

SEQUENCE LISTING

<110> Marius Ardeleanu
Namita Gandhi
Neil Graham
Stephane C. Kirkesseli
Sudeep Kundu
Allen Radin
Ross E. Rocklin
Steven Weinstein
Jennifer Davidson Hamilton
Jeffrey Ming

<120> Methods for Treating or Preventing Asthma by Administering an IL-4R Antagonist

<130> US2012/080-WO-PCT

<140> To be assigned
<141> Filed herewith

<150> US 61/691,625
US 61/758,097
US 61/761,279
US 61/783,796
US 61/805,797
FR 1356994

<151> 2012-08-21
2013-01-29
2013-02-06
2013-03-14
2013-03-27
2013-07-16

<160> 275

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggct cctgagactc 60
tcctgtgcag cctctggatt caccttccgc tcttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcggtc atatcatatg atggaagtaa taaatattat 180
atagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgaat 240

ctgcaaatga acagcctgag acttgaggac acggctgtat attactgtgc gaaagagggg 300
 aggggggggat ttgactactg gggccaggga atcccgtca ccgtctcctc a 351

<210> 2
 <211> 117
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 2
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ile Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Asn
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Leu Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Glu Gly Arg Gly Gly Phe Asp Tyr Trp Gly Gln Gly Ile Pro
 100 105 110
 Val Thr Val Ser Ser
 115

<210> 3
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 3
 ggattcacct tccgctctta tggc 24

<210> 4
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 4
 Gly Phe Thr Phe Arg Ser Tyr Gly
 1 5

<210> 5

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 5
atatcatatg atggaagtaa taaa

24

<210> 6
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 6
Ile Ser Tyr Asp Gly Ser Asn Lys
1 5

<210> 7
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 7
gcgaaagagg ggaggggggg atttgactac

30

<210> 8
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 8
Ala Lys Glu Gly Arg Gly Gly Phe Asp Tyr
1 5 10

<210> 9
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 9
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggtcataaac aattatttag cctgggtttca gcagaaacca 120
gggaaagtcc ctaagtccct gatccatgct gcatccagtt tacaaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataatagtc acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa acga 324

<210> 10
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 10
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 Val Ile Asn Asn Tyr
20 25 30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Ser Leu Ile
35 40 45
His Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Tyr Asn Ser His Pro Trp
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 11
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 11
caggtcataa acaattat 18

<210> 12
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 12
Gln Val Ile Asn Asn Tyr
1 5

<210> 13
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 13
gctgcatcc

9

<210> 14
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 14
Ala Ala Ser
1

<210> 15
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 15
caacagtata atagtcaccc gtggacg

27

<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 16
Gln Gln Tyr Asn Ser His Pro Trp Thr
1 5

<210> 17
<211> 351
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 17

```
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttccgc tcttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcggtc atatcatatg atggaagtaa taaatattat 180
atagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgaat 240
ctgcaaataa acagcctgag acttgaggac acggctgtat attactgtgc gaaagagggg 300
aggggggggat ttgactactg gggccaggga accctggtca ccgtctcctc a 351
```

<210> 18

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 18

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1             5             10             15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
      20             25             30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35             40             45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ile Asp Ser Val
      50             55             60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Asn
65             70             75             80
Leu Gln Met Asn Ser Leu Arg Leu Glu Asp Thr Ala Val Tyr Tyr Cys
      85             90             95
Ala Lys Glu Gly Arg Gly Gly Phe Asp Tyr Trp Gly Gln Gly Thr Leu
      100            105            110
Val Thr Val Ser Ser
      115
```

<210> 19

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 19

```
gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggtcataaac aattatttag cctggtttca gcagaaacca 120
gggaaagtcc ctaagtccct gatccatgct gcatccagtt tacaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataatagtc acccgtggac gttcggccaa 300
gggaccaagg tggaatcaa a 321
```

<210> 20

<211> 107
 <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
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Val Ile Asn Asn Tyr
 20 25 30
 Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Ser Leu Ile
 35 40 45
 His Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Tyr Asn Ser His Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 21
 <211> 351
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 21
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttccgc tcttatggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gaaagagggg 300
 aggggggggat ttgactactg gggccaggga accctggtca ccgtctcctc a 351

<210> 22
 <211> 117
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 22
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala	Val	Ile	Ser	Tyr	Asp	Gly	Ser	Asn	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
50						55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Lys	Glu	Gly	Arg	Gly	Gly	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu
			100					105					110		
Val	Thr	Val	Ser	Ser											
			115												

<210> 23
 <211> 322
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 23
 gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgtc gggcgagtc ggtcataaac aattatttag cctggtttca gcagaaacca 120
 gggaaagccc ctaagtcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgccaacag tataatagtc acccgtggac gttcggccaa 300
 gggaccaagg tggaaatcaa ac 322

<210> 24
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 24
 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 Val Ile Asn Asn Tyr
 20 25 30
 Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser 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 Tyr Asn Ser His Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 25
 <211> 351

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 25
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcaga agctatggca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgat aactgaggac acggctgtgt attattgtgt gaaagagggg 300
agggggggggt ttgactactg gggccaggga accacggtca ccgtctcctc a 351

<210> 26
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 26
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
20 25 30
Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Ile Thr Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Lys Glu Gly Arg Gly Gly Phe Asp Tyr Trp Gly Gln Gly Thr Thr
100 105 110
Val Thr Val Ser Ser
115

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 27
ggattcacct tcagaagcta tggc

24

<210> 28
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 28

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 29

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 29

atatcatatg atggaagtaa taaa

24

<210> 30

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 30

Ile Ser Tyr Asp Gly Ser Asn Lys
1 5

<210> 31

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 31

gtgaaagagg ggaggggggg gtttgactac

30

<210> 32

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 32

Val Lys Glu Gly Arg Gly Gly Phe Asp Tyr

1

5

10

<210> 33

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 33

```
gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggtcattaat aattatttag cctggtttca gcagaaacca 120
gggaaagtcc ctaagtcctt gatccatgct gcatccagtt tgcaaagagg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcaacag cctgcagcct 240
gaagattttg caacttatta ctgccaacaa tataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa acga                                     324
```

<210> 34

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 34

```
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 Val Ile Asn Asn Tyr
      20           25           30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Ser Leu Ile
      35           40           45
His Ala Ala Ser Ser Leu Gln Arg Gly Val Pro Ser Lys Phe Ser Gly
      50           55           60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65           70           75           80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Trp
      85           90           95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
      100          105
```

<210> 35

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 35

caggtcatta ataattat

18

<210> 36
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 36
Gln Val Ile Asn Asn Tyr
1 5

<210> 37
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 37
gctgcatcc

9

<210> 38
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 38
Ala Ala Ser
1

<210> 39
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 39
caacaatata atagttaccc gtggacg

27

<210> 40
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 40

Gln Gln Tyr Asn Ser Tyr Pro Trp Thr
1 5

<210> 41

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 41

```
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcaga agctatggca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgat aactgaggac acggctgtgt attattgtgt gaaagagggg 300
aggggggggt ttgactactg gggccaggga accctggtca ccgtctcctc a 351
```

<210> 42

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 42

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
20 25 30
Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Ile Thr Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Lys Glu Gly Arg Gly Gly Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110
Val Thr Val Ser Ser
115
```

<210> 43

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 43

```
gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtc ggtcattaat aattatttag cctggtttca gcagaaacca 120
gggaaagtcc ctaagtccct gatccatgct gcatccagtt tgcaaagagg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcaacag cctgcagcct 240
gaagattttg caacttatta ctgccaacaa tataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321
```

<210> 44

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 44

```
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 Val Ile Asn Asn Tyr
 20           25           30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Ser Leu Ile
 35           40           45
His Ala Ala Ser Ser Leu Gln Arg Gly Val Pro Ser Lys Phe Ser Gly
 50           55           60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
 65           70           75           80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Trp
 85           90           95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100           105
```

<210> 45

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 45

```
caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcaga agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agctgaggac acggctgtgt attactgtgt gaaagagggg 300
aggggggggg ttgactactg gggccaggga accctggtca ccgtctcctc a 351
```

<210> 46

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 46

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5				10						15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Arg	Ser	Tyr
			20					25					30		
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Ser	Tyr	Asp	Gly	Ser	Asn	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Val	Lys	Glu	Gly	Arg	Gly	Gly	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu
			100					105					110		
Val	Thr	Val	Ser	Ser											
			115												

<210> 47

<211> 322

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 47

gacatccaga	tgaccagtc	tccatcctca	ctgtctgcat	ctgtaggaga	cagagtcacc	60
atcacttgtc	gggcgagtc	ggtcattaat	aattatttag	cctggtttca	gcagaaacca	120
gggaaagccc	ctaagtccct	gatctatgct	gcatccagtt	tgcaaagtgg	ggtcccatca	180
agggtcagcg	gcagtggatc	tgggacagat	ttcactctca	ccatcagcag	cctgcagcct	240
gaagattttg	caacttatta	ctgccaacaa	tataatagtt	acccgtggac	gttcggccaa	300
gggaccaagg	tggaaatcaa	ac				322

<210> 48

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 48

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	Val	Ile	Asn	Asn	Tyr
			20					25					30		
Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Ser	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	Tyr	Asn	Ser	Tyr	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys					
			100					105							

<210> 49

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 49

```

caggtgcagc tgggtggagtc tggggggaggc ttggaacagc cggggggggtc cttgagactc 60
tcctgtgcag gctctggatt cacgtttaga gactatgccg tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtcgcacatc attagtgggt ccggttggtaa cacatacttc 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca aggggtccacg 360
gtcaccgtct cctca 375

```

<210> 50

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 50

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Glu	Gln	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Gly	Ser	Gly	Phe	Thr	Phe	Arg	Asp	Tyr
			20					25					30		
Ala	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35					40					45				
Ala	Ser	Ile	Ser	Gly	Ser	Gly	Gly	Asn	Thr	Tyr	Phe	Ala	Asp	Ser	Val
	50				55			60							
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70			75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu
			100				105					110			
Asp	Val	Trp	Gly	Gln	Gly	Ser	Thr	Val	Thr	Val	Ser	Ser			
		115					120					125			

<210> 51

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 51
ggattcacgt ttagagacta tgcc

24

<210> 52
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 52
Gly Phe Thr Phe Arg Asp Tyr Ala
1 5

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 53
attagtgggtt ccggtggtaa caca

24

<210> 54
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 54
Ile Ser Gly Ser Gly Gly Asn Thr
1 5

<210> 55
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 55

gcgaaagatc gactctctat aacaattcgc ccacgctatt atggtttgga cgtc 54

<210> 56

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 56

Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu

1 5 10 15

Asp Val

<210> 57

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 57

gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtc ggccattaac aatcatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctttgct gtatccagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagac ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa acga 324

<210> 58

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 58

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 Ala Ile Asn Asn His

20 25 30

Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile

35 40 45

Phe Ala Val Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Tyr Asn Ser Tyr Pro Trp

85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg

<210> 59
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 59
 caggccatta acaatcat

18

<210> 60
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 60
 Gln Ala Ile Asn Asn His
 1 5

<210> 61
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 61
 gctgtatcc

9

<210> 62
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 62
 Ala Val Ser
 1

<210> 63
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 63

caacagtata atagttaccc gtggacg

27

<210> 64

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 64

Gln Gln Tyr Asn Ser Tyr Pro Trp Thr

1

5

<210> 65

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 65

gagggtgcagc tgggtggagtc tggggggaggc ttggaacagc cggggggggtc cttgagactc 60
tcctgtgcag gctctggatt cacgtttaga gactatgcca tgacctgggt ccgccaggct 120
ccaggaagg ggctggagtg ggtcgcacgc attagtgggt ccggtggtaa cacatacttc 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca agggaccacg 360
gtcaccgtct cc 372

<210> 66

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 66

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Arg Asp Tyr
20 25 30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Ser Ile Ser Gly Ser Gly Gly Asn Thr Tyr Phe Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr

65					70					75				80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu
			100					105					110		
Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser				
		115					120								

<210> 67
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 67
 gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgttggaga cagagtcacc 60
 atcacttgtc gggcgagtca ggccattaac aatcatttag cctggtttca gcagaaacca 120
 gggaaagccc ctaagtccct gatctttgct gtatccagtt tgcaaagtgg ggtcccatca 180
 aagttcagcg gcagtggatc tgggacagac ttcactctca ccatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgccaacag tataatagtt acccgtggac gttcggccaa 300
 gggaccaagg tggaaatcaa a 321

<210> 68
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 68
 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 Ala Ile Asn Asn His
 20 25 30
 Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
 35 40 45
 Phe Ala Val Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Tyr Asn Ser Tyr Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 69
 <211> 373
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 69

```
gaggtgcagc  tgggtggagtc  tggggggaggc  ttggtacagc  ctgggggggtc  cctgagactc  60
tcctgtgcag  cctctggatt  cacgtttaga  gactatgcc  tgagctgggt  ccgccaggct  120
ccaggaagg  ggctggagtg  ggtctcagct  attagtgggt  ccggtggtaa  cacatactac  180
gcagactccg  tgaagggccg  gttcaccatc  tccagagaca  attccaagaa  cacgctgtat  240
ctgcaaata  acagcctgag  agccgaggac  acggccgtat  attactgtgc  gaaagatcga  300
ctctctataa  caattcgccc  acgctattat  ggtttggacg  tctggggcca  agggaccacg  360
gtcaccgtct  cct  373
```

<210> 70

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 70

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1          5          10          15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asp Tyr
20          25          30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35          40          45
Ser Ala Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50          55          60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65          70          75          80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85          90          95
Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
100          105          110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115          120
```

<210> 71

<211> 322

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 71

```
gacatccaga  tgaccagtc  tccatcctca  ctgtctgcat  ctgtaggaga  cagagtcacc  60
atcacttgtc  gggcgagtc  ggccattaac  aatcatttag  cctggtttca  gcagaaacca  120
gggaaagccc  ctaagtccct  gatctatgct  gtatccagtt  tgcaaagtgg  ggtcccatca  180
aggttcagcg  gcagtggatc  tgggacagat  ttcactctca  ccatcagcag  cctgcagcct  240
gaagattttg  caacttatta  ctgccaacag  tataatagtt  acccgtggac  gttcggccaa  300
gggaccaagg  tggaatcaa  ac  322
```

<210> 72
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 72
 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 Ala Ile Asn Asn His
 20 25 30
 Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
 35 40 45
 Tyr Ala Val 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 Tyr Asn Ser Tyr Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 73
 <211> 375
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 73
 caggtgcagc tggtggagtc tgggggaggc ttggaacagc cggggggggtc cttgagactc 60
 tcctgtgcag gctctggatt cacgtttaga gactatgccca tgacctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtcgcacgc attagtgggt cgggtggtaa cacatacttc 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
 ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca aggggtccacg 360
 gtcaccgtct cctca 375

<210> 74
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 74
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Arg Asp Tyr
 20 25 30

Ala	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35						40					45			
Ala	Ser	Ile	Ser	Gly	Ser	Gly	Gly	Asn	Thr	Tyr	Phe	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu
			100					105					110		
Asp	Val	Trp	Gly	Gln	Gly	Ser	Thr	Val	Thr	Val	Ser	Ser			
		115					120					125			

<210> 75
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 75
 ggattcacgt ttagagacta tgcc

24

<210> 76
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 76
 Gly Phe Thr Phe Arg Asp Tyr Ala
 1 5

<210> 77
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 77
 attagtgggt ccggtggtaa caca

24

<210> 78
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 78

Ile Ser Gly Ser Gly Gly Asn Thr
1 5

<210> 79

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 79

gcgaaagatc gactctctat aacaattcgc ccacgctatt atggtttgga cgtc 54

<210> 80

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 80

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

<210> 81

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 81

gaaatagtgt tgacgcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gacctcctg tatagtattg gatacaacta tttggattgg 120
tacctgcaga agtcagggca gtctccacag ctccttatct atttgggttc taatcgggcc 180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggttt tattactgca tgcaagctct acaaactccg 300
tacacttttg gcccggggac caagctggag atcaaacga 339

<210> 82

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 82

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5				10					15		
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	Tyr	Ser
			20					25					30		
Ile	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Ser	Gly	Gln	Ser
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	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	Phe	Tyr	Tyr	Cys	Met	Gln	Ala
				85					90					95	
Leu	Gln	Thr	Pro	Tyr	Thr	Phe	Gly	Pro	Gly	Thr	Lys	Leu	Glu	Ile	Lys
			100					105					110		

Arg

<210> 83

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 83

cagagcctcc tgtatagtat tggatacaac tat

33

<210> 84

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 84

Gln	Ser	Leu	Leu	Tyr	Ser	Ile	Gly	Tyr	Asn	Tyr
1				5				10		

<210> 85

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 85

ttgggttct

9

<210> 86
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 86
Leu Gly Ser
1

<210> 87
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 87
atgcaagctc tacaaactcc gtacact 27

<210> 88
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 88
Met Gln Ala Leu Gln Thr Pro Tyr Thr
1 5

<210> 89
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 89
gaggtgcagc tggtggagtc tggggggaggc ttggaacagc cggggggggtc cttgagactc 60
tcctgtgcag gctctggatt cacgtttaga gactatgcc a tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtcgcacatc attagtgggt c cgggtggtaa cacatacttc 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatac acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca agggaccacg 360
gtcaccgtct cc 372

<210> 90
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 90
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Arg Asp Tyr
 20 25 30
 Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ser Ile Ser Gly Ser Gly Gly Asn Thr Tyr Phe Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120

<210> 91
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 91
 gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
 atctcctgca ggtctagtca gagcctcctg tatagtattg gatacaacta tttggattgg 120
 tacctgcaga agtcagggca gtctccacag ctccttatct atttgggttc taatcggggcc 180
 tccgggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
 agcagagtgg aggctgagga tgttgggttt tattactgca tgcaagctct acaaactccg 300
 tacacttttg gcccggggac caagctggag atcaaa 336

<210> 92
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 92
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser

			20					25					30				
Ile	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Ser	Gly	Gln	Ser		
		35					40					45					
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	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	Phe	Tyr	Tyr	Cys	Met	Gln	Ala		
				85				90						95			
Leu	Gln	Thr	Pro	Tyr	Thr	Phe	Gly	Pro	Gly	Thr	Lys	Leu	Glu	Ile	Lys		
			100					105					110				

<210> 93
 <211> 373
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 93
 gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60
 tcctgtgcag cctctggatt cacgtttaga gactatgccca tgagctgggt ccgccaggct 120
 ccaggaagg ggctggagt ggtctcagct attagtgggt ccggtggtaa cacatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
 ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca agggaccacg 360
 gtcaccgtct cct 373

<210> 94
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 94
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asp Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120

<210> 95
<211> 337
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 95
gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg tatagtattg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttggttc taatcgggcc 180
tccgggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggggtt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caagctggag atcaaac 337

<210> 96
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 96
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30
Ile Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala 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 Met Gln Ala
85 90 95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 97
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 97
caggtgcagc tgggtggagtc tgaggggactc ttggaacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caactttaga gactttgccg tgacctgggt ccgccaggct 120
ccaggggaagg ggctggagtg ggtctcatct attagtggta gtggtagtaa tacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaacca cacgctgtat 240
 ctgcgaatga acagcctgag agccgaagac acggccgtgt attactgtgc gaaagatcga 300
 ctctctataa caattcgccc acgctattac ggtctggacg tctggggcca aggggtccacg 360
 gtcaccgtct cctca 375

<210> 98
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 98
 Gln Val Gln Leu Val Glu Ser Glu Gly Leu Leu Glu Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Arg Asp Phe
 20 25 30
 Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn His Thr Leu Tyr
 65 70 75 80
 Leu Arg Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
 100 105 110
 Asp Val Trp Gly Gln Gly Ser Thr Val Thr Val Ser Ser
 115 120 125

<210> 99
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 99
 ggattcaact ttagagactt tgcc 24

<210> 100
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 100
 Gly Phe Asn Phe Arg Asp Phe Ala
 1 5

<210> 101
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 101
attagtggtgta gtggtagtaa taca

24

<210> 102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 102
Ile Ser Gly Ser Gly Ser Asn Thr
1 5

<210> 103
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
gcgaaagatc gactctctat aacaattcgc ccacgctatt acggtctgga cgtc

54

<210> 104
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
1 5 10 15
Asp Val

<210> 105
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 105

```
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca ggacattagc aattatTTTg cctgggtatca gcagaagcca 120
gggaaagtTC ctaagctcct gatctTTtgct gcatccactt tgcattccagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccattcgcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaaa tatgacagtg ccccgtagac ttttggccag 300
gggaccaagg tggaatcaa acga 324
```

<210> 106

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 106

```
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 Asp Ile Ser Asn Tyr
20          25          30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35          40          45
Phe Ala Ala Ser Thr Leu His Pro Gly Val Pro Ser Arg Phe Ser Gly
50          55          60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Arg Ser Leu Gln Pro
65          70          75          80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asp Ser Ala Pro Tyr
85          90          95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100         105
```

<210> 107

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 107

caggacatta gcaattat

18

<210> 108

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 108
Gln Asp Ile Ser Asn Tyr
1 5

<210> 109
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 109
gctgcatcc 9

<210> 110
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 110
Ala Ala Ser
1

<210> 111
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 111
caaaaatatg acagtgtccc gtacact 27

<210> 112
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 112
Gln Lys Tyr Asp Ser Ala Pro Tyr Thr
1 5

<210> 113

<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 113
gaggtgcagc tgggtggagtc tgaggggactc ttggaacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caacttttaga gactttgccg tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcatct attagtggta gtggtagtaa tacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaacca cacgctgtat 240
ctgcgaatga acagcctgag agccgaagac acggccgtgt attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattac ggtctggacg tctggggcca agggaccacg 360
gtcaccgtct cc 372

<210> 114
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114
Glu Val Gln Leu Val Glu Ser Glu Gly Leu Leu Glu Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Arg Asp Phe
20 25 30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ser Ile Ser Gly Ser Gly Ser Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn His Thr Leu Tyr
65 70 75 80
Leu Arg Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120

<210> 115
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 115
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca ggacattagc aattatcttg cctgggtatca gcagaagcca 120
gggaaagttc ctaagctcct gatctttgct gcatccactt tgcattcagg ggtcccatct 180

cggttcagtg gcagtggatc tgggacagat ttcactctca ccattcgcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaaa tatgacagtg ccccgtagac ttttggccag 300
gggaccaagc tggagatcaa a 321

<210> 116
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116
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 Asp Ile Ser Asn Tyr
20 25 30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45
Phe Ala Ala Ser Thr Leu His Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Arg Ser Leu Gln Pro
65 70 75 80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asp Ser Ala Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 117
<211> 373
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 117
gaggtgcagc tggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caactttaga gactttgccg tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtagtaa tacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattac ggtctggacg tctggggcca agggaccacg 360
gtcaccgtct cct 373

<210> 118
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly
1				5				10					15		
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Asn	Phe	Arg	Asp	Phe
		20					25					30			
Ala	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35					40					45				
Ser	Ala	Ile	Ser	Gly	Ser	Gly	Ser	Asn	Thr	Tyr	Tyr	Ala	Asp	Ser	Val
	50				55					60					
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65				70					75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu
		100				105						110			
Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser				
	115					120									

<210> 119
 <211> 322
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 119
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcgagtca ggacattagc aattatttag cctggtatca gcagaaacca 120
 gggaaagtgc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
 cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
 gaagatgttg caacttatta ctgtcaaaaa tatgacagtg ccccgtagac ttttggccag 300
 gggaccaagc tggagatcaa ac 322

<210> 120
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 120
 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 Asp Ile Ser Asn Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr 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 Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asp Ser Ala Pro Tyr
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 121
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 121
 caggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
 tcctgtgtag cttctggatt cacccttaac aactttgtca tgaactgggt ccgccaggtt 120
 ccaggggaagg gactggagtg ggtctctttt attagtgcta gtggtggtag tatatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca cttccaagaa cacattatat 240
 ctgcaaataga acagcctgag agccgacgac acggccgtct attactgtgc gaaatccccg 300
 tataactgga acccctttga ctattggggc caggggaacca cggtcaccgt ctcctca 357

<210> 122
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 122
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Leu Asn Asn Phe
 20 25 30
 Val Met Asn Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Phe Ile Ser Ala Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Ser Pro Tyr Asn Trp Asn Pro Phe Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 123
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 123
ggattcaccc ttaacaactt tgtc 24

<210> 124
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 124
Gly Phe Thr Leu Asn Asn Phe Val
1 5

<210> 125
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 125
attagtgcta gtggtggtag tata 24

<210> 126
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 126
Ile Ser Ala Ser Gly Gly Ser Ile
1 5

<210> 127
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 127
gcgaaatccc cgtataactg gaacccttt gactat 36

<210> 128
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 128

Ala Lys Ser Pro Tyr Asn Trp Asn Pro Phe Asp Tyr
1 5 10

<210> 129

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 129

gacatccagt tgaccagtc tccagccacc ctgtctgtgt ctccagggga acgagccacc 60
ctctcctgca gggccagtct gagggttagc agcaaattag cctggtacca gcagacacct 120
ggccaggctc ccagactcct catctatagt gcctccaccc gggccactgg tatccagtc 180
aggttcagtg gcagtggttc tgggacagag ttcactctca ccatcagcag cctgcagtc 240
gaagattttg cggtttatta ctgtcagcag tataatcatt ggcctccgta cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 130

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 130

Asp Ile Gln Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Leu Ser Val Ser Ser Lys
20 25 30
Leu Ala Trp Tyr Gln Gln Thr Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Ser Ala Ser Thr Arg Ala Thr Gly Ile Pro Val Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn His Trp Pro Pro
85 90 95
Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 131

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic

 <400> 131
 ctgagtgtta gcagcaaa 18

 <210> 132
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic

 <400> 132
 Leu Ser Val Ser Ser Lys
 1 5

 <210> 133
 <211> 9
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic

 <400> 133
 agtgcctcc 9

 <210> 134
 <211> 3
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic

 <400> 134
 Ser Ala Ser
 1

 <210> 135
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic

 <400> 135
 cagcagtata atcattggcc tccgtacact 30

 <210> 136

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

<220>
 <223> Synthetic

<400> 136
 Gln Gln Tyr Asn His Trp Pro Pro Tyr Thr
 1 5 10

<210> 137
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 137
 gaggtgcagc tggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
 tcctgtgtag cttctggatt cacccttaac aactttgtca tgaactgggt ccgccaggtt 120
 ccagggaagg gactggagtg ggtctctttt attagtgcta gtggtggttag tatatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca cttccaagaa cacattatat 240
 ctgcaaatac acagcctgag agccgacgac acggccgtct attactgtgc gaaatccccg 300
 tataactgga acccctttga ctattggggc cagggaaccc tggtcaccgt ctctctca 357

<210> 138
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 138
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Leu Asn Asn Phe
 20 25 30
 Val Met Asn Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Phe Ile Ser Ala Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Ser Pro Tyr Asn Trp Asn Pro Phe Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 139
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 139
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga acgagccacc 60
 ctctcctgca gggccagtct gagtggttagc agcaaattag cctggtacca gcagacacct 120
 ggccaggctc ccagactcct catctatagt gcctccaccc gggccactgg tatcccagtc 180
 aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cgttttatta ctgtcagcag tataatcatt ggcctccgta cacttttggc 300
 caggggacca agctggagat caaa 324

<210> 140
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 140
 Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Leu Ser Val Ser Ser Lys
 20 25 30
 Leu Ala Trp Tyr Gln Gln Thr Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Ser Ala Ser Thr Arg Ala Thr Gly Ile Pro Val Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn His Trp Pro Pro
 85 90 95
 Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 141
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 141
 gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60
 tcctgtgcag cctctggatt cacccttaac aactttgtca tgagctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcagct attagtgcta gtggtggtag tatatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaatccccg 300

tataactgga acccctttga ctattggggc caggggaaccc tggtcaccgt ctcctca 357

<210> 142

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 142

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly		
1				5				10					15				
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Leu	Asn	Asn	Phe		
			20					25					30				
Val	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
			35				40					45					
Ser	Ala	Ile	Ser	Ala	Ser	Gly	Gly	Ser	Ile	Tyr	Tyr	Ala	Asp	Ser	Val		
			50			55					60						
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr		
65					70				75						80		
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys		
				85					90					95			
Ala	Lys	Ser	Pro	Tyr	Asn	Trp	Asn	Pro	Phe	Asp	Tyr	Trp	Gly	Gln	Gly		
			100					105					110				
Thr	Leu	Val	Thr	Val	Ser	Ser											
			115														

<210> 143

<211> 325

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 143

gaaatagtga	tgacgcagtc	tccagccacc	ctgtctgtgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtct	gagtgttagc	agcaaattag	cctggtacca	gcagaaacct	120
ggccaggctc	ccaggctcct	catctatagt	gcctccacca	gggccactgg	tatcccagcc	180
aggttcagtg	gcagtgggtc	tgggacagag	ttcactctca	ccatcagcag	cctgcagtct	240
gaagattttg	cagtttatta	ctgtcagcag	tataatcatt	ggcctccgta	cacttttggc	300
caggggacca	agctggagat	caaac				325

<210> 144

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 144

Glu	Ile	Val	Met	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	Val	Ser	Pro	Gly		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--	--

1				5					10					15			
Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Leu	Ser	Val	Ser	Ser	Lys		
			20					25					30				
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu	Ile		
		35					40					45					
Tyr	Ser	Ala	Ser	Thr	Arg	Ala	Thr	Gly	Ile	Pro	Ala	Arg	Phe	Ser	Gly		
	50					55					60						
Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Ser		
65					70					75					80		
Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	His	Trp	Pro	Pro		
				85				90						95			
Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys						
			100					105									

<210> 145

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 145

```

caggtgcagc  tgggtggagtc  tggggggaggc  ttggaacagc  cggggggggtc  cctgagactc  60
tcctgtgcag  gctctggatt  cacctttaga  gactatgcca  tgacctgggt  ccgccaggct  120
ccagggaagg  gactggagtg  ggtctcatct  attagtgggt  ccggtggtaa  cacatactac  180
gcagactccg  tgaagggccg  gttcaccatc  tccagagaca  attccaagaa  cacgctgtat  240
ctgcaaataa  acagcctgag  agccgaggac  acggccgtat  attactgtgc  gaaagatcga  300
ctctctataa  caattcgccc  acgctattat  ggtttggacg  tctggggcca  aggggtccacg  360
gtcaccgtct  cctca                                     375

```

<210> 146

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 146

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Glu	Gln	Pro	Gly	Gly		
1				5					10					15			
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Gly	Ser	Gly	Phe	Thr	Phe	Arg	Asp	Tyr		
		20					25					30					
Ala	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
		35				40					45						
Ser	Ser	Ile	Ser	Gly	Ser	Gly	Gly	Asn	Thr	Tyr	Tyr	Ala	Asp	Ser	Val		
	50				55					60							
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr		
65				70				75						80			
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys		
			85				90						95				
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu		
			100				105						110				

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

<210> 147
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 147
 ggattcacct ttagagacta tgcc 24

<210> 148
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 148
 Gly Phe Thr Phe Arg Asp Tyr Ala
 1 5

<210> 149
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 149
 attagtgggt ccggtggtaa caca 24

<210> 150
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 150
 Ile Ser Gly Ser Gly Gly Asn Thr
 1 5

<210> 151
 <211> 54
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 151

gcgaaagatc gactctctat aacaattcgc ccacgctatt atggtttgga cgtc 54

<210> 152

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 152

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

Asp Val

<210> 153

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 153

gacatcgtgt tgaccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtc gagcctcctg tatagtattg gatacaacta tttggattgg 120
tacctgcaga agtcagggca gtctccacag ctccttatct atttgggttc taatcgggcc 180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggttt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caagctggag atcaaacga 339

<210> 154

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 154

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Ile Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Ser Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala 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	Phe	Tyr	Tyr	Cys	Met	Gln	Ala	
				85					90					95		
Leu	Gln	Thr	Pro	Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	
			100					105					110			
Arg																

<210> 155
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 155
 cagagcctcc tgtatagtat tggatacaac tat 33

<210> 156
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 156
 Gln Ser Leu Leu Tyr Ser Ile Gly Tyr Asn Tyr
 1 5 10

<210> 157
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 157
 ttgggttct 9

<210> 158
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 158

Leu Gly Ser
1

<210> 159
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 159
atgcaagctc tacaaactcc gtacact 27

<210> 160
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 160
Met Gln Ala Leu Gln Thr Pro Tyr Thr
1 5

<210> 161
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 161
gagggtgcagc tgggtggagtc tggggggaggc ttggaacagc cggggggggtc cctgagactc 60
tcctgtgcag gctctggatt cacctttaga gactatgcca tgacctgggt ccgccaggct 120
ccagggaagg gactggagtg ggtctcatct attagtgggt ccggtggtaa cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca agggaccacg 360
gtcaccgtct cc 372

<210> 162
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 162
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Glu Gln Pro Gly Gly

1				5				10					15			
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Gly	Ser	Gly	Phe	Thr	Phe	Arg	Asp	Tyr	
			20					25					30			
Ala	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
Ser	Ser	Ile	Ser	Gly	Ser	Gly	Gly	Asn	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	
	50				55					60						
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr	
65					70				75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85					90					95			
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu	
		100						105					110			
Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser					
		115					120									

<210> 163
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 163
 gacatcgtga tgaccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
 atctcctgca ggtctagtca gagcctcctg tatagtattg gatacaacta tttggattgg 120
 tacctgcaga agtcagggca gtctccacag ctccttatct atttgggttc taatcgggcc 180
 tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
 agcagagtgg aggctgagga tgttgggttt tattactgca tgcaagctct acaaactccg 300
 tacacttttg gccaggggac caagctggag atcaaa 336

<210> 164
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 164
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
 20 25 30
 Ile Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Ser Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala 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 Phe Tyr Tyr Cys Met Gln Ala
 85 90 95
 Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys

100

105

110

<210> 165
 <211> 373
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 165
 gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttaga gactatgcca tgagctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcagct attagtgggt ccggtggtaa cacatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cagctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
 ctctctataa caattcgccc acgctattat ggtttggacg tctggggcca agggaccacg 360
 gtcaccgtct cct 373

<210> 166
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 166
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asp Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120

<210> 167
 <211> 337
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 167
gatatgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtc gagcctcctg tatagtattg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctctgatct atttgggttc taatcgggcc 180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggggt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caagctggag atcaaac 337

<210> 168

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 168

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5				10					15		
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	Tyr	Ser
			20				25					30			
Ile	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35				40					45				
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	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	Met	Gln	Ala
			85				90					95			
Leu	Gln	Thr	Pro	Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys
		100					105					110			

<210> 169

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 169

caggtgcagc tggtggagtc tgggggagtc ttggagcagc ctgggggggtc cctgagactc 60
tcctgtacag cctctggatt cacctttaga gactatgccca tgacctgggt ccgccaggct 120
ccaggaagg ggctggagtg ggtctcatct attagtggta gtggtggtaa tacatactac 180
gcagactccg tgaggggccg gttcaccatc tccagagaca actccaacca cacgctgtat 240
ctgcaaatga acagcctgag agccgaagac acggccgtat attactgtgc gaaagatcga 300
ctctccataa caattcgccc acgctattac ggtttggacg tctggggcca aggggtccacg 360
gtcaccgtct cctca 375

<210> 170

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 170

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Val	Leu	Glu	Gln	Pro	Gly	Gly	
1				5					10					15		
Ser	Leu	Arg	Leu	Ser	Cys	Thr	Ala	Ser	Gly	Phe	Thr	Phe	Arg	Asp	Tyr	
			20					25					30			
Ala	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
Ser	Ser	Ile	Ser	Gly	Ser	Gly	Gly	Asn	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	
	50					55					60					
Arg	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Asn	His	Thr	Leu	Tyr	
65					70				75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85						90					95		
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu	
			100				105						110			
Asp	Val	Trp	Gly	Gln	Gly	Ser	Thr	Val	Thr	Val	Ser	Ser				
		115					120					125				

<210> 171

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 171

ggattcacct ttagagacta tgcc

24

<210> 172

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 172

Gly	Phe	Thr	Phe	Arg	Asp	Tyr	Ala	
1				5				

<210> 173

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 173

attagtggtgta gtggtggttaa taca

24

<210> 174

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 174

Ile Ser Gly Ser Gly Gly Asn Thr

1

5

<210> 175

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 175

gcgaaagatc gactctccat aacaattcgc ccacgctatt acggtttgga cgtc

54

<210> 176

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 176

Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu

1

5

10

15

Asp Val

<210> 177

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 177

gatattgtga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
attacttgcc gggcgagtc ggacattagc aattatittg cctggtatca gcagaagcca 120
gggaaagttc ctaaacctct gatctttgct gcatccactt tgcattccagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccattagtag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaaag tataacagtg ccccgtagac ttttgccag 300

gggaccaagg tggaaatcaa acga

324

<210> 178

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 178

Asp	Ile	Val	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	Asp	Ile	Ser	Asn	Tyr
		20					25					30			
Phe	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
	35					40					45				
Phe	Ala	Ala	Ser	Thr	Leu	His	Pro	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	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Tyr
		85						90						95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
		100						105							

<210> 179

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 179

caggacatta gcaattat

18

<210> 180

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 180

Gln	Asp	Ile	Ser	Asn	Tyr
1			5		

<210> 181

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 181

gctgcatcc

9

<210> 182

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 182

Ala Ala Ser

1

<210> 183

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 183

caaaagtata acagtgcccc gtacact

27

<210> 184

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 184

Gln Lys Tyr Asn Ser Ala Pro Tyr Thr

1

5

<210> 185

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 185

gaggtgcagc tgggtggagtc tggggggagtc ttggagcagc ctgggggggtc cctgagactc 60
tcctgtacag cctctggatt cacctttaga gactatgcca tgacctgggt ccgccaggct 120

```

ccaggggaagg ggctggagtg ggtctcatct attagtggta gtggtggtta tacatactac 180
gcagactccg tgagggggccg gttcaccatc tccagagaca actccaacca cacgctgtat 240
ctgcaaataga acagcctgag agccgaagac acggccgtat attactgtgc gaaagatcga 300
ctctccataa caattcgccc acgctattac ggtttggacg tctggggcca agggaccacg 360
gtcaccgtct cc 372

```

<210> 186
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

```

<400> 186
Glu Val Gln Leu Val Glu Ser Gly Gly Val Leu Glu Gln Pro Gly Gly
1      5      10      15
Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Arg Asp Tyr
20     25     30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35     40     45
Ser Ser Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50     55     60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn His Thr Leu Tyr
65     70     75     80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85     90     95
Ala Lys Asp Arg Leu Ser Ile Thr Ile Arg Pro Arg Tyr Tyr Gly Leu
100    105    110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115    120

```

<210> 187
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

```

<400> 187
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
attacttgcc gggcgagtca ggacattagc aattatthtg cctggtatca gcagaagcca 120
gggaaagtgc ctaaactcct gatctttgct gcatccactt tgcattccagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccattagtag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg ccccgtagac ttttggccag 300
gggaccaagc tggagatcaa a 321

```

<210> 188
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 188

```
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 Asp Ile Ser Asn Tyr
          20          25          30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
          35          40          45
Phe Ala Ala Ser Thr Leu His Pro 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 Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Tyr
          85          90          95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
          100         105
```

<210> 189

<211> 373

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 189

```
gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaga gactatgcc a tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtaa tacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatcga 300
ctctccataa caattcgccc acgctattac ggtttggacg tctggggcca agggaccacg 360
gtcaccgtct cct 373
```

<210> 190

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 190

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1           5           10          15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asp Tyr
          20          25          30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35          40          45
Ser Ala Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
          50          55          60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65          70          75          80
```

Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Lys	Asp	Arg	Leu	Ser	Ile	Thr	Ile	Arg	Pro	Arg	Tyr	Tyr	Gly	Leu
			100					105					110		
Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser				
		115					120								

<210> 191

<211> 322

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 191

```

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca ggacattagc aattatcttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg ccccgtagac ttttggccag 300
gggaccaagc tggagatcaa ac                                     322

```

<210> 192

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 192

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	Asp	Ile	Ser	Asn	Tyr
			20					25				30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
		35				40					45				
Tyr	Ala	Ala	Ser	Thr	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	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Tyr
			85					90					95		
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys					
			100					105							

<210> 193

<211> 355

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 193

```
gaagtgcacc tgggtggaatc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgagg cctctggatt cacctttgat gattatgcc a tgcactgggt cgggcaagct 120
ccggggaagg gcctggaatg ggtctcaggt cttagtcgga caagtgtcag tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctttat 240
ttggaaatga acagtctgag acctgaggac acggccttat attactgtgc aaaatggggg 300
acccgggggt attttgacta ctggggccag ggaaccctgg tcaccgtctc ctcag 355
```

<210> 194

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 194

```
Glu Val His Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1           5           10           15
Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20           25           30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35           40           45
Ser Gly Leu Ser Arg Thr Ser Val Ser Ile Gly Tyr Ala Asp Ser Val
 50           55           60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65           70           75           80
Leu Glu Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
 85           90           95
Ala Lys Trp Gly Thr Arg Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
 100          105          110
Leu Val Thr Val Ser Ser
 115
```

<210> 195

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 195

```
ggattcacct ttgatgatta tgcc
```

24

<210> 196

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 196
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 197
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 197
cttagtcgga caagtgtcag tata 24

<210> 198
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 198
Leu Ser Arg Thr Ser Val Ser Ile
1 5

<210> 199
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 199
gcaaaatggg ggacccgggg gtattttgac tac 33

<210> 200
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 200
Ala Lys Trp Gly Thr Arg Gly Tyr Phe Asp Tyr
1 5 10

<210> 201

<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 201
gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtgggaga cagagtcacc 60
atcacttgct gggcgagtc ggatattagt atttggttag cctgggtatca gcagagtcca 120
gggaaagccc ctaaactcct gatcaatgtt gcatcccgtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcagcct 240
gaagattttg taacttacta ttgtcaacag gctaacagtt tcccgatcac cttcggccaa 300
gggacacgac tggcgaccaa ac 322

<210> 202
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 202
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Ile Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Ser Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Asn Val Ala Ser Arg 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 Asn Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Val Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Ile
85 90 95
Thr Phe Gly Gln Gly Thr Arg Leu Ala Thr Lys
100 105

<210> 203
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 203
caggatatta gtatttgg 18

<210> 204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 204

Gln Asp Ile Ser Ile Trp

1

5

<210> 205

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 205

gttgcattcc

9

<210> 206

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 206

Val Ala Ser

1

<210> 207

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 207

caacaggcta acagtttccc gatcacc

27

<210> 208

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 208

Gln Gln Ala Asn Ser Phe Pro Ile Thr

1

5

<210> 209
<211> 355
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 209
gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgagg cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccggggaagg gcctggaatg ggtctcaggt cttagtcgga caagtgtcag tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctttat 240
ttggaaatga acagtctgag acctgaggac acggccttat attactgtgc aaaatggggg 300
accggggggt attttgacta ctggggccag ggaaccctgg tcaccgtctc ctcag 355

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

<220>
<223> Synthetic

<400> 210
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Leu Ser Arg Thr Ser Val Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Glu Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Lys Trp Gly Thr Arg Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110
Leu Val Thr Val Ser Ser
115

<210> 211
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 211
gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtgggaga cagagtcacc 60

```

atcacttgtc gggcgagtca ggatattagt atttggttag cctggtatca gcagagtcca 120
gggaaagccc ctaaactcct gatcaatgtt gcatcccgtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcagcct 240
gaagattttg taacttacta ttgtcaacag gctaacagtt tcccgatcac cttcggccaa 300
gggacacgac tggagattaa ac 322

```

<210> 212

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 212

```

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1           5           10           15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Ile Trp
          20          25          30
Leu Ala Trp Tyr Gln Gln Ser Pro Gly Lys Ala Pro Lys Leu Leu Ile
          35          40          45
Asn Val Ala Ser Arg 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 Asn Ser Leu Gln Pro
65          70          75          80
Glu Asp Phe Val Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Ile
          85          90          95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
          100          105

```

<210> 213

<211> 355

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 213

```

gaagtgcagc tgggtggagtc tggggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgccca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt cttagtcgga caagtgtcag tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaatggggg 300
acccgggggt attttgacta ctggggccaa ggaaccctgg tcaccgtctc ctacag 355

```

<210> 214

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 214

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Arg
1				5				10					15		
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asp	Asp	Tyr
			20					25					30		
Ala	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ser	Gly	Leu	Ser	Arg	Thr	Ser	Val	Ser	Ile	Gly	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr
65					70					75					80
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Leu	Tyr	Tyr	Cys
			85						90					95	
Ala	Lys	Trp	Gly	Thr	Arg	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr
			100					105					110		
Leu	Val	Thr	Val	Ser	Ser										
															115

<210> 215

<211> 322

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 215

gacatccaga	tgaccagtc	tccatcttcc	gtgtctgcat	ctgtaggaga	cagagtcacc	60
atcacttgtc	gggcgagtca	ggatattagt	atttggttag	cctgggtatca	gcagaaacca	120
gggaaagccc	ctaagctcct	gatctatgtt	gcatccagtt	tgcaaagtgg	ggtcccatca	180
aggttcagcg	gcagtggatc	tgggacagat	ttcactctca	ccatcagcag	cctgcagcct	240
gaagattttg	caacttacta	ttgtcaacag	gctaacagtt	tcccgatcac	cttcggccaa	300
gggacacgac	tggagattaa	ac				322

<210> 216

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 216

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Val	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Asp	Ile	Ser	Ile	Trp
			20					25					30		
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile
		35					40					45			
Tyr	Val	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	Ala	Asn	Ser	Phe	Pro	Ile

				85					90			95
Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys		
			100					105				

<210> 217
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 217
 gaggtgcagc tggttgagtc tgggggaggc ttgctacagc cggggggggtc cctgagactc 60
 tcctgtgcag cctctggaat caccttttagc acctatgccca tgagctgggt ccgtcaggct 120
 ccagggaggg ggctggagtg ggtctcagct attagtggta gtggtgatag cacatcctac 180
 gcagactccg tgaagggccg gttcaccagc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagtcata 300
 gcagctcgtc ctactggaa cttcgatctc tggggccgtg gcaccctggt cactgtctcc 360
 tca 363

<210> 218
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 218
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Leu Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Ser Thr Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Asp Ser Thr Ser Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ser Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Val Ile Ala Ala Arg Pro His Trp Asn Phe Asp Leu Trp Gly
 100 105 110
 Arg Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 219
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 219

ggaatcacct ttagcaccta tgcc

24

<210> 220

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 220

Gly Ile Thr Phe Ser Thr Tyr Ala

1

5

<210> 221

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 221

attagtggtgta gtggtgatag caca

24

<210> 222

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 222

Ile Ser Gly Ser Gly Asp Ser Thr

1

5

<210> 223

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 223

gcgaaagtca tagcagctcg tcctcactgg aacttcgatc tc

42

<210> 224

<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 224
Ala Lys Val Ile Ala Ala Arg Pro His Trp Asn Phe Asp Leu
1 5 10

<210> 225
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 225
gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagt agatatttag cctggtatca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg gaggttatta ctgtcagcag cgtagtgact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgg 324

<210> 226
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 226
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80
Glu Asp Phe Gly Val Tyr Tyr Cys Gln Gln Arg Ser Asp Trp Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 227
<211> 18
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 227

cagagtgtta gtagatat

18

<210> 228

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 228

Gln Ser Val Ser Arg Tyr
1 5

<210> 229

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 229

gatgcatcc

9

<210> 230

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 230

Asp Ala Ser
1

<210> 231

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 231

cagcagcgta gtgactggcc gctcact

27

<210> 232
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 232
 Gln Gln Arg Ser Asp Trp Pro Leu Thr
 1 5

<210> 233
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 233
 gaggtgcagc tggtggagtc tgggggaggc ttgctacagc cggggggggtc cctgagactc 60
 tcctgtgcag cctctggaat caccttttagc acctatgcca tgagctgggt ccgtcaggct 120
 ccaggaggagg ggctggagtg ggtctcagct attagtggta gtggtgatag cacatcctac 180
 gcagactccg tgaagggccg gttcaccagc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagtcata 300
 gcagctcgtc ctactggaa cttcgatctc tggggccgtg gcaccctggt cactgtctcc 360
 tca 363

<210> 234
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 234
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Leu Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Ser Thr Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Asp Ser Thr Ser Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ser Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Val Ile Ala Ala Arg Pro His Trp Asn Phe Asp Leu Trp Gly
 100 105 110
 Arg Gly Thr Leu Val Thr Val Ser Ser

<210> 235
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 235
 gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagggttagt agatatttag cctgggtatca acagaaacct 120
 ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
 gaagattttg gattttatta ctgtcagcag cgtagtgact ggccgctcac tttcggcgga 300
 gggaccaagg tggagatcaa acgg 324

<210> 236
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 236
 Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
 65 70 75 80
 Glu Asp Phe Gly Val Tyr Tyr Cys Gln Gln Arg Ser Asp Trp Pro Leu
 85 90 95
 Thr Phe Gly Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 237
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 237
 gaggtgcagc tggttgagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
 tcctgtgcag cctctggaat cacctttagc acctatgcca tgagctgggt ccgtcaggct 120

```

ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgatag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agccgaggac acggccgtat attactgtgc gaaagtcata 300
gcagctcgtc ctactggaa cttcgatctc tggggccgtg gcaccctggt cactgtctcc 360
tca

```

<210> 238
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

```

<400> 238
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1      5      10      15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Ser Thr Tyr
20     25     30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35     40     45
Ser Ala Ile Ser Gly Ser Gly Asp Ser Thr Tyr Tyr Ala Asp Ser Val
50     55     60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65     70     75     80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85     90     95
Ala Lys Val Ile Ala Ala Arg Pro His Trp Asn Phe Asp Leu Trp Gly
100    105    110
Arg Gly Thr Leu Val Thr Val Ser Ser
115    120

```

<210> 239
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

```

<400> 239
gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagt agatatttag cctggtatca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgtagtgact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgg
324

```

<210> 240
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 240

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	Leu	Ser	Pro	Gly
1				5					10					15	
Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Ser	Arg	Tyr
			20					25					30		
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu	Ile
		35					40					45			
Tyr	Asp	Ala	Ser	Asn	Arg	Ala	Thr	Gly	Ile	Pro	Ala	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu	Pro
65					70					75				80	
Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Arg	Ser	Asp	Trp	Pro	Leu
				85					90					95	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
			100					105							

<210> 241

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 241

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
acctgtgcag	cctctggatt	caccttcagt	agtaatggca	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcaatt	atatcatatg	atggaaataa	tcaatactat	180
gcagactccg	tgaagggccg	attcaccatc	tccagagaca	attccaagca	cacgctgtat	240
ctggaaatga	acagcctgag	agctgaggac	acggctgtgt	attactgtac	aaaagccatc	300
tctataagtg	gaacttaca	ctggttcgat	tcctggggcc	agggaaccct	ggtcaccgtc	360
tcctca						366

<210> 242

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 242

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Thr	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Asn
			20					25					30		
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Ile	Ile	Ser	Tyr	Asp	Gly	Asn	Asn	Gln	Tyr	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	His	Thr	Leu	Tyr
65					70					75				80	

Leu	Glu	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Thr	Lys	Ala	Ile	Ser	Ile	Ser	Gly	Thr	Tyr	Asn	Trp	Phe	Asp	Ser	Trp
			100					105					110		
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser						
		115					120								

<210> 243
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 243
 ggattcacct tcagtagtaa tggc 24

<210> 244
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 244
 Gly Phe Thr Phe Ser Ser Asn Gly
 1 5

<210> 245
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 245
 atatcatatg atggaaataa tcaa 24

<210> 246
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 246
 Ile Ser Tyr Asp Gly Asn Asn Gln
 1 5

<210> 247
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 247
acaaaagcca tctctataag tggaacttac aactggttcg attcc 45

<210> 248
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 248
Thr Lys Ala Ile Ser Ile Ser Gly Thr Tyr Asn Trp Phe Asp Ser
1 5 10 15

<210> 249
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 249
gaaattgtat tgacacagtc tccagccatc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc aggtacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacag cgtagcaact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgg 324

<210> 250
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 250
Glu Ile Val Leu Thr Gln Ser Pro Ala Ile Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile

		35					40				45						
Tyr	Asp	Ala	Ser	Asn	Arg	Ala	Thr	Gly	Ile	Pro	Ala	Arg	Phe	Ser	Gly		
	50					55					60						
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu	Pro		
65					70					75					80		
Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Arg	Ser	Asn	Trp	Pro	Leu		
				85				90						95			
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys							
		100						105									

<210> 251
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 251
 cagagtgtta gcaggtac 18

<210> 252
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 252
 Gln Ser Val Ser Arg Tyr
 1 5

<210> 253
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 253
 gatgcatcc 9

<210> 254
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 254

Asp Ala Ser
1

<210> 255
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 255
caacagcgta gcaactggcc gtcact 27

<210> 256
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 256
Gln Gln Arg Ser Asn Trp Pro Leu Thr
1 5

<210> 257
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 257
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
acctgtgcag cctctggatt caccttcagt agtaatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcaatt atatcatatg atggaaataa tcaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagca cacgctgtat 240
ctggaaatga acagcctgag agctgaggac acggctgtgt attactgtac aaaagccatc 300
tctataagtg gaacttaca ctggttcgat tcctggggcc agggaaccct ggtcaccgctc 360
tcctca 366

<210> 258
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 258
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg

1				5					10					15		
Ser	Leu	Arg	Leu	Thr	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Asn	
			20					25					30			
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
		35					40					45				
Ala	Ile	Ile	Ser	Tyr	Asp	Gly	Asn	Asn	Gln	Tyr	Tyr	Ala	Asp	Ser	Val	
	50					55					60					
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	His	Thr	Leu	Tyr	
65					70					75					80	
Leu	Glu	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
				85					90					95		
Thr	Lys	Ala	Ile	Ser	Ile	Ser	Gly	Thr	Tyr	Asn	Trp	Phe	Asp	Ser	Trp	
			100					105					110			
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser							
		115					120									

<210> 259

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 259

```

gaaattgtat tgacacagtc tccagccatc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc aggtacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacag cgtagcaact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgg                                     324

```

<210> 260

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 260

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Ala	Ile	Leu	Ser	Leu	Ser	Pro	Gly	
1				5					10					15		
Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Ser	Arg	Tyr	
			20					25				30				
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu	Ile	
	35					40					45					
Tyr	Asp	Ala	Ser	Asn	Arg	Ala	Thr	Gly	Ile	Pro	Ala	Arg	Phe	Ser	Gly	
	50					55					60					
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu	Pro	
65					70					75				80		
Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Arg	Ser	Asn	Trp	Pro	Leu	
			85					90					95			
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys						

<210> 261
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 261
 caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagt agtaatggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaaataa tcaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaataga acagcctgag agctgaggac acggctgtgt attactgtac aaaagccatc 300
 tctataagtga gaacttaca ctggttcgat tcctggggcc agggaaccct ggtcaccgctc 360
 tcctca 366

<210> 262
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 262
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Ser Tyr Asp Gly Asn Asn Gln Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Thr Lys Ala Ile Ser Ile Ser Gly Thr Tyr Asn Trp Phe Asp Ser Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 263
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 263
gaaattgtat tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc aggtacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacag cgtagcaact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgg 324

<210> 264
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 264
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 265
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(8)
<223> Xaa = Any amino acid

<400> 265
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 266
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(8)

<223> Xaa = Any amino acid

<400> 266

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

<210> 267

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(18)

<223> Xaa = Any amino acid

<400> 267

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

10

15

Xaa Xaa

<210> 268

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(11)

<223> Xaa = Any amino acid

<400> 268

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

10

<210> 269

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(3)

<223> Xaa = Any amino acid

<400> 269

Xaa Xaa Xaa

1

<210> 270

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(9)

<223> Xaa = Any amino acid

<400> 270

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

<210> 271

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 271

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys

130	135	140
Asp Val Ser Gln Glu	Asp Pro Glu Val Gln	Phe Asn Trp Tyr Val Asp
145	150	155
Gly Val Glu Val His	Asn Ala Lys Thr Lys	Pro Arg Glu Glu Gln Phe
165	170	175
Asn Ser Thr Tyr Arg	Val Val Ser Val Leu	Thr Val Leu His Gln Asp
180	185	190
Trp Leu Asn Gly Lys	Glu Tyr Lys Cys Lys	Val Ser Asn Lys Gly Leu
195	200	205
Pro Ser Ser Ile Glu	Lys Thr Ile Ser Lys	Ala Lys Gly Gln Pro Arg
210	215	220
Glu Pro Gln Val Tyr	Thr Leu Pro Pro Ser	Gln Glu Glu Met Thr Lys
225	230	235
Asn Gln Val Ser Leu	Thr Cys Leu Val Lys	Gly Phe Tyr Pro Ser Asp
245	250	255
Ile Ala Val Glu Trp	Glu Ser Asn Gly Gln	Pro Glu Asn Asn Tyr Lys
260	265	270
Thr Thr Pro Pro Val	Leu Asp Ser Asp Gly	Ser Phe Phe Leu Tyr Ser
275	280	285
Arg Leu Thr Val Asp	Lys Ser Arg Trp Gln	Glu Gly Asn Val Phe Ser
290	295	300
Cys Ser Val Met His	Glu Ala Leu His Asn	His Tyr Thr Gln Lys Ser
305	310	315
Leu Ser Leu Ser Leu	Gly Lys	
325		

<210> 274

<211> 207

<212> PRT

<213> Homo sapiens

<400> 274

Met Lys Val Leu Gln	Glu Pro Thr Cys	Val Ser Asp Tyr	Met Ser Ile
1	5	10	15
Ser Thr Cys Glu Trp	Lys Met Asn Gly	Pro Thr Asn Cys	Ser Thr Glu
20	25	30	
Leu Arg Leu Leu Tyr	Gln Leu Val Phe	Leu Leu Ser Glu	Ala His Thr
35	40	45	
Cys Ile Pro Glu Asn	Asn Gly Gly Ala	Gly Cys Val Cys	His Leu Leu
50	55	60	
Met Asp Asp Val Val	Ser Ala Asp Asn	Tyr Thr Leu Asp	Leu Trp Ala
65	70	75	80
Gly Gln Gln Leu Leu	Trp Lys Gly Ser	Phe Lys Pro Ser	Glu His Val
85	90	95	
Lys Pro Arg Ala Pro	Gly Asn Leu Thr	Val His Thr Asn	Val Ser Asp
100	105	110	
Thr Leu Leu Leu Thr	Trp Ser Asn Pro	Tyr Pro Pro Asp	Asn Tyr Leu
115	120	125	
Tyr Asn His Leu Thr	Tyr Ala Val Asn	Ile Trp Ser Glu	Asn Asp Pro
130	135	140	
Ala Asp Phe Arg Ile	Tyr Asn Val Thr	Tyr Leu Glu Pro	Ser Leu Arg
145	150	155	160
Ile Ala Ala Ser Thr	Leu Lys Ser Gly	Ile Ser Tyr Arg	Ala Arg Val
165	170	175	

Arg	Ala	Trp	Ala	Gln	Cys	Tyr	Asn	Thr	Thr	Trp	Ser	Glu	Trp	Ser	Pro
			180					185					190		
Ser	Thr	Lys	Trp	His	Asn	Ser	Tyr	Arg	Glu	Pro	Phe	Glu	Gln	His	
		195					200					205			

<210> 275

<211> 231

<212> PRT

<213> Macaca fascicularis

<400> 275

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