggacag	cgactggagtgg atgggttgga tatatccggg agatggttca 240
accaggtata	atgagaagt	caaggggcca gttacgataa cccgcgatac gagtgcacatca 300

acagcgtaca	tggagttgag	ttccctccgc	agcgaggaca	tggcgggtata	ctattgtgcc	360
agggaggggga	cttattatgc	catggactac	tgggggcagg	gcacaaccgt	aacagtctct	420
tctgtagaca	gttcaggagg	gggcggaagt	ggaggtggcg	gatctggtgg	aggtggatct	480
acttccgaca	tcgttatgac	ccaaacacca	ctttcatctc	ccgttactct	cgggcaacct	540
gctagtatatt	cctgtagatc	ctcacaatct	atagtacata	gcaatggcaa	tacctacctg	600
gagtggatc	aacaacgccc	aggccaacca	cctcgcctgc	ttatctataa	agtaagcaat	660
agattcagtg	gtgtaccgga	taggttctct	ggttccggag	caggaactga	ctttacactc	720
aaaatcagta	gggtggaggc	ggaagacgtg	ggagtatatt	attgctttca	aggttcacat	780
gtacctcgaa	catttggcgg	aggaactaag	gttgagatta	aaaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 180
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	180					
atggatttcc	aagtccagat	attcagtttt	cttttgataa	gcgcttctgt	aatcatgtct	60
cgggcgtccc	aagtacaact	ggtgcaatca	ggggcagaag	tgaaaaaacc	aggtgcatcc	120
gttaaggtga	gttgcaaggc	ttccggctat	acctttacat	catatcatat	tcaatgggtc	180
aggcaagcac	ctggtcagcg	attggaatgg	atgggttgga	tatatcctgg	tgatgggtct	240
acacaatata	acgaaaaatt	caaggggcga	gtgaccatca	caagagatac	atcagcgtca	300

acagcgtata	tggaactgtc	atcccttaga	tcagaggaca	tggcggtcta	ttactgtgcc	360
agagaaggca	cttattatgc	aatggattat	tggggacaag	gaaccactgt	cactgtttcc	420
agcgtagact	cctccggtgg	tgggtggaagt	ggcggcggtg	ggtcaggagg	gggtgggtca	480
acttctgatg	tagtgatgac	acagagccct	ctgagcttgc	ctgtgacctt	gggtcagccg	540
gcctcaataa	gttgctgata	tagtcagtca	atcgccata	gtaatgggaa	cacatacctt	600
gaatggtatc	agcaaagacc	tggacaatct	ccacgactcc	ttatatacaa	agttagcaac	660
cgatttagcg	gagtgccaga	ccgcttttct	ggttccgggt	ctggcacaga	ttttaccctt	720
aagatctccc	gcgtggaggc	ggaagacgtt	ggtgtttact	attgcttcca	ggggtcacac	780
gttccacgca	cctttggagg	aggtacgaag	gtcgagatta	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgctgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattat	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gccacccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gcccccgct	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcgagg	gcctacagtg	agattgggat	gaaaggcgag	1500
cgccggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 181
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	181					
atggattttc	aagtacagat	cttctctttc	ttgcttattt	cagcgagcgt	aatcatgagt	60
agggcacatctc	aagttcaact	cgttcagtca	ggtgctgagg	taaaaaacc	aggggcttcc	120
gttaaagtta	gctgtaaggc	atctgggtac	acatttacta	gctaccatat	ccagtgggtg	180
cgacaagccc	cggggcagcg	cttggaatgg	atgggctgga	tttaccaggg	tgacggctcc	240
acgcaatata	atgagaaatt	taagggtaga	gttactatta	ccaggggacac	aagtgcttca	300

actgcctata	tggaactgag	cagccttcgg	agtgaagata	tggccgtata	ttactgcgca	360
agggagggga	cttactatgc	aatggactac	tggggtcagg	gaacgactgt	gaccgtgtcc	420
tcagttgact	ccagcggtag	tggcggctct	ggaggtgggg	gttccggcgg	aggcgggaagc	480
acatctgata	tagtgatgac	gcaaacgcct	ctttcttccc	cggtaactct	gggacagcca	540
gcgtcaatth	catttaggtc	ctcccagtc	atcgtaacata	gtaatggaaa	tacttacctg	600
gaatggtatc	aacaacgacc	agggaaccg	ccccgattgt	tgatctataa	agtgagcaat	660
cgtttttctg	gcgtgcccga	tcggttctca	gggtctggag	ctgggactga	cttcacattg	720
aaaatttcca	gggttgaggc	cgaggatgtg	ggggtttatt	actgcttcca	aggctcccac	780
gtcccccgca	ccttcggagg	gggaaccaa	gtcgaaataa	agaaccggat	ccgtggggtc	840
accgtctctt	cagcgtgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattatth	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgc	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcgt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccgggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 182
 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400>	182		
atggattttc	aagttcagat	attctcattt	
ttgcttataat	cagcctccgt	aattatgtca	60
cgggcaagtc	aagttcagtt	ggtgcagtc	
ggagcagaag	ttaagaagcc	cggtgcttct	120
gtgaaagtct	cctgcaaagc	gtctgggtac	
accttcacga	gctaccatat	acagtgggtc	180
cggcaagcgc	ctgggcagag	gctggagtgg	
atgggctgga	tttaccagag	agatgggagt	240
acaaagtata	gtcagaagtt	tcaagggcga	
gtgacgataa	ccagagatac	gagtgcgaagt	300

actgcataca	tggaactgag	ctccttgagg	tccgaggata	cagcgggtgta	ctattgcgct	360
cggggaaggg	catattatgc	tatggactat	tggggacaag	ggacaacggt	aacgggtgagt	420
tccgtcgatt	cctcaggtgg	cggaggcagt	gggggcgggg	gttccggcgg	tggcgggtcc	480
acgagtgata	tagttatgac	acagaccccc	ctcagccttt	ctgtgacccc	aggacaaccc	540
gctagtatct	cttgccgcag	ttctcagtcc	atagtacaca	gtaacggaaa	tacctatctt	600
gagtggatatc	ttcaaaagcc	cggccagagc	cctcaactct	tgatataata	agtgtcaaat	660
cgattttcag	gtgtgcctga	tcgattctca	gggtctgggt	cagggacaga	tttcacgctt	720
aagataagca	gagtagaggc	tgaagacgtg	ggagtctact	attgttttca	ggggtcacac	780
gttccccgca	cttttggtgg	gggaaccaag	gtggaaatca	aaaaccggat	ccgtggggtc	840
accgtctctt	cagcgttgag	caactccatc	atgtacttca	gccacttcgt	gccggtcttc	900
ctgccagcga	agcccaccac	gacgccagcg	ccgcgaccac	caacaccggc	gcccaccatc	960
gcgtcgcagc	ccctgtccct	gcgcccagag	gcgtgccggc	cagcggcggg	gggcgcagtg	1020
cacacgaggg	ggctggacce	ctttgggttt	tgggtgctgg	tggtggttgg	tggagtcctg	1080
gcttgctata	gcttgctagt	aacagtggcc	tttattattt	tctgggtgag	gagtaagagg	1140
agcaggctcc	tgcacagtga	ctacatgaac	atgactcccc	gccgccccgg	gcccaccgcg	1200
aagcattacc	agccctatgc	cccaccacgc	gacttcgcag	cctatcgctc	cctcgagaga	1260
gtgagagtga	agttcagcag	gagcgcagac	gccccgcggt	accagcaggg	ccagaaccag	1320
ctctataacg	agctcaatct	aggacgaaga	gaggagtacg	atgttttgga	caagagacgt	1380
ggccggggacc	ctgagatggg	gggaaagccg	agaaggaaga	accctcagga	aggcctgtac	1440
aatgaactgc	agaaagataa	gatggcggag	gcctacagtg	agattgggat	gaaaggcgag	1500
cgcgggaggg	gcaaggggca	cgatggcctt	taccagggtc	tcagtacagc	caccaaggac	1560
acctacgacg	cccttcacat	gcaggccctg	ccccctcgc			1599

<210> 183
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 183

Ser	Tyr	His	Ile	Gln
1				5

<210> 184
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 184

Gly Tyr Thr Phe Thr Ser Tyr
1 5

<210> 185
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 185

Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 186
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 186

Tyr Pro Gly Asp Gly Ser
1 5

<210> 187
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 187

Glu Gly Thr Tyr Tyr Ala Met Asp Tyr
1 5

<210> 188
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 188

Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 189
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 189

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 190
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 190

Phe Gln Gly Ser His Val Pro Arg Thr
1 5

<210> 191
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 191

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

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

His Ile Gln Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Thr Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Leu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Ile Tyr Phe Cys

85

90

95

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Ser Val Thr Val Ser Ser
 115

<210> 192

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 192

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp Gln Val Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

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

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Arg Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 193

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 193

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

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

20

25

30

His Ile Gln Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Thr Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Leu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Ile Tyr Phe Cys
 85 90 95

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Ser Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Leu Met Thr
 130 135 140

Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Val Ser Ile
 145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 210 215 220

Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
 225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 245 250

<210> 194

<211> 521

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 194

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

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

His Ile Gln Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Thr Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Leu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Ile Tyr Phe Cys
85 90 95

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Ser Val Thr Val Ser Ser Val Asp Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Ser Asp Val Leu Met Thr
130 135 140

Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Val Ser Ile
145 150 155 160

Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
165 170 175

Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
180 185 190

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
210 215 220

Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Arg
225 230 235 240

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Leu Glu Gln Lys Leu
 245 250 255

Ile Ser Glu Glu Asp Leu Asn Arg Ile Arg Gly Val Thr Val Ser Ser
 260 265 270

Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe Val Pro Val Phe
 275 280 285

Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro
 290 295 300

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
 305 310 315 320

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Pro Phe
 325 330 335

Gly Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser
 340 345 350

Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val Arg Ser Lys Arg
 355 360 365

Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met Thr Pro Arg Arg Pro
 370 375 380

Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala Pro Pro Arg Asp Phe
 385 390 395 400

Ala Ala Tyr Arg Ser Leu Glu Arg Val Arg Val Lys Phe Ser Arg Ser
 405 410 415

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
 420 425 430

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
 435 440 445

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
 450 455 460

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
 465 470 475 480

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
 485 490 495

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
500 505 510

Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 195
<211> 544
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 195

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Ala Ser Gln Val Gln Leu Gln Gln Ser Gly Pro
20 25 30

Glu Leu Val Lys Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Ser Tyr His Ile Gln Trp Val Lys Gln Arg Pro
50 55 60

Gly Gln Gly Leu Glu Trp Ile Gly Trp Ile Tyr Pro Gly Asp Gly Ser
65 70 75 80

Thr Gln Tyr Asn Glu Lys Phe Lys Gly Lys Thr Thr Leu Thr Ala Asp
85 90 95

Lys Ser Ser Ser Thr Ala Tyr Met Leu Leu Ser Ser Leu Thr Ser Glu
100 105 110

Asp Ser Ala Ile Tyr Phe Cys Ala Arg Glu Gly Thr Tyr Tyr Ala Met
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Val Asp Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Thr Ser Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser
165 170 175

Leu Gly Asp Gln Val Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val

180					185					190					
His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly
		195					200					205			
Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly
	210					215					220				
Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu
225					230					235					240
Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe
				245					250					255	
Gln	Gly	Ser	His	Val	Pro	Arg	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu
			260					265					270		
Ile	Lys	Leu	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu	Asn	Arg	Ile
		275					280					285			
Arg	Gly	Val	Thr	Val	Ser	Ser	Ala	Leu	Ser	Asn	Ser	Ile	Met	Tyr	Phe
	290					295					300				
Ser	His	Phe	Val	Pro	Val	Phe	Leu	Pro	Ala	Lys	Pro	Thr	Thr	Thr	Pro
305					310					315					320
Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu
				325					330					335	
Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His
			340					345					350		
Thr	Arg	Gly	Leu	Asp	Pro	Phe	Gly	Phe	Trp	Val	Leu	Val	Val	Val	Gly
		355					360					365			
Gly	Val	Leu	Ala	Cys	Tyr	Ser	Leu	Leu	Val	Thr	Val	Ala	Phe	Ile	Ile
	370					375					380				
Phe	Trp	Val	Arg	Ser	Lys	Arg	Ser	Arg	Leu	Leu	His	Ser	Asp	Tyr	Met
385					390					395					400
Asn	Met	Thr	Pro	Arg	Arg	Pro	Gly	Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro
				405					410					415	
Tyr	Ala	Pro	Pro	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Ser	Leu	Glu	Arg	Val
			420					425					430		
Arg	Val	Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly

435

440

445

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
 450 455 460

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
 465 470 475 480

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
 485 490 495

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
 500 505 510

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
 515 520 525

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 530 535 540

<210> 196

<211> 1635

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 196

atggacttcc aggtgcagat cttcagcttc ctgctgatca gcgccagcgt gatcatgagc	60
cgcgctagcc aggtgcagct gcagcagagc ggccccgagc tggatgaagcc cggcgccagc	120
gtgaagatga gctgcaaggc cagcggctac accttcacca gctaccacat ccagtgggtg	180
aagcagcgcc ccggccaggg cctggagtgg atcggctgga tctaccccg cgacggcagc	240
accagttaca acgagaagtt caagggcaag accaccctga ccgccgacaa gagcagcagc	300
accgcctaca tgctgctgag cagcctgacc agcgaggaca gcgccatcta cttctgcgcc	360
cgcgagggca cctactacgc catggactac tggggccagg gcaccagcgt gaccgtgagc	420
agcgtcgaca gcagcggcgg cggcggcagc ggcggcggcg gcagcggcgg cggcggcagc	480
actagtgacg tgctgatgac ccagaccccc ctgagcctgc ccgtgagcct gggcgaccag	540
gtgagcatca gctgccgcag cagccagagc atcgtgcaca gcaacggcaa cacctacctg	600
gagtgggtacc tgcagaagcc cggccagagc cccaagctgc tgatctacaa ggtgagcaac	660
cgcttcagcg gcgtgcccga ccgcttcagc ggcagcggca gcggcaccga cttcaccctg	720
aagatcagcc gcgtggaggc cgaggacctg ggcgtgtact actgcttcca gggcagccac	780
gtgccccgca ccttcggcgg cggcaccaag ctggagatca agctcgagca gaagctgatc	840

agcgaggagg acctgaaccg gatccgtggg gtcaccgtct cttcagcgct gagcaactcc	900
atcatgtact tcagccactt cgtgccggtc ttcctgccag cgaagcccac cagcagcca	960
gcgccgcgac caccaacacc ggcgccacc atcgcgtcgc agcccctgtc cctgcgcca	1020
gaggcggtgcc ggccagcggc ggggggcgca gtgcacacga gggggctgga cccctttggg	1080
ttttgggtgc tgggtggtggt tgggtggagtc ctggcttgct atagcttgct agtaacagtg	1140
gcctttatta ttttctgggt gaggagtaag aggagcaggc tcctgcacag tgactacatg	1200
aacatgactc cccgccgccc cgggccacc cgcaagcatt accagcccta tgccccacca	1260
cgcgacttcg cagcctatcg ctccctcgag agagtgagag tgaagttcag caggagcgca	1320
gacgcccccg cgtaccagca gggccagaac cagctctata acgagctcaa tctaggacga	1380
agagaggagt acgatgtttt ggacaagaga cgtggccggg accctgagat ggggggaaag	1440
ccgagaagga agaaccctca ggaaggcctg tacaatgaac tgcagaaaga taagatggcg	1500
gaggcctaca gtgagattgg gatgaaaggc gagcgccgga ggggcaaggg gcacgatggc	1560
ctttaccagg gtctcagtac agccaccaag gacacctacg acgcccttca catgcaggcc	1620
ctgccccctc gctaa	1635

<210> 197
 <211> 37
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 197	
ttttctagac gcgtgccacc atggccgtca tggcgcc	37

<210> 198
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 198	
aagtcgacgc tagctcacac tttaacaagct gtgagagaca	40

<210> 199
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 199	
tcaacccgat tgtccaccat	20

<210>	200	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	200	
	gagtttagtc cgaaatgagg ctg	23
<210>	201	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	201	
	tccaaagatg tagccgcccc a	21
<210>	202	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	202	
	ccagtgcctc tttgctgctt tca	23
<210>	203	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	203	
	ctgagctcgc cagtgaaatg atg	23
<210>	204	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	204	
	tgctgtagtg gtggtcggag a	21
<210>	205	
<211>	22	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	205	
	acctgcctta agagtggagc ca	22
<210>	206	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	206	
	acatgtcgca cgtctctgat ga	22
<210>	207	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	207	
	tgcccagagc atccaaaaga	20
<210>	208	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	208	
	tgtattgctt tgcgttgac	20
<210>	209	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	
<400>	209	
	aggcgctccc caagaagaca	20
<210>	210	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic sequence	

<400> 210
gggctgatta gagagaggtc cct 23

<210> 211
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 211
caagacggac cagagcgaaa 20

<210> 212
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 212
ggcgggtcat gggaataac 19

<210> 213
<211> 468
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 213

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Gln Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Arg Glu Gly Thr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr

100					105					110					
Thr	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser
		115					120					125			
Gly	Gly	Gly	Gly	Ser	Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu
	130					135					140				
Ser	Val	Thr	Pro	Gly	Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln
145						150					155				160
Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln
				165					170					175	
Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg
			180					185						190	
Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp
		195					200					205			
Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr
	210					215					220				
Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Arg	Thr	Phe	Gly	Gly	Gly	Thr
225						230					235				240
Lys	Val	Glu	Ile	Lys	Arg	Thr	Thr	Thr	Pro	Ala	Pro	Arg	Pro	Pro	Thr
				245					250					255	
Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	Arg	Pro	Glu	Ala
			260					265					270		
Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg	Gly	Leu	Asp	Phe
		275					280					285			
Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro	Leu	Ala	Gly	Thr	Cys	Gly	Val
	290					295					300				
Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu	Tyr	Cys	Arg	Ser	Lys	Arg	Ser
305						310					315				320
Arg	Leu	Leu	His	Ser	Asp	Tyr	Met	Asn	Met	Thr	Pro	Arg	Arg	Pro	Gly
				325					330					335	
Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro	Tyr	Ala	Pro	Pro	Arg	Asp	Phe	Ala
			340					345					350		
Ala	Tyr	Arg	Ser	Arg	Val	Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala

355

360

365

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
 370 375 380

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
 385 390 395 400

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
 405 410 415

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
 420 425 430

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
 435 440 445

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
 450 455 460

Leu Pro Pro Arg
 465

<210> 214

<211> 1470

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 214

atggctctgc ctgtgacagc tctgctgctg cctctggctc tgcttcttca tgccgccaga	60
ccatctcagg tccagctagt acaaagcggc gccgaagtaa agaaacctgg tgcctctgtg	120
aaggtgagct gcaaggccag cggctacacc ttcaccagct accacatcca gtgggttcga	180
caggccccctg gacagagact agagtggatg ggctggatct atcctggcga cggcagcacc	240
cagtacaacg agaagttcaa gggcagagtt accatcaccc gagacaccag cgccagcaca	300
gcctatatgg agctgagcag cctgcgaagc gaggacacag ctgtttacta ttgtgccaga	360
gagggcacct actacgcaat ggattattgg ggccagggga ccaccgtgac cgtttcttct	420
ggaggcggag gttctggcgg cggaggaagt ggtggcggag gctcagatat tgtaatgacc	480
cagacacctc tgtccctgtc tgtgacacct ggacagcctg caagcatcag ctgtcggagc	540
agccagagca tcgttcacag caacggcaac acctacctgg aatggtatct gcagaagccc	600
ggacagtccc cccagctgct gatctacaag gtgtccaacc gcttcagtgg agtaccgat	660
agattttctg gcagcggctc tggcaccgac ttcaccctga agatctccag agtagaagca	720

gaggacgttg gagtgtacta ctgcttccaa ggcagccatg tgccaagaac ctttggtgga	780
ggcacaaaagg tggaaatcaa gcggaacaac acacctgctc ctcggcctcc tacaccagct	840
cctacaattg ccagccagcc actgtctctg aggcccgagg cttgcaggcc tgctgctggc	900
ggagccgtgc atacaagagg actggatttc gcctgcgaca tctacatctg ggcacctctg	960
gctggaacct gtggcgtgct gctgctgagc ctggatcatca ccctgtattg ccggagcaag	1020
agaagcagac tgctgcacag cgactacatg aacatgacct ctagacggcc cggacctacc	1080
agaaagcact accagcctta cgctcctcct agagacttcg ccgcctacag atccagagtg	1140
aagttcagca gatccgccga cgctcctgcc tatcagcagg gccaaaacca gctctacaac	1200
gagctgaacc tggggagaag agaagagtac gacgtgctgg acaagcggag aggagagat	1260
cctgaaatgg gcggcaagcc cagacggaag aatcctcaag agggcctgta taatgagcta	1320
cagaaagaca agatggcaga ggcctacagc gagatcggaa tgaagggcga gcgcagaaga	1380
ggcaagggac acgatggact gtaccagggc ctgagcaccg ccaccaagga tacctatgat	1440
gccctgcaca tgcaggccct gcctccaaga	1470

<210> 215
 <211> 126
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 215	
aaacggggca gaaagaaact cctgtatata ttcaacaac catttatgag accagtacaa	60
actactcaag aggaagatgg ctgtagctgc cgatttccag aagaagaaga aggaggatgt	120
gaactg	126

<210> 216
 <211> 42
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic sequence

<400> 216

Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro	Phe	Met
1				5					10					15	

Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys	Arg	Phe
			20					25					30		

Pro	Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu
	35						40		

<210> 217
<211> 135
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 217
accacgacgc cagcgccgcg accaccaaca ccggcgccca ccatcgcgtc gcagcccctg 60
tccttgcgcc cagaggcgtg ccggccagcg gcggggggcg cagtgcacac gagggggctg 120
gacttcgcct gtgat 135

<210> 218
<211> 47
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 218

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
1 5 10 15

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
20 25 30

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
35 40 45

<210> 219
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 219

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
1 5 10 15

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
20 25 30

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
35 40 45

<210> 220
<211> 135
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 220

acaacaacac ctgctcctcg gcctcctaca ccagctccta caattgccag ccagccactg 60
tctctgaggc ccgaagcttg caggcctgct gctggcggag ccgtgcatac aagaggactg 120
gatttcgcct gcgac 135

<210> 221

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 221

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu
1 5 10 15

Val Ile Thr Leu Tyr Cys
20

<210> 222

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 222

atctacatct gggcgccctt ggccgggact tgtgggggtcc ttctcctgtc actggttatac 60
accctttact gc 72

<210> 223

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic sequence

<400> 223

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
1 5 10 15

Ser Leu Val Ile Thr Leu Tyr Cys
20

<210> 224

<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic sequence

<400> 224
atctacatct gggcacctct ggctggaacc tgtggcgtgc tgctgctgag cctggtcata 60
accctgtatt gc 72