

SEQUENCE LISTING

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<120> ANTI-GITR ANTIBODIES AND USES THEREOF

<130> 10671W001

<140> TBA

<141> 2021-03-05

<150> 62/986,494

<151> 2020-03-06

<160> 49

<170> PatentIn version 3.5

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ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac 180

ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta 240

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Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Asn Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

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Gly Gly Ser Ile Ser Gly Tyr Phe
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21

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Ile Tyr Tyr Ser Gly Thr Thr
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<210> 7

<211> 42

<212> DNA

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gcgagagagt cgtataatcc ctcgccgcga tattttgacc ac

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Ala Arg Glu Ser Tyr Asn Pro Ser Pro Arg Tyr Phe Asp His
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<210> 9

<211> 327

<212> DNA

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gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca 180
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
85 90 95

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
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18

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<400> 12

Gln Ser Ile Ser Ser Tyr
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<210> 13
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9

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Ala Ala Ser

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<210> 15

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<212> DNA

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<220>

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30

<210> 16

<211> 10

<212> PRT

<213> Artificial Sequence

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<223> Synthetic

<400> 16

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr

1

5

10

<210> 17

<211> 1353

<212> DNA

<213> Artificial Sequence

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<223> Synthetic

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120

ccagggaagg gacttgaatg gattgggttat atctattaca gtgggaccac catctacaac

180

ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta

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300

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<210> 18
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 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 18

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

```

```

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
          20          25          30

```

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Asn Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

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

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
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<212> DNA
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gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
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caagggacac gactggagat taaacgaact gtggctgcac catctgtctt catcttcccg 360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgttag 648

<210> 20
<211> 215
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 20

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
85 90 95

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 21
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 21
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ccaggggaagg gacttgaatg gattgggttat atctattaca gtgggaccac catctacaac 180
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aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgagag agagtcgtat 300
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<210> 22
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<212> PRT
<213> Artificial Sequence

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<223> Synthetic

<400> 22

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

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Asp Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 23
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 23
gcgagagagt cgtatgaccc ctccccgcga tattttgacc ac

42

<210> 24
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 24

Ala Arg Glu Ser Tyr Asp Pro Ser Pro Arg Tyr Phe Asp His
1 5 10

<210> 25
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 25
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 26

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

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
 20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
 50 55 60

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

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

Arg Glu Ser Tyr Asp Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

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

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 27

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 27

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ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac      180
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aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag agagtcgtat      300
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<210> 28

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 28

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Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15
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```
Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
      20              25              30
```

```
Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
      35              40              45
```

```
Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
      50              55              60
```

```
Ser Arg Phe Thr Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
      65              70              75              80
```

```
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
      85              90              95
```

```
Arg Glu Ser Tyr Glu Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
      100             105             110
```

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 29
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 29
gcgagagagt cgtatgagcc ctccccgcga tattttgacc ac 42

<210> 30
<211> 14
<212> PRT
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<220>
<223> Synthetic

<400> 30

Ala Arg Glu Ser Tyr Glu Pro Ser Pro Arg Tyr Phe Asp His
1 5 10

<210> 31
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<212> DNA
<213> Artificial Sequence

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<400> 31
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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggagccccg agaaccacag gtgtacaccc tgccccatc ccgggatgag	1080
ctgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagtccc tctccctgtc tccgggtaaa tga	1353

<210> 32
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 32

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

Thr	Leu	Ser	Leu	Thr	Cys	Ile	Val	Ser	Gly	Gly	Ser	Ile	Ser	Gly	Tyr
			20					25				30			

Phe	Trp	Asn	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Glu Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

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

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 33
<211> 360
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 33

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60

acctgcattg tctctggtgg ctccatcagt ggttacttct ggaactggat ccggcagccc 120

ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac 180

ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta 240

aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag agagtcgtat 300

tccccctccc cgcgatattt tgaccactgg ggccaggga ccttggtcac cgtctcctca 360

<210> 34

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 34

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

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Ser Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 35
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 35
gcgagagagt cgtattcccc ctccccgcga tatTTTgacc ac 42

<210> 36
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 36

Ala Arg Glu Ser Tyr Ser Pro Ser Pro Arg Tyr Phe Asp His
1 5 10

<210> 37
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 37
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcattg tctctggtgg ctccatcagt ggTTacttct ggaactggat ccggcagccc 120
ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac 180
ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgagag agagtcgtat 300
tccccctccc cgcgatattt tgaccactgg ggccaggga ccttggtcac cgtctcctca 360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 420

ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg	480
tggaactcag gcgccctgac cagcggcgctg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg aaaaaactca cacatgccc cctgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac	900
agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
gagtacaagt gcaagggtct caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc ccgggatgag	1080
ctgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagtccc tctccctgtc tccgggtaaa tga	1353

<210> 38
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 38

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

Thr	Leu	Ser	Leu	Thr	Cys	Ile	Val	Ser	Gly	Gly	Ser	Ile	Ser	Gly	Tyr
			20					25					30		

Phe	Trp	Asn	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Ser Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

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

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 39
<211> 360

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 39
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcattg tctctggtgg ctccatcagt ggttacttct ggaactggat ccggcagccc 120
ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac 180
ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag agagtcgtat 300
accccctccc cgcgatattt tgaccactgg ggccaggga ccttggtcac cgtctcctca 360

<210> 40
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 40

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

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Thr Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

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

<220>
<223> Synthetic

<400> 41
gcgagagagt cgtatacccc ctccccgcga tatTTtgacc ac 42

<210> 42
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 42

Ala Arg Glu Ser Tyr Thr Pro Ser Pro Arg Tyr Phe Asp His
1 5 10

<210> 43
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 43
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcattg tctctggtgg ctccatcagt ggttacttct ggaactggat ccggcagccc 120
ccagggaagg gacttgaatg gattggttat atctattaca gtgggaccac catctacaac 180
ccctccctca agagtcgatt caccatatca ctagacacgt ccaagaacca gttctcccta 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgagag agagtcgtat 300
acccccctccc cgcgatattt tgaccactgg ggccaggga cctggtcac cgtctcctca 360

gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc 600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc 660
aaatcttgtg acaaaaactca cacatgcccc ccgtgcccag cacctgaact cctgggggga 720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt 780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg 840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac 900
agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 960
gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggatgag 1080
ctgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc 1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg 1200
ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg 1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1320
cagaagtccc tctccctgtc tccgggtaaa tga 1353

<210> 44
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 44

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

Thr Leu Ser Leu Thr Cys Ile Val Ser Gly Gly Ser Ile Ser Gly Tyr
20 25 30

Phe Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Ile Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Glu Ser Tyr Thr Pro Ser Pro Arg Tyr Phe Asp His Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

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

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 45
<211> 194
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 45

Met His Arg Pro Arg Arg Arg Gly Thr Arg Pro Pro Pro Leu Ala Leu
1 5 10 15

Leu Ala Ala Leu Leu Leu Ala Ala Arg Gly Ala Asp Ala Gln Arg Pro
20 25 30

Thr Gly Gly Pro Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly
35 40 45

Thr Asp Ala Arg Cys Cys Arg Val His Thr Thr Arg Cys Cys Arg Asp
50 55 60

Tyr Pro Gly Glu Glu Cys Cys Ser Glu Trp Asp Cys Met Cys Val Gln
65 70 75 80

Pro Glu Phe His Cys Gly Asp Pro Cys Cys Thr Thr Cys Arg His His
85 90 95

Pro Cys Pro Pro Gly Gln Gly Val Gln Ser Gln Gly Lys Phe Ser Phe
100 105 110

Gly Phe Gln Cys Ile Asp Cys Ala Ser Gly Thr Phe Ser Gly Gly His
115 120 125

Glu Gly His Cys Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu
130 135 140

Thr Val Phe Pro Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly
145 150 155 160

Ser Pro Pro Ala Glu Pro Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
165 170 175

Gly Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu His His His His
180 185 190

His His

<210> 46
<211> 399
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 46

Met His Arg Pro Arg Arg Arg Gly Thr Arg Pro Pro Pro Leu Ala Leu
1 5 10 15

Leu Ala Ala Leu Leu Leu Ala Ala Arg Gly Ala Asp Ala Gln Arg Pro
20 25 30

Thr Gly Gly Pro Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly
35 40 45

Thr Asp Ala Arg Cys Cys Arg Val His Thr Thr Arg Cys Cys Arg Asp
50 55 60

Tyr Pro Gly Glu Glu Cys Cys Ser Glu Trp Asp Cys Met Cys Val Gln
65 70 75 80

Pro Glu Phe His Cys Gly Asp Pro Cys Cys Thr Thr Cys Arg His His
85 90 95

Pro Cys Pro Pro Gly Gln Gly Val Gln Ser Gln Gly Lys Phe Ser Phe
100 105 110

Gly Phe Gln Cys Ile Asp Cys Ala Ser Gly Thr Phe Ser Gly Gly His
115 120 125

Glu Gly His Cys Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu
130 135 140

Thr Val Phe Pro Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly
145 150 155 160

Ser Pro Pro Ala Glu Pro Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys
165 170 175

Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val
180 185 190

Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser
195 200 205

Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
210 215 220

Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln
225 230 235 240

Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser
245 250 255

Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys
260 265 270

Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile
275 280 285

Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro
290 295 300

Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met
305 310 315 320

Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn
325 330 335

Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser
340 345 350

Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn
355 360 365

Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu
370 375 380

His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
385 390 395

<210> 47
<211> 393
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 47

Met His Arg Pro Arg Arg Arg Gly Thr Arg Pro Pro Pro Leu Ala Leu
1 5 10 15

Leu Ala Ala Leu Leu Leu Ala Ala Arg Gly Ala Asp Ala Gln Arg Pro
20 25 30

Thr Gly Gly Pro Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly
35 40 45

Thr Asp Ala Arg Cys Cys Arg Val His Thr Thr Arg Cys Cys Arg Asp
50 55 60

Tyr Pro Gly Glu Glu Cys Cys Ser Glu Trp Asp Cys Met Cys Val Gln
65 70 75 80

Pro Glu Phe His Cys Gly Asp Pro Cys Cys Thr Thr Cys Arg His His
85 90 95

Pro Cys Pro Pro Gly Gln Gly Val Gln Ser Gln Gly Lys Phe Ser Phe
100 105 110

Gly Phe Gln Cys Ile Asp Cys Ala Ser Gly Thr Phe Ser Gly Gly His
115 120 125

Glu Gly His Cys Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu
130 135 140

Thr Val Phe Pro Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly
145 150 155 160

Ser Pro Pro Ala Glu Pro Asp Lys Thr His Thr Cys Pro Pro Cys Pro
165 170 175

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
180 185 190

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
195 200 205

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
210 215 220

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
225 230 235 240

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
245 250 255

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
260 265 270

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
275 280 285

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
290 295 300

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
305 310 315 320

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
325 330 335

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
340 345 350

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
355 360 365

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
370 375 380

Lys Ser Leu Ser Leu Ser Pro Gly Lys
385 390

<210> 48
<211> 194
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 48

Met His Arg Pro Arg Arg Arg Gly Thr Arg Pro Pro Pro Leu Ala Leu
1 5 10 15

Leu Ala Ala Leu Leu Leu Ala Ala Arg Gly Ala Asp Ala Gln Arg Pro
20 25 30

Thr Gly Gly Pro Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly
35 40 45

Lys Asp Ala Arg Cys Cys Arg Val His Pro Thr Arg Cys Cys Arg Asp
50 55 60

Tyr Gln Gly Glu Glu Cys Cys Ser Glu Trp Asp Cys Val Cys Val Gln
65 70 75 80

Pro Glu Phe His Cys Gly Asn Pro Cys Cys Thr Thr Cys Gln His His
85 90 95

Pro Cys Pro Ser Gly Gln Gly Val Gln Pro Gln Gly Lys Phe Ser Phe
100 105 110

Gly Phe Arg Cys Val Asp Cys Ala Leu Gly Thr Phe Ser Arg Gly His
115 120 125

Asp Gly His Cys Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu
130 135 140

Thr Val Phe Pro Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly
145 150 155 160

Ser Pro Pro Ala Glu Pro Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
165 170 175

Gly Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu His His His His
180 185 190

His His

<210> 49
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 49

Met Ala Gln His Gly Ala Met Gly Ala Phe Arg Ala Leu Cys Gly Leu
1 5 10 15

Ala Leu Leu Cys Ala Leu Ser Leu Gly Gln Arg Pro Thr Gly Gly Pro
20 25 30

Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly Thr Asp Ala Arg
35 40 45

Cys Cys Arg Val His Thr Thr Arg Cys Cys Arg Asp Tyr Pro Gly Glu
50 55 60

Glu Cys Cys Ser Glu Trp Asp Cys Met Cys Val Gln Pro Glu Phe His
65 70 75 80

Cys Gly Asp Pro Cys Cys Thr Thr Cys Arg His His Pro Cys Pro Pro
85 90 95

Gly Gln Gly Val Gln Ser Gln Gly Lys Phe Ser Phe Gly Phe Gln Cys
100 105 110

Ile Asp Cys Ala Ser Gly Thr Phe Ser Gly Gly His Glu Gly His Cys
115 120 125

Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu Thr Val Phe Pro
130 135 140

Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly Ser Pro Pro Ala
145 150 155 160

Glu Pro Leu Gly Trp Leu Thr Val Val Leu Leu Ala Val Ala Ala Cys
165 170 175

Val Leu Leu Leu Thr Ser Ala Gln Leu Gly Leu His Ile Trp Gln Leu
180 185 190

Arg Ser Gln Cys Met Trp Pro Arg Glu Thr Gln Leu Leu Leu Glu Val
195 200 205

Pro Pro Ser Thr Glu Asp Ala Arg Ser Cys Gln Phe Pro Glu Glu Glu
210 215 220

Arg Gly Glu Arg Ser Ala Glu Glu Lys Gly Arg Leu Gly Asp Leu Trp
225 230 235 240

Val