

SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> ANTI-MUC16 ANTIBODIES, ANTIBODY-DRUG CONJUGATES, AND BISPECIFIC
ANTIGEN-BINDING MOLECULES THAT BIND MUC16 AND CD3, AND USES THEREOF

<130> 10295W001

<150> US 62/399,249

<151> 2016-09-23

<150> US 62/558,711

<151> 2017-09-14

<160> 1962

<170> PatentIn version 3.5

<210> 1

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1

gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtgcag cctctggatt cacatttaat gattatgcca tgcactgggt ccggcaaagt 120

ccagggaagg gcctggagtg ggtctcaggt attgattgga atggtggtag tatagactat 180

gcggactctg tgaagggccg attcaccatc tccagagaca ccgccaagaa ttccctatat 240

ctgcaaatga acagtctgaa agttgaggac acggccttgt attactgtgc aaaagatata 300

gggcactgga actatatcgg cggaatggat gtctggggcc aagggaccac ggtcaccgtc 360

tcctca 366

<210> 2

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 2

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 Asn Asp Tyr
20 25 30

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

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

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

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

Ala Lys Asp Ile Gly His Trp Asn Tyr Ile Gly Gly Met Asp Val Trp
100 105 110

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

<210> 3

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 3

ggattcacat ttaatgatta tgcc

24

<210> 4

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

<220>
<223> Synthetic

<400> 4

Gly Phe Thr Phe Asn Asp Tyr Ala
1 5

<210> 5
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 5
attgattgga atggtggtag tata

24

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

<220>
<223> Synthetic

<400> 6

Ile Asp Trp Asn Gly Gly Ser Ile
1 5

<210> 7
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 7
gcaaaagata tagggcactg gaactatatc ggcggaatgg atgtc

45

<210> 8
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 8

Ala Lys Asp Ile Gly His Trp Asn Tyr Ile Gly Gly Met Asp Val
 1 5 10 15

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

<220>
 <223> Synthetic

<400> 9

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gagcattaac atctatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagttcct gatctatgct gcatccagtt tacaaactgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctggaacct	240
gaagattttg caacttacta ctgtcaacac agttacagta cccctccgat caccttcggc	300
caagggacac gactggagat taaa	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 Ser Ile Asn Ile Tyr	20	25	30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile	35	40	45
Tyr Ala Ala Ser Ser Leu Gln Thr 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 Glu Pro	65	70	75
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His Ser Tyr Ser Thr Pro Pro	85	90	95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys	100	105	

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

<220>
 <223> Synthetic

<400> 11
 cagagcatta acatctat

18

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

<220>
 <223> Synthetic

<400> 12

Gln Ser Ile Asn Ile 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> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 15
caacacagtt acagtacccc tccgatacc

30

<210> 16
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 16

Gln His Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 17

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 17

cagggtgcagc tgggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt aactactaca tgagctgggt ccgccaggct 120
ccagggaagg gcctggagtg gatttcctac attagtggta ggggtagtac catattctac 180
gcagactctg tgaagggccg aatcaccatc tccagggaca acgccaagaa ctactgttt 240
ctgcaaatga acagcctgag agccgaggac acggccgtgt atttttgtgt gaaagatcgg 300
ggtggataca gtccctactg gggccaggga accctgggtca 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 Leu Val Lys Pro Gly Gly
1 5 10 15

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

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

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

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

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

Val Lys Asp Arg Gly Gly Tyr Ser Pro Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

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

<220>
<223> Synthetic

<400> 19
ggattcacct tcagtaacta ctac

24

<210> 20
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 20

Gly Phe Thr Phe Ser Asn Tyr Tyr
1 5

<210> 21

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

<220>
<223> Synthetic

<400> 21
attagtggta ggggtagtac cata

24

<210> 22
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 22

Ile Ser Gly Arg Gly Ser Thr Ile
1 5

<210> 23
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 23
gtgaaagatc ggggtggata cagtcctac

30

<210> 24
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 24

Val Lys Asp Arg Gly Gly Tyr Ser Pro Tyr
1 5 10

<210> 25
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 25
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatact gcatccagtt tgcagagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
 caagggacac gactggagat taaa 324

<210> 26
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 26

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

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

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

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

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

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

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

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

<220>
<223> Synthetic

<400> 27
cagagcatta gcacctat

18

<210> 28
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 28

Gln Ser Ile Ser Thr Tyr
1 5

<210> 29
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 29
actgcatcc

9

<210> 30
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 30

Thr Ala Ser
1

<210> 31
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 31
caacagagtt acagtacccc tccgatacacc

30

<210> 32
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 32

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 33
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 33
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gaccatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatc atggaagtaa taaacactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cgcgctgtat 240
ctacaaatga acagcctgag acctgaggac acggctatgt attactgtgc gaaagacggc 300
tacgattttt ggaatgggta ttctctcttt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 34
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 34

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 Asp His
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 His Gly Ser Asn Lys His Tyr Ala Asp Ser Val
50 55 60

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

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

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

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 35
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 35
ggattcacct tcagtgacca tggc 24

<210> 36
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 36

Gly Phe Thr Phe Ser Asp His Gly
1 5

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 37
atatcatatc atggaagtaa taaa 24

<210> 38

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

<220>
<223> Synthetic

<400> 38

Ile Ser Tyr His Gly Ser Asn Lys
1 5

<210> 39
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 39
gcgaaagacg gctacgattt ttggaatggg tattctctct ttgactac 48

<210> 40
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 40

Ala Lys Asp Gly Tyr Asp Phe Trp Asn Gly Tyr Ser Leu Phe Asp Tyr
1 5 10 15

<210> 41
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 41
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatact gcatccaatt tgctaagtgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc	300
caggggacca agctggagat caaa	324

<210> 42
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 42

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

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

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

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

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

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

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

<210> 43
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 43
cagagcatta gcaactat

18

<210> 44
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 44

Gln Ser Ile Ser Asn Tyr
1 5

<210> 45
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 45
actgcatcc

9

<210> 46
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 46

Thr Ala Ser
1

<210> 47
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 47
caacagagtt acagtacccc tccgatcacc 30

<210> 48
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 48

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 49
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 49
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gaccatgcc a tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatc atggaactga taaacagtat 180
ggagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cgcgctgtat 240
ctgcaaatga acagcctgag acctgaggac acggctatgt attactgtgc gaaagacggc 300

tacgattttt ggaatgctta ttctctcttt gactattggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 50
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 50

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 Asp His
20 25 30

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

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

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

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

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

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 51
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 51
ggattcacct tcagtgacca tgcc

24

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

<220>
<223> Synthetic

<400> 52

Gly Phe Thr Phe Ser Asp His Ala
1 5

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

<220>
<223> Synthetic

<400> 53
atatcatatc atggaactga taaa

24

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

<220>
<223> Synthetic

<400> 54

Ile Ser Tyr His Gly Thr Asp Lys
1 5

<210> 55
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 55
 gcgaaagacg gctacgattt ttggaatgct tattctctct ttgactat 48

<210> 56
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 56

Ala	Lys	Asp	Gly	Tyr	Asp	Phe	Trp	Asn	Ala	Tyr	Ser	Leu	Phe	Asp	Tyr
1				5				10					15		

<210> 57
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 57
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctatact gcatccagtt tgctaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
 caggggacac gactggagat taaa 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 Ser Ile Ser Asn Tyr
 20 25 30

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

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

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

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

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

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

<220>
 <223> Synthetic

<400> 59

cagagcatta gcaactat

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

<220>
<223> Synthetic

<400> 60

Gln Ser Ile Ser Asn Tyr
1 5

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

<220>
<223> Synthetic

<400> 61
actgcatcc

9

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

<220>
<223> Synthetic

<400> 62

Thr Ala Ser
1

<210> 63
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 63
caacagagtt acagtacccc tccgatcacc

30

<210> 64
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 64

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 65
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 65
gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc cggggggggtc cctgagactc 60
tcctgtgaag cctctggatt cacctttagt aattatgcc a tgagttgggt ccgccaggct 120
ccagggaagg ggttggagtg ggtctcaggt atgagtggaa gtggtactta cccatattac 180
gcagactctg tgaagggccg gttcaccatc tccagagaca attccaagaa tatgttgtat 240
ctgcaaata acagcctgag agtcaaagac acggccgtat attactgtgc gaaagacggg 300
gtggatacag ctatgattct tgatactttt gatctctggg gccaagggaac aatggtcacc 360
gtctcttca 369

<210> 66
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 66

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 Glu Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

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

Ser Gly Met Ser Gly Ser Gly Thr Tyr Pro Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Lys Asp Gly Val Asp Thr Ala Met Ile Leu Asp Thr Phe Asp Leu
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 67

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 67

ggattcacct ttagtaatta tgcc

24

<210> 68

<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 68

Gly Phe Thr Phe Ser Asn Tyr Ala
1 5

<210> 69
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 69
atgagtggaa gtggtactta ccca

24

<210> 70
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 70

Met Ser Gly Ser Gly Thr Tyr Pro
1 5

<210> 71
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 71
gcgaaagacg ggggtggatac agctatgatt cttgatactt ttgatctc

48

<210> 72
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 72

Ala	Lys	Asp	Gly	Val	Asp	Thr	Ala	Met	Ile	Leu	Asp	Thr	Phe	Asp	Leu
1				5					10					15	

<210> 73
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 73

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc	300
caagggacca agctggagat caaa	324

<210> 74
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 74

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

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

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

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

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

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

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

<210> 75
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 75
cagagcatta gcagctat

18

<210> 76
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 76

Gln Ser Ile Ser Ser Tyr

1

5

<210> 77
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 77
gctgcatcc

9

<210> 78
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 78

Ala Ala Ser
1

<210> 79
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 79
caacagagtt acagtacccc tccgatcacc

30

<210> 80
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 80

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 81

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 81

cagggtgcagc tgggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttccgt gactactcca tgagctggat ccgccaggct 120
ccaggggaagg ggctggagtg ggtttcatac gttacttttt ttaatagtgc catatactac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctactgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gagagaaaga 300
gagcctattg tggggggcctt tgactactgg ggccaggga ccttggtcac cgtctcctca 360

<210> 82

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 82

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys 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

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

Ser Tyr Val Thr Phe Phe Asn Ser Ala Ile Tyr 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 Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Arg Glu Pro Ile Val Gly Gly Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 83
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 83
ggattcacct tccgtgacta ctcc

24

<210> 84
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 84

Gly Phe Thr Phe Arg Asp Tyr Ser
1 5

<210> 85
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 85
gttacttttt ttaatagtc cata

24

<210> 86
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 86

Val Thr Phe Phe Asn Ser Ala Ile
1 5

<210> 87
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 87
gcgagagaaa gagagcctat tgtggggggc tttgactac

39

<210> 88
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 88

Ala Arg Glu Arg Glu Pro Ile Val Gly Gly Phe Asp Tyr
1 5 10

<210> 89
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 89
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattaac agctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaagggtgg ggtcccatca 180
 aggttcagtg gcggtggatc tgggacagat ttactctca ccatcaccag tctgcaacct 240
 gaagattttg caactttcta ctgtcaacag agttacagtt ctctccgat caccttcggc 300
 caagggacac gactggagat taaa 324

<210> 90
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 90

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

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

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

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

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

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

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

<210> 91
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 91
cagagcatta acagctat

18

<210> 92
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 92

Gln Ser Ile Asn Ser Tyr
1 5

<210> 93
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 93
gctgcatcc

9

<210> 94
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 94

Ala Ala Ser
1

<210> 95
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 95
caacagagtt acagttctcc tccgattcacc

30

<210> 96
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 96

Gln Gln Ser Tyr Ser Ser Pro Pro Ile Thr
1 5 10

<210> 97
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 97
gaggtgcagc tgggtggagtc tgggggaggc ttggaacagc cagggcggtc cctgagactc 60
tcctgtacag cttctggatt cgcctttggt gatcatacta tgagctgggt ccgccaggct 120
ccaggggaagg ggctggagtg ggtaggtttc attagaagta gagcttatgg tgggacaaca 180
gaatacgccg cgtctgtgaa aggcagattc accatctcaa gagatgattc caaaagcatc 240
gcctatctgc aaatggacag cctgaaaacc gaggacacag ccgtgtatta ttgtactagc 300
gggggatatg atagtagtct tcattactac tattactacc acggtatgga cgtctggggc 360
cgagggacca cggtcaccgt ctctca 387

<210> 98
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 98

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

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

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

Gly Phe Ile Arg Ser Arg Ala Tyr Gly Gly Thr Thr Glu Tyr Ala Ala
50 55 60

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

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

Tyr Cys Thr Ser Gly Gly Tyr Asp Ser Ser Leu His Tyr Tyr Tyr Tyr
100 105 110

Tyr His Gly Met Asp Val Trp Gly Arg Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

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

<220>
<223> Synthetic

<400> 99
ggattcgctt ttggtgatca tact

24

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

<220>
<223> Synthetic

<400> 100

Gly Phe Ala Phe Gly Asp His Thr
1 5

<210> 101
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 101
attagaagta gagcttatgg tgggacaaca

30

<210> 102
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 102

Ile Arg Ser Arg Ala Tyr Gly Gly Thr Thr
1 5 10

<210> 103
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
actagcgggg gatatgatag tagtcttcat tactactatt actaccacgg tatggacgtc 60

<210> 104
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104

Thr Ser Gly Gly Tyr Asp Ser Ser Leu His Tyr Tyr Tyr Tyr Tyr His
1 5 10 15

Gly Met Asp Val
20

<210> 105
<211> 324
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 105

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga gagagccacc 60
ctctcctgca gggccagtca gagtattacc agcagctact tagcctggta ccagcagaga 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gttcaccttg gacgttcggc 300
caagggacca aggtggaaat caaa 324

<210> 106

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 106

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 107
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 107
cagagtatta ccagcagcta c

21

<210> 108
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 108

Gln Ser Ile Thr Ser Ser Tyr
1 5

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

<220>
<223> Synthetic

<400> 109
ggtgcatcc

9

<210> 110
<211> 3
<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 110

Gly Ala Ser

1

<210> 111

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 111

cagcagtatg gtagttcacc ttggacg

27

<210> 112

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 112

Gln Gln Tyr Gly Ser Ser Pro Trp Thr

1

5

<210> 113

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 113

gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc cagggcggtc cctgagactc

60

tcctgtacag gttctggact cacctttggt gattatggta tgagctgggt ccgccaggct

120

ccaggaaagg ggctggagtg ggtaggtttc attagaagta aaggttatgg tgggacaaca 180
gaatacgccg cgtctgtgaa aggcagattc accatctcaa gagatgattc caaaagcacc 240
gcctatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ttgtactagt 300
gggggatatg atagtagtgt tcattactac tactactatt acgctatgga cgtctggggc 360
caagggacca cggtcacccgt ctcctca 387

<210> 114
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114

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 Thr Gly Ser Gly Leu Thr Phe Gly Asp Tyr
20 25 30

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

Gly Phe Ile Arg Ser Lys Gly Tyr Gly Gly Thr Thr Glu Tyr Ala Ala
50 55 60

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

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

Tyr Cys Thr Ser Gly Gly Tyr Asp Ser Ser Val His Tyr Tyr Tyr Tyr
100 105 110

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

Ser

<210> 115
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 115
ggactcacct ttggtgatta tggt 24

<210> 116
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116

Gly Leu Thr Phe Gly Asp Tyr Gly
1 5

<210> 117
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 117
attagaagta aaggttatgg tgggacaaca 30

<210> 118
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118

Ile Arg Ser Lys Gly Tyr Gly Gly Thr Thr
1 5 10

<210> 119
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 119
actagtgggg gatatgatag tagtggtcat tactactact actattacgc tatggacgtc 60

<210> 120
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 120

Thr Ser Gly Gly Tyr Asp Ser Ser Val His Tyr Tyr Tyr Tyr Tyr Tyr
1 5 10 15

Ala Met Asp Val
20

<210> 121
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 121
gaaatttgtg tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gactgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gtcaccttg gacgttcggc 300
caagggacca aggtggaaat caaa 324

<210> 122
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 122

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Thr Val Ser Ser Ser
20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 123
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 123
cagactgtta gcagcagcta c

21

<210> 124
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 124

Gln Thr Val Ser Ser Ser Tyr
1 5

<210> 125
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 125
ggtgcatcc

9

<210> 126
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 126

Gly Ala Ser
1

<210> 127

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 127

cagcagtatg gtagctcacc ttggacg

27

<210> 128

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 128

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 129

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 129

cagggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgtag cctctggatt caccttcagt aattatggca tacactgggt ccgccaggct 120

ccaggcaagg gactagagtg ggtggcagtt atatcagatg atggaagttt taaattctat 180

gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

cttcaaatga acagcctgag agttgaggac tcggctgttt atcactgtgc gaaatggcaa 300
 cacaactgga acgacggggg atttgactac tggggccagg gaaccctggc cactgtctcc 360
 tca 363

<210> 130
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 130

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 Val Ala Ser Gly Phe Thr Phe Ser Asn 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 Asp Asp Gly Ser Phe Lys Phe 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 Val Glu Asp Ser Ala Val Tyr His Cys
 85 90 95

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

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 131
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 131
ggattcacct tcagtaatta tggc

24

<210> 132
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 132

Gly Phe Thr Phe Ser Asn Tyr Gly
1 5

<210> 133
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 133
atatcagatg atggaagttt taaa

24

<210> 134
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 134

Ile Ser Asp Asp Gly Ser Phe Lys
1 5

<210> 135
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 135
gcgaaatggc aacacaactg gaacgacggg ggatttgact ac 42

<210> 136
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 136

Ala Lys Trp Gln His Asn Trp Asn Asp Gly Gly Phe Asp Tyr
1 5 10

<210> 137
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 137
gaaattgtgt tgacacagtc tccagacacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtcttagc agcaactact tagcctggta ccggcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtatatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gttcaccttg gacgttcggc 300

caagggacca aggtggaaat caaa

324

<210> 138
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 138

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Ser Ser Asn
20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 139
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 139
cagagtctta gcagcaacta c

21

<210> 140
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 140

Gln Ser Leu Ser Ser Asn Tyr
1 5

<210> 141
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 141
ggtatatcc

9

<210> 142
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 142

Gly Ile Ser
1

<210> 143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 143

cagcagtatg gtagttcacc ttggacg

27

<210> 144

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 144

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 145

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 145

gaggtgcagc tgggtggagtc tggggggagcc ttggtccagc cggggggggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt agctatgcta tgcactgggt ccgccaggct 120

ccagggaagg gtctggaatt tgtttcaact attagttata atgggggtac cacatactat 180

gcagactctg tgaagggcag attcaccgtc tccagagaca attccaaaaa cacggtgttt 240

cttcgcatgg gcagcctgag aactgaagac atggctgtgt attactgtgc gagagcagca 300

gctccctggg gccagggcac cctggtcact gtctcctca 339

<210> 146

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 146

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

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

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

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

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

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

Ala Arg Ala Ala Ala Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

Ser

<210> 147

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 147

ggattcacct tcagtagcta tgct

24

<210> 148

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

<220>
<223> Synthetic

<400> 148

Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

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

<220>
<223> Synthetic

<400> 149
attagttata atgggggtac caca

24

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

<220>
<223> Synthetic

<400> 150

Ile Ser Tyr Asn Gly Gly Thr Thr
1 5

<210> 151
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 151
gcgagagcag cagctccc

18

<210> 152
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 152

Ala Arg Ala Ala Ala Pro
1 5

<210> 153
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 153
gaaattgtgt tgacgcagtc tccagacacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc aacaggtact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcac cagtatggaa gctcaccttg gacgttcggc 300
caagggacca aggtggaaat caaa 324

<210> 154
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 154

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

<210> 155
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 155
 cagagtgtta gcaacaggta c

21

<210> 156
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 156

Gln Ser Val Ser Asn Arg Tyr
1 5

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

<220>
<223> Synthetic

<400> 157
ggtgcatcc

9

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

<220>
<223> Synthetic

<400> 158

Gly Ala Ser
1

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

<220>
<223> Synthetic

<400> 159
caccagtatg gaagctcacc ttggacg

27

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

<220>
<223> Synthetic

<400> 160

His Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 161

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 161

cagggtgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttttgata	cactctcacc	ggctactata	tacactgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	acaatggtgg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	aatccatcag	cacagcctac	240
atggagctga	gcaggctgag	atctgacgac	acggccgttt	attactgtgc	gagatcactg	300
gaactgctcc	ctgatggtat	ggacgtctgg	ggccaaggga	ccacgggtcac	cgtctcctca	360

<210> 162

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 162

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

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

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

Gly Trp Ile Asn Pro Asn Asn Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 163
ggatacactc tcaccggcta ctat

24

<210> 164
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 164

Gly Tyr Thr Leu Thr Gly Tyr Tyr
1 5

<210> 165

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

<220>
<223> Synthetic

<400> 165
atcaacccta acaatggtgg caca

24

<210> 166
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 166

Ile Asn Pro Asn Asn Gly Gly Thr
1 5

<210> 167
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 167
gcgagatcac tggaactgct ccctgatggt atggacgtc

39

<210> 168
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 168

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

<210> 169
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 169
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgtagc agcagctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacagggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccttg gacgttcggc 300
 caagggacca aggtggaaat caaa 324

<210> 170
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 170

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Ser
 20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 171
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 171
cagagtgtta gcagcagcta c

21

<210> 172
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 172

Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 173
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 173
ggtgcatcc

9

<210> 174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 174

Gly Ala Ser
1

<210> 175
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 175
cagcagtatg gtagctcacc ttggacg

27

<210> 176
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 176

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 177
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 177
caggtgcaac tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgaaactc 60
tcctgtgcag cctctggatt caccttcagt agctattcct tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atttcatatg atggaagtaa tacatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca actccaataa cactctgttt 240
cttcaaatga ccagcctgag agctgaggac acggctatat attactgtgc ccggtctata 300
gcaacgtcct ggggccaggg agtcctggtc accgtctcct ca 342

<210> 178
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 178

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

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

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

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

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

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

Ser Ser

<210> 179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 179
ggattcacct tcagtagcta ttcc

24

<210> 180
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 180

Gly Phe Thr Phe Ser Ser Tyr Ser
1 5

<210> 181
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 181
atttcatatg atggaagtaa taca

24

<210> 182
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 182

Ile Ser Tyr Asp Gly Ser Asn Thr
1 5

<210> 183

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 183

gcccgggtcta tagcaacgtc c

21

<210> 184

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 184

Ala Arg Ser Ile Ala Thr Ser
1 5

<210> 185

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 185

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc

60

ctctcctgca gggccagtca gagcgtagc aacaggtact tagcctggca ccagcagaaa

120

cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag	240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccttg ggcgttcggc	300
caagggacca aggtggaaat caaa	324

<210> 186
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 186

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Gly	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	Asn	Arg
			20					25					30		

Tyr	Leu	Ala	Trp	His	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu
		35					40					45			

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

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

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

Trp	Ala	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105			

<210> 187

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

<220>
<223> Synthetic

<400> 187
cagagcgtta gcaacaggta c

21

<210> 188
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 188

Gln Ser Val Ser Asn Arg Tyr
1 5

<210> 189
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 189
ggtgcatcc

9

<210> 190
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 190

Gly Ala Ser
1

<210> 191
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 191
 cagcagtatg gtagctcacc ttgggcg

27

<210> 192
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 192

Gln Gln Tyr Gly Ser Ser Pro Trp Ala
 1 5

<210> 193
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 193
 caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
 acctgcactg tctctggtgg agccatcaat acttactact ggagctggat ccggcagccc 120
 ccagggaagg gactggagtg gattgggtat atctattaca gagggaacac caactacaac 180
 ccctccctca ggagtcgagt caccatatca gtagacacgt ccaagaacca gttcttcctg 240
 aagctgaggt ctgtgaccgt tgcggactcg gccgtgtatt tctgtgcgag aggctggaac 300
 taccgcgctg agtacttcca gactgggggc cagggcaccg tggtcaccgt ctcctca 357

<210> 194
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 194

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

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

Arg Gly Trp Asn Tyr Arg Ala Glu Tyr Phe Gln His Trp Gly Gln Gly
100 105 110

Thr Val Val Thr Val Ser Ser
115

<210> 195
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 195

ggtggagcca tcaataactta ctac

24

<210> 196

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 196

Gly Gly Ala Ile Asn Thr Tyr Tyr

1 5

<210> 197

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 197

atctattaca gaggaacac c

21

<210> 198

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 198

Ile Tyr Tyr Arg Gly Asn Thr

1 5

<210> 199

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 199

gcgagaggct ggaactaccg cgctgagtac ttccagcac

39

<210> 200

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 200

Ala Arg Gly Trp Asn Tyr Arg Ala Glu Tyr Phe Gln His

1

5

10

<210> 201

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 201

cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc

60

acctgcactg tctctggtgg ctccatcagt agtcactact ggagctggat ccggcagccc

120

ccagggaagg gactggaatg gattggttat atctattaca gtgggagcac caactacaac

180

ccctccctca agagtcgagt caccatttca gtagacaggt ccaagaaccg gttctccctg

240

aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgagac gaccttctac

300

gatgactacg catttgacta ctggggccag ggaaccctgg tcaccgtctc ctca

354

<210> 202

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 202

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

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

Arg Thr Phe Tyr Asp Asp Tyr Ala Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 203

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 203

ggtggctcca tcagtagtca ctac

24

<210> 204
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 204

Gly Gly Ser Ile Ser Ser His Tyr
1 5

<210> 205
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 205

atctattaca gtgggagcac c

21

<210> 206
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 206

Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 207
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 207
gcgaggacct tctacgatga ctacgcattt gactac 36

<210> 208
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 208
Ala Arg Thr Phe Tyr Asp Asp Tyr Ala Phe Asp Tyr
1 5 10

<210> 209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 209
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttgac accacctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatcttt gatgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag caatatggta gctcaccgtt cactttcggc 300
ggagggacca aggtggagat caaa 324

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

<220>
<223> Synthetic

<400> 210

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

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

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

Ile Phe Asp Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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

<220>
<223> Synthetic

<400> 211
cagagtgttg acaccaccta c

21

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

<220>
<223> Synthetic

<400> 212

Gln Ser Val Asp Thr Thr Tyr
1 5

<210> 213

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 213

gatgcatcc

9

<210> 214

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 214

Asp Ala Ser
1

<210> 215

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 215

cagcaatatg gtagctcacc gttcact

27

<210> 216

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 216

Gln Gln Tyr Gly Ser Ser Pro Phe Thr

1 5

<210> 217

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 217

cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60

acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120

ccagggaagg gactggagtg gattgggtat gtcgattaca gtgggagcac cgactacaac 180

ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttttccctg 240

aggctgaact ctgtgaccgc tgcggacacg gccgtgtatt actgtgagag aggatttaac 300

tggaactacg agtttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 218

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 218

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

1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr

20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

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

Arg Gly Phe Asn Trp Asn Tyr Glu Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

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

<220>
<223> Synthetic

<400> 219
ggtggctcca tcagtagtta ctac

24

<210> 220
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 220

Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 221
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 221
gtcgattaca gtgggagcac c

21

<210> 222
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 222

Val Asp Tyr Ser Gly Ser Thr
1 5

<210> 223
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 223
gcgagaggat ttaactggaa ctacgagttt gactac

36

<210> 224
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 224

Ala Arg Gly Phe Asn Trp Asn Tyr Glu Phe Asp Tyr
 1 5 10

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

<220>
 <223> Synthetic

<400> 225
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagt agtacctact tagcctggta ccaacagaaa 120
 cctggccagg ctcccagact cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagttta ttactgtcag cagtatggta gctcaccgta cacttttggc 300
 caggggacca cgctggagat caaa 324

<210> 226
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 226

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Thr
 20 25 30

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

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

50

55

60

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

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

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

<210> 227
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 227
 cagagtgtta gtagtaccta c

21

<210> 228
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 228

Gln Ser Val Ser Ser Thr Tyr
 1 5

<210> 229
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 229
ggtgcatcc

9

<210> 230
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 230

Gly Ala Ser
1

<210> 231
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 231
cagcagtatg gtagctcacc gtacact

27

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

<220>
<223> Synthetic

<400> 232

Gln Gln Tyr Gly Ser Ser Pro Tyr Thr
1 5

<210> 233
<211> 351
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 233

```
cagatgcagt tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc      60
acctgcactg tctctggtgg ctccatcagt agttactact ggaactggat ccggcagccc      120
ccagggaagg gactggaatg gattggctat atctattaca gtggaacaa cttcaacccc      180
tccctcaaga gtcgagtcac catatcagtt gacacgtcca agaaccagtt ctccctgaag      240
ctgagctctg tgaccgctgc ggacacggcc gtgtattact gtgcgagagc gtttcactgg      300
aactacgaat ttgactactg gggccaggga accctgggtca ccgtctcctc a              351
```

<210> 234

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 234

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

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

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

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

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

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

Ala Phe His Trp Asn Tyr Glu Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 235
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 235
ggtggctcca tcagtagtta ctac 24

<210> 236
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 236

Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 237
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 237
atctattaca gtgggaac 18

<210> 238

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

<220>
<223> Synthetic

<400> 238

Ile Tyr Tyr Ser Gly Asn
1 5

<210> 239
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 239
gcgagagcgt ttcactggaa ctacgaattt gactac

36

<210> 240
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 240

Ala Arg Ala Phe His Trp Asn Tyr Glu Phe Asp Tyr
1 5 10

<210> 241
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 241
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga gagagccacc

60

cttcctgca	gggccagtca	gagtgttagc	aacaactact	tagcctggta	ccagcagaaa	120
cctggccagg	ctcccaggct	cctcctctat	ggtgcatcca	gcaggaccac	tgacatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgaagatt	ttgcagtata	ttactgtcag	cagtatgata	actcaccgct	cactttcggc	300
ggagggacca	aggtggagat	caga				324

<220>
<223> Synthetic

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

<210> 243
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 243
cagagtgtta gcaacaacta c

21

<210> 244
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 244

Gln Ser Val Ser Asn Asn Tyr
1 5

<210> 245
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 245
ggtgcatcc

9

<210> 246
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 246

Gly Ala Ser
1

<210> 247
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 247
cagcagtatg ataactcacc gctcact

27

<210> 248
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 248

Gln Gln Tyr Asp Asn Ser Pro Leu Thr
1 5

<210> 249
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 249
gaagtgaac tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gaatatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaagt attagttgga atcagggcaa tatagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaaggg ctccctgtat 240
ctacaaatga acagtctgag agctgaggac acggccttat attattgtgt aaaagatcgg 300

agttccact actactacta cggatatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 250
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 250

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 Glu Tyr
20 25 30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Gly 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

Val Lys Asp Arg Ser Ser His Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
100 105 110

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

<210> 251
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 251
ggattcacct ttgatgaata tgcc

24

<210> 252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 252

Gly Phe Thr Phe Asp Glu Tyr Ala
1 5

<210> 253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 253
attagttgga atcagggcaa tata

24

<210> 254
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 254

Ile Ser Trp Asn Gln Gly Asn Ile
1 5

<210> 255
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 255
 gtaaaagatc ggagttccca ctactactac tacggtatgg acgtc 45

<210> 256
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 256

Val	Lys	Asp	Arg	Ser	Ser	His	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Val
1				5				10					15	

<210> 257
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 257
 cagatgcagc tacaacagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
 acctgcgctg tctatggtgg gtccctcagt gggtactact ggaactggat ccgccagtcc 120
 ccagggaagg ggctggagtg gattgggaaa atcaatcata gtggaagcac caactacaac 180
 ccgtccctca agagtcgagt caccatatca gtagacaggt ccaggatcca gttctccctg 240
 aagctgagtt ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag agcgtggaa 300
 ctactcacgg acggtatgga cgtctggggc caagggacca cggtcaccgt ctcctca 357

<210> 258
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 258

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

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

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

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

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

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

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

Thr Thr Val Thr Val Ser Ser
 115

<210> 259
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 259
ggtgggtccc tcagtgggta ctac

24

<210> 260
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 260

Gly Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 261
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 261
atcaatcata gtggaagcac c

21

<210> 262
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 262

Ile Asn His Ser Gly Ser Thr
1 5

<210> 263
<211> 39
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 263

gcgagagcgc tggaactact cacggacggt atggacgtc

39

<210> 264

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 264

Ala Arg Ala Leu Glu Leu Leu Thr Asp Gly Met Asp Val

1

5

10

<210> 265

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 265

gaaatttgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc agcaactact tagcctggta ccagcagaca 120

cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgta ttactgtcag cagtatggta gtcaccttg gacgttcggc 300

caagggacca aggtggaaat caaa 324

<210> 266

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 266

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Asn
20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 267

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 267

cagagtgtta gcagcaacta c

21

<210> 268

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 268

Gln Ser Val Ser Ser Asn Tyr
1 5

<210> 269

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 269

ggtgcatcc

9

<210> 270

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 270

Gly Ala Ser

1

<210> 271

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 271

cagcagtatg gtagctcacc ttggacg

27

<210> 272

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

<220>
 <223> Synthetic

<400> 272

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
 1 5

<210> 273
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 273

gaagtgcagt tggaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc	60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct	120
ccagggaggg gcctggagtg ggtctcaagt attagttgga atagtataa catagactat	180
gcggactctg tgaagggccg gttcaccatc gccagagaca gcgccaagaa ctccctgtat	240
ctgcaaatga acagtctgag agctgaggac acggccttat attactgtgt gaaagatcgc	300
agctcccact actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc	360
tcctca	366

<210> 274
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 274

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 Arg Gly Leu Glu Trp Val
35 40 45

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

Lys Gly Arg Phe Thr Ile Ala Arg Asp Ser 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

Val Lys Asp Arg Ser Ser His Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
100 105 110

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

<210> 275
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 275
ggattcacct ttgatgatta tgcc

24

<210> 276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 276

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 277

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 277

attagttgga atagtgataa cata

24

<210> 278

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 278

Ile Ser Trp Asn Ser Asp Asn Ile
1 5

<210> 279

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 279

gtgaaagatc gcagctccca ctactactac tacggtatgg acgtc

45

<210> 280

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 280

Val	Lys	Asp	Arg	Ser	Ser	His	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Val
1				5				10					15	

<210> 281

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 281

cagatgcagc	tacaacagtg	gggcgcagga	ctgttgaagc	cttcggagac	cctgtccctc	60
acctgcgctg	tctatggtgg	gtccctcagt	ggttactact	ggaactggat	ccgccagtcc	120
ccagggaagg	ggctggagtg	gattgggaaa	atcaatcata	gtggaagcac	caactacaac	180
ccgtccctca	agagtcgagt	caccatatca	gtagacaggt	ccaggatcca	gttctccctg	240
aagctgagtt	ctgtgaccgc	cgcggaacacg	gctgtgtatt	actgtgagag	agcgtggaa	300
ctactcacgg	acggtatgga	cgtctggggc	caagggaacca	cggtcaccgt	ctcctca	357

<210> 282

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 282

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

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

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

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

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

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

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

Thr Thr Val Thr Val Ser Ser
115

<210> 283
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 283
ggtgggtccc tcagtgggta ctac

24

<210> 284
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 284

Gly Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 285
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 285
atcaatcata gtggaagcac c

21

<210> 286
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 286

Ile Asn His Ser Gly Ser Thr
1 5

<210> 287
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 287
gcgagagcgc tggaactact cacggacggt atggacgtc

39

<210> 288
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 288

Ala Arg Ala Leu Glu Leu Leu Thr Asp Gly Met Asp Val
 1 5 10

<210> 289
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 289
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agcaactact tagcctggta ccagcagaca 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcaccttg gacgttcggc 300
 caagggacca aggtggaaat caaa 324

<210> 290
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 290

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Asn
 20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 291
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 291
cagagtgtta gcagcaacta c

21

<210> 292
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 292

Gln Ser Val Ser Ser Asn Tyr
1 5

<210> 293
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 293
ggtgcatcc

9

<210> 294
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 294

Gly Ala Ser
1

<210> 295
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 295
cagcagtatg gtagctcacc ttggacg

27

<210> 296
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 296

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 297
<211> 363
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 297

```
gaggtgcagc tgggtggagtc tggggggaggc ttggtacagg ctggagggtc cctgagactc      60
tcctgtgcag cctctggatt caccttcagt tatcatgaaa tgaactgggt ccgccaggct      120
ccagggaagg gactggagtg ggtttcatac attggtagta gaggcactac caaacattat      180
gcagaccctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctactgtat      240
ctgcaaatga atagcctgag agccgaggac acggctgttt attactgtgc gagtgaagtg      300
ggatctattt tgggttactc tatggacgtc tggggccaag ggaccacggt caccgtctcc      360
tca                                                                    363
```

<210> 298

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 298

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

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

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

Ser Tyr Ile Gly Ser Arg Gly Thr Thr Lys His Tyr Ala Asp Pro 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 Val Tyr Tyr Cys
85 90 95

Ala Ser Glu Val Gly Ser Ile Leu Gly Tyr Ser Met Asp Val Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 299
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 299
ggattcacct tcagttatca tgaa

24

<210> 300
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 300

Gly Phe Thr Phe Ser Tyr His Glu
1 5

<210> 301
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 301
attggtagta gaggcactac caaa

24

<210> 302
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 302

Ile Gly Ser Arg Gly Thr Thr Lys
1 5

<210> 303
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 303
gcgagtgaag tgggatctat tttgggttac tctatggacg tc

42

<210> 304
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 304

Ala Ser Glu Val Gly Ser Ile Leu Gly Tyr Ser Met Asp Val
1 5 10

<210> 305
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 305
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcgtagc aggtatttaa attgggtgtca acagaaacca 120
gggaaagccc ctaagctcct gacctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccataagcag tctgcaacct 240
gaagattttg cagcttactt ctgtcaacag agttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 306
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 306

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

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

Leu Asn Trp Cys Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Thr
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 Ala Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Pro
85 90 95

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

<210> 307
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 307
cagagcgtta gcaggatat

18

<210> 308
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 308

Gln Ser Val Ser Arg Tyr
1 5

<210> 309
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 309
gctgcatcc

9

<210> 310
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 310

Ala Ala Ser
1

<210> 311

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 311

caacagagtt acagtacccc tccgatcacc

30

<210> 312

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 312

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 313

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 313

cagggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc agttctgata tcaactgggt gcgacaggcc 120

actggccagg ggcttgagtg ggtgggatgg atgaacccta actatgggta cacaggcagt 180

gcacggaagt tccaggacag agtcaccatg accaggaaca cctccttaag cactgcctac 240

ctggagctgc acagcctgag atctgaggac acggccgtgt attactgtgc gagagtcaca 300
tattgtagta gtgtaaccag ctgctttaga ccatttacct actggggcca gggaaccctg 360
gtcaccgtct ccgca 375

<210> 314
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 314

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

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

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Val
35 40 45

Gly Trp Met Asn Pro Asn Tyr Gly Tyr Thr Gly Ser Ala Arg Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asn Thr Ser Leu Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Val Thr Tyr Cys Ser Ser Val Thr Ser Cys Phe Arg Pro Phe
100 105 110

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

<210> 315
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 315
ggatacacct tcaccagttc tgat

24

<210> 316
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 316

Gly Tyr Thr Phe Thr Ser Ser Asp
1 5

<210> 317
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 317
atgaacccta actatggta caca

24

<210> 318
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 318

Met Asn Pro Asn Tyr Gly Tyr Thr
1 5

<210> 319
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 319
gcgagagtca catattgtag tagtgtaacc agctgcttta gaccatttac ctac 54

<210> 320
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 320

Ala Arg Val Thr Tyr Cys Ser Ser Val Thr Ser Cys Phe Arg Pro Phe
1 5 10 15

Thr Tyr

<210> 321
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 321
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc aactatttaa attggatatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 322
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 322

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

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

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

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

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

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

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

<210> 323
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 323

cagagcatta gcaactat

18

<210> 324

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 324

Gln Ser Ile Ser Asn Tyr

1 5

<210> 325

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 325

gctgcatcc

9

<210> 326

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 326

Ala Ala Ser

1

<210> 327

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

<220>
<223> Synthetic

<400> 327
caacagagtt acagtacccc tccgatcacc 30

<210> 328
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 328

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 329
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 329
cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgagag aaaaaagctc 300
gtctttgact actggggcca gggaaccctg gtcaccgtct cctca 345

<210> 330
<211> 115

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 330

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

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

Arg Lys Lys Leu Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 331
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 331

ggtggctcca tcagtagtta ctac

24

<210> 332
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 332

Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 333
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 333

atctattaca gtgggagcac c

21

<210> 334
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 334

Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 335
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 335

gcgagaaaaa agctcgtctt tgactac

27

<210> 336

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 336

Ala Arg Lys Lys Leu Val Phe Asp Tyr

1

5

<210> 337

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 337

gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagggttagc agcagctact tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180

gacaggttca gtggcagtggt gtctggggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgtt ttactgtcag cagtatggta actcaccttg gacgttcggc 300

caagggacca aggtggaaat caaa 324

<210> 338

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 338

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Ser
20 25 30

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

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 339

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 339

cagagtgtta gcagcagcta c

21

<210> 340

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 340

Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 341

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 341

ggtgcatcc

9

<210> 342

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 342

Gly Ala Ser

1

<210> 343

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 343

cagcagtatg gtaactcacc ttggacg

27

<210> 344

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 344

Gln Gln Tyr Gly Asn Ser Pro Trp Thr
1 5

<210> 345

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 345

cagggtgcagc tacagcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt gattactact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gaggaaagac caactacaac 180
ccgtccctca agagtcgagt ctccatatca gtagaccctg ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgcg acagggctgg 300
aactacgcca tctttgacta ctggggccag ggaatcctgg tccccgtctc ctca 354

<210> 346

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 346

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

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

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

Leu Val Pro Val Ser Ser
115

<210> 347
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 347
ggtagggctcct tcagtgatta ctac

24

<210> 348
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 348

Gly Gly Ser Phe Ser Asp Tyr Tyr

1 5

<210> 349
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 349
atcaatcata gaggaagac c 21

<210> 350
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 350

Ile Asn His Arg Gly Lys Thr
1 5

<210> 351
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 351
gcgacgacagg gctggaacta cgccatcttt gactac 36

<210> 352
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 352

Ala Arg Gln Gly Trp Asn Tyr Ala Ile Phe Asp Tyr
1 5 10

<210> 353

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 353

gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacaggtcca acaataagaa ctacttaggt 120
tggtaccagc agaaaccagg acagcctcct aagctgctca ttctactgggc atcttcccgg 180
gaagccggggg tccctgaccg attcagtggc agcgggtctg ggacagaatt cactctcacc 240
atcagcagcc tgcaggctga agatgaggca gtttattact gtcagcaata ttatagtagt 300
cctccgacgt tcggccaagg gaccaaggtg gaaatcaaa 339

<210> 354

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 354

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg
20 25 30

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

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ser Arg Glu Ala Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Glu Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Ser Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys

<210> 355
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 355
cagagtgttt tatacaggtc caacaataag aactac

36

<210> 356
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 356

Gln Ser Val Leu Tyr Arg Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 357
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 357
tgggcatct

9

<210> 358
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 358

Trp Ala Ser
1

<210> 359
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 359
cagcaatatt atagtagtcc tccgacg

27

<210> 360
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 360

Gln Gln Tyr Tyr Ser Ser Pro Pro Thr
1 5

<210> 361
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 361
 caggtgcagc ttcagcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
 acctgcgctg tctatgggtg gtccttcagt gggtactact ggagctggat ccgccagccc 120
 ccagggaagg ggctggagtg gattggagaa atcaatcata gtggaaaaac cacttacagc 180
 ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagagcca gttctccctg 240
 aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag acagggcttg 300
 aactacgcca tctttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 362
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 362

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 363
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 363
ggtgggtcct tcagtgggta ctac

24

<210> 364
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 364

Gly Gly Ser Phe Ser Gly Tyr Tyr
1 5

<210> 365
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 365
atcaatcata gtggaaaaac c 21

<210> 366
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 366

Ile Asn His Ser Gly Lys Thr
1 5

<210> 367
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 367
gcgagacagg gcttgaacta cgccatcttt gactac 36

<210> 368
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 368

Ala Arg Gln Gly Leu Asn Tyr Ala Ile Phe Asp Tyr
1 5 10

<210> 369
<211> 339
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 369

```
tacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagccg gagtatTTTA tacacctcca acaataagaa ctacttagct      120
tggtatcagc agagaccagg acagcctcct aagctgctca tttactgggc atctaccgg      180
gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttttagtagt      300
cctccgacgt tcggccaagg gaccaaggtg gaaatcaaa      339
```

<210> 370

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 370

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Arg Ser Ile Leu Tyr Thr
          20           25           30

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

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
          50           55           60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65           70           75           80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
```

85

90

95

Tyr Phe Ser Ser Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys

<210> 371
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 371
 cggagtattt tatacacctc caacaataag aactac

36

<210> 372
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 372

Arg Ser Ile Leu Tyr Thr Ser Asn Asn Lys Asn Tyr
 1 5 10

<210> 373
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 373
 tgggcatct

9

<210> 374
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 374

Trp Ala Ser
1

<210> 375
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 375
cagcaatatt ttagtagtcc tccgacg

27

<210> 376
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 376

Gln Gln Tyr Phe Ser Ser Pro Pro Thr
1 5

<210> 377
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 377

caggtgcagc	tacagcagtg	gggcgcagga	ctgttgaagc	cttcggagac	cctgtccctc	60
acctgcgctg	tctatggtgg	gtcttttcagt	gggttctact	ggagctggat	ccgccagccc	120
ccaggggaagg	ggctggagtg	gattggggaa	atcaatcata	gtggaagcgc	caagtacaac	180
ccgtccctca	agaatcgagt	catcatatca	atagacacgt	ccaagaacca	gttctccctg	240
aagctggact	ctgtgaccgc	cgcggacacg	gctgtttata	actgtgcgag	acagggctgg	300
aacttcgcca	tctttgacta	ctggggccag	ggaacgttgg	tcgacgtctc	ctca	354

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

Arg Gln Gly Trp Asn Phe Ala Ile Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Asp Val Ser Ser
115

<210> 379
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 379
ggtaggtcctt tcagtgggtt ctac

24

<210> 380
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 380

Gly Gly Ser Phe Ser Gly Phe Tyr
1 5

<210> 381
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 381
atcaatcata gtggaagcgc c

21

<210> 382
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 382

Ile Asn His Ser Gly Ser Ala

1 5

<210> 383

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 383

gcgagacagg gctggaactt cgccatcttt gactac

36

<210> 384

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 384

Ala Arg Gln Gly Trp Asn Phe Ala Ile Phe Asp Tyr

1 5 10

<210> 385

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 385

gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcgg gagggccacc

60

atcaactgca agtccagcca gagtgtttta cacagttcct acaataagga ccacttagct

120

tgggtaccagc agagaccagg acagcctcct aagctgctca ttctactgggc atctaccg

180

gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggcg gtttattatt gtcagcaata taatattctt 300
 cctccgacgt tcggccaagg gaccaggggtg gaaatcaaa 339

<210> 386
 <211> 113
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 386

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

Gly Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu His Ser
 20 25 30

Ser Tyr Asn Lys Asp His Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Asn Ile Leu Pro Pro Thr Phe Gly Gln Gly Thr Arg Val Glu Ile
 100 105 110

Lys

<210> 387
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 387
cagagtgttt tacacagttc ctacaataag gaccac

36

<210> 388
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 388

Gln Ser Val Leu His Ser Ser Tyr Asn Lys Asp His
1 5 10

<210> 389
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 389
tgggcatct

9

<210> 390
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 390

Trp Ala Ser
1

<210> 391
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 391
cagcaatata atattcttcc tccgacg

27

<210> 392
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 392

Gln Gln Tyr Asn Ile Leu Pro Pro Thr
1 5

<210> 393
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 393
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca 180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300

caagggacac gactggagat taaa

324

<210> 394
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 394

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

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

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

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

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

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

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

<210> 395
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 395
cagagcatta gcagctat

18

<210> 396
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 396

Gln Ser Ile Ser Ser Tyr
1 5

<210> 397
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 397
gctgcatcc

9

<210> 398
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 398

Ala Ala Ser
1

<210> 399
<211> 30
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 399

caacagagtt acagtacccc tccgatcacc

30

<210> 400

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 400

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 401

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 401

gaagtgaac tgggtggagtc tgggggaggc ttagtacagc ctggcgggtc cctgagactc 60

tcctgtgcag ccactggatt cacctttgat gattttacca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcaggt atcagttgga atagtggtag cataggctat 180

gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agctgaggac acggccttgt actactgtgc aaaagataat 300

agtggctacg gctattatta ctacggtatg gacgtctggg gccaaaggac cacggtcacc 360

gtctcctca 369

<210> 402

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 402

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 Thr Gly Phe Thr Phe Asp Asp Phe
20 25 30

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

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Val 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 Asp Asn Ser Gly Tyr Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 403

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 403

ggattcacct ttgatgattt tacc

24

<210> 404
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 404

Gly Phe Thr Phe Asp Asp Phe Thr
1 5

<210> 405
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 405
atcagttgga atagtggtag cata

24

<210> 406
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 406

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 407
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 407
gcaaaagata atagtggcta cggctattat tactacggta tggacgtc 48

<210> 408
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 408

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

<210> 409
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 409
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca cagtgttagc aggaactcag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagaa ttactctca ccatcagcag cctgcagtct 240
gaagattttg caatttatta ctgtcagcag tataataatt ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 410
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 410

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 His Ser Val Ser Arg Asn
20 25 30

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

Tyr Gly 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 Ile Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 411
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 411
cacagtgtta gcaggaac

18

<210> 412
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 412

His Ser Val Ser Arg Asn
1 5

<210> 413

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 413

ggtgcatcc

9

<210> 414

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 414

Gly Ala Ser
1

<210> 415

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 415

cagcagtata ataattggcc tctcact

27

<210> 416

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 416

Gln Gln Tyr Asn Asn Trp Pro Leu Thr

1 5

<210> 417

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 417

gaagtgaac tgggtggaatc ggggggaggc ttggtacagc ctggcgggtc cctgagactc 60

tcctgtgcag cctctggatt ctctttgat gattatacca tgcactgggt ccggcaacct 120

ccagggaagg gcctggagt ggtctcaggt attagttgga atagtggtag cataggctat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agctggggac acggccttgt actactgtgc aaaagataat 300

agtggctacg gctattacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360

accgtctcct ca 372

<210> 418

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 418

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 Ser Phe Asp Asp Tyr

20 25 30

Thr Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Gly Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys Asp Asn Ser Gly Tyr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
100 105 110

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

<210> 419
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 419
ggattctcct ttgatgatta tacc

24

<210> 420
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 420

Gly Phe Ser Phe Asp Asp Tyr Thr

1

5

<210> 421
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 421
attagttgga atagtggtag cata

24

<210> 422
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 422

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 423
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 423
gcaaaaagata atagtggcta cggctattac tactactacg gtatggacgt c

51

<210> 424
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 424

Ala Lys Asp Asn Ser Gly Tyr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 425

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 425

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccagactcct catctatggg gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagaa ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tattataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 426

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 426

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 Gln Ser Val Ser Ser Asn
20 25 30

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

Tyr Gly 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 Tyr Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 427
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 427
cagagtgtta gcagcaac

18

<210> 428
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 428

Gln Ser Val Ser Ser Asn
1 5

<210> 429
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 429
ggtgcatcc

9

<210> 430
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 430

Gly Ala Ser
1

<210> 431
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 431
cagcagtatt ataactggcc tctcact

27

<210> 432
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 432

Gln Gln Tyr Tyr Asn Trp Pro Leu Thr
1 5

<210> 433
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 433
gaagtacagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgtag cctctggatt cccctttgct gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag caaaggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttct attactgtgc aaaagatatg 300
agtggctacg cccactactt ctactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 434
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 434

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 Val Ala Ser Gly Phe Pro Phe Ala Asp Tyr
20 25 30

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

Ser Asp Ile Ser Trp Asn Ser Gly Ser Lys 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 Thr Glu Asp Thr Ala Phe Tyr Tyr Cys
85 90 95

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Phe Tyr Tyr Gly Met Asp
100 105 110

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

<210> 435
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 435
ggattcccct ttgctgatta tacc

24

<210> 436
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 436

Gly Phe Pro Phe Ala Asp Tyr Thr
1 5

<210> 437
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 437

attagttgga atagtggtag caaa

24

<210> 438

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 438

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 439

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 439

gcaaaagata tgagtggcta cgcccactac ttctactacg gtatggacgt c

51

<210> 440

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 440

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Phe Tyr Tyr Gly Met Asp

1 5 10 15

Val

<210> 441
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 441
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggccaagtca gagcattagc agctatttaa attggtttca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 442
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 442

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 Pro Ser Gln Ser Ile Ser Ser Tyr
20 25 30

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

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

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

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

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

<210> 443
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 443
cagagcatta gcagctat

18

<210> 444
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 444

Gln Ser Ile Ser Ser Tyr
1 5

<210> 445
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 445
gctgcatcc

9

<210> 446
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 446

Ala Ala Ser
1

<210> 447
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 447
caacagagtt acagtacccc tccgatacacc

30

<210> 448
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 448

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 449
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 449
gaagtacaac tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctaagactc 60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagtt 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggcag cttggcctac 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ttccctgtat 240
ctgcaaatga acagtcttca ccctgaggac acggccctct attactgtgt aaaagatggt 300
agtggctacg gccactactc ctactacggt ttggacgtct ggggccaggg gaccacggtc 360
accgtctcct ca 372

<210> 450
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 450

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

Thr Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Ala 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 His Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Val Lys Asp Gly Ser Gly Tyr Gly His Tyr Ser Tyr Tyr Gly Leu Asp
100 105 110

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

<210> 451
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 451
ggattcacct ttgatgatta tacc 24

<210> 452
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 452

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 453
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 453
attagttgga atagtggcag cttg 24

<210> 454

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

<220>
<223> synthetic

<400> 454

Ile Ser Trp Asn Ser Gly Ser Leu
1 5

<210> 455
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 455
gtaaaagatg gtagtggcta cggccactac tcctactacg gtttggacgt c

51

<210> 456
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 456

Val Lys Asp Gly Ser Gly Tyr Gly His Tyr Ser Tyr Tyr Gly Leu Asp
1 5 10 15

Val

<210> 457
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 457

```
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc      60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa      120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca      180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag      240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gttcaccttg gacgttcggc      300
caagggacca aggtggaaat caaa                                             324
```

<210> 458

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 458

```
Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Ser
20           25           30
```

```
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35           40           45
```

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

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 459
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 459
cagagtgtta gcagcagcta c 21

<210> 460
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 460

Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 461
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 461
ggtgcatcc 9

<210> 462
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 462

Gly Ala Ser
1

<210> 463

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 463

cagcagtatg gtagttcacc ttggacg

27

<210> 464

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 464

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 465

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 465

gaagtacagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtgtag cctctggatt cccctttgct gattatacca tgcaactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag cataggctat 180

gcggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatatg 300
 agtggctacg cccactactt ctactacggg atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 466
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 466

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 Val Ala Ser Gly Phe Pro Phe Ala Asp Tyr
 20 25 30

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

Ser Asp Ile Ser Trp Asn Ser Gly 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Phe Tyr Tyr Gly Met Asp
 100 105 110

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

<210> 467
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 467
ggattcccct ttgctgatta tacc

24

<210> 468
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 468

Gly Phe Pro Phe Ala Asp Tyr Thr
1 5

<210> 469
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 469
attagttgga atagtggtag cata

24

<210> 470
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 470

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 471
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 471
gcaaaagata tgagtggcta cgcccactac ttctactacg gtatggacgt c 51

<210> 472
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 472

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Phe Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 473
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 473
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctttgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 474
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 474

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

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

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

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

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

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

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

<210> 475
<211> 18
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 475

cagagcatta gcagctat

18

<210> 476

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 476

Gln Ser Ile Ser Ser Tyr

1 5

<210> 477

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 477

gctgcatcc

9

<210> 478

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 478

Ala Ala Ser

1

<210> 479
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 479
 caacagagtt acagtacccc tccgatcacc 30

<210> 480
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 480

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
 1 5 10

<210> 481
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 481
 gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgaaactc 60
 tcctgtacag cctctggatt cacctttgct gattatacca tgcactgggt ccgacaaggt 120
 ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag taaaggctat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatatg 300
 agtggctacg cccactacta ctactacgct ttggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 482
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 482

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

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

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Asp Ile Ser Trp Asn Ser Gly Ser Lys 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Tyr Tyr Tyr Ala Leu Asp
100 105 110

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

<210> 483
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 483

ggattcacct ttgctgatta tacc

24

<210> 484

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 484

Gly Phe Thr Phe Ala Asp Tyr Thr

1 5

<210> 485

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 485

attagttgga atagtggtag taaa

24

<210> 486

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 486

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 487

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 487

gcaaaagata tgagtggcta cgcccactac tactactacg ctttggacgt c

51

<210> 488

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 488

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Tyr Tyr Tyr Ala Leu Asp
1 5 10 15

Val

<210> 489

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 489

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gaagattttg caacttacta ctgtcaacag agttacagta acccccgat caccttcggc 300

caagggacac gactggagat taaa 324

<210> 490
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 490

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

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

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

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

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

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

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

<210> 491
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 491

cagagcatta gcaactat

<210> 492
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 492

Gln Ser Ile Ser Asn Tyr
1 5

<210> 493
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 493
gctgcatcc

9

<210> 494
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 494

Ala Ala Ser
1

<210> 495
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 495
caacagagtt acagtaaccc cccgatcacc

30

<210> 496
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 496

Gln Gln Ser Tyr Ser Asn Pro Pro Ile Thr
1 5 10

<210> 497
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 497
cagggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agaaaaggca tgcactgggt ccgccaggct 120
ccagtcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgac agctgaggac acggctgtgt attactgtgc gaaagaaggg 300
gggcatgact atggtggtac ctttgactac tggggccagg gaaccctggc caccgtctcc 360
tca 363

<210> 498
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 498

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 Arg Lys
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Val 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 Thr Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Glu Gly Gly His Asp Tyr Gly Gly Thr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 499

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 499

ggattcacct tcagtagaaa aggc

24

<210> 500

<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 500

Gly Phe Thr Phe Ser Arg Lys Gly
1 5

<210> 501
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 501
atatcatatg atggaagtaa taaa

24

<210> 502
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 502

Ile Ser Tyr Asp Gly Ser Asn Lys
1 5

<210> 503
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 503
gcgaaagaag gggggcatga ctatggtggt acctttgact ac

42

<210> 504
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 504

Ala Lys Glu Gly Gly His Asp Tyr Gly Gly Thr Phe Asp Tyr
 1 5 10

<210> 505
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 505

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc aggcgagtc ggacattaac aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagttcct gatctacgat gcatccaatt tggaaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat ttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatgatc tcccattcac tttcggcct	300
gggaccaaag tggatatcaa a	321

<210> 506
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 506

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 Gln Ala Ser Gln Asp Ile Asn Asn Tyr
20 25 30

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

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 507
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 507
caggacatta acaactat

18

<210> 508
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 508

Gln Asp Ile Asn Asn Tyr

1

5

<210> 509
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 509
gatgcatcc

9

<210> 510
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 510

Asp Ala Ser
1

<210> 511
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 511
caacagtatg atgatctccc attcact

27

<210> 512
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 512

Gln Gln Tyr Asp Asp Leu Pro Phe Thr
1 5

<210> 513

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 513

```
gaagtgcagc tggaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc      60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct      120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggctat      180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtcctgtat      240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagataat      300
agtggctacg gtcactacta ctacggaatg gacgtctggg gccaaaggac cacggtcacc      360
gtcgctca                                     369
```

<210> 514

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 514

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

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35

40

45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
 100 105 110

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

<210> 515
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 515
 ggattcacct ttgatgatta tacc

24

<210> 516
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 516

Gly Phe Thr Phe Asp Asp Tyr Thr
 1 5

<210> 517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 517
attagttgga atagtggtag tata

24

<210> 518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 518

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 519
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 519
gcaaaagata atagtggcta cggtcactac tactacggaa tggacgtc

48

<210> 520
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 520

Ala Lys Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val

1 5 10 15

<210> 521
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 521
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcaaaaacct 120
 ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtggggc tgggacagag ttactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcac tatattaact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 522
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 522

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 Gln Ser Val Ser Ser Asn
 20 25 30

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

Tyr Gly 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 His Tyr Ile Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 523
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 523
cagagtgtta gcagcaac

18

<210> 524
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 524

Gln Ser Val Ser Ser Asn
1 5

<210> 525
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 525

ggtgcatcc

9

<210> 526
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 526

Gly Ala Ser
1

<210> 527
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 527
cagcactata ttaactggcc tctcact

27

<210> 528
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 528

Gln His Tyr Ile Asn Trp Pro Leu Thr
1 5

<210> 529
<211> 369
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 529

```
gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc      60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct      120
ccaggggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggctat      180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtccctgtat      240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagataat      300
agtggctacg gtcactacta ctacggaatg gacgtctggg gcccaaggac cacggtcacc      360
gtcgcctca                                     369
```

<210> 530

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 530

```
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
```

```
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35           40           45
```

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

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
 100 105 110

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

<210> 531
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 531
 ggattcacct ttgatgatta tacc

24

<210> 532
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 532

Gly Phe Thr Phe Asp Asp Tyr Thr
 1 5

<210> 533
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 533
 attagttgga atagtggtag tata

24

<210> 534
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 534

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 535
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 535

gcaaaaagata atagtggcta cggtcactac tactacggaa tggacgtc 48

<210> 536
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 536

Ala Lys Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 537
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 537

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcaaaaacct 120
 ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtggggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcac tatattaact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 538
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 538

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 Gln Ser Val Ser Ser Asn
 20 25 30

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

Tyr Gly 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 His Tyr Ile Asn Trp Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 539
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 539
cagagtgtta gcagcaac

18

<210> 540
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 540

Gln Ser Val Ser Ser Asn
1 5

<210> 541
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 541
ggtgcatcc

9

<210> 542
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 542

Gly Ala Ser
1

<210> 543
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 543
cagcactata ttaactggcc tctcact

27

<210> 544
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 544

Gln His Tyr Ile Asn Trp Pro Leu Thr
1 5

<210> 545
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 545
caggtgcagt tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc 60
tcctgtgggtg cgtctggatt caccttcaga agttatggca tgcactgggt cgcagact 120
ccaggcaggg ggctggagtg ggtggcaatg atatattatg atggaaataa taaatactat 180
gcagactccg tgagggggccg attcaccgtt tccagagaca attccaagaa caccctgtat 240
ctgcaaatga gcagcctgag agccgaggac acggctctat atttctgtgc gcgagggcct 300

gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca

354

<210> 546
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 546

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

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 547
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 547

ggattcacct tcagaagtta tggc

24

<210> 548

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 548

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 549

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 549

atatattatg atggaaataa taaa

24

<210> 550

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 550

Ile Tyr Tyr Asp Gly Asn Asn Lys
1 5

<210> 551
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 551
 gcgcgagggc ctgggtacaa ctggctcgac ccc 33

<210> 552
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 552
 Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
 1 5 10

<210> 553
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 553
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtattagc aggaacttgg cctggtacca gcaraaacct 120
 ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataacc ggcctctcac tttcggcgga 300
 gggaccgagg tggagatcaa a 321

<210> 554

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

<220>
<223> synthetic

<220>
<221> VARIANT
<222> (38)..(38)
<223> Xaa = Any Amino Acid

<400> 554

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 Gln Ser Ile Ser Arg Asn
20 25 30

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

Tyr Gly 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 Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 555
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 555

cagagtatta gcaggaac

18

<210> 556

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 556

Gln Ser Ile Ser Arg Asn

1 5

<210> 557

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 557

ggtgcatcc

9

<210> 558

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 558

Gly Ala Ser

1

<210> 559

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 559

cagcagtata ataaccggcc tctcact

27

<210> 560

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 560

Gln Gln Tyr Asn Asn Arg Pro Leu Thr

1

5

<210> 561

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 561

cagggtgcagt tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc 60

gcctgtgttg cgtctggatt caccttcaga agttatggca tgcactgggt cccccaggct 120

ccaggcaagg gactgcagtg ggtggcaatg atttactatg atggtaagaa taaatattat 180

gcagactccg tgagggggccg attcaccatc tccagagaca attccaagaa cacactgtat 240

ctgcaaatga acaatctgag agtcgaggac acggctatgt atttctgtgc gcgagggcct 300

gggtacaatt ggctcgaccc ctggggccag ggaaccctgg tcactgtttc ctca 354

<210> 562

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 562

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

Ser Leu Arg Leu Ala Cys Val 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 Gln Trp Val
35 40 45

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 563

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 563

ggattcacct tcagaagtta tggc

24

<210> 564
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 564

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 565
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 565
atttactatg atggtaagaa taaa

24

<210> 566
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 566

Ile Tyr Tyr Asp Gly Lys Asn Lys
1 5

<210> 567
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 567
gcgcgagggc ctgggtacaa ttggctcgac ccc

33

<210> 568
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 568

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 569
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 569
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagaattagc agcaacttgg cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tagcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttactctca ccatcagcag cctgcagtct 240
gaggatgttg cagtttatta ctgtcagcaa catcataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 570
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 570

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 Gln Arg Ile Ser Ser Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ser Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln His His Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 571
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 571
cagagaatta gcagcaac

18

<210> 572
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 572

Gln Arg Ile Ser Ser Asn
1 5

<210> 573

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 573

ggtgcatcc

9

<210> 574

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 574

Gly Ala Ser
1

<210> 575

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 575

cagcaacatc ataactggcc tctcact

27

<210> 576

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 576

Gln Gln His His Asn Trp Pro Leu Thr

1 5

<210> 577

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 577

cagggtgcagc tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc 60

tcctgtgctg cgtctggatt taccttcaga agttatgcca tgcactgggt cccgccaggct 120

ccaggcaagg ggctggagtg ggtggcaatg gtatactatg atggaaataa tcaatactat 180

gcagactccg tgagggggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgatgac acggctgtgt atttctgtgc gcgagggcct 300

gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 578

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 578

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

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

Ala Met Val Tyr Tyr Asp Gly Asn Asn Gln Tyr Tyr Ala Asp Ser Val
50 55 60

Arg 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 Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 579
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 579
ggatttacct tcagaagtta tgcc

24

<210> 580
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 580

Gly Phe Thr Phe Arg Ser Tyr Ala
1 5

<210> 581
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 581
gtatactatg atggaaataa tcaa

24

<210> 582
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 582

Val Tyr Tyr Asp Gly Asn Asn Gln
1 5

<210> 583
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 583
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 584
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 584

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
 1 5 10

<210> 585
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 585
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc aggaacttgg cctggtacca gcaaaaacct 120
 ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccggcc 180
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
 gggaccaagg tggatgatcaa a 321

<210> 586
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 586

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 Gln Ser Val Ser Arg Asn
 20 25 30

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

Tyr Gly Ala Ser Thr 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 Gln Ser
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Val Ile Lys
 100 105

<210> 587
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 587
 cagagtgtta gcaggaac

18

<210> 588
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 588

Gln Ser Val Ser Arg Asn
 1 5

<210> 589
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 589
ggtgcatcc

9

<210> 590
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 590

Gly Ala Ser
1

<210> 591
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 591
cagcagtata ataactggcc tctcact

27

<210> 592
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 592

Gln Gln Tyr Asn Asn Trp Pro Leu Thr
1 5

<210> 593
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 593

```
cagggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc      60
tcctgtattg cgtctggatt taccttcaga agttatggca tgcactgggt cgcaggct      120
ccaggcaagg ggctggagtg ggtggcaatg atatattatg atggaaacaa taaatactat      180
gcagactccg tgaggggccg attcaccatc tccagagaca actccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgatgac acggctgtgt atttctgtgc gcgagggcct      300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca      354
```

<210> 594

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 594

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

```
Arg 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 Asp Asp Thr Ala Val Tyr Phe Cys
85           90           95
```

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 595
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 595
ggatttacct tcagaagtta tggc 24

<210> 596
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 596

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 597
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 597
atatattatg atggaaacaa taaa 24

<210> 598

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

<220>
<223> synthetic

<400> 598

Ile Tyr Tyr Asp Gly Asn Asn Lys
1 5

<210> 599
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 599
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 600
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 600

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 601
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 601
gaaatagtga tgacgcagtc tccagccaca ctgtctgtgt ctccagggga aagagccacc

60

ctctcctgca gggccagtca gagtgttagc agcaacttgg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtggggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataaca ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 602
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 602

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 Gln Ser Val Ser Ser Asn
20 25 30

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

Tyr Gly 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 Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 603
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 603
cagagtgtta gcagcaac

18

<210> 604
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 604

Gln Ser Val Ser Ser Asn
1 5

<210> 605
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 605
ggtgcatcc

9

<210> 606
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 606

Gly Ala Ser
1

<210> 607
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 607
cagcagtata ataacaggcc tctcact

27

<210> 608
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 608

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 609
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 609
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc cggggaggtc cctgagactc 60
tcctgtgctg cgtctggatt caccttcaga agttttggca tgcactgggt ccgccaggct 120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat 240
ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300

gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca

354

<210> 610
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 610

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 Phe
20 25 30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 611
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 611

ggattcacct tcagaagttt tggc

24

<210> 612

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 612

Gly Phe Thr Phe Arg Ser Phe Gly

1 5

<210> 613

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 613

atatattttg atggaaaaaa taaa

24

<210> 614

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 614

Ile Tyr Phe Asp Gly Lys Asn Lys

1 5

<210> 615

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

<220>
<223> synthetic

<400> 615
gcgcgagggc ctgggtacaa ctggctcgac ccc 33

<210> 616
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 616
Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 617
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 617
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcacc 60
ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tgtcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctacagtct 240
gaagattttg cagtttttca ctgtcagcag tataataata ggcctctcac tttcggcgga 300
gggaccgagg tggagatcaa a 321

<210> 618
<211> 107

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 618

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

Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Val 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 Phe His Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 619
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 619
cagagtatta gcaggaac

18

<210> 620

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

<220>
<223> synthetic

<400> 620

Gln Ser Ile Ser Arg Asn
1 5

<210> 621
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 621
ggtgcatcc

9

<210> 622
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 622

Gly Ala Ser
1

<210> 623
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 623
cagcagtata ataataggcc tctcact

27

<210> 624
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 624

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 625
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 625
caggtgcaat tgggtggagtc tgggggaggc gtggtccagc cggggagggtc cctgagactc 60
tcctgtgctg cgtctggatt caccttcaga agttttggca tgcactgggt ccgccaggct 120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
gcagactccg tgaggggccc attcaccatt tccagagaca attccaagaa caccctgtat 240
ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 626
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 626

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

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

<210> 627
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 627
 ggattcacct tcagaagttt tggc

24

<210> 628
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 628

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 629

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 629

atatatttttg atggaaaaaa taaa

24

<210> 630

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 630

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 631

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 631

gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 632

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 632

Ala	Arg	Gly	Pro	Gly	Tyr	Asn	Trp	Leu	Asp	Pro
1				5					10	

<210> 633

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 633

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcacc	60
ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcaraaacct	120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tgtcccagcc	180
aggttcagtg gcagtggggtc tgggacagag ttcactctca ccatcagcag cctacagtct	240
gaagattttg cagtttttca ctgtcagcag tataataata ggcctctcac tttcggcgga	300
gggaccgagg tggagatcaa a	321

<210> 634

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> VARIANT

<222> (38)..(38)

<223> Xaa = Any Amino Acid

<400> 634

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

Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Val 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 Phe His Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 635
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 635
cagagtatta gcaggaac

18

<210> 636
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 636

Gln Ser Ile Ser Arg Asn
1 5

<210> 637
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 637
ggtgcatcc

9

<210> 638
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 638

Gly Ala Ser
1

<210> 639
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 639
cagcagtata ataataggcc tctcact

27

<210> 640
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 640

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 641

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 641

caggtgcaat tgggtggagtc tggggggaggc gtggtccagc cggggaggtc cctgagactc 60
tcctgtgctg cgtctggatt caccttcaga agttttggca tgcactgggt ccgccaggct 120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat 240
ctggaaatga gcagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300
gggtacaatt ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 642

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 642

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 Phe
20 25 30

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

35

40

45

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Ser Ser
 115

<210> 643
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 643
 ggattcacct tcagaagttt tggc

24

<210> 644
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 644

Gly Phe Thr Phe Arg Ser Phe Gly
 1 5

<210> 645
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 645
atatattttg atggaaaaaa taaa

24

<210> 646
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 646

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 647
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 647
gcgcgagggc ctgggtacaa ttggctcgac ccc

33

<210> 648
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 648

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro

1 5 10

<210> 649
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 649
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagggttagc aggaacttgg cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tgtcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctacagtct 240
gaagattttg cagtttttca ctgtcagcag tataataata ggcctctcac tttcggcgga 300
gggaccgagg tggagatcaa a 321

<210> 650
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 650

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 Gln Ser Val Ser Arg Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Val 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 Phe His Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 651
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 651
cagagtgtta gcaggaac

18

<210> 652
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 652

Gln Ser Val Ser Arg Asn
1 5

<210> 653
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 653

ggtgcatcc

9

<210> 654
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 654

Gly Ala Ser
1

<210> 655
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 655
cagcagtata ataataggcc tctcact

27

<210> 656
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 656

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 657
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 657

```
caggtgcaat tgggtggagtc tgggggaggc gtgggtccagc cggggagggtc cctgagactc      60
tcctgtgctg cgtctggatt caccttcaga agttttggca tgcactgggt cgcaggct      120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat      180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat      240
ctggaaatga gcagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct      300
gggtacaatt ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca          354
```

<210> 658

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 658

```
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 Phe
      20              25              30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 659
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 659
ggattcacct tcagaagttt tggc

24

<210> 660
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 660

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 661
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 661
atatattttg atggaaaaaa taaa

24

<210> 662
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 662

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 663
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 663
gcgcgagggc ctgggtacaa ttggctcgac ccc

33

<210> 664
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 664

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 665
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 665
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc

60

ctctcctgta gggccagtca gagtgtagc aggaacttgg cctggtacca gcaaaaacct	120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tgtcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctacagtct	240
gaagattttg cagtttttca ctgtcagcag tataataata ggcctctcac tttcggcgga	300
gggaccgagg tggagatcaa a	321

<210> 666
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 666

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	Gln	Ser	Val	Ser	Arg	Asn
			20					25					30		

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

Tyr	Gly	Ala	Ser	Thr	Arg	Ala	Thr	Gly	Val	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	Phe	His	Cys	Gln	Gln	Tyr	Asn	Asn	Arg	Pro	Leu
			85						90					95	

Thr	Phe	Gly	Gly	Gly	Thr	Glu	Val	Glu	Ile	Lys
		100						105		

<210> 667
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 667
cagagtgtta gcaggaac

18

<210> 668
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 668

Gln Ser Val Ser Arg Asn
1 5

<210> 669
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 669
ggtgcatcc

9

<210> 670
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 670

Gly Ala Ser

1

<210> 671
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 671
cagcagtata ataataggcc tctcact

27

<210> 672
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 672

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 673
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 673
caggtgcagt tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc 60
tcctgtgttg cgtctggatt caccttcaga agttatggca tgcactgggt cccaggcct 120
ccaggcaagg gactgcagtg ggtggcaatg atttactatg atggtaagaa taaatattat 180
gcagactccg tgagggggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagtctgag agccgaagac acggctatgt atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaactgtctc ctca 354

<210> 674
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 674

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 Val 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 Gln Trp Val
35 40 45

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

Arg 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 Met Tyr Phe Cys
85 90 95

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 675
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 675

ggattcacct tcagaagtta tggc

24

<210> 676

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 676

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 677

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 677

atttactatg atggttaagaa taaa

24

<210> 678

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 678

Ile Tyr Tyr Asp Gly Lys Asn Lys
1 5

<210> 679

<211> 33

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 679
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 680
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 680

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 681
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 681
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagaattagc agcaacttgg cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tagcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagatgttg cagtttatta ctgtcagcaa cataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 682
<211> 107
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 682

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 Gln Arg Ile Ser Ser Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ser 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 Val Ala Val Tyr Tyr Cys Gln Gln His Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 683

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 683

cagagaatta gcagcaac

18

<210> 684

<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 684

Gln Arg Ile Ser Ser Asn
1 5

<210> 685
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 685
ggtgcatcc

9

<210> 686
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 686

Gly Ala Ser
1

<210> 687
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 687
cagcaacata ataactggcc tctcact

27

<210> 688
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 688

Gln Gln His Asn Asn Trp Pro Leu Thr
 1 5

<210> 689
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 689

caggtgcaat tgggtggagtc tgggggaggc gtggtccagc cggggaggtc cctgagactc	60
tcctgtgctg cgtctggttt caccttcaga agttttggca tgcactgggt ccgccaggct	120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat	180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat	240
ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct	300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca	354

<210> 690
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 690

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 Phe
20 25 30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 691
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 691
ggtttcacct tcagaagttt tggc

24

<210> 692
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 692

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 693

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 693

atatattttg atggaaaaaa taaa

24

<210> 694

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 694

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 695

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 695

gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 696

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 696

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 697

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 697

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcac 60
ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggg gcaaccacca gggccactgg tgtcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctacagtct 240
gaagattttg cagtttttta ctgtcagcag tataataata ggcctctcac tttcggcgga 300
gggaccgagg tggagatcaa a 321

<210> 698

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 698

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

Glu Arg Val Ile Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
20 25 30

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

Tyr Gly Ala Thr Thr Arg Ala Thr Gly Val 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 Phe Tyr Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 699
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 699
cagagtatta gcaggaac

18

<210> 700
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 700

Gln Ser Ile Ser Arg Asn
1 5

<210> 701
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 701
ggtgcaacc

9

<210> 702
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 702

Gly Ala Thr
1

<210> 703
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 703
cagcagtata ataataggcc tctcact

27

<210> 704
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 704

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 705
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 705
caggtgcaat tgggtggagtc tgggggaggc gtggtccagc cggggaggtc cctgagactc 60
tcctgtgctg cgtctggttt caccttcaga agttttggca tgcactgggt ccgccaggct 120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat 240
ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 706
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 706

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 Phe
20 25 30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 707
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 707
ggtttcacct tcagaagttt tggc

24

<210> 708
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 708

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 709
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 709
atatattttg atggaaaaaa taaa

24

<210> 710
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 710

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 711
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 711
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 712
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 712

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 713
<211> 321
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 713

```
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcac 60
ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcaraaacct 120
ggccaggctc ccaggctcct catctatggg gcaaccacca gggccactgg tgtcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctacagtct 240
gaagattttg cagtttttta ctgtcagcag tataataata ggcctctcac tttcggcgga 300
gggaccgagg tggagatcaa a 321
```

<210> 714

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> VARIANT

<222> (38)..(38)

<223> Xaa = Any Amino Acid

<400> 714

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

```
Glu Arg Val Ile Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
20          25          30
```

```
Leu Ala Trp Tyr Gln Xaa Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35          40          45
```

```
Tyr Gly Ala Thr Thr Arg Ala Thr Gly Val 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 Phe Tyr Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 715
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 715
cagagtatta gcaggaac

18

<210> 716
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 716

Gln Ser Ile Ser Arg Asn
1 5

<210> 717
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 717
ggtgcaacc

9

<210> 718
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 718

Gly Ala Thr
1

<210> 719
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 719
cagcagtata ataataggcc tctcact

27

<210> 720
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 720

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 721
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 721
caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
tcctgtattg cgtctggatt taccttcaga agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcaatg atatattatg atggaaacaa taaatactat 180
gcagactccg tgaggggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgatgac acggctgtgt atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 722
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 722

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

Arg 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 Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 723
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 723
ggatttacct tcagaagtta tggc

24

<210> 724
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 724

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 725
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 725
atatattatg atggaaacaa taaa

24

<210> 726
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 726

Ile Tyr Tyr Asp Gly Asn Asn Lys
1 5

<210> 727

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 727

gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 728

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 728

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 729

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 729

gaaatagtga tgacgcagtc tccagccaca ctgtctgtgt ctccagggga aagagccacc

60

ctctcctgca gggccagtca gagtgttagc agcaacttgg cctggtacca gcagaaacct

120

ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtggggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataaca ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 730
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 730

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 Gln Ser Val Ser Ser Asn
 20 25 30

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

Tyr Gly 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 Asn Arg Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 731

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

<220>
<223> synthetic

<400> 731
cagagtgtta gcagcaac

18

<210> 732
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 732

Gln Ser Val Ser Ser Asn
1 5

<210> 733
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 733
ggtgcatcc

9

<210> 734
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 734

Gly Ala Ser
1

<210> 735
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 735
 cagcagtata ataacaggcc tctcact

27

<210> 736
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 736

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
 1 5

<210> 737
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 737
 gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttgat gattattcca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtcgtag catagactat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgt aaaagataat 300
 agtggctatg gccgctatta ctactacggg atggacgtct ggggccaagg gaccacggtc 360

tccgtctcct ca

372

<210> 738
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 738

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

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

Ser Gly Ile Ser Trp Asn Ser Arg Ser Ile Asp 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

Val Lys Asp Asn Ser Gly Tyr Gly Arg Tyr Tyr Tyr Tyr Gly Met Asp
100 105 110

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

<210> 739
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 739

ggattcacct ttgatgatta ttcc

24

<210> 740

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 740

Gly Phe Thr Phe Asp Asp Tyr Ser

1 5

<210> 741

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 741

attagttgga atagtcgtag cata

24

<210> 742

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 742

Ile Ser Trp Asn Ser Arg Ser Ile

1 5

<210> 743

<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 743
gtaaaagata atagtggcta tggccgctat tactactacg ggatggacgt c 51

<210> 744
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 744

Val	Lys	Asp	Asn	Ser	Gly	Tyr	Gly	Arg	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp
1				5				10						15	

Val

<210> 745
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 745
aaaatagtga tgacgcagtc tcccgccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc ggcaacttag cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactag tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttattt ctgtcagcac tattataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcag a 321

<210> 746
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 746

Lys 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 Gln Ser Val Ser Gly Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Ser 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 Phe Cys Gln His Tyr Tyr Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Arg
100 105

<210> 747
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 747

cagagtgtta gcggcaac

18

<210> 748
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 748

Gln Ser Val Ser Gly Asn
1 5

<210> 749
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 749
ggtgcatcc

9

<210> 750
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 750

Gly Ala Ser
1

<210> 751
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 751

cagcactatt ataactggcc tctcact

27

<210> 752

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 752

Gln His Tyr Tyr Asn Trp Pro Leu Thr

1

5

<210> 753

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 753

gaagtgaac tggaggagtc tgggggaggc ttagtacagc ctggcgggtc cctgagactc 60

tcctgtgcag ccactggatt cacctttgat gattttacca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcaggt atcagttgga atagtggtag cataggctat 180

gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agctgaggac acggccttgt actactgtgc aaaagataat 300

agtggctacg gctattatta ctacggtatg gacgtctggg gccaaggac cacggtcacc 360

gtctcctca 369

<210> 754

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 754

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 Thr Gly Phe Thr Phe Asp Asp Phe
20 25 30

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

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Val 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 Asp Asn Ser Gly Tyr Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 755

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 755

ggattcacct ttgatgattt tacc

24

<210> 756
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 756

Gly Phe Thr Phe Asp Asp Phe Thr
1 5

<210> 757
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 757

atcagttgga atagtggtag cata

24

<210> 758
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 758

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 759
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 759

gcaaaagata atagtggcta cggctattat tactacggta tggacgtc

48

<210> 760

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 760

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

<210> 761

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 761

gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60

atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagct 120

tggtaccagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaccgg 180

gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240

atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtact 300

ccgtacactt ttggccaggg gaccaagctg gagatcaaa 339

<210> 762

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 762

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

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

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110

Lys

<210> 763
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 763
cagagtgttt tatacagctc caacaataag aactac

36

<210> 764
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 764

Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 765
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 765
tgggcatct

9

<210> 766
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 766

Trp Ala Ser
1

<210> 767
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 767
cagcaatatt atagtactcc gtacact

27

<210> 768
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 768

Gln Gln Tyr Tyr Ser Thr Pro Tyr Thr
1 5

<210> 769
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 769

caggtcacct tgaaggagtc tggctcctgcg ctggtgaaac ccacacagac cctcacactg 60
acctgcacct tctctgggtt ctactcagc actagtggaa tgtgtgtgag ctggatccgt 120
cagccccag ggaaggccct ggagtggctt gcacgcattg attgggatga tgataaatac 180
tacagcacat ctctgaagac caggctcacc atctccaagg acacctcaa aaaccagggtg 240
gtccttaca tgaccaacat ggaccctgtg gacacagcca cgtattactg tgcacggatg 300
gatatagtgg gagctagagg ggggtgggtc gaccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 770
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 770

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

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

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

Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
50 55 60

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

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

Cys Ala Arg Met Asp Ile Val Gly Ala Arg Gly Gly Trp Phe Asp Pro
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 771
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 771
gggttctcac tcagcactag tggaatgtgt

30

<210> 772
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 772

Gly Phe Ser Leu Ser Thr Ser Gly Met Cys
1 5 10

<210> 773

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 773

attgattggg atgatgataa a

21

<210> 774

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 774

Ile Asp Trp Asp Asp Asp Lys
1 5

<210> 775

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 775

gcacggatgg atatagtggg agctagaggg ggggtggttcg acccc

45

<210> 776

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 776

Ala Arg Met Asp Ile Val Gly Ala Arg Gly Gly Trp Phe Asp Pro
1 5 10 15

<210> 777

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 777

gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggcattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcacttca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 778

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 778

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 Gly Ile Ser 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 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 Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 779
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 779
cagggcatta gcaattat

18

<210> 780
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 780

Gln Gly Ile Ser Asn Tyr
1 5

<210> 781
<211> 9
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 781

gctgcatcc

9

<210> 782

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 782

Ala Ala Ser

1

<210> 783

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 783

caacagtata atagttaccc gctcact

27

<210> 784

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 784

Gln Gln Tyr Asn Ser Tyr Pro Leu Thr

1

5

<210> 785
<211> 404
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 785
caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgctg cgtctggatt caccttcaga agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcaatg atatattatg atggaaataa taaaaagtat 180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctgtgt atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctcagccaaa 360
acaacagccc caccgttta tccactggcc cctggaagct tggg 404

<210> 786
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 786

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

Arg 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 Val Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

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

Leu Ala Pro Gly Ser Leu
130

<210> 787
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 787
ggattcacct tcagaagtta tggc

24

<210> 788
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 788

Gly Phe Thr Phe Arg Ser Tyr Gly
1 5

<210> 789
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 789
atatattatg atggaaataa taaa

24

<210> 790
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 790

Ile Tyr Tyr Asp Gly Asn Asn Lys
1 5

<210> 791
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 791
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 792
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 792

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 793
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 793
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc aggaacttgg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactga tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcattctca acatcagcag cctgcagtct 240
gaagattttg cactttatta ctgtcaacaa tatagtaact ggcctctcac tttcggcgga 300
gggaccgagg tggagatcaa a 321

<210> 794
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 794

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 Gln Ser Val Ser Arg Asn
20 25 30

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

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

Ser Gly Ser Gly Thr Glu Phe Ile Leu Asn Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Ser Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 795
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 795
cagagtgtta gcaggaac

18

<210> 796
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 796

Gln Ser Val Ser Arg Asn
1 5

<210> 797
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 797
ggtgcatcc

9

<210> 798
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 798

Gly Ala Ser
1

<210> 799
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 799
caacaatata gtaactggcc tctcact

27

<210> 800
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 800

Gln Gln Tyr Ser Asn Trp Pro Leu Thr
1 5

<210> 801
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 801
caggtgcaat tgggtggagtc tgggggaggc gtggtccagc cggggaggtc cctgagactc 60
tcctgtgctg cgtctgggtt caccttcaga agttttggca tgcactgggt ccgccaggct 120
ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat 240
ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 802
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 802

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 Phe
20 25 30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr

100

105

110

Leu Val Thr Val Ser Ser
115

<210> 803
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 803
ggtttcacct tcagaagttt tggc

24

<210> 804
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 804

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 805
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 805
atatattttg atggaaaaaa taaa

24

<210> 806
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 806

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 807

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 807

gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 808

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 808

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 809

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 809

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcac

60

ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcagaaacct

120

ggccaggctc ccaggctcct catctatggg gcaaccacca gggccactgg tgtcccagcc 180
 aggttcagtg gcagtggggtc tgggacagag ttactctca ccatcagcag cctacagtct 240
 gaagattttg cagtttttta ctgtcagcag tataataata ggcctctcac tttcggcgga 300
 gggaccgagg tggagatcaa a 321

<210> 810
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 810

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

Glu Arg Val Ile Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
 20 25 30

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

Tyr Gly Ala Thr Thr Arg Ala Thr Gly Val 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 Phe Tyr Cys Gln Gln Tyr Asn Asn Arg Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
 100 105

<210> 811
 <211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 811
cagagtatta gcaggaac

18

<210> 812
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 812

Gln Ser Ile Ser Arg Asn
1 5

<210> 813
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 813
ggtgcaacc

9

<210> 814
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 814

Gly Ala Thr
1

<210> 815
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 815
 cagcagtata ataataggcc tctcact

27

<210> 816
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 816

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
 1 5

<210> 817
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 817
 caggtgcaat tgggtggagtc tggggggaggc gtggtccagc cggggagggtc cctgagactc 60
 tcctgtgctg cgtctgggtt caccttcaga agttttggca tgcactgggt ccgccaggct 120
 ccaggcaggg gactggagtg ggtggcaatg atatattttg atggaaaaaa taaatactat 180
 gcagactccg tgaggggccg attcaccatt tccagagaca attccaagaa caccctgtat 240
 ctggaaatga gtagcctgag agccgaggac acggctgtat atttctgtgc gcgagggcct 300
 gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 818
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 818

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 Phe
20 25 30

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

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

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

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

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 819
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 819
ggtttcacct tcagaagttt tggc

24

<210> 820
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 820

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 821
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 821
atatattttg atggaaaaaa taaa

24

<210> 822
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 822

Ile Tyr Phe Asp Gly Lys Asn Lys
1 5

<210> 823
<211> 33
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 823

gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 824

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 824

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro

1

5

10

<210> 825

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 825

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagtcac

60

ctctcctgta gggccagtca gagtattagc aggaacttgg cctggtacca gcagaaacct

120

ggccaggctc ccaggctcct catctatggt gcaaccacca gggccactgg tgtcccagcc

180

aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctacagtct

240

gaagattttg cagtttttta ctgtcagcag tataataata ggcctctcac tttcggcgga

300

gggaccgagg tggagatcaa a

321

<210> 826

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 826

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

Glu Arg Val Ile Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Asn
20 25 30

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

Tyr Gly Ala Thr Thr Arg Ala Thr Gly Val 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 Phe Tyr Cys Gln Gln Tyr Asn Asn Arg Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Glu Val Glu Ile Lys
100 105

<210> 827

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 827

cagagtatta gcaggaac

18

<210> 828

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 828

Gln Ser Ile Ser Arg Asn

1 5

<210> 829

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 829

ggtgcaacc

9

<210> 830

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 830

Gly Ala Thr

1

<210> 831

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 831

cagcagtata ataataggcc tctcact

27

<210> 832

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

<220>
<223> synthetic

<400> 832

Gln Gln Tyr Asn Asn Arg Pro Leu Thr
1 5

<210> 833
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 833
caggtgcacc tggaagagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgttcag cgtctgggtt caccttcagt agttatgcca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaactaa taaatattat 180
ttagattccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt 240
ctgcaaatga acagcctgag agccgaagac acggctgtgt attactgtgc gagagatcgg 300
ggaagtataa taaccctactg gggccaggga accctgggtca ccgtctcctc a 351

<210> 834
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 834

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

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

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

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

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

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

Ala Arg Asp Arg Gly Ser Ile Ile Thr His Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 835
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 835
ggtttcacct tcagtagtta tgcc

24

<210> 836
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 836

Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 837
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 837
atatggtatg atggaactaa taaa

24

<210> 838
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 838

Ile Trp Tyr Asp Gly Thr Asn Lys
1 5

<210> 839
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 839
gcgagagatc ggggaagtat aataaccac

30

<210> 840
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 840

Ala Arg Asp Arg Gly Ser Ile Ile Thr His
1 5 10

<210> 841

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 841

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca gaacattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 842

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 842

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

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

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

35

40

45

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

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

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

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

<210> 843
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 843
 cagaacatta gcagctat

18

<210> 844
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 844

Gln Asn Ile Ser Ser Tyr
 1 5

<210> 845
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
<223> synthetic

<400> 845
gctgcatcc

9

<210> 846
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 846

Ala Ala Ser
1

<210> 847
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 847
caacagactt acagtacccc tccgatcacc

30

<210> 848
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 848

Gln Gln Thr Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 849

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

<220>
 <223> synthetic

<400> 849
 gaagtacagc tgggtggagtc tgggggaggc ttggtacggc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccgccaagct 120
 ccagggaagg gcctggagtg ggtctcagat attagttgga atagtgggac cataggctat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag acctgaggac acggccttgt attactgtgc aaaagatatg 300
 agtggctacg cccactacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 850
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 850

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Arg 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

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

Ser Asp Ile Ser Trp Asn Ser Gly Thr 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 Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Tyr Tyr Tyr Gly Met Asp
100 105 110

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

<210> 851
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 851
ggattcacct ttgatgatta tacc

24

<210> 852
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 852

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 853
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 853
attagttgga atagtgggac cata

24

<210> 854
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 854

Ile Ser Trp Asn Ser Gly Thr Ile
1 5

<210> 855
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 855
gcaaaagata tgagtggcta cgcccactac tactactacg gtatggacgt c

51

<210> 856
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 856

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 857
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 857
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 858
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 858

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

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

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

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65		70		75		80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro						
		85		90		95

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

<210> 859
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 859
 cagagcatta gcagctat 18

<210> 860
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 860

Gln Ser Ile Ser Ser Tyr
1 5

<210> 861
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 861
 gctgcatcc 9

<210> 862
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 862

Ala Ala Ser
1

<210> 863
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 863
caacagagtt acagtacccc tccgatcacc

30

<210> 864
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 864

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 865
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 865


```

gaagtgcagc tggaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc      60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct      120
ccagggaagg gcctggagtg ggtctccgat attagttgga atagtggtag cataggctat      180
gcggactctg tgaagggccg attcaccgtc tccagagaca acgccaagaa ctccctgtat      240
ctgcaaatga acagtctgag aggtgaggac acggccctgt attactgtgc aaaagatatg      300
agtggctacg cccactacgg ctactacggt atggacgtct ggggccaagg gaccacggtc      360
accgtctcct ca                                                              372

```

<210> 866
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 866

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

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

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

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

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

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Gly Tyr Tyr Gly Met Asp
100 105 110

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

<210> 867
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 867
ggattcacct ttgatgatta tacc 24

<210> 868
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 868

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 869
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 869
attagttgga atagtggtag cata 24

<210> 870
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 870

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 871

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 871

gcaaaagata tgagtggcta cgcccactac ggctactacg gtatggacgt c

51

<210> 872

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 872

Ala Lys Asp Met Ser Gly Tyr Ala His Tyr Gly Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 873

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 873
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagg aactatttaa attggtatca gcagaaacca 120
gggaaagtcc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta accctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 874
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 874

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

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

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

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

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

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

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

100

105

<210> 875
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 875
 cagagcatta ggaactat

18

<210> 876
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 876

Gln Ser Ile Arg Asn Tyr
 1 5

<210> 877
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 877
 gctgcatcc

9

<210> 878
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 878

Ala Ala Ser
1

<210> 879

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 879

caacagagtt acagtaaccc tccgatcacc 30

<210> 880

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 880

Gln Gln Ser Tyr Ser Asn Pro Pro Ile Thr
1 5 10

<210> 881

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 881

gaagcgcagc tgggtggaatc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtacaa cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg gatctctgat attagttgga atgggtggaac caaaggctat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaaaaa ctccctgtat 240

ctgcaaattgg acagtctgag aggtgaggac acggccttat attactgtgt aaaagataaa 300
 agtggctacg ggcacttcta cttcggtttg gacgtctggg gccaaaggac cacggtcacc 360
 gtctcctca 369

<210> 882
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 882

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

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

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

Ser Asp Ile Ser Trp Asn Gly Gly Thr Lys 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 Asp Ser Leu Arg Gly Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

Val Lys Asp Lys Ser Gly Tyr Gly His Phe Tyr Phe Gly Leu Asp Val
 100 105 110

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

<210> 883
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 883
ggattcacct ttgatgatta tacc

24

<210> 884
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 884

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 885
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 885
attagttgga atggtggaac caaa

24

<210> 886
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 886

Ile Ser Trp Asn Gly Gly Thr Lys

1 5

<210> 887
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 887
gtaaaagata aaagtggcta cgggcacttc tacttcgggtt tggacgtc 48

<210> 888
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 888

Val Lys Asp Lys Ser Gly Tyr Gly His Phe Tyr Phe Gly Leu Asp Val
1 5 10 15

<210> 889
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 889
gacatccaga tgacccagtc tccatcctcc ctgactgcgt ctgtaggaga cagagtcacc 60
ttcacttgcc gggcaagtca gagcattagc aggcatttaa gttggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tggaaagtgg ggtcccttca 180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaccct 240
gaagattttg caacttacta ctgtcaacag agctacagta accctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 890
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 890

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

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

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

Tyr Ala Ala Ser Ser Leu Glu 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 His Pro
65 70 75 80

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

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

<210> 891
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 891

cagagcatta gcaggcat

18

<210> 892
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 892

Gln Ser Ile Ser Arg His
1 5

<210> 893
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 893
gctgcatcc

9

<210> 894
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 894

Ala Ala Ser
1

<210> 895
<211> 30
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 895

caacagagct acagtaaccc tccgatcacc

30

<210> 896

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 896

Gln Gln Ser Tyr Ser Asn Pro Pro Ile Thr

1

5

10

<210> 897

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 897

gaagtgcagt tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc

60

tcctgtgcag cctctggatt caagtttgct gattatgccca tgcactgggt ccggcaagct

120

ccagggaagg gcctggagtg ggtctcagag attagttgga atagtggtag cataggttat

180

gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat

240

ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgt aaaagataaa

300

agtggctacg ggcactacta tatcggtatg gacgtctggg gccaaaggac cacggtcac

360

gtctcctcc

369

<210> 898

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 898

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 Lys Phe Ala 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 Glu Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Val 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

Val Lys Asp Lys Ser Gly Tyr Gly His Tyr Tyr Ile Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Thr Val Ile Val Ser Ser
115 120

<210> 899

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 899

ggattcaagt ttgctgatta tgcc

24

<210> 900
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 900

Gly Phe Lys Phe Ala Asp Tyr Ala
1 5

<210> 901
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 901
attagttgga atagtggtag cata

24

<210> 902
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 902

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 903
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 903

gtaaaagata aaagtggcta cgggcactac tatatcggta tggacgtc

48

<210> 904
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 904

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

<210> 905
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 905

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gagtattagc agctatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc	300
caagggacac gactggagat taaa	324

<210> 906
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 906

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

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

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

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

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

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

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

<210> 907
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 907
cagagtatta gcagctat

18

<210> 908
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 908

Gln Ser Ile Ser Ser Tyr
1 5

<210> 909
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 909
gctgcatcc

9

<210> 910
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 910

Ala Ala Ser
1

<210> 911
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 911
caacagagtt acagtacccc tccgatcacc

30

<210> 912
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 912

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 913

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 913

gaagtgcacc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctccgat attagttgga atagtggtag cataggctat 180
gcggaactctg tgaagggccg attcaccgtc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aggtgaggac acggccttgt attactgtgc aaaagatatg 300
agtggctacg gccactacgg caagtacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 914

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 914

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 Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

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

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

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

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

Ala Lys Asp Met Ser Gly Tyr Gly His Tyr Gly Lys Tyr Gly Met Asp
100 105 110

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

<210> 915
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 915
ggattcacct ttgatgatta tacc

24

<210> 916
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 916

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 917
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 917
attagttgga atagtggtag cata

24

<210> 918
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 918

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 919
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 919
gcaaaaagata tgagtggcta cggccactac ggcaagtacg gtatggacgt c

51

<210> 920
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 920

Ala Lys Asp Met Ser Gly Tyr Gly His Tyr Gly Lys Tyr Gly Met Asp
 1 5 10 15

Val

<210> 921
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 921
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagg agctatttaa attggtatca gcagaaacca 120
 gggaaagtcc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcaacct 240
 gacgattttg caacttacta ctgtcaacag acttacagta accctccgat caccttcggc 300
 caagggacac gactggagat taaa 324

<210> 922
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 922

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

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

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

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

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

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

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

<210> 923
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 923
cagagcatta ggagctat

18

<210> 924
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 924

Gln Ser Ile Arg Ser Tyr
1 5

<210> 925
<211> 9
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 925

gctgcatcc

9

<210> 926

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 926

Ala Ala Ser

1

<210> 927

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 927

caacagactt acagtaaccc tccgatcacc

30

<210> 928

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 928

Gln Gln Thr Tyr Ser Asn Pro Pro Ile Thr

1

5

10

<210> 929
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 929
 gaggtgcagc tgggtggagtc tgggggagac ttggtacagc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcaatt attagttgga atggtaatac cattgactat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 cttcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagataag 300
 agtggctacg gacacttcta ctattacgtt ttggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 930
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 930
 Glu Val Gln Leu Val Glu Ser Gly Gly Asp 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
 Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ile Ile Ser Trp Asn Gly Asn Thr Ile Asp 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 Asp Lys Ser Gly Tyr Gly His Phe Tyr Tyr Tyr Val Leu Asp
100 105 110

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

<210> 931
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 931
ggattcacct ttgatgatta tacc

24

<210> 932
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 932

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 933
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 933

attagttgga atggtataac catt

24

<210> 934

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 934

Ile Ser Trp Asn Gly Asn Thr Ile

1 5

<210> 935

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 935

gcaaaaagata agatggcta cggacacttc tactattacg ttttggacgt c

51

<210> 936

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 936

Ala Lys Asp Lys Ser Gly Tyr Gly His Phe Tyr Tyr Tyr Val Leu Asp

1 5 10 15

Val

<210> 937
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 937
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattaac aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctatgct gcttcagtt tgcaaagtgg ggtcccgtca 180
 aggttcagtg gcagtgggtc tgggacagat ttactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctctcaacag agttacagtt tcccgtggac gttcggccaa 300
 gggaccaagg tggaaatcaa a 321

<210> 938
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 938

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

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

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

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

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

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

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

<210> 939
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 939
cagagcatta acaactat

18

<210> 940
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 940

Gln Ser Ile Asn Asn Tyr
1 5

<210> 941
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 941
gctgcttcc

9

<210> 942
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 942

Ala Ala Ser
1

<210> 943
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 943
caacagagtt acagtttccc gtggacg

27

<210> 944
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 944

Gln Gln Ser Tyr Ser Phe Pro Trp Thr
1 5

<210> 945
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 945
caggtgcagc tgggtggagtc ggggggaggc gtggtccagc ctgggaggtc cctgagaccc 60
tcctgtgcag cgtctggatt tagtttcagg gactatggca tgcactgggt ccgccaggct 120
ccaggtaagg gactagagtg gatggcacac atatggtata atggaaagaa taaatattat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctatat 240
ctgcaaatga acagcctgag acccgaggac acggctgtat attattgtgc gagagatggt 300
gtatcagcac gtggtactcc atttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 946
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 946

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

Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Phe Ser Phe Arg Asp Tyr
20 25 30

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

Ala His Ile Trp Tyr Asn Gly Lys 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 Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Val Ser Ala Arg Gly Thr Pro Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 947
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 947
ggatttagtt tcagggacta tggc

24

<210> 948
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 948

Gly Phe Ser Phe Arg Asp Tyr Gly
1 5

<210> 949
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 949
atatggtata atggaaagaa taaa

24

<210> 950
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 950

Ile Trp Tyr Asn Gly Lys Asn Lys
1 5

<210> 951
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 951
gcgagagatg gtgtatcagc acgtggtact ccatttgact ac

42

<210> 952
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 952

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

<210> 953
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 953
gaaacgacac tcacgcagtc tccagcattc atgtcagcgg ctccaggaga caaagtcagc

60

atctcctgca ttgccagcca gtacattgat gatgatgtga actggtacca acagaaacca 120
ggagaaaactg ctattttcat tattcaagaa gcttctactc tcgttcctgg aatctcacct 180
cgattcagtg gcagcgggta tggaacacat tttaccctca caattaataa catagattct 240
gaggatgctg cattttactt ctgtctccaa catgataatt tcccgtacac ttttggccag 300
gggaccaagc tggagatcaa a 321

<210> 954
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 954

Glu Thr Thr Leu Thr Gln Ser Pro Ala Phe Met Ser Ala Ala Pro Gly
1 5 10 15

Asp Lys Val Ser Ile Ser Cys Ile Ala Ser Gln Tyr Ile Asp Asp Asp
20 25 30

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

Gln Glu Ala Ser Thr Leu Val Pro Gly Ile Ser Pro Arg Phe Ser Gly
50 55 60

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

Glu Asp Ala Ala Phe Tyr Phe Cys Leu Gln His Asp Asn Phe Pro Tyr
85 90 95

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

<210> 955
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 955
cagtacattg atgatgat

18

<210> 956
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 956

Gln Tyr Ile Asp Asp Asp
1 5

<210> 957
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 957
gaagcttct

9

<210> 958
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 958

Glu Ala Ser

1

<210> 959
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 959
ctccaacatg ataatttccc gtacact

27

<210> 960
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 960

Leu Gln His Asp Asn Phe Pro Tyr Thr
1 5

<210> 961
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 961
caggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctcttatttt caccttttagc agtttttgcca tgaactgggt ccgccaggct 120
ccagggcagg gcctggagtg ggtctcagct attagtggta gggctctcagc tattagtggc 180
agtgggtgta tcacatacta cgcagactcc gtgaagggcc gggtcatcat ctccagagac 240
aattccaaga acacgctgta tctgcaaagt agcggcctga gagccgagga cacggccgta 300
tattactgtg cgaaaggccc ctatttgact acagtcaccc cctttgacta ctggggccag 360

ggaaccctgg tcaccgtctc ctca

384

<210> 962
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 962

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

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

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

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

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

Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Ser Gly Leu Arg Ala Glu
85 90 95

Asp Thr Ala Val Tyr Tyr Cys Ala Lys Gly Pro Tyr Leu Thr Thr Val
100 105 110

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

<210> 963
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 963

tatttcacct ttagcagttt tgcc

24

<210> 964

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 964

Tyr Phe Thr Phe Ser Ser Phe Ala

1 5

<210> 965

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 965

attagtggta gtggtggtat caca

24

<210> 966

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 966

Ile Ser Gly Ser Gly Gly Ile Thr

1 5

<210> 967
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 967
 gcgaaaggcc cctatttgac tacagtcacc ccctttgact ac 42

<210> 968
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 968

Ala Lys Gly Pro Tyr Leu Thr Thr Val Thr Pro Phe Asp Tyr
 1 5 10

<210> 969
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 969
 gacatccagt tgaccagtc tccatcttcc gtgtctgcat ctgtcggaga cagagtcacc 60
 atcacttgtc gggcgagtca ggggattagc agctggtag cctggatatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctatgct gtatccagtt tgcaaaatgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagat ttcaccctca ccatcagcag cctgcagcct 240
 gaagactttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
 gggaccaagc tggagatcaa acga 324

<210> 970

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

<220>
<223> synthetic

<400> 970

Asp Ile Gln Leu 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 Gly Ile Ser Ser Trp
20 25 30

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

Tyr Ala Val Ser Ser Leu Gln Asn 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 Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 971
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 971

caggggatta gcagctgg

18

<210> 972
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 972

Gln Gly Ile Ser Ser Trp
1 5

<210> 973
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 973
gctgtatcc

9

<210> 974
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 974

Ala Val Ser
1

<210> 975
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 975

caacaggcta acagtttccc attcact

27

<210> 976

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 976

Gln Gln Ala Asn Ser Phe Pro Phe Thr

1 5

<210> 977

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 977

gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttgct gattatgcca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggttat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agctgaggac acggccttat attactgtgt aaaagataat 300

agtggctacg catcctacta ctacggtatg gacgtctggg gccaaaggac cacggtcacc 360

gtctcctca 369

<210> 978

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 978

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 Ala 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 Ile Ser Trp Asn Ser Gly 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

Val Lys Asp Asn Ser Gly Tyr Ala Ser Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 979

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 979

ggattcacct ttgctgatta tgcc

24

<210> 980

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 980

Gly Phe Thr Phe Ala Asp Tyr Ala
1 5

<210> 981

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 981

attagttgga atagtggtag tata

24

<210> 982

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 982

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 983

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 983

gtaaaagata atagtggtcta cgcacacctac tactacggta tggacgctc

48

<210> 984
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 984

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

<210> 985
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 985

gacatccagt tgacccagtc cccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat ttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccattcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 986
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 986

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

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

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

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 987
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 987
cagagcatta gcagctat

18

<210> 988
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 988

Gln Ser Ile Ser Ser Tyr
1 5

<210> 989
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 989
gatgcatcc

9

<210> 990
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 990

Asp Ala Ser
1

<210> 991
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 991
caacagtatg ataatctccc attcact

27

<210> 992
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 992

Gln Gln Tyr Asp Asn Leu Pro Phe Thr
1 5

<210> 993
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 993
gaggtgcagc tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaaag ggctggagtg ggtgacagtt atattacatg atggaagtta taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctacat 240
ctgcaaatga acagcctgag aactgaggac acggctgtat attactgtgc gaaagggcct 300
atgtttcggg gagtccctta caaccactac tatggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 994
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 994

Glu 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 Asn Tyr
20 25 30

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

Thr Val Ile Leu His Asp Gly Ser Tyr 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 His
65 70 75 80

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

Ala Lys Gly Pro Met Phe Arg Gly Val Pro Tyr Asn His Tyr Tyr Gly
100 105 110

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

<210> 995
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 995
ggattcacct tcagtaacta tggc

24

<210> 996
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 996

Gly Phe Thr Phe Ser Asn Tyr Gly
1 5

<210> 997

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

<220>
<223> synthetic

<400> 997
atattacatg atggaagtta taaa

24

<210> 998
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 998

Ile Leu His Asp Gly Ser Tyr Lys
1 5

<210> 999
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 999
gcgaaagggc ctatgtttcg gggagtcctt tacaaccact actatggat ggacgctc

57

<210> 1000
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1000

Ala Lys Gly Pro Met Phe Arg Gly Val Pro Tyr Asn His Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1001
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1001
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcatcaga aatgatttag gctggatatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtctcatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtagac ttttggccag 300
gggaccaagg tggaaatcaa acga 324

<210> 1002
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1002

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 Gly Ile Arg Asn Asp
20 25 30

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

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

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

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1003
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1003
cagggcatca gaaatgat

18

<210> 1004
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1004

Gln Gly Ile Arg Asn Asp
1 5

<210> 1005
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1005
gctgcatcc

9

<210> 1006
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1006

Ala Ala Ser
1

<210> 1007
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1007
ctacagcata atagttaccc gtacact

27

<210> 1008
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1008

Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 1009
<211> 357
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1009

```
gaggtgcagc tggaggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc      60
tcctgtacag cgtcagggtt ccccttcagt cgctatggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggaatg ggtgacattt atatggtatg atggaagtaa taaatactat      180
gcagactccg cgaagggccg attcaccatc accagagaca attccaagaa cacggtgtat      240
ctgcaaattg acagcctgag agccgatgac acggctgttt attattgtgt gagagatcag      300
gcagctctct actattttga ctcttggggc cagggaaccc tggtcaccgt ctcctca      357
```

<210> 1010

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1010

```
Glu 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 Thr Ala Ser Gly Phe Pro Phe Ser Arg Tyr
20              25              30
```

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 1011
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1011
ggtttcccct tcagtcgcta tggc

24

<210> 1012
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1012

Gly Phe Pro Phe Ser Arg Tyr Gly
1 5

<210> 1013
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1013
atatggtatg atggaagtaa taaa

24

<210> 1014
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1014

Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 1015
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1015
gtgagagatc aggcagctct ctactatctt gactct

36

<210> 1016
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1016

Val Arg Asp Gln Ala Ala Leu Tyr Tyr Phe Asp Ser
1 5 10

<210> 1017
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1017
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggggtattagc aggtgggtag cctgggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctctgct gcatccagtt tgcaaagtgg agtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcgg cctgcagcct 240
gaagattttg caacttacta ttgtcaaaaag gctaacagtt tccctttcac tttcggccct 300
gggaccaagc tggagatcaa acga 324

<210> 1018
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1018

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 Gly Ile Ser Arg Trp
20 25 30

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

Ser 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 Gly Leu Gln Pro
65 70 75 80

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

Thr Phe Gly Pro Gly Thr Lys Leu Glu Ile Lys Arg

100

105

<210> 1019
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1019
cagggtatta gcaggtgg

18

<210> 1020
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1020

Gln Gly Ile Ser Arg Trp
1 5

<210> 1021
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1021
gctgcatcc

9

<210> 1022
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1022

Ala Ala Ser
1

<210> 1023

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1023

caaaaggcta acagtttccc ttctact

27

<210> 1024

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1024

Gln Lys Ala Asn Ser Phe Pro Phe Thr
1 5

<210> 1025

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1025

gaggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtgacagtt atattacatg atggaagtaa tagatactct 180

gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctttat 240

ctgcaaatga acatcctgag agttgaggac acggctgtgt attactgtac gaaaggggct 300
atgggttcggg gagtccctta caatcactac tacggcatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 1026
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1026

Glu 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 Tyr
20 25 30

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

Thr Val Ile Leu His Asp Gly Ser Asn Arg Tyr Ser 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 Ile Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn His Tyr Tyr Gly
100 105 110

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

<210> 1027
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1027
ggattcacct tcagtagtta tggc

24

<210> 1028
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1028

Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 1029
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1029
atattacatg atggaagtaa taga

24

<210> 1030
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1030

Ile Leu His Asp Gly Ser Asn Arg

1 5

<210> 1031
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1031
acgaaagggg ctatggttcg gggagtcctt tacaatcact actacggcat ggacgctc 57

<210> 1032
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1032

Thr	Lys	Gly	Ala	Met	Val	Arg	Gly	Val	Pro	Tyr	Asn	His	Tyr	Tyr	Gly
1				5					10					15	

Met Asp Val

<210> 1033
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1033
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggatatca gcagaaacca 120
gggaaagccc ctaagcgcct aatctatgct gcatccattt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240

gaagattttg caacttatta ctgtctacag cataatagtt acccgtagac ttttggccag 300

gggaccaagc tggagatcaa acga 324

<210> 1034

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1034

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 Gly Ile Arg Asn Asp
20 25 30

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

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

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

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

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

<210> 1035

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1035
cagggcatta gaaatgat

18

<210> 1036
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1036

Gln Gly Ile Arg Asn Asp
1 5

<210> 1037
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1037
gctgcatcc

9

<210> 1038
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1038

Ala Ala Ser
1

<210> 1039
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1039
ctacagcata atagttaccc gtacact

27

<210> 1040
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1040

Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 1041
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1041
gaggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctatggca tgcactgggt cgcagggt 120
ccaggcaagg ggctggagtg ggtgacagtt atattacatg atggaagtaa tagatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctttat 240
ctgcaaatga acatcctgag agctgaggac acggctgtgt attactgtac gaaaggggct 300
atgggttcggg gagtccctta caatcactac tacggcatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 1042

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

<220>
<223> synthetic

<400> 1042

Glu 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 Tyr
20 25 30

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

Thr Val Ile Leu His Asp Gly Ser Asn Arg 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 Ile Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn His Tyr Tyr Gly
100 105 110

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

<210> 1043
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1043
ggattcacct tcagtagcta tggc

24

<210> 1044
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1044

Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 1045
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1045
atattacatg atggaagtaa taga

24

<210> 1046
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1046

Ile Leu His Asp Gly Ser Asn Arg
1 5

<210> 1047
<211> 57
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1047

acgaaagggg ctatggttcg gggagtcctt tacaatcact actacggcat ggacgtc 57

<210> 1048

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1048

Thr Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn His Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1049

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1049

gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcattaga aatgatttag gctggatatca gcagaaacca 120

gggaaagccc ctaagcgcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240

gaagattttg caacttatta ctgtctacag cataatagtt acccgtagac ttttggccag 300

gggaccaagc tggagatcaa acga 324

<210> 1050

<211> 108

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1050

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 Gly Ile Arg Asn Asp
20 25 30

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

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

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

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

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

<210> 1051
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1051
cagggcatta gaaatgat

18

<210> 1052

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

<220>
<223> synthetic

<400> 1052

Gln Gly Ile Arg Asn Asp
1 5

<210> 1053
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1053
gctgcatcc

9

<210> 1054
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1054

Ala Ala Ser
1

<210> 1055
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1055
ctacagcata atagttaccc gtacact

27

<210> 1056
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1056

Leu Gln His Asn Ser Tyr Pro Tyr Thr
 1 5

<210> 1057
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1057

cagggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cctctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagact attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agctgaggac acggctgtgt ttactgtgc gaaaggggct	300
atggttcggg gagtccctta caactactac tacggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctca	378

<210> 1058
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1058

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 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 Tyr Ser Lys Asn Thr Leu Tyr
65 70 75 80

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

Ala Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn Tyr Tyr Tyr Gly
100 105 110

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

<210> 1059
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1059
ggattcacct tcagtagcta tggc

24

<210> 1060
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1060

Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 1061

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1061

atatcatatg atggaagtaa taaa

24

<210> 1062

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1062

Ile Ser Tyr Asp Gly Ser Asn Lys
1 5

<210> 1063

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1063

gcgaaagggg ctatgggttcg gggagtcctt tacaactact actacggat ggacgtc

57

<210> 1064

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

<220>
<223> synthetic

<400> 1064

Ala	Lys	Gly	Ala	Met	Val	Arg	Gly	Val	Pro	Tyr	Asn	Tyr	Tyr	Tyr	Gly
1				5				10						15	

Met Asp Val

<210> 1065
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1065

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtttca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtaacac ttttggccag	300
gggaccaagc tggagatcaa a	321

<210> 1066
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1066

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 Gly Ile Arg Asn Asp
20 25 30

Leu Gly Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg 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 Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

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

<210> 1067
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1067
cagggcatta gaaatgat

18

<210> 1068
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1068

Gln Gly Ile Arg Asn Asp
1 5

<210> 1069
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1069
gctgcatcc

9

<210> 1070
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1070

Ala Ala Ser
1

<210> 1071
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1071
ctacagcata atagttaccc gtacact

27

<210> 1072
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1072

Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 1073

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1073

cagggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggact caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatatg atggaagtaa taaatactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attctaagaa cacgctgtat 240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gaaaggggcc 300
atggttcggg gagtccctta caactactac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 1074

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1074

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 Leu Thr Phe Ser 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 Thr 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 Gly Ala Met Val Arg Gly Val Pro Tyr Asn Tyr Tyr Tyr Gly
100 105 110

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

<210> 1075
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1075
ggactcacct tcagtagcta tggc

24

<210> 1076
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1076

Gly Leu Thr Phe Ser Ser Tyr Gly
1 5

<210> 1077
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1077
atatcatatg atggaagtaa taaa

24

<210> 1078
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1078

Ile Ser Tyr Asp Gly Ser Asn Lys
1 5

<210> 1079
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1079
gcgaaagggg ccatggttcg gggagtcct tacaactact actacggtat ggacgtc

57

<210> 1080
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1080

Ala Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1081
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1081
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gggcattaga aatgatttag gctggatatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatgct gcgtccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgtctacag cataatagtt acccgtagac ttttggccag 300
 gggaccaagc tggagatcaa a 321

<210> 1082
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1082

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 Gly Ile Arg Asn Asp
 20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg 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 Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

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

<210> 1083
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1083
cagggcatta gaaatgat

18

<210> 1084
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1084

Gln Gly Ile Arg Asn Asp
1 5

<210> 1085
<211> 9
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1085

gctgcgtcc

9

<210> 1086

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1086

Ala Ala Ser

1

<210> 1087

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1087

ctacagcata atagttaccc gtacact

27

<210> 1088

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1088

Leu Gln His Asn Ser Tyr Pro Tyr Thr

1

5

<210> 1089
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1089
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagg agctttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atttcatatg atggaaatta taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agctgaggac acggctgtac attactgtgc gaaaggggct 300
 atggttcggg gagtccctta caacttctac tacggtatgg acgtctgggg ccaagggacc 360
 acggtcaccg tctcctca 378

<210> 1090
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1090

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 Phe
 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 Tyr 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 His Tyr Cys
85 90 95

Ala Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn Phe Tyr Tyr Gly
100 105 110

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

<210> 1091
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1091
ggattcacct tcaggagctt tggc

24

<210> 1092
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1092

Gly Phe Thr Phe Arg Ser Phe Gly
1 5

<210> 1093
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1093

atttcatatg atggaaatta taaa

24

<210> 1094

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1094

Ile Ser Tyr Asp Gly Asn Tyr Lys

1 5

<210> 1095

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1095

gcgaaagggg ctatggttcg gggagtcct tacaacttct actacggtat ggacgtc

57

<210> 1096

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1096

Ala Lys Gly Ala Met Val Arg Gly Val Pro Tyr Asn Phe Tyr Tyr Gly

1 5 10 15

Met Asp Val

<210> 1097
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1097
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggtcattaga aatgatttag gctggtatca gcagaaacca 120
 gggaaagccc ctaagcgctt gatctatgct gcatccagtt tgcaaagtgg gatcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgtctacag cataatagtt acccgtagac ttttggccag 300
 gggaccaagc tggagatcaa a 321

<210> 1098
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1098

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 Arg Asn Asp
 20 25 30

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

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

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

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

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

<210> 1099
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1099
caggtcatta gaaatgat

18

<210> 1100
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1100

Gln Val Ile Arg Asn Asp
1 5

<210> 1101
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1101
gctgcatcc

9

<210> 1102
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1102

Ala Ala Ser
1

<210> 1103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1103
ctacagcata atagttaccc gtacact

27

<210> 1104
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1104

Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 1105
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1105
gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagtt 120
ccaggaaagg gcctggagtg gatctcaggt attagttgga atagtggtag catggactat 180
gcggactctg tgaagggccg attcaccatc tctagagaca acgccaggaa ctccctgttt 240
ctgcaaatga acagtgtgag aactgaggac acggccttgt attactgtgc aaaagataag 300
agtggctacg gtccttcta ctacggtatg gacgtctggg gccaggggac cacggtcacc 360
gtctcctca 369

<210> 1106
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1106

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

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

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Phe Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 1107
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1107
ggattcacct ttgatgatta tacc 24

<210> 1108
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1108

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1109
attagttgga atagtggtag catg 24

<210> 1110
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1110

Ile Ser Trp Asn Ser Gly Ser Met
1 5

<210> 1111
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1111
gcaaaagata agagtggcta cggctccttc tactacggta tggacgtc 48

<210> 1112
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1112

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Phe Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 1113
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1113
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga cagagccacc 60

ctctcctgca gggccagtca gagtgtcagc agcatctact tagcctggta ccagcagaaa	120
cctggccagg ctcccaggct cctcatccat ggtgcgtcca ccagggccac tggcatccca	180
gacaggttca gtggcagtgg gtcagggaca gacttcactc tcaccatcag cagactggag	240
cctgaagatt ttgcagttta ttactgtcag cagcgtgctc actcaccgta cacttttggc	300
caggggacca agctggagat caaa	324

<210> 1114
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1114

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

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

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

Ile	His	Gly	Ala	Ser	Thr	Arg	Ala	Thr	Gly	Ile	Pro	Asp	Arg	Phe	Ser
	50					55					60				

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

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

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

<210> 1115
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1115
cagagtggtca gcagcatcta c

21

<210> 1116
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1116

Gln Ser Val Ser Ser Ile Tyr
1 5

<210> 1117
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1117
ggtgcgtcc

9

<210> 1118
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1118

Gly Ala Ser

1

<210> 1119
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1119
cagcagcgtg ctcactcacc gtacact

27

<210> 1120
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1120

Gln Gln Arg Ala His Ser Pro Tyr Thr
1 5

<210> 1121
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1121
gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggcctt cagctttgat aattatgcca tgcactgggt ccggcaagct 120
ccaggacagg gcctggagtg ggtctcaggc attagttaga atagtggtag cagagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca atgccaggaa ctccctgttt 240
ctgcaaatga acagtctgag taatgaggac acggccatgt attactgcgc aaaagataag 300
agtggctacg gtcctactt ctacggatat gacgtctggg gccaaaggac cacggtcacc 360

gtctcctca

369

<210> 1122
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1122

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 Ser Phe Asp Asn Tyr
20 25 30

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

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Phe Tyr Gly Met Asp Val
100 105 110

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

<210> 1123
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1123

ggcttcagct ttgataatta tgcc

24

<210> 1124

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1124

Gly Phe Ser Phe Asp Asn Tyr Ala

1 5

<210> 1125

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1125

attagttgga atagtggttag caga

24

<210> 1126

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1126

Ile Ser Trp Asn Ser Gly Ser Arg

1 5

<210> 1127
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1127
 gcaaaaagata agagtggcta cggctcctac ttctacggta tggacgtc 48

<210> 1128
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1128
 Ala Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Phe Tyr Gly Met Asp Val
 1 5 10 15

<210> 1129
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1129
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga cagagccacc 60
 ctctcctgca gggccagtca gagtattaga aacatctatt tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatccat ggtgcgtcca ccagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtcagggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagttta ttactgtcag cagcgtgtta gtttaccgta cacttttggc 300
 caggggacca agctggagat caaa 324

<210> 1130

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

<220>
<223> synthetic

<400> 1130

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

Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Arg Asn Ile
20 25 30

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

Ile His Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

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

<210> 1131
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1131

cagagtatta gaaacatcta t

21

<210> 1132
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1132

Gln Ser Ile Arg Asn Ile Tyr
1 5

<210> 1133
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1133
ggtgcgtcc

9

<210> 1134
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1134

Gly Ala Ser
1

<210> 1135
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1135

cagcagcgtg ttagtttacc gtacact

27

<210> 1136

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1136

Gln Gln Arg Val Ser Leu Pro Tyr Thr

1 5

<210> 1137

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1137

cagggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtgcag cctctggcctt cagctttgat gattatgccca tgcactgggt ccggcaagct 120

ccaggacagg gcctggagtg ggtctcaggt attagttgga atggtggtag cagagactat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaggaa ctccctgttt 240

ctgcaaatga acagtctgtt tactgaggac acggccttgt attactgtgc aaaagataag 300

agtggctacg gtcctactt ctacggtatg gacgtctggg gccaaaggac cacggtcacc 360

gtctcctca 369

<210> 1138

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1138

Gln 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 Ser Phe Asp Asp Tyr
20 25 30

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

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Phe Tyr Gly Met Asp Val
100 105 110

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

<210> 1139

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1139

ggcttcagct ttgatgatta tgcc

24

<210> 1140

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1140

Gly Phe Ser Phe Asp Asp Tyr Ala
1 5

<210> 1141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1141

attagttgga atggtggtag caga

24

<210> 1142

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1142

Ile Ser Trp Asn Gly Gly Ser Arg
1 5

<210> 1143

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1143

gcaaaagata agagtggcta cggctcctac ttctacggta tggacgta

48

<210> 1144
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1144

Ala	Lys	Asp	Lys	Ser	Gly	Tyr	Gly	Ser	Tyr	Phe	Tyr	Gly	Met	Asp	Val
1				5				10						15	

<210> 1145
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1145

gaaattgtgt	tgacgcagtc	tccaggcatt	ctgtctttgt	ctccagggga	cagagccacc	60
ctctcctgca	gggccagtca	gagtattaga	aacatctatt	tagcctggta	ccagcagaaa	120
cctggccagg	ctcccaggct	cctcatccat	ggtgcgtcca	ccagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtcagggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgaagatt	ttgcagttta	ttactgtcag	cagcgtgtta	gttcaccgta	cacttttggc	300
caggggacca	agctggagat	caaa				324

<210> 1146
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1146

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

Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Arg Asn Ile
20 25 30

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

Ile His Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

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

<210> 1147
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1147
cagagtatta gaaacatcta t

21

<210> 1148
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1148

Gln Ser Ile Arg Asn Ile Tyr
1 5

<210> 1149
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1149
ggtgcgtcc

9

<210> 1150
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1150

Gly Ala Ser
1

<210> 1151
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1151
cagcagcgtg ttagttcacc gtacact

27

<210> 1152
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1152

Gln Gln Arg Val Ser Ser Pro Tyr Thr
1 5

<210> 1153
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1153
gaggtgcagc tggaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcc a tgactgggt ccggcaagct 120
ccaggaaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cagagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaggaa ctccctgttt 240
ctgcaaatga acagtctgag tactgaggac acggccttgt attactgtgc aaaagataag 300
agtggctacg gtcctacta ctacggtatg gacgtctggg gccaaaggac cacggtcacc 360
gtctcctca 369

<210> 1154
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1154

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 1155
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1155
ggattcacct ttgatgatta tgcc

24

<210> 1156
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1156

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1157

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

<220>
<223> synthetic

<400> 1157
attagttgga atagtggtag caga

24

<210> 1158
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1158

Ile Ser Trp Asn Ser Gly Ser Arg
1 5

<210> 1159
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1159
gcaaaagata agagtggcta cggctcctac tactacggta tggacgtc

48

<210> 1160
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1160

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 1161
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1161
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga cagagccacc 60
ctctcctgca gggccagtca gagtattaga agcatctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatccat ggtgcgtcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtcagggaca gatttactc tcaccatcag cagactggag 240
cctgaagatt ttgcagttta ttactgtcag cagcgtgtta gctcaccgta cacttttggc 300
caggggacca agctggagat caaa 324

<210> 1162
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1162

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

Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Arg Ser Ile
20 25 30

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

Ile His Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

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

<210> 1163
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1163
cagagtatta gaagcatcta c

21

<210> 1164
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1164

Gln Ser Ile Arg Ser Ile Tyr
1 5

<210> 1165
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1165
ggtgcgtcc

9

<210> 1166
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1166

Gly Ala Ser
1

<210> 1167
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1167
cagcagcgtg ttagctcacc gtacact

27

<210> 1168
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1168

Gln Gln Arg Val Ser Ser Pro Tyr Thr
1 5

<210> 1169
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1169
gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttgct gattttacca tgcactgggt ccggcaagcg 120
ccagggaagg gccttgagtg ggtctcaggt attagttgga atagtaatag tatagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgttt 240
ctgcaaatgt ccagtctgag agctgaggac acggccttat attactgtgt caaagacaga 300
agcggatata gcagattcta ctacggtatg gacgtctggg gcccaaggac cacggtcacc 360
gtctcctca 369

<210> 1170
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1170

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 Val Ala Ser Gly Phe Thr Phe Ala Asp Phe
20 25 30

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

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

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

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

Val Lys Asp Arg Ser Gly Tyr Ser Arg Phe Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 1171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1171
ggattcacct ttgctgattt tacc 24

<210> 1172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1172

Gly Phe Thr Phe Ala Asp Phe Thr
1 5

<210> 1173
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1173
attagttgga atagtaatag tata 24

<210> 1174

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

<220>
<223> synthetic

<400> 1174

Ile Ser Trp Asn Ser Asn Ser Ile
1 5

<210> 1175
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1175
gtcaaagaca gaagcggata tagcagattc tactacggta tggacgtc 48

<210> 1176
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1176

Val Lys Asp Arg Ser Gly Tyr Ser Arg Phe Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 1177
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1177
gaaattgtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccatc 60

ctctcctgca gggccagtca gaatattaat agcaacttgg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tgtcccagcc 180
aggttcagtg gcagtggggtc tgggacagag ttcactctca ccatccgcag cctgcaatct 240
gaagattttg cagtttatta ctgtcaacaa tattataatt ggccgacac tttcggccac 300
gggacacgac tggagattaa a 321

<210> 1178
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1178

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

Glu Arg Ala Ile Leu Ser Cys Arg Ala Ser Gln Asn Ile Asn Ser Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Val Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Arg Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Tyr Asn Trp Pro Ile
85 90 95

Thr Phe Gly His Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 1179
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1179
cagaatatta atagcaac

18

<210> 1180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1180

Gln Asn Ile Asn Ser Asn
1 5

<210> 1181
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1181
ggtgcatcc

9

<210> 1182
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1182

Gly Ala Ser
1

<210> 1183
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1183
caacaatatt ataattggcc gatcact

27

<210> 1184
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1184

Gln Gln Tyr Tyr Asn Trp Pro Ile Thr
1 5

<210> 1185
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1185
gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcc a tgcactgggt ccggcaagct 120
ccaggaaagg gcctggagtg ggtctcaggt attagttgga atggtggtag taaagactat 180
gcggaactctg tgaagggccg attcaccatc tccagagaca acaccaggaa ctccctgtct 240
ctgcaaatga acagtctgag aattgaagac acggccttat attactgtgc aaaagataag 300

agtggctacg gctccttcta ctacggtttg gacgtctggg gccaaaggac cacggtcacc 360
gtctcctca 369

<210> 1186
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1186

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Phe Tyr Tyr Gly Leu Asp Val
100 105 110

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

<210> 1187
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1187
ggattcacct ttgatgatta tgcc

24

<210> 1188
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1188

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1189
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1189
attagttgga atggtggtag taaa

24

<210> 1190
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1190

Ile Ser Trp Asn Gly Gly Ser Lys
1 5

<210> 1191
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1191
 gcaaaagata agagtggcta cggctccttc tactacgggtt tggacgtc 48

<210> 1192
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1192

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

<210> 1193
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1193
 gaaatagtgt tgacacagtc tccaggcacc ctgtctttgt ctccagggga cagagccacc 60
 ctctcctgca gggccagtca gagtattaga agcatctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatccat ggtgcgtcca ccagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtcagggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagttaa ttactgtcag cagcgtgtta gctcaccgta cacttttggc 300
 caggggacca agctggagat caaa 324

<210> 1194
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1194

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

Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Arg Ser Ile
 20 25 30

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

Ile His Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60

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

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

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

<210> 1195
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1195

cagagtatta gaagcatcta c

<210> 1196
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1196

Gln Ser Ile Arg Ser Ile Tyr
1 5

<210> 1197
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1197
ggtgcgtcc

9

<210> 1198
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1198

Gly Ala Ser
1

<210> 1199
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1199
cagcagcgtg ttagctcacc gtacact

27

<210> 1200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1200

Gln Gln Arg Val Ser Ser Pro Tyr Thr
1 5

<210> 1201
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1201
gagggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gatttcacca tgcactgggt ccggcaagct 120
ccaggaaagg gcctggagtg ggtctcagat attagttgga atagtggtag catagactat 180
gcggactctg tgaagggccg attcaccatt tccagagaca atgccaggaa ctccctgttt 240
ctacaaatga gcagtctgag aactgaggac acggcctcgt attactgtat aaaagataag 300
agtggctacg gtcctacaa ctacggctctg gacgtctggg gccaaggac cacggtcacc 360
gtctcctca 369

<210> 1202
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1202

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 Phe
20 25 30

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

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

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

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

Ile Lys Asp Lys Ser Gly Tyr Gly Ser Tyr Asn Tyr Gly Leu Asp Val
100 105 110

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

<210> 1203

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1203

ggattcacct ttgatgattt cacc

24

<210> 1204

<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1204

Gly Phe Thr Phe Asp Asp Phe Thr
1 5

<210> 1205
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1205
attagttgga atagtggtag cata

24

<210> 1206
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1206

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1207
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1207
ataaaagata agagtggcta cggctcctac aactacggtc tggacgtc

48

<210> 1208
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1208

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

<210> 1209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1209

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga cagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcatctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatccat ggtgcgtcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtcggggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcacttta ttactgtcac cagcgtgtta gttcaccgta cacttttggc 300
caggggacca agctggagat caaa 324

<210> 1210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1210

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

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

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

Ile His Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Leu Tyr Tyr Cys His Gln Arg Val Ser Ser Pro
85 90 95

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

<210> 1211
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1211
cagagtgtta gcagcatcta c

21

<210> 1212
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1212

Gln Ser Val Ser Ser Ile Tyr

1

5

<210> 1213
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1213
ggtgcgtcc

9

<210> 1214
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1214

Gly Ala Ser
1

<210> 1215
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1215
caccagcgtg ttagttcacc gtacact

27

<210> 1216
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1216

His Gln Arg Val Ser Ser Pro Tyr Thr
1 5

<210> 1217

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1217

gaggtgcagc tggaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc	60
tcctgtgcag cctctggatt cacctttgat gattatgcc a tgactgggt ccggcaagct	120
ccaggaaagg gcctggagtg ggtctcaggc attagttgga atagtggttag taaagactat	180
gcggactctg tgaagggccg attcaccatc tccagagaca acaccaggaa ctccctgttt	240
ctgcaaatga acagtctgag aactgaagac acggccttat attactgtgc aaaagataag	300
agtggtctacg gtccttcta ctacgggatg gacgtctggg gccaaaggac cacggtcacc	360
gtctcctca	369

<210> 1218

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1218

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

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

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

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Phe Tyr Tyr Gly Met Asp Val
 100 105 110

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

<210> 1219
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1219
 ggattcacct ttgatgatta tgcc

24

<210> 1220
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1220

Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 1221
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1221
attagttgga atagtggtag taaa

24

<210> 1222
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1222

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1223
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1223
gcaaaagata agagtggcta cggctccttc tactacggta tggacgtc

48

<210> 1224
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1224

Ala Lys Asp Lys Ser Gly Tyr Gly Ser Phe Tyr Tyr Gly Met Asp Val

1 5 10 15

<210> 1225
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1225
 gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggccagtca gagtattagt agctggttgg cctgggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
 gatgattttg caacttatta ctgccaacag tataatagtt attctccgtt cggccaaggg 300
 accaaggtgg aaatcaaa 318

<210> 1226
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1226

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

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

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

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

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

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

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

<210> 1227
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1227
cagagtatta gtagctgg

18

<210> 1228
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1228

Gln Ser Ile Ser Ser Trp
1 5

<210> 1229
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1229

aaggcgtct

9

<210> 1230
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1230

Lys Ala Ser
1

<210> 1231
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1231
caacagtata atagttattc tccg

24

<210> 1232
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1232

Gln Gln Tyr Asn Ser Tyr Ser Pro
1 5

<210> 1233
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1233

```
caggtgcaac tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cctctggact caccttcagt acctatgtca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggcgtg ggtggcagtt atagcaaatg atggaagtaa taaatattat      180
gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat      240
ctgcaaatga atagcctgag acctgaggac acggctgtgt atttttgtgc gaaagagggg      300
ggtaccagtg ggtcctacta ttactatgga atggacgtct ggggtcaagg gactacggtc      360
accgtctcct ca                                                                372
```

<210> 1234

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1234

```
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 Leu Thr Phe Ser Thr Tyr
          20           25           30
```

```
Val Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Ala Trp Val
          35           40           45
```

```
Ala Val Ile Ala Asn 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 Pro Glu Asp Thr Ala Val Tyr Phe Cys
```

85

90

95

Ala Lys Glu Gly Gly Thr Ser Gly Ser Tyr Tyr Tyr Tyr Gly Met Asp
 100 105 110

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

<210> 1235
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1235
 ggactcacct tcagtaccta tgtc

24

<210> 1236
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1236

Gly Leu Thr Phe Ser Thr Tyr Val
 1 5

<210> 1237
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1237
 atagcaaagtg atggaagtaa taaa

24

<210> 1238
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1238

Ile Ala Asn Asp Gly Ser Asn Lys
1 5

<210> 1239
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1239

gcgaaagagg ggggtaccag tgggtcctac tattactatg gaatggacgt c 51

<210> 1240
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1240

Ala Lys Glu Gly Gly Thr Ser Gly Ser Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1241
<211> 342
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1241

gacatccaga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtctttta ttcaactcca tcaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagcttctcc tttactgggc atctaccgg 180
gaatccggga tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaccagcc tgcaggctga agatgtggca ctttattact gtcagcaata ttatagtatt 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1242

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1242

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Phe Asn
20 25 30

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

Pro Pro Lys Leu Leu Leu Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Thr Ser Leu Gln Ala Glu Asp Val Ala Leu Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Ile Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 1243
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1243
cagagtccttt tattcaactc catcaataag aactac 36

<210> 1244
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1244

Gln Ser Leu Leu Phe Asn Ser Ile Asn Lys Asn Tyr
1 5 10

<210> 1245
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1245
tgggcatct 9

<210> 1246

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

<220>
<223> synthetic

<400> 1246

Trp Ala Ser
1

<210> 1247
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1247
cagcaatatt atagtattcc gtggacg

27

<210> 1248
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1248

Gln Gln Tyr Tyr Ser Ile Pro Trp Thr
1 5

<210> 1249
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1249
cagggtgcagc tgggtggagtc tggggcctgaa gtgaagaagc ctggggcctc agtgaaggtc

60

tcctgcaaga cttctggata caccttcacc ggctactata tgcactggat acgacaggcc	120
cctggacaag ggcttgagtg gatgggatgg atcaacccta aaagtgggtg cacaaattat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac	240
atggaactga gcaggctgag atccgacgac atggccgtgt attattgtgc gagaatgggg	300
gacggtgcag tgtttgactt ctggggccag ggaaccctgg tcaccgtctc ctca	354

<210> 1250
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1250

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1251
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1251
ggatacacct tcaccggcta ctat

24

<210> 1252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1252

Gly Tyr Thr Phe Thr Gly Tyr Tyr
1 5

<210> 1253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1253
atcaacccta aaagtgggtgg caca

24

<210> 1254
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1254

Ile Asn Pro Lys Ser Gly Gly Thr
1 5

<210> 1255

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1255

gcgagaatgg gggacggtgc agtgtttgac ttc

33

<210> 1256

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1256

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Phe
1 5 10

<210> 1257

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1257

gccatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc

60

atcacttgcc gggcaagtca gaggattagc agctttttaa attggtatca gcagaaacca

120

gggaaagccc ctaagctcct gatctatact gcatccaatt tacaaaatgg ggtcccatca

180

aggttcagtg gcagtggatc tgggacagat ttcactctca ctatcagcag tctgcaacct 240
gaagattttg ctacttacta ctgtcaacag agttacagga ccccgctcac tttcggcgga 300
gggaccaagg tggaaatcaa acga 324

<210> 1258
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1258

Ala 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 Arg Ile Ser Ser Phe
20 25 30

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1259
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1259
cagaggatta gcagcttt

18

<210> 1260
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1260

Gln Arg Ile Ser Ser Phe
1 5

<210> 1261
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1261
actgcatcc

9

<210> 1262
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1262

Thr Ala Ser
1

<210> 1263

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

<220>
 <223> synthetic

<400> 1263
 caacagagtt acaggacccc gctcact

27

<210> 1264
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1264

Gln Gln Ser Tyr Arg Thr Pro Leu Thr
 1 5

<210> 1265
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1265
 gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcaggt attagttgga acagtggtag cataggctat 180
 gcggactctg tgaagggccg attcaccatt tccagagaca acgccaagaa ctccctgtat 240
 ttgcaaatga acagtctgag agctgaggac acggccttgt tttactgtgc aaaagatcaa 300
 agtggttacg gccactacta ctacggtatg gacgtctggg gccaaaggac cacggtcacc 360
 gtctcctca 369

<210> 1266
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1266

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

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

Ser Gly Ile Ser Trp Asn Ser Gly 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 Phe Tyr Cys
85 90 95

Ala Lys Asp Gln Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 1267
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1267
ggattcacct ttgatgatta tacc

24

<210> 1268
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1268

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1269
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1269
attagttgga acagtggtag cata

24

<210> 1270
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1270

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1271
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1271

gcaaaagatc aaagtgggta cggccactac tactacggta tggacgtc

48

<210> 1272

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1272

Ala Lys Asp Gln Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val

1

5

10

15

<210> 1273

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1273

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc

60

ctctcctgta gggccagtca gagggttagc agcaacttag cctgggtacca gcagaaacct

120

ggccaggctc ccaggctcct catctatggt gcatccacca gggccactga tatcccagcc

180

aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct

240

gaagattttg cagtttatca ctgtcagcag tataataact ggccgctcac tttcggcgga

300

gggaccaagg tggagatcaa a

321

<210> 1274

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1274

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 Gln Ser Val Ser Ser Asn
20 25 30

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

Tyr Gly Ala Ser Thr Arg Ala Thr Asp 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 His Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1275

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1275

cagagtgtta gcagcaac

18

<210> 1276

<211> 6

<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1276

Gln Ser Val Ser Ser Asn
1 5

<210> 1277
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1277
ggtgcatcc

9

<210> 1278
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1278

Gly Ala Ser
1

<210> 1279
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1279
cagcagtata ataactggcc gctcact

27

<210> 1280

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

<220>
<223> synthetic

<400> 1280

Gln Gln Tyr Asn Asn Trp Pro Leu Thr
1 5

<210> 1281
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1281
gaggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt tactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatttg atggaaagaa taaatattat 180
gcagactccg tgatgggccg attcaccatc tccagagaca attccaagaa tacactgtat 240
ctgcaaatga acagcctgag agctgaggac tcggctgtgt ttttctgtgc gaggtcttac 300
gacattttga ctggttatgg agccgggttac agctaccact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctctctca 387

<210> 1282
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1282

Glu 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 Tyr 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 Phe Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Met 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 Ser Ala Val Phe Phe Cys
85 90 95

Ala Arg Ser Tyr Asp Ile Leu Thr Gly Tyr Gly Ala Gly Tyr Ser Tyr
100 105 110

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

Ser

<210> 1283
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1283
ggattcacct tcagttacta tggc

24

<210> 1284
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1284

Gly Phe Thr Phe Ser Tyr Tyr Gly
1 5

<210> 1285

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1285

atatcatttg atggaaagaa taaa

24

<210> 1286

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1286

Ile Ser Phe Asp Gly Lys Asn Lys
1 5

<210> 1287

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1287

gcgaggctctt acgacatttt gactgggttat ggagccgggtt acagctacca ctacggatatg

60

gacgtc

66

<210> 1288
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1288

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

His Tyr Gly Met Asp Val
20

<210> 1289
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1289

gccatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaggattagc agctttttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct aatctatact gcatccaatt tacaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagga ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1290
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1290

Ala 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 Arg Ile Ser Ser Phe
20 25 30

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1291

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1291

cagaggatta gcagcttt

18

<210> 1292

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1292

Gln Arg Ile Ser Ser Phe
1 5

<210> 1293

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1293

actgcatcc

9

<210> 1294

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1294

Thr Ala Ser

1

<210> 1295

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1295

caacagagtt acaggacccc gctcact

27

<210> 1296

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1296

Gln Gln Ser Tyr Arg Thr Pro Leu Thr
1 5

<210> 1297

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1297

cagggtgcagc tgggtggagtc tggggctgaa gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaaga cttctggata caccctctcc ggctattata tgcactggat gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg attaacccta aaagtgggtgt cacaaattat 180
gcacagaagt ttcaggacag agtcgccatg accagggaca cgtccatcag cacagcctac 240
atggaactga gcaggctgag atctgacgac acggccgtgt attactgtgc gagaatgggg 300
gacggtgcag tgtttgactt ctgggcccag ggaaccctgg tcaccgtctc ctca 354

<210> 1298

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1298

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

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

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

Gly Trp Ile Asn Pro Lys Ser Gly Val Thr Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1299
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1299
ggatacaccc tctccggcta ttat

24

<210> 1300
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1300

Gly Tyr Thr Leu Ser Gly Tyr Tyr

1 5

<210> 1301
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1301
attaacccta aaagtgggtgt caca 24

<210> 1302
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1302

Ile Asn Pro Lys Ser Gly Val Thr
1 5

<210> 1303
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1303
gcgagaatgg gggacgggtgc agtgtttgac ttc 33

<210> 1304
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1304

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Phe
1 5 10

<210> 1305

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1305

gacatccagt tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaggattagc agctttttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct aatctatact gcatccaatt tacaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagga ccccgctcac tttcggcgga 300
gggaccaagc tggagatcaa acga 324

<210> 1306

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1306

Asp Ile Gln Leu 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 Arg Ile Ser Ser Phe
20 25 30

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

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

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

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

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

<210> 1307
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1307
cagaggatta gcagcttt

18

<210> 1308
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1308

Gln Arg Ile Ser Ser Phe
1 5

<210> 1309
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1309
actgcatcc

9

<210> 1310
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1310

Thr Ala Ser
1

<210> 1311
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1311
caacagagtt acaggacccc gctcact

27

<210> 1312
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1312

Gln Gln Ser Tyr Arg Thr Pro Leu Thr
1 5

<210> 1313
<211> 372
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1313

```
cagggtgcagc tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc      60
tcctgtgcag cctctggatt caccttcagt agctatggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtgtcaact atatcatttg atggaagtaa caaatactat      180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag acctgaggac acggctgtgt attactgtgc gaaagggggg      300
gggtaccagtg ggtcctactt ttactacggt atggacgtct ggggccaagg gaccacggtc      360
accgtctcct ca                                                                372
```

<210> 1314

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1314

```
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 Tyr
                20              25              30
```

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

```
Ser Thr Ile Ser Phe 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 Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Gly Gly Gly Thr Ser Gly Ser Tyr Phe Tyr Tyr Gly Met Asp
100 105 110

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

<210> 1315
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1315
ggattcacct tcagtagcta tggc

24

<210> 1316
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1316

Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 1317
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1317

atatcatttg atggaagtaa caaa

24

<210> 1318
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1318

Ile Ser Phe Asp Gly Ser Asn Lys
1 5

<210> 1319
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1319
gcgaaagggg ggggtaccag tgggtcctac ttttactacg gtatggacgt c

51

<210> 1320
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1320

Ala Lys Gly Gly Gly Thr Ser Gly Ser Tyr Phe Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1321
<211> 324

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1321
gccatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaggattagc agcttttttaa attggatatca gcagaaacca 120
gggaaagccc ctaagctcct aatctatact gcatccaatt tacaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagga ccccgctcac tttcggcgga 300
gggaccaagc tggagatcaa acga 324

<210> 1322
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1322

Ala 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 Arg Ile Ser Ser Phe
20 25 30

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

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

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

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

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

<210> 1323
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1323
cagaggatta gcagcttt 18

<210> 1324
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1324

Gln Arg Ile Ser Ser Phe
1 5

<210> 1325
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1325
actgcatcc 9

<210> 1326
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1326

Thr Ala Ser
1

<210> 1327
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1327
caacagagtt acaggacccc gctcact

27

<210> 1328
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1328

Gln Gln Ser Tyr Arg Thr Pro Leu Thr
1 5

<210> 1329
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1329
caggttcagc tgggtgcagtc tgggactgag gtgaagaagc ctggggcctc aatgaaggtc

60

tcctgcaagg cttctggata caccttcacc ggctactata ttcactgggt gcgacaggcc	120
cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgatgt cacaaagtat	180
gcacagaagt ttcagggcag ggtcaccttg accagggaca cgtccatcag tgcagcctat	240
attgacctga gcaggctgag atctgacgac acggccattt attactgtgc gagaatgggg	300
gacggtgcag tgtttgacta ctggggccag ggaaccctgg tcaccgtctc ctca	354

<210> 1330
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1330

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

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

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

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

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

Ile Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Ile Tyr Tyr Cys	
85 90 95	

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

Leu Val Thr Val Ser Ser
115

<210> 1331
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1331
ggatacacct tcaccggcta ctat

24

<210> 1332
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1332

Gly Tyr Thr Phe Thr Gly Tyr Tyr
1 5

<210> 1333
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1333
atcaacccta acagtgatgt caca

24

<210> 1334
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1334

Ile Asn Pro Asn Ser Asp Val Thr
1 5

<210> 1335

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1335

gcgagaatgg gggacggtgc agtgtttgac tac 33

<210> 1336

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1336

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Tyr
1 5 10

<210> 1337

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1337

gacatccagt tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca acgcattagc agctatttaa attggtatca acagaaacca 120

gggaaagccc ctaaggtgct gatctctgtt gcatccagtt tacaaagtgg ggtcccatca 180

aggttcagtg gcagtggatt tgggacagat ttactctca ccatcagcag tctgcaacct 240

gaggattctg catcttacta ctgtcaacag agttacaata ccccgctcac tttcggcggc 300

gggaccaagc tggagatcaa acga 324

<210> 1338

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1338

Asp Ile Gln Leu 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 Arg Ile Ser Ser Tyr
20 25 30

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

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

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

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

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

<210> 1339

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1339
caacgcatta gcagctat

18

<210> 1340
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1340

Gln Arg Ile Ser Ser Tyr
1 5

<210> 1341
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1341
gttgcattcc

9

<210> 1342
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1342

Val Ala Ser
1

<210> 1343
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1343
caacagagtt acaataacccc gctcact

27

<210> 1344
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1344

Gln Gln Ser Tyr Asn Thr Pro Leu Thr
1 5

<210> 1345
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1345
gaggtgcagc tgggtggagtc tggggctgaa gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaaga cttctggata cagtttcatt ggctattata tacactggat gcgacaggcc 120
cctggacaag ggcttgaatg gatgggatgg atcaacccta agagtgggtg cacaaattat 180
gcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag tactgcctac 240
atggaactga gcaggctgaa atctgacgac acggccgtgt atttctgtgc gagaatgggg 300
gacggtgcag tgtttgactt ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 1346
<211> 118
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1346

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1347

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1347

ggatacagtt tcattggcta ttat

24

<210> 1348
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1348

Gly Tyr Ser Phe Ile Gly Tyr Tyr
1 5

<210> 1349
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1349
atcaacccta agagtgggtgt caca

24

<210> 1350
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1350

Ile Asn Pro Lys Ser Gly Val Thr
1 5

<210> 1351
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1351
gcgagaatgg gggacggtgc agtgtttgac ttc 33

<210> 1352
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1352

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Phe
1 5 10

<210> 1353
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1353
gacatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaggattagc agctttttaa attggtatca gcagaaacca 120
gggaaagtcc ctaagctcct gatctatact gcatccaatt tacaaaatgg ggtcccatca 180
aggttcagtg gcactggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagga ccccgctcac tttcggcgga 300
gggaccaaaag tggatatcaa acga 324

<210> 1354
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1354

Asp Ile Gln Leu 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 Arg Ile Ser Ser Phe
20 25 30

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 1355

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1355

cagaggatta gcagcttt

18

<210> 1356

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1356

Gln Arg Ile Ser Ser Phe
1 5

<210> 1357

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1357

actgcatcc

9

<210> 1358

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1358

Thr Ala Ser

1

<210> 1359

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1359

caacagagtt acaggacccc gctcact

27

<210> 1360

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1360

Gln Gln Ser Tyr Arg Thr Pro Leu Thr
1 5

<210> 1361

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1361

gaggtgcagc	tggtggagtc	tggggctgaa	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaaga	cttctggata	caccttcacc	ggctactata	tgcactggat	acgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	aaagtgggtg	cacaaattat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	gcaggctgag	atccgacgac	atggccgtgt	attattgtgc	gagaatgggg	300
gacggtgcag	tgtttgactt	ctggggccag	ggaaccctgg	tcaccgtctc	ctca	354

<210> 1362

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1362

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1363
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1363
ggatacacct tcaccggcta ctat

24

<210> 1364
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1364

Gly Tyr Thr Phe Thr Gly Tyr Tyr
1 5

<210> 1365
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1365
atcaacccta aaagtgggtgg caca

24

<210> 1366
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1366

Ile Asn Pro Lys Ser Gly Gly Thr
1 5

<210> 1367
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1367
gcgagaatgg gggacggtgc agtgtttgac ttc

33

<210> 1368
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1368

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Phe
 1 5 10

<210> 1369
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1369
 gacatcgtga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta cccctccgct cactttcggc 300
 ggagggacca aagtggatat caaacga 327

<210> 1370
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1370

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 Ser Ile Ser Ser Tyr
 20 25 30

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

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

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

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

Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 1371
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1371
cagagcatta gcagctat

18

<210> 1372
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1372

Gln Ser Ile Ser Ser Tyr
1 5

<210> 1373
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1373
gctgcatcc

9

<210> 1374
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1374

Ala Ala Ser
1

<210> 1375
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1375
caacagagtt acagtacccc tccgctcact

30

<210> 1376
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1376

Gln Gln Ser Tyr Ser Thr Pro Pro Leu Thr
1 5 10

<210> 1377
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1377

caggttcagc	tggtgcagtc	tgggactgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tgcactgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	acagtgatgt	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccttg	accagggaca	cgtccatcag	tacagcctac	240
attgacctga	gcaggctgag	atctgacgac	acggccattt	attactgtgc	gagaatgggg	300
gacggtgcag	tgtttgacta	ctggggccag	ggaaccctgg	tcaccgtctc	ctca	354

<210> 1378

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1378

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

85

90

95

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

Leu Val Thr Val Ser Ser
 115

<210> 1379
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1379
 ggatacacct tcaccggcta ctat

24

<210> 1380
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1380

Gly Tyr Thr Phe Thr Gly Tyr Tyr
 1 5

<210> 1381
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1381
 atcaacccta acagtgatgt caca

24

<210> 1382
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1382

Ile Asn Pro Asn Ser Asp Val Thr
1 5

<210> 1383
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1383
gcgagaatgg gggacgggtgc agtgtttgac tac

33

<210> 1384
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1384

Ala Arg Met Gly Asp Gly Ala Val Phe Asp Tyr
1 5 10

<210> 1385
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1385

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gcgcattagc agctatttaa attggatatca gcagaaacca 120
gggaaagccc ctaagggtgct gatctctgtt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccattagtag tctgcaacct 240
gaggattttg catcttacta ctgtcaacag agttacaata ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1386
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1386

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 Arg Ile Ser Ser Tyr
20 25 30

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

Ser 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 Ser Tyr Tyr Cys Gln Gln Ser Tyr Asn Thr Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1387
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1387
cagcgcatta gcagctat

18

<210> 1388
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1388

Gln Arg Ile Ser Ser Tyr
1 5

<210> 1389
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1389
gttgcatcc

9

<210> 1390
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1390

Val Ala Ser
1

<210> 1391
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1391
caacagagtt acaatacccc gctcact

27

<210> 1392
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1392

Gln Gln Ser Tyr Asn Thr Pro Leu Thr
1 5

<210> 1393
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1393
caggtgcagc tgggtgcagtc tgggggaggc ttggtcaagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctatgaca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatat attagtagta gtggttaatac catacattac 180
gcagactctg tgaagggccg attcaccatc tccagagaca attccaagaa ctactttat 240
ctgcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc gaaagccggt 300

cccgctacgg tgacacggag gtactactac tactacggtt tggacgtctg gggccaaggg 360

accacgggtca ccgtctcctc a 381

<210> 1394

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1394

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

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

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser 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 Ala Gly Pro Ala Thr Val Thr Arg Arg Tyr Tyr Tyr Tyr Tyr
100 105 110

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

<210> 1395

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

<220>
<223> synthetic

<400> 1395
ggattcacct tcagtagcta tgac

24

<210> 1396
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1396

Gly Phe Thr Phe Ser Ser Tyr Asp
1 5

<210> 1397
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1397
attagtagta gtggtaatac cata

24

<210> 1398
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1398

Ile Ser Ser Ser Gly Asn Thr Ile
1 5

<210> 1399
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1399
gcgaaagccg gtcccgctac ggtgacacgg aggtactact actactacgg tttggacgtc 60

<210> 1400
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1400

Ala	Lys	Ala	Gly	Pro	Ala	Thr	Val	Thr	Arg	Arg	Tyr	Tyr	Tyr	Tyr	Tyr
1				5					10					15	

Gly	Leu	Asp	Val
			20

<210> 1401
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1401
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtacgaga cagagtcacc 60
atcacttgcc gggcaagtca gagaattagc agctatttaa attggtttca gcagaaacca 120
gggaaagccc ctaaggtcct gatctatact gcatccagtt tgcaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gaagactttg caacttacta ctgtcagcag agttacagga ccccgctcac tttcggcgga 300

gggaccaagg tggagatcaa acga 324

<210> 1402

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1402

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

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

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1403

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1403
cagagaatta gcagctat

18

<210> 1404
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1404

Gln Arg Ile Ser Ser Tyr
1 5

<210> 1405
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1405
actgcatcc

9

<210> 1406
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1406

Thr Ala Ser
1

<210> 1407
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1407

cagcagagtt acaggacccc gctcact

27

<210> 1408

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1408

Gln Gln Ser Tyr Arg Thr Pro Leu Thr

1 5

<210> 1409

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1409

cagggtgcagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata cacattcatc ggctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcaacccta aaagtgggtg cacaaactat 180

gcacagaagt ttcagggcag ggtcaccatg accggggaca cgtccatcag cacagcctac 240

atggagctga gcaggctgag atctgacgac acggccgtgt tttactgtgc gagaatgggg 300

gacggtgcaa tgtttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 1410

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1410

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1411

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1411

ggatacacat tcatcggcta ctat

24

<210> 1412
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1412

Gly Tyr Thr Phe Ile Gly Tyr Tyr
1 5

<210> 1413
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1413
atcaacccta aaagtgggtgg caca

24

<210> 1414
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1414

Ile Asn Pro Lys Ser Gly Gly Thr
1 5

<210> 1415
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1415
gcgagaatgg gggacggtgc aatgtttgac tac

33

<210> 1416
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1416

Ala Arg Met Gly Asp Gly Ala Met Phe Asp Tyr
1 5 10

<210> 1417
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1417
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagaattagc agctatttaa attggtatca gcagaaagca 120
gggaaagccc ctaaggctct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
cgattcagtg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 1418
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1418

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 Arg Ile Ser Ser Tyr
20 25 30

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1419
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1419
cagagaatta gcagctat

18

<210> 1420
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1420

Gln Arg Ile Ser Ser Tyr
1 5

<210> 1421

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1421

actgcatcc

9

<210> 1422

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1422

Thr Ala Ser

1

<210> 1423

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1423

caacagagtt acagtacccc gctcact

27

<210> 1424

<211> 9

<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1424

Gln Gln Ser Tyr Ser Thr Pro Leu Thr
1 5

<210> 1425
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1425
cagggtgcagc tgggtacagtc tgggggaggc gtggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagct 120
ccagggaagg gtctggagtg ggtctctctt attagtgggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac accgccttgt attactgtgc aaaagatgat 300
agcagctcgt cctggtacta ctactactac ggtatggacg tctggggccg agggaccacg 360
gtcaccgtct cctca 375

<210> 1426
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1426

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

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

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

Ala Lys Asp Asp Ser Ser Ser Ser Trp Tyr Tyr Tyr Tyr Tyr Gly Met
100 105 110

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

<210> 1427
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1427
ggattcacct ttgatgatta tgcc

24

<210> 1428
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1428

Gly Phe Thr Phe Asp Asp Tyr Ala

1

5

<210> 1429
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1429
attagtgggg atggtggtag caca

24

<210> 1430
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1430

Ile Ser Gly Asp Gly Gly Ser Thr
1 5

<210> 1431
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1431
gcaaaaagatg atagcagctc gtcctggtac tactactact acggtatgga cgtc

54

<210> 1432
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1432

Ala Lys Asp Asp Ser Ser Ser Ser Trp Tyr Tyr Tyr Tyr Tyr Gly Met
1 5 10 15

Asp Val

<210> 1433

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1433

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gcgcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagggtgct gatctctggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaggattttg catcttacta ctgtcaacag agttacaata ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1434

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1434

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 Arg Ile Ser Ser Tyr
20 25 30

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

Ser 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 Ser Tyr Tyr Cys Gln Gln Ser Tyr Asn Thr Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1435
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1435
cagcgcatta gcagctat

18

<210> 1436
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1436

Gln Arg Ile Ser Ser Tyr
1 5

<210> 1437
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1437
gttgcattcc

9

<210> 1438
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1438

Val Ala Ser
1

<210> 1439
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1439
caacagagtt acaatacccc gctcact

27

<210> 1440
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1440

Gln Gln Ser Tyr Asn Thr Pro Leu Thr
1 5

<210> 1441
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1441
gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttttgt gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctccgat attagttaga atagtggtag caaagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctctat 240
cttcaaatga acagtctgag aactgaggat acggcctttt attactgtgc aaaagatagt 300
aggggctacg gtctctacta ccacctcggg ttggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1442
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1442

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 Gly Asp Tyr
20 25 30

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

Ser Asp Ile Ser Trp Asn Ser Gly Ser Lys Asp 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 Thr Glu Asp Thr Ala Phe Tyr Tyr Cys
85 90 95

Ala Lys Asp Ser Arg Gly Tyr Gly Leu Tyr Tyr His Leu Gly Leu Asp
100 105 110

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

<210> 1443
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1443
ggattcacct ttggtgatta tacc

24

<210> 1444
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1444

Gly Phe Thr Phe Gly Asp Tyr Thr
1 5

<210> 1445
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1445

attagttgga atagtggttag caaa

24

<210> 1446

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1446

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 1447

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1447

gcaaaaagata gtaggggcta cggtctctac taccacctcg gtttggacgt c

51

<210> 1448

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1448

Ala Lys Asp Ser Arg Gly Tyr Gly Leu Tyr Tyr His Leu Gly Leu Asp

1 5 10 15

Val

<210> 1449
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1449
gaggtgcagc tgggtggagtc tgggggaggc ttggtgcagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag tatagcctat 180
gcggaactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctctat 240
cttcaaatga acagtctgag aactgaggac acggcctttt attactgtgc aaaagatagt 300
aggggctacg gtcactataa gtacctcggc ttggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1450
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1450

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 Ala Asp Tyr
20 25 30

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

Ser Asp Ile Ser Trp Asn Ser Gly Ser Ile Ala 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 Thr Glu Asp Thr Ala Phe Tyr Tyr Cys
 85 90 95

Ala Lys Asp Ser Arg Gly Tyr Gly His Tyr Lys Tyr Leu Gly Leu Asp
 100 105 110

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

<210> 1451
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1451
 ggattcacct ttgctgatta tacc

24

<210> 1452
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1452

Gly Phe Thr Phe Ala Asp Tyr Thr
 1 5

<210> 1453
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1453

attagttgga atagtggtag tata

24

<210> 1454

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1454

Ile Ser Trp Asn Ser Gly Ser Ile

1 5

<210> 1455

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1455

gcaaaaagata gtaggggcta cggtcactat aagtacctcg gtttggacgt c

51

<210> 1456

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1456

Ala Lys Asp Ser Arg Gly Tyr Gly His Tyr Lys Tyr Leu Gly Leu Asp

1 5 10 15

Val

<210> 1457
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1457
 gaggtgcagc tgggtggagtc tgggggaggc atggtacagc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt ccccttcaat gattacacca tgcactgggt ccggcaagtc 120
 ccagggaggg gcctggagtg ggtctcagat attagttgga atagcggcag taaaggctat 180
 gcggactctg tgaagggtcg attcatcatc tccagagaca acgccaagaa ctccctgtac 240
 ctgcaaatga acagtctgag agttgaagac acggccttgt attactgtgt aaaagatgga 300
 agtggctacg ggaggttcca ttattacgct atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 1458
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1458

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

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

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

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

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

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

Val Lys Asp Gly Ser Gly Tyr Gly Arg Phe His Tyr Tyr Ala Met Asp
100 105 110

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

<210> 1459
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1459
ggattcccct tcaatgatta cacc

24

<210> 1460
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1460

Gly Phe Pro Phe Asn Asp Tyr Thr
1 5

<210> 1461
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1461

attagttgga atagcggcag taaa

24

<210> 1462

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1462

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 1463

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1463

gtaaaagatg gaagtggcta cgggaggttc cattattacg ctatggacgt c

51

<210> 1464

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1464

Val Lys Asp Gly Ser Gly Tyr Gly Arg Phe His Tyr Tyr Ala Met Asp

1 5 10 15

Val

<210> 1465
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1465
gagggtgcagc tgggtggagtc tgggtggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatacca tgcactgggt ccgccaagtt 120
ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag caaagactat 180
gcggaactctg tgaagggccg cttcaccatc tccagagaca acgccaagaa tttcctgtat 240
ctgcaaataga acagtctgag agctgaagac acggccttgt attactgtgt aaaatatgga 300
agtggctacg ggaaattcta cttctacgct atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1466
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1466

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 Ala Asp Tyr
20 25 30

Thr Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Phe 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

Val Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Phe Tyr Ala Met Asp
100 105 110

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

<210> 1467
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1467
ggattcacct ttgctgatta tacc

24

<210> 1468
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1468

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1469
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1469
attagttgga atagtggtag caaa

24

<210> 1470
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1470

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1471
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1471
gtaaaatatg gaagtggcta cgggaaattc tacttctacg ctatggacgt c

51

<210> 1472
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1472

Val Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Phe Tyr Ala Met Asp
1 5 10 15

Val

<210> 1473
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1473
gaggtgcagc tgggtgcagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatacca tgcactgggt ccggcaaact 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag caaagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaatatgga 300
agtggctacg ggagatattt cttctacgct atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1474
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1474

Glu Val Gln Leu Val Gln 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 Ala Asp Tyr
20 25 30

Thr Met His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys Asp 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys Tyr Gly Ser Gly Tyr Gly Arg Tyr Phe Phe Tyr Ala Met Asp
100 105 110

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

<210> 1475
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1475
ggattcacct ttgctgatta tacc

24

<210> 1476
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1476

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1477

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

<220>
<223> synthetic

<400> 1477
attagttgga atagtggtag caaa

24

<210> 1478
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1478

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1479
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1479
gcaaaatatg gaagtggtc cgggagatat ttcttctacg ctatggacgt c

51

<210> 1480
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1480

Ala Lys Tyr Gly Ser Gly Tyr Gly Arg Tyr Phe Phe Tyr Ala Met Asp
1 5 10 15

Val

<210> 1481
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1481
gaggtgcagc tgggtggagtc aaggggagcc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cgcctttaat gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcagat attagttgga atagtaatag taaagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctctat 240
ctacaaatga acagtctgag agctgaggac acggccttgt attactgtgt aaaagatgga 300
agtggctacg ggaaattttc cctctacgct ttggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1482
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1482

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

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

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35

40

45

Ser Asp Ile Ser Trp Asn Ser Asn Ser Lys Asp 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

Val Lys Asp Gly Ser Gly Tyr Gly Lys Phe Ser Leu Tyr Ala Leu Asp
 100 105 110

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

<210> 1483
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1483
 ggattcgcct ttaatgatta tacc

24

<210> 1484
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1484

Gly Phe Ala Phe Asn Asp Tyr Thr
 1 5

<210> 1485
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1485
attagttgga atagtaatag taaa

24

<210> 1486
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1486

Ile Ser Trp Asn Ser Asn Ser Lys
1 5

<210> 1487
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1487
gtaaaagatg gaagtggtc cgggaaattt tccctctacg ctttggacgt c

51

<210> 1488
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1488

Val Lys Asp Gly Ser Gly Tyr Gly Lys Phe Ser Leu Tyr Ala Leu Asp

1 5 10 15

Val

<210> 1489
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1489
 cagggtgcagc tgggtggagtc tgggggaggc ttggttcacc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt caaatttgat gattatacca tgcactgggt ccggcaagct 120
 ccagggaagg gcctagagtg ggtctcagat attagttgga atagtggtag taaaggctat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagga ttccctatat 240
 ctgcagatgg acagtctgag agctgcagac acggccttct attactgtgc aaaagataaa 300
 agtggctacg gccacttcta ctactacgct atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 1490
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1490

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Asp Asp Tyr
 20 25 30

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

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

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

Leu Gln Met Asp Ser Leu Arg Ala Ala Asp Thr Ala Phe Tyr Tyr Cys
85 90 95

Ala Lys Asp Lys Ser Gly Tyr Gly His Phe Tyr Tyr Tyr Ala Met Asp
100 105 110

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

<210> 1491
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1491
ggattcaaat ttgatgatta tacc

24

<210> 1492
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1492

Gly Phe Lys Phe Asp Asp Tyr Thr
1 5

<210> 1493
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1493
attagttgga atagtggtag taaa

24

<210> 1494
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1494

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1495
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1495
gcaaaaagata aaagtggtta cgccacttc tactactacg ctatggacgt c

51

<210> 1496
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1496

Ala Lys Asp Lys Ser Gly Tyr Gly His Phe Tyr Tyr Tyr Ala Met Asp
 1 5 10 15

Val

<210> 1497
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1497
 gaggtgcagc tgggtggagtc tgggggaggc ttggtacacc ctggcaggtc cctaagactc 60
 tcctgtacag cctctggatt caagtttgct gattatacca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag taaaggctat 180
 gcggactctg taaagggccg attcaccatc tccagagaca atgacaagaa ctccctgtat 240
 ctgcaaatga acagtctgag aggtgaggac acggccttgt attactgtgc aaaagatgga 300
 agtggctacg ggaggttcca cttctacgct atcgacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 1498
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1498

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

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

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

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

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

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

Ala Lys Asp Gly Ser Gly Tyr Gly Arg Phe His Phe Tyr Ala Ile Asp
100 105 110

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

<210> 1499
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1499
ggattcaagt ttgctgatta tacc

24

<210> 1500
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1500

Gly Phe Lys Phe Ala Asp Tyr Thr
1 5

<210> 1501
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1501
attagttgga atagtggtag taaa

24

<210> 1502
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1502

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1503
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1503
gcaaaaagatg gaagtggcta cgggagggtc cacttctacg ctatcgacgt c

51

<210> 1504
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1504

Ala Lys Asp Gly Ser Gly Tyr Gly Arg Phe His Phe Tyr Ala Ile Asp
 1 5 10 15

Val

<210> 1505
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1505
 gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggctc cctgagactc 60
 tcctgtgtag cctctggatt cacctttgat gattattcca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag caaagactat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag agctgaagac acggccttgt attactgtgc aaaatatgga 300
 agtggctacg ggaagttcta ccactacggt ttggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 1506
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1506

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 Val Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

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

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys Asp 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
100 105 110

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

<210> 1507
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1507
ggattcacct ttgatgatta ttcc

24

<210> 1508
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1508

Gly Phe Thr Phe Asp Asp Tyr Ser

1 5

<210> 1509
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1509
attagttgga atagtggtag caaa 24

<210> 1510
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1510

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1511
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1511
gcaaaatatg gaagtggcta cgggaagttc taccactacg gtttggacgt c 51

<210> 1512
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1512

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1513

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1513

cagggtgcagt tgggtggagtc tggggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatacca tgcactgggt ccggcaggct 120
ccagggaagg gcctggagtg ggtctcagat attagttgga atagtggtag catgggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatgga 300
agtggctacg ggaaatactt cttctacgct atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1514

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1514

Gln 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 Ala Asp Tyr

20

25

30

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

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

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

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

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Tyr Phe Phe Tyr Ala Met Asp
 100 105 110

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

<210> 1515
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1515
 ggattcacct ttgctgatta tacc

24

<210> 1516
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1516

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1517
attagttgga atagtggtag catg

24

<210> 1518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1518

Ile Ser Trp Asn Ser Gly Ser Met
1 5

<210> 1519
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1519
gcaaaagatg gaagtggcta cgggaaatac ttcttctacg ctatggacgt c

51

<210> 1520
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1520

Ala	Lys	Asp	Gly	Ser	Gly	Tyr	Gly	Lys	Tyr	Phe	Phe	Tyr	Ala	Met	Asp
1				5					10					15	

Val

<210> 1521

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1521

gaggtgcagc	tggtgcagtc	tgggggaggc	ttggtacagc	ctggcaggtc	cctgagactc	60
tcctgtgcag	cctctggatt	caccttttct	gattatacta	tgcattgggt	ccggcaaggt	120
ccagggaagg	gcctggagtg	ggtctcagat	attagttgga	atagtggtag	taaaggctat	180
acggactctg	tgaagggccg	attcaccatt	tccagagaca	acgccaagaa	gtccctgtat	240
ctacaaatga	acagtctgag	agctgaggac	acggccttgt	actactgtgt	aaaagatgga	300
agtggctacg	ggaaatacca	cttctacgct	atggacgtct	ggggccaagg	gaccctggtc	360
accgtctcct	ca					372

<210> 1522

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1522

Glu	Val	Gln	Leu	Val	Gln	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 Ser Asp Tyr
20 25 30

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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

Val Lys Asp Gly Ser Gly Tyr Gly Lys Tyr His Phe Tyr Ala Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1523
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1523
ggattcacct tttctgatta tact

24

<210> 1524
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1524

Gly Phe Thr Phe Ser Asp Tyr Thr
1 5

<210> 1525
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1525
attagttgga atagtggtag taaa

24

<210> 1526
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1526

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1527
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1527
gtaaaagatg gaagtggcta cgggaaatac cacttctacg ctatggacgt c

51

<210> 1528
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1528

Val	Lys	Asp	Gly	Ser	Gly	Tyr	Gly	Lys	Tyr	His	Phe	Tyr	Ala	Met	Asp
1				5					10					15	

Val

<210> 1529

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1529

gaggtgcagc	tggtggagtc	ggggggaggc	ttggttcacc	ctggcaggtc	cctgagactc	60
tcctgtgcag	cctctggatt	cacctttgat	gattatacca	tgcaactgggt	ccggcaagct	120
ccagggaagg	gcctggaatg	ggtctcagat	attagttgga	atagtggtag	cagaggctat	180
gcggactctg	tgaagggccg	attcaccatc	tccagagata	atgccgagaa	ctccctgtac	240
ctgcaaatga	acagtctgag	agctgaggac	acggccttgt	attactgtgc	aaaagataaa	300
agtggctacg	gccactacta	ctactacgct	atggacgtct	ggggccaagg	gaccacggtc	360
accgtctcct	ca					372

<210> 1530

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1530

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	His	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

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Glu 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 Asp Lys Ser Gly Tyr Gly His Tyr Tyr Tyr Tyr Ala Met Asp
100 105 110

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

<210> 1531
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1531
ggattcacct ttgatgatta tacc

24

<210> 1532
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1532

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1533

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1533

attagttgga atagtggttag caga

24

<210> 1534

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1534

Ile Ser Trp Asn Ser Gly Ser Arg
1 5

<210> 1535

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1535

gcaaaagata aaagtggtcta cggccactac tactactacg ctatggacgt c

51

<210> 1536

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1536

Ala Lys Asp Lys Ser Gly Tyr Gly His Tyr Tyr Tyr Tyr Ala Met Asp
1 5 10 15

Val

<210> 1537

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1537

gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctggcgggtc cctgagactc 60
tcctgtgaag cctctggatt cacctttgct gattataacct tgcactgggt ccggcaagct 120
ccagggaagg gcctggaatg ggtctcagat attagttgga atagtggcac cagaggctat 180
gcggactctg tgagggggccg attcaccatc tccagagaca acgccaagaa gtcctgtat 240
ctgcaaatga acagtctgag atctgaggac acggccttgt attactgtgt gaaagatgga 300
agtggctacg ggagatataa tttctacgct atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1538

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1538

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 Glu Ala Ser Gly Phe Thr Phe Ala Asp Tyr
20 25 30

Thr Leu His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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

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

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

Val Lys Asp Gly Ser Gly Tyr Gly Arg Tyr Asn Phe Tyr Ala Met Asp
100 105 110

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

<210> 1539
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1539
ggattcacct ttgctgatta tacc

24

<210> 1540
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1540

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1541

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1541

attagttgga atagtggcac caga

24

<210> 1542

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1542

Ile Ser Trp Asn Ser Gly Thr Arg
1 5

<210> 1543

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1543

gtgaaagatg gaagtggcta cgggagatat aatttctacg ctatggacgt c

51

<210> 1544

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1544

Val Lys Asp Gly Ser Gly Tyr Gly Arg Tyr Asn Phe Tyr Ala Met Asp
1 5 10 15

Val

<210> 1545

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1545

gaggtgcagc tgggtggagtc tgggggaggc ttggttcagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt tacctttgct gactatacca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcagat attggttggg atagtaatac tataggctat 180
gcggactctg tgaagggccg attcgccatc tccagagaca acgccaagaa ctccctgtat 240
cttcaaatga acagtctgcg acctgaggac acggccttat attactgtgt aaaggataaa 300
agtggctacg ggaaattcca atacggtttg gacgtctggg gccaaaggac cacggtcacc 360
gtctcctca 369

<210> 1546

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1546

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

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

<210> 1547
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1547
 ggatttacct ttgctgacta tacc

24

<210> 1548
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1548

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1549

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1549

attggttgga atagtaatac tata

24

<210> 1550

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1550

Ile Gly Trp Asn Ser Asn Thr Ile
1 5

<210> 1551

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1551

gtaaaggata aaagtggtc cgggaaattc caatacgggtt tggacgtc

48

<210> 1552

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1552

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

<210> 1553

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1553

gaggtgcagc	tggtggagtc	tgggggaggc	ttggtacagc	ctggcaggtc	cctgagactc	60
tcctgtgcag	cctctggatt	tacatttgac	gattatacca	tgcaactgggt	ccggcaaggt	120
ccagggaagg	gcctggagtg	ggtctcagat	attggttggg	atagtaacag	tataggctat	180
gcggactctg	tgaagggccg	attcaccatc	tccagagaca	acgccaagaa	ctccctgtat	240
ctccaaatga	acagtctgag	acctgaggac	acggccttgt	atttctgtgt	aaaggataaa	300
agtggctacg	ggaaatTTTT	catcggtttg	gacgtctggg	gccaaggac	aatggtcacc	360
gtctcttca						369

<210> 1554

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1554

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

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Asp Ile Gly Trp Asn Ser Asn 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
85 90 95

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Phe Ile Gly Leu Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 1555
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1555
ggatttacat ttgacgatta tacc

24

<210> 1556
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1556

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1557
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1557
attggttgga atagtaacag tata

24

<210> 1558
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1558

Ile Gly Trp Asn Ser Asn Ser Ile
1 5

<210> 1559
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1559
gtaaaggata aaagtggcta cgggaaattt ttcacggtt tggacgtc

48

<210> 1560
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1560

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

<210> 1561

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1561

cagggtgcagt	tggtggagtc	tgggggaggc	ttggtacagc	ctggcaggtc	cctgagactc	60
tcctgtgcag	cctctggatt	tacatttgac	gattatacca	tgcaactgggt	ccggcaaggt	120
ccagggaagg	gcctggagtg	ggtctcagat	attggttgga	atagtaatac	taaaggctat	180
gcggactctg	tgaagggccg	attcaccatc	tccagagaca	acgccaagaa	ttccctgtat	240
ctccaaatga	acagtctgag	acctgaggac	acggccttgt	atttctgtgt	gaaggataaa	300
agtggctacg	ggaaattttt	catcggtttg	gacgtctggg	gccaagggac	aatggtcacc	360
gtctcttca						369

<210> 1562

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1562

Gln	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		

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Asp Ile Gly Trp Asn Ser Asn Thr Lys 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
85 90 95

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Phe Ile Gly Leu Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 1563
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1563
ggatttacat ttgacgatta tacc

24

<210> 1564
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1564

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1565
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1565
attggttgga atagtaatac taaa

24

<210> 1566
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1566

Ile Gly Trp Asn Ser Asn Thr Lys
1 5

<210> 1567
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1567
gtgaaggata aaagtggtta cgggaaattt ttcacggtt tggacgtc

48

<210> 1568
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1568

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

<210> 1569
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1569
 gaggtgcagc tggtaggagtc tgggggaggc ttggtccagc ctgggcggtc cctgagactc 60
 tcctgtgcag cctccggatt cacctttgct gattatacca tgcactgggt ccggcaaggt 120
 ccagggacgg gcctggagtg ggtctcagat attggttga gtggtggtag tttaggctat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ttggaaatga acaatctgcg acctgaagac acggccttgt attattgtgt aaaggataaa 300
 agtggctacg ggaaattcca gtacggtttg gacgtctggg gccaaaggac cacggtcacc 360
 gtctcctca 369

<210> 1570
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1570

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 Ala Asp Tyr
 20 25 30

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

Ser Asp Ile Gly Trp Ser Gly Gly Ser Leu 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 Asn Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Gln Tyr Gly Leu Asp Val
100 105 110

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

<210> 1571
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1571
ggattcacct ttgctgatta tacc

24

<210> 1572
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1572

Gly Phe Thr Phe Ala Asp Tyr Thr
1 5

<210> 1573

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

<220>
<223> synthetic

<400> 1573
attggttgga gtggtgtag ttta

24

<210> 1574
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1574

Ile Gly Trp Ser Gly Gly Ser Leu
1 5

<210> 1575
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1575
gtaaaggata aaagtggcta cgggaaattc cagtacggtt tggacgtc

48

<210> 1576
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1576

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

<210> 1577
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1577
gaggtgcagc tggaggagtc tgggggaggc gtggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggggtt taaatttgat ggttatacca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcagat attggttga atagtaacac tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctccaaatga acagtctgag accagaggac acggccttgt atttctgtgt aaaggataaa 300
agtggctacg ggaaattttt catcggtttg gacgtctggg gccaaggac aatggtcacc 360
gtctcttca 369

<210> 1578
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1578

Glu 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 Lys Phe Asp Gly Tyr
20 25 30

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Asp Ile Gly Trp Asn Ser Asn Thr 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
 85 90 95

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Phe Ile Gly Leu Asp Val
 100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 1579
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1579
 gggtttaaatttggatgggtta tacc

24

<210> 1580
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1580

Gly Phe Lys Phe Asp Gly Tyr Thr
 1 5

<210> 1581
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1581

attggttgga atagtaacac tata

24

<210> 1582

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1582

Ile Gly Trp Asn Ser Asn Thr Ile

1 5

<210> 1583

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1583

gtaaaggata aaagtggcta cgggaaatTT tTcatcggTT tggacgTc

48

<210> 1584

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1584

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Phe Ile Gly Leu Asp Val

1 5 10 15

<210> 1585

<211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1585
 caggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
 tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaaggt 120
 ccagggaagg gcctggagtg ggtctcagat attggttggg atagtaatac tataggctat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaggaa ctccctgtat 240
 ctgcaaatga acagtctgcg acctgaagac acggccttat attactgtgt aaaggataaa 300
 agtggctacg ggaaattcca atacggtttg gacgtctggg gccaaaggac cacggtcacc 360
 gtctcctca 369

<210> 1586
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1586

Gln 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

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

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

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

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

Val Lys Asp Lys Ser Gly Tyr Gly Lys Phe Gln Tyr Gly Leu Asp Val
100 105 110

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

<210> 1587
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1587
ggattcacct ttgatgatta tacc

24

<210> 1588
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1588

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1589
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1589
attggttgga atagtaatac tata 24

<210> 1590
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1590

Ile Gly Trp Asn Ser Asn Thr Ile
1 5

<210> 1591
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1591
gtaaaggata aaagtggtc cgggaaattc caatacgggtt tggacgtc 48

<210> 1592
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1592

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

<210> 1593
<211> 369
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1593

```
cagggtgcaac tgggtggagtc tggggggaggc ttggtacagc ctggcaggtc cctgagactc      60
tcctgtgcag cctctggatt caagtttgat gattatacca tgcactgggt ccggcaaggt      120
ccagggaagg gcctggagtg ggtctcagac attagttgga gtggtggtag catagactat      180
acggactctg tgaagggccg attctccatc tccagagaca acgccaagaa ctccctgtat      240
ctgcaaatga acagtctgag agttgaagac acggccttgt attattgtgt aaaagataaa      300
agtggctacg ggaagtactc ttacggtttg gacgtctggg gccaaggac cacggtcacc      360
gtctcctca                                     369
```

<210> 1594

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1594

```
Gln 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 Lys Phe Asp Asp Tyr
          20           25           30

Thr Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
          35           40           45

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

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

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

Val Lys Asp Lys Ser Gly Tyr Gly Lys Tyr Ser Tyr Gly Leu Asp Val
100 105 110

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

<210> 1595
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1595
ggattcaagt ttgatgatta tacc

24

<210> 1596
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1596

Gly Phe Lys Phe Asp Asp Tyr Thr
1 5

<210> 1597
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1597
attagttgga gtggtggtag cata

24

<210> 1598
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1598

Ile Ser Trp Ser Gly Gly Ser Ile
1 5

<210> 1599
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1599
gtaaaagata aaagtggcta cgggaagtac tcttacgggtt tggacgtc

48

<210> 1600
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1600

Val Lys Asp Lys Ser Gly Tyr Gly Lys Tyr Ser Tyr Gly Leu Asp Val
1 5 10 15

<210> 1601
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1601
gaggtgcagc tgggtggagtc tggggggaggc ttggtaaagc cggggggggtc ccttagaatc 60
tcctgtgcag cctctggatt ctctttcatt aacgcctgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccgt attaaaagca taagtgatgg tgggacaaca 180
gactacgctg catccgtgaa aggcagattc accatctcaa gagaagattc aaaaaatatg 240
ctgtttctgg aaatgaatag tctgaaaacc gaggacacag ccgtgtttta ctgtaccaca 300
gaggtcgcta gaactccgaa ctactggggc cggggaaccc tggtcaccgt ctcctca 357

<210> 1602
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1602

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

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

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

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

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

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

Tyr Cys Thr Thr Glu Val Ala Arg Thr Pro Asn Tyr Trp Gly Arg Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 1603
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1603
ggattctctt tcattaacgc ctgg

24

<210> 1604
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1604

Gly Phe Ser Phe Ile Asn Ala Trp
1 5

<210> 1605
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1605
attaaaagca taagtgatgg tgggacaaca

30

<210> 1606
<211> 10
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1606

Ile Lys Ser Ile Ser Asp Gly Gly Thr Thr
1 5 10

<210> 1607

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1607

accacagagg tcgctagaac tccgaactac

30

<210> 1608

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1608

Thr Thr Glu Val Ala Arg Thr Pro Asn Tyr
1 5 10

<210> 1609

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1609

gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg

60

agttgcgcag ctagtggggt tacattcgac gattacagca tgcattgggt gaggcaagct

120

cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
agtggttatg gcaagtttta tcattatgga ctggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1610
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1610

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

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

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
100 105 110

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

<210> 1611
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1611
gggtttacat tcgacgatta cagc

24

<210> 1612
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1612

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1613
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1613
atatcatgga actcaggaag caag

24

<210> 1614
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1614

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1615

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1615

gcaaaatacg gcagtgggta tggcaagttt tatcattatg gactggacgt g 51

<210> 1616

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1616

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1617

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1617

gaagtacaac tggtcgaatc tggaggaggt cttgttcaac ctggtcgatc acttcgcctt 60

tcttgtgccg cttctggttt cacttttcgac gattatagca tgcattgggt acgacaggct	120
cccggaagaaag ggctggaatg ggtgtcagga attagttgga actcaggaag tattggatac	180
gctgattcag tcaaaggacg cttcacaatc tcaagggaca acgctaaaaa ctcactttat	240
ttgcaaatga actctctccg cgctgaagat accgctctct attattgcgc caaagatggg	300
tctggttacg gttatTTTTA ctactatgga atggacgttt ggggcccaagg aacaactgtc	360
acagtatcat cc	372

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

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

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

Ala Lys Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
100 105 110

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

<210> 1619
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1619
ggtttcactt tcgacgatta tagc

24

<210> 1620
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1620

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1621
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1621
attagttgga actcaggaag tatt

24

<210> 1622
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1622

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1623
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1623
gccaaagatg ggtctgggta cggttatttt tactactatg gaatggacgt t 51

<210> 1624
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1624

Ala Lys Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1625
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1625
gaagtgaac tcgttgaaag cggaggagga ctggtccagc ccggcagatc tctcagattg 60

100

105

110

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

<210> 1627
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1627
 ggatttacat ttgacgacta ttca

24

<210> 1628
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1628

Gly Phe Thr Phe Asp Asp Tyr Ser
 1 5

<210> 1629
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1629
 atatcttgga actcaggcag tatt

24

<210> 1630
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1630

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1631

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1631

gcaaaagatg gaagcgggta tgggaaattt tattattatg gtatggatgt a

51

<210> 1632

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1632

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1633

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1633

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca	180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta cccctccgat caccttcggc	300
caagggacac gactggagat taaa	324

<210> 1634
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1634

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

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

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

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

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

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

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

<210> 1635
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1635
cagagcatta gcagctat

18

<210> 1636
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1636

Gln Ser Ile Ser Ser Tyr
1 5

<210> 1637
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1637
gctgcatcc

9

<210> 1638
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1638

Ala Ala Ser
1

<210> 1639
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1639
caacagagtt acagtacccc tccgatcacc 30

<210> 1640
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1640

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 1641
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1641
gaagtgcagc tgggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggctat 180
gcggaactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagataat 300

agtggctacg gtcactacta ctacggaatg gacgtctggg gccaaaggac cacggtcacc 360
 gtcgcctca 369

<210> 1642
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1642

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

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
 100 105 110

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

<210> 1643

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

<220>
<223> synthetic

<400> 1643
ggattcacct ttgatgatta tacc

24

<210> 1644
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1644

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1645
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1645
attagttgga atagtggtag tata

24

<210> 1646
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1646

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1647
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1647
 gcaaaagata atagtggcta cggtcactac tactacggaa tggacgtc 48

<210> 1648
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1648
 Ala Lys Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
 1 5 10 15

<210> 1649
 <211> 320
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1649
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgtagc agcaacttag cctggtacca gcaaaaacct 120
 ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcac tatattaact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa 320

<210> 1650
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1650

Ala Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro
1 5 10 15

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
20 25 30

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

Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65 70 75 80

Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Ile Asn Trp Pro
85 90 95

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

<210> 1651
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1651

cagagtgtta gcagcaac

<210> 1652
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1652

Gln Ser Val Ser Ser Asn
1 5

<210> 1653
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1653
ggtgcatcc

9

<210> 1654
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1654

Gly Ala Ser
1

<210> 1655
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1655
cagcactata ttaactggcc tctcact

27

<210> 1656
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1656

Gln His Tyr Ile Asn Trp Pro Leu Thr
1 5

<210> 1657
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1657
gaagtgaac tggaggagtc tgggggaggc ttagtacagc ctggcgggtc cctgagactc 60
tcctgtgcag ccactggatt cacctttgat gattttacca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt atcagttgga atagtggtag cataggctat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt actactgtgc aaaagataat 300
agtggctacg gctattatta ctacggatatg gacgtctggg gccaaggac cacggtcacc 360
gtctcctca 369

<210> 1658
<211> 123
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1658

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 Thr Gly Phe Thr Phe Asp Asp Phe
20 25 30

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

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Val 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 Asp Asn Ser Gly Tyr Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
100 105 110

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

<210> 1659

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1659

ggattcacct ttgatgattt tacc

24

<210> 1660

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

<220>
<223> synthetic

<400> 1660

Gly Phe Thr Phe Asp Asp Phe Thr
1 5

<210> 1661
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1661
atcagttgga atagtggtag cata

24

<210> 1662
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1662

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1663
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1663
gcaaaagata atagtggcta cggctattat tactacggta tggacgtc

48

<210> 1664
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1664

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

<210> 1665
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1665

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca cagtgttagc aggaactcag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggc gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagaa ttactctca ccatcagcag cctgcagtct 240
gaagattttg caatttatta ctgtcagcag tataataatt ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 1666
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1666

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 His Ser Val Ser Arg Asn	20	25	30
Ser Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile	35	40	45
Tyr Gly 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
Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu	85	90	95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys	100	105	

<210> 1667
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1667
 cacagtgtta gcaggaac

18

<210> 1668
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1668

His Ser Val Ser Arg Asn
1 5

<210> 1669
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1669
ggtgcatcc

9

<210> 1670
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1670

Gly Ala Ser
1

<210> 1671
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1671
cagcagtata ataattggcc tctcact

27

<210> 1672
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1672

Gln Gln Tyr Asn Asn Trp Pro Leu Thr
1 5

<210> 1673

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1673

```
gaagtgcagc tggtaggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc      60
tcctgtgcag cctctggatt cacctttgat gattatacca tgcactgggt ccggcaagct      120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggctat      180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtccctgtat      240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagataat      300
agtggctacg gtcactacta ctacggaatg gacgtctggg gccaaaggac cacggtcacc      360
gtcgctca                                     369
```

<210> 1674

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1674

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

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ala Ser
115 120

<210> 1675
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1675
ggattcacct ttgatgatta tacc

24

<210> 1676
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1676

Gly Phe Thr Phe Asp Asp Tyr Thr
1 5

<210> 1677
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1677
attagttgga atagtggtag tata

24

<210> 1678
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1678

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1679
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1679
gcaaaaagata atagtggtta cggtcactac tactacggaa tggacgtc

48

<210> 1680
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1680

Ala Lys Asp Asn Ser Gly Tyr Gly His Tyr Tyr Tyr Gly Met Asp Val
 1 5 10 15

<210> 1681
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1681
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcaaaaacct 120
 ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcac tatattaact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 1682
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1682

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 Gln Ser Val Ser Ser Asn
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Gly 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 His Tyr Ile Asn Trp Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 1683
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1683
 cagagtgtta gcagcaac

18

<210> 1684
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1684

Gln Ser Val Ser Ser Asn
 1 5

<210> 1685
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1685
ggtgcatcc

9

<210> 1686
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1686

Gly Ala Ser
1

<210> 1687
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1687
cagcactata ttaactggcc tctcact

27

<210> 1688
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1688

Gln His Tyr Ile Asn Trp Pro Leu Thr
1 5

<210> 1689
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1689

```
cagggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc      60
tcctgtgctg cgtctggatt taccttcaga agttatgcca tgcactgggt cgcaggct      120
ccaggcaagg ggctggagtg ggtggcaatg gtatactatg atggaaataa tcaatactat      180
gcagactccg tgaggggccg attcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgatgac acggctgtgt atttctgtgc gcgagggcct      300
gggtacaact ggctcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca          354
```

<210> 1690

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1690

```
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
```

```
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35              40              45
```

```
Ala Met Val Tyr Tyr Asp Gly Asn Asn Gln Tyr Tyr Ala Asp Ser Val
      50              55              60
```

```
Arg 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 Asp Asp Thr Ala Val Tyr Phe Cys
      85              90              95
```

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1691
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1691
ggatttacct tcagaagtta tgcc 24

<210> 1692
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1692

Gly Phe Thr Phe Arg Ser Tyr Ala
1 5

<210> 1693
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1693
gtatactatg atggaaataa tcaa 24

<210> 1694

<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1694

Val Tyr Tyr Asp Gly Asn Asn Gln
1 5

<210> 1695
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1695
gcgcgagggc ctgggtacaa ctggctcgac ccc

33

<210> 1696
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1696

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 1697
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1697
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc

60

ctctcctgca gggccagtca gagggttagc aggaacttgg cctggtacca gcaaaaacct	120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccggcc	180
aggttcagtg gcagtggggtc tgggacagac ttactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggatgataa a	321

<210> 1698
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1698

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	Gln	Ser	Val	Ser	Arg	Asn
			20					25					30		

Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu	Ile
		35					40					45			

Tyr	Gly	Ala	Ser	Thr	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	Gln	Ser
65					70					75				80	

Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	Asn	Trp	Pro	Leu
				85					90					95	

Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Val	Ile	Lys
			100					105		

<210> 1699
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1699
cagagtgtta gcaggaac

18

<210> 1700
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1700

Gln Ser Val Ser Arg Asn
1 5

<210> 1701
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1701
ggtgcatcc

9

<210> 1702
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1702

Gly Ala Ser
1

<210> 1703
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1703
cagcagtata ataactggcc tctcact

27

<210> 1704
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1704

Gln Gln Tyr Asn Asn Trp Pro Leu Thr
1 5

<210> 1705
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1705
cagggtgcagt tgggtggagtc tggggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
gcctgtgttg cgtctggatt caccttcaga agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg gactgcagtg ggtggcaatg atttactatg atggtaagaa taaatattat 180
gcagactccg tgagggggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acaatctgag agtcgaggac acggctatgt atttctgtgc gcgagggcct 300

gggtacaatt ggctcgaccc ctggggccag ggaaccctgg tcactgtttc ctca

354

<210> 1706
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1706

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ala Cys Val 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 Gln Trp Val
35 40 45

Ala Met Ile Tyr Tyr Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Asn Leu Arg Val Glu Asp Thr Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1707
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1707

ggattcacct tcagaagtta tggc

24

<210> 1708

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1708

Gly Phe Thr Phe Arg Ser Tyr Gly

1 5

<210> 1709

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1709

atttactatg atggtaagaa taaa

24

<210> 1710

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1710

Ile Tyr Tyr Asp Gly Lys Asn Lys

1 5

<210> 1711

<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1711
gcgcgagggc ctgggtacaa ttggctcgac ccc

33

<210> 1712
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1712

Ala Arg Gly Pro Gly Tyr Asn Trp Leu Asp Pro
1 5 10

<210> 1713
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1713
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagaattagc agcaacttgg cctggtacca gcaaaaacct 120
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tagcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctgcagtct 240
gaggatgttg cagtttatta ctgtcagcaa catcataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 1714
<211> 107

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1714

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 Gln Arg Ile Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ser Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln His His Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1715
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1715
cagagaatta gcagcaac

18

<210> 1716

<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1716

Gln Arg Ile Ser Ser Asn
1 5

<210> 1717
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1717
ggtgcatcc

9

<210> 1718
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1718

Gly Ala Ser
1

<210> 1719
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1719
cagcaacatc ataactggcc tctcact

27

<210> 1720
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1720

Gln Gln His His Asn Trp Pro Leu Thr
1 5

<210> 1721
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1721

Asp Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Thr Thr Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Thr Tyr Tyr Cys
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 1722
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1722

Gly Tyr Thr Phe Thr Arg Tyr Thr
1 5

<210> 1723
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1723

Ile Asn Pro Ser Arg Gly Tyr Thr
1 5

<210> 1724
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1724

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr
1 5 10

<210> 1725
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1725

Asp 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 Tyr Met
20 25 30

Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Val Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Ser Leu Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1726
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1726

Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Tyr
1 5 10

<210> 1727
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1727

Asp Thr Ser
1

<210> 1728
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1728

Gln Gln Trp Ser Ser Asn Pro Leu Thr
1 5

<210> 1729
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1729
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240

cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
 agtggttatg gcaagtttta tcattatgga ctggacgtgt ggggacaagg gacaacagtg 360
 acagtgagta gc 372

<210> 1730
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1730

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1731
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1731
gggtttacat tcgacgatta cagc

24

<210> 1732
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1732

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1733
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1733
atatcatgga actcaggaag caag

24

<210> 1734
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1734

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1735
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1735
gcaaaatacg gcagtgggta tggcaagttt tatcattatg gactggacgt g 51

<210> 1736
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1736

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1737
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1737
gaagtacagt tggtagaatc tggaggagga ctcgtgcaac caggacgatc attgcggttg 60
agttgtgctg ctagtggatt cacattcgac gactatgcta tgcattgggt aagacaggct 120
ccaggaaaag gactcgaatg ggtgtcagga ataagttgga actccggaag cattgggtac 180

gcagattcag tcaaagggcg attcaccata tcccagagata acgctaagaa ctcactttac 240
 cttcaaatga actctcttcg agcagaggac actgcacttt attattgcgc taaggacggc 300
 tccggttatg gatattttta ttattatgga atggacgtat ggggacaagg cactactgtt 360
 accgttagtt cc 372

<210> 1738
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1738

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 Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1739
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1739
ggattcacat tcgacgacta tgct

24

<210> 1740
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1740

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1741
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1741
ataagttgga actccggaag catt

24

<210> 1742
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1742

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1743
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1743
gctaaggacg gctccggtta tggatatattt tattattatg gaatggacgt a 51

<210> 1744
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1744

Ala Lys Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1745
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1745
gaagtacaac tggtcgaatc tggaggaggt cttgttcaac ctggtcgatc acttcgcctt 60
tcttgtgccg cttctgggtt cactttcgac gattatagca tgcattgggt acgacaggct 120
cccggaaaag ggctggaatg ggtgtcagga attagttgga actcaggaag tattggatac 180

gctgattcag tcaaaggacg cttcacaatc tcaagggaca acgctaaaaa ctcactttat 240
 ttgcaaatga actctctccg cgctgaagat accgctctct attattgcgc caaagatggg 300
 tctggttacg gttattttta ctactatgga atggacgttt ggggccaagg aacaactgtc 360
 acagtatcat cc 372

<210> 1746
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1746

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser

115

120

<210> 1747
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1747
 ggtttcactt tcgacgatta tagc

24

<210> 1748
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1748

Gly Phe Thr Phe Asp Asp Tyr Ser
 1 5

<210> 1749
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1749
 attagttgga actcaggaag tatt

24

<210> 1750
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1750

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1751

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1751

gccaaagatg ggtctgggta cggttatgtt tactactatg gaatggacgt t 51

<210> 1752

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1752

Ala Lys Asp Gly Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1753

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1753

gaagttcaac ttgtggaaag tggcggagga ttggttcaac caggacgttc attgaggctt 60

tcatgcgcag cttccggatt tacatttgac gattacgcaa tgcactgggt tagacaggca 120

ccaggaaaag gactggagtg ggtgagcggg atttcatgga acagcggcag tatcggttat 180
gcagactcag ttaaaggaag attcaccatc agtagagaca acgcaaaaaa ttccctttat 240
ctccaaatga actctcttag ggccgaagat acagcattgt actactgcgc aaaagacgga 300
tcaggttacg gaaaatttta ctactatggt atggatgtat ggggtcaggg aaccacagta 360
actgtatcaa gc 372

<210> 1754
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1754

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 Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1755
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1755
ggatttacat ttgacgatta cgca

24

<210> 1756
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1756

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1757
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1757
atttcattgga acagcggcag tatc

24

<210> 1758
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1758

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1759

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1759

gcacaaagacg gatcagggtta cggaaaattt tactactatg gtatggatgt a 51

<210> 1760

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1760

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1761

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1761

gaagtgaac tcgttgaaaag cggaggagga ctggtccagc ccggcagatc tctcagattg 60

tcttgcgctg catccggatt tacatttgac gactattcaa tgcactgggt acggcaagcc 120

ccaggtaaag gactcgaatg ggtaagcggc atatcttgga actcaggcag tattggctac 180
gcagattcag taaaaggaag attcactatt tcaagggata atgctaagaa cagtctctac 240
ttgcaaata ga atagcttgcg cgcagaagat acagcacttt attattgtgc aaaagatgga 300
agcggttatg ggaaatttta ttattatggg atggatgtat ggggtcaagg tacaacagtt 360
actgtgtcaa gt 372

<210> 1762
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1762

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1763
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1763
ggatttacat ttgacgacta ttca

24

<210> 1764
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1764

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1765
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1765
atatcttgga actcaggcag tatt

24

<210> 1766
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1766

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1767

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1767

gcaaaaagatg gaagcgggta tgggaaattt tattattatg gtatggatgt a 51

<210> 1768

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1768

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1769

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1769

gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60

agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
 cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac 180
 gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
 cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
 agtggttatg gcaagtttta tcattatgga ctggacgtgt ggggacaagg gacaacagtg 360
 acagtgagta gc 372

<210> 1770
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1770

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1771
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1771
gggtttacat tcgacgatta cagc

24

<210> 1772
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1772

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1773
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1773
atatcatgga actcaggaag catc

24

<210> 1774
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1774

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1775
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1775
gcaaaatacg gcagtgggta tggcaagttt tatcattatg gactggacgt g 51

<210> 1776
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1776

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1777
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1777
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60

100

105

110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1779
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1779
 gggtttacat tcgacgatta cagc

24

<210> 1780
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1780

Gly Phe Thr Phe Asp Asp Tyr Ser
 1 5

<210> 1781
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1781
 atatcatgga actcaggaag caag

24

<210> 1782
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1782

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1783

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1783

gcaaaagacg gcagtgggta tggcaagttt tatcattatg gactggacgt g

51

<210> 1784

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1784

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1785

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1785

gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
 agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
 cctggtaaag gattggaatg ggtttagcggg atatcatgga actcaggaag caagggatac 180
 gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
 cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
 agtggttatg gcaagtttta ttattatgga ctggacgtgt ggggacaagg gacaacagtg 360
 acagtgagta gc 372

<210> 1786
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1786

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1787
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1787
gggtttacat tcgacgatta cagc

24

<210> 1788
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1788

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1789
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1789
atatcatgga actcaggaag caag

24

<210> 1790
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1790

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1791

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1791

gcaaaatacg gcagtgggta tggcaagttt tattattatg gactggacgt g

51

<210> 1792

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1792

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1793

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1793
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
agtggttatg gcaagtttta tcattatgga atggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1794
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1794

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1795
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1795
gggtttacat tcgacgatta cagc 24

<210> 1796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1796

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1797
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1797
atatcatgga actcaggaag caag 24

<210> 1798
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1798

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1799
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1799
gcaaaatacg gcagtgggta tggcaagttt tatcattatg gaatggacgt g 51

<210> 1800
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1800

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
1 5 10 15

Val

<210> 1801
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1801
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtggggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc 300
agtggttatg gcaagtttta tcattatgga ctggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1802
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1802

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1803
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1803
gggtttacat tcgacgatta cagc

24

<210> 1804
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1804

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1805
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1805
atatcatgga actcaggaag catc

24

<210> 1806

<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1806

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1807
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1807
gcaaaagacg gcagtgggta tggcaagttt tatcattatg gactggacgt g

51

<210> 1808
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1808

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1809
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1809

```
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg      60
agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct      120
cctggtaaag gattggaatg ggttagcggg atatcatgga actcaggaag catcggatac      180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac      240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc      300
agtggttatg gcaagtttta ttattatgga ctggacgtgt ggggacaagg gacaacagtg      360
acagtgagta gc                                                              372
```

<210> 1810

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1810

```
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
```

```
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                35              40              45
```

```
Ser Gly Ile Ser Trp Asn Ser Gly 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1811
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1811
 gggtttacat tcgacgatta cagc

24

<210> 1812
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1812

Gly Phe Thr Phe Asp Asp Tyr Ser
 1 5

<210> 1813
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1813
 atatcatgga actcaggaag catc

24

<210> 1814
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1814

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1815
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1815
gcaaaatacg gcagtgggta tggcaagttt tattattatg gactggacgt g 51

<210> 1816
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1816

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1817
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1817

```
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg      60
agttgcgcag ctagtggggt tacattcgac gattacagca tgcattgggt gaggcaagct      120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac      180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac      240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc      300
agtggttatg gcaagtttta tcattatgga atggacgtgt ggggacaagg gacaacagtg      360
acagtgagta gc                                                              372
```

<210> 1818

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1818

```
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
```

```
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35           40           45
```

```
Ser Gly Ile Ser Trp Asn Ser Gly 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1819
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1819
gggtttacat tcgacgatta cagc

24

<210> 1820
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1820

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1821
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1821
atatcatgga actcaggaag catc

24

<210> 1822
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1822

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1823
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1823
gcaaaatacg gcagtgggta tggcaagttt taccattatg gaatggacgt g 51

<210> 1824
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1824

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
1 5 10 15

Val

<210> 1825
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1825

```
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg      60
agttgcgcag ctagtggggt tacattcgac gattacagca tgcattgggt gaggcaagct      120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac      180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac      240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc      300
agtggttatg gcaagtttta ttattatgga ctggacgtgt ggggacaagg gacaacagtg      360
acagtgagta gc                                                              372
```

<210> 1826

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1826

```
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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35              40              45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1827
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1827
gggtttacat tcgacgatta cagc

24

<210> 1828
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1828

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1829
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1829
atatcatgga actcaggaag caag

24

<210> 1830
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1830

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1831
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1831
gcaaaagacg gcagtgggta tggcaagttt tattattatg gactggacgt g 51

<210> 1832
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1832

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1833
<211> 372
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1833

```
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg      60
agttgcgcag ctagtggggt tacattcgac gattacagca tgcattgggt gaggcaagct    120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac    180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac    240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc    300
agtggttatg gcaagtttta tcattatgga atggacgtgt ggggacaagg gacaacagtg    360
acagtgagta gc                                                           372
```

<210> 1834

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1834

```
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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35          40          45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1835
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1835
gggtttacat tcgacgatta cagc

24

<210> 1836
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1836

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1837
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1837

atatcatgga actcaggaag caag

24

<210> 1838
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1838

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1839
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1839
gcaaaagacg gcagtgggta tggcaagttt tatcattatg gaatggacgt g

51

<210> 1840
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1840

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
1 5 10 15

Val

<210> 1841
<211> 372

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1841
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtgggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtttagcggg atatcatgga actcaggaag caagggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
agtggttatg gcaagtttta ttattatgga atggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1842
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1842

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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	Tyr	Gly	Ser	Gly	Tyr	Gly	Lys	Phe	Tyr	Tyr	Tyr	Gly	Met	Asp
			100					105					110		
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser				
		115					120								

<210> 1843
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1843
 gggtttacat tgcacgatta cagc

24

<210> 1844
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1844

Gly	Phe	Thr	Phe	Asp	Asp	Tyr	Ser
1				5			

<210> 1845
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1845
atatcatgga actcaggaag caag

24

<210> 1846
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1846

Ile Ser Trp Asn Ser Gly Ser Lys
1 5

<210> 1847
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1847
gcaaaatacg gcagtgggta tggcaagttt tattattatg gaatggacgt g

51

<210> 1848
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1848

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1849

<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1849
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtggggt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc 300
agtggttatg gcaagtttta ttattatgga ctggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1850
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1850

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1851
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1851
gggtttacat tcgacgatta cagc

24

<210> 1852
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1852

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1853
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1853
atatcatgga actcaggaag catc

24

<210> 1854
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1854

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1855
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1855
gcaaaagacg gcagtgggta tggcaagttt tattattatg gactggacgt g

51

<210> 1856
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1856

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Leu Asp
1 5 10 15

Val

<210> 1857
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1857
 gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
 agttgcgcag ctagtggggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
 cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac 180
 gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
 cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc 300
 agtggttatg gcaagtttta tcattatgga atggacgtgt ggggacaagg gacaacagtg 360
 acagtgagta gc 372

<210> 1858
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1858

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		

Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			

Ser	Gly	Ile	Ser	Trp	Asn	Ser	Gly	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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1859
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1859
gggtttacat tcgacgatta cagc

24

<210> 1860
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1860

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1861
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1861
atatcatgga actcaggaag catc

24

<210> 1862
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1862

Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 1863
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1863
gcaaaagacg gcagtggta tggcaagttt tatcattatg gaatggacgt g

51

<210> 1864
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1864

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Met Asp
1 5 10 15

Val

<210> 1865
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1865
gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
agttgcgcag ctagtggggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag catcggatac 180
gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaatacggc 300
agtggttatg gcaagtttta ttattatgga atggacgtgt ggggacaagg gacaacagtg 360
acagtgagta gc 372

<210> 1866
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1866

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1867
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1867
gggtttacat tcgacgatta cagc

24

<210> 1868
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1868

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1869
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1869

atatcatgga actcaggaag catc

24

<210> 1870

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1870

Ile Ser Trp Asn Ser Gly Ser Ile

1 5

<210> 1871

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1871

gcaaaatacg gcagtggta tggcaagttt tattattatg gaatggacgt g

51

<210> 1872

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1872

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp

1 5 10 15

Val

<210> 1873
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1873
 gaagtacagc ttgtagaatc cggcggagga ctggtacaac ctggaagaag tcttagactg 60
 agttgcgcag ctagtggggtt tacattcgac gattacagca tgcattgggt gaggcaagct 120
 cctggtaaag gattggaatg ggtagcggg atatcatgga actcaggaag caagggatac 180
 gccgacagcg tgaaaggccg atttacaata tctagggaca acgcaaaaaa ctctctctac 240
 cttcaaatga actctcttag ggcagaagac acagcattgt attattgcgc aaaagacggc 300
 agtggttatg gcaagtttta ttattatgga atggacgtgt ggggacaagg gacaacagtg 360
 acagtgagta gc 372

<210> 1874
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1874

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

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
 100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1875
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1875
 gggtttacat tcgacgatta cagc

24

<210> 1876
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1876

Gly Phe Thr Phe Asp Asp Tyr Ser
 1 5

<210> 1877
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> synthetic

<400> 1877

atatcatgga actcaggaag caag

24

<210> 1878

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1878

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 1879

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1879

gcaaaaagacg gcagtgggta tggcaagttt tattattatg gaatggacgt g

51

<210> 1880

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1880

Ala Lys Asp Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp

1 5 10 15

Val

<210> 1881
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1881
 gaagtgcagc tggtagagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
 tcctgtgtag cctctggatt cacctttgat gattattcca tgcactgggt ccggcaagct 120
 ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggttag caaagactat 180
 gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
 ctgcaaatga acagtctgag agctgaagac acggccttgt attactgtgc aaaatatgga 300
 agtggctacg ggaagttcta ccactacggt ttggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 1882
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1882

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 Val Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys Asp 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1883
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1883
ggattcacct ttgatgatta ttcc

24

<210> 1884
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1884

Gly Phe Thr Phe Asp Asp Tyr Ser
1 5

<210> 1885
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1885

attagttgga atagtggtag caaa

24

<210> 1886

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1886

Ile Ser Trp Asn Ser Gly Ser Lys

1 5

<210> 1887

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1887

gcaaaatatg gaagtggcta cgggaagttc taccactacg gtttggacgt c

51

<210> 1888

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1888

Ala Lys Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp

1 5 10 15

Val

<210> 1889
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1889
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgttggaga cagcgtcacc 60
atcacttgcc gggcaagtca gagcattaac aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatact gcatccagtt tgctaagtgg ggtcccttca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcgg tctgcaccct 240
gaagattttg caacttactt ctgtcaacag agtttcagta cccctccgat caccttcggc 300
caagggacac gactggacat taaa 324

<210> 1890
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1890

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Ser Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Asn Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Thr Ala Ser Ser Leu Leu Ser Gly Val Pro Ser Arg Phe Ser Gly

50

55

60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Gly Leu His Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Phe Ser Thr Pro Pro
 85 90 95

Ile Thr Phe Gly Gln Gly Thr Arg Leu Asp Ile Lys
 100 105

<210> 1891
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1891
 cagagcatta acaactat

18

<210> 1892
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1892

Gln Ser Ile Asn Asn Tyr
 1 5

<210> 1893
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1893
actgcatcc

9

<210> 1894
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1894

Thr Ala Ser
1

<210> 1895
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1895
caacagagtt tcagtacccc tccgatcacc

30

<210> 1896
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1896

Gln Gln Ser Phe Ser Thr Pro Pro Ile Thr
1 5 10

<210> 1897
<211> 207
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1897

Met Gln Ser Gly Thr His Trp Arg Val Leu Gly Leu Cys Leu Leu Ser
1 5 10 15

Val Gly Val Trp Gly Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr
20 25 30

Gln Thr Pro Tyr Lys Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr
35 40 45

Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys
50 55 60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp
65 70 75 80

His Leu Ser Leu Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr
85 90 95

Val Cys Tyr Pro Arg Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu
100 105 110

Tyr Leu Arg Ala Arg Val Cys Glu Asn Cys Met Glu Met Asp Val Met
115 120 125

Ser Val Ala Thr Ile Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu
130 135 140

Leu Leu Leu Val Tyr Tyr Trp Ser Lys Asn Arg Lys Ala Lys Ala Lys
145 150 155 160

Pro Val Thr Arg Gly Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn
165 170 175

Lys Glu Arg Pro Pro Pro Val Pro Asn Pro Asp Tyr Glu Pro Ile Arg
180 185 190

Lys Gly Gln Arg Asp Leu Tyr Ser Gly Leu Asn Gln Arg Arg Ile
195 200 205

<210> 1898
<211> 171
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1898

Met Glu His Ser Thr Phe Leu Ser Gly Leu Val Leu Ala Thr Leu Leu
1 5 10 15

Ser Gln Val Ser Pro Phe Lys Ile Pro Ile Glu Glu Leu Glu Asp Arg
20 25 30

Val Phe Val Asn Cys Asn Thr Ser Ile Thr Trp Val Glu Gly Thr Val
35 40 45

Gly Thr Leu Leu Ser Asp Ile Thr Arg Leu Asp Leu Gly Lys Arg Ile
50 55 60

Leu Asp Pro Arg Gly Ile Tyr Arg Cys Asn Gly Thr Asp Ile Tyr Lys
65 70 75 80

Asp Lys Glu Ser Thr Val Gln Val His Tyr Arg Met Cys Gln Ser Cys
85 90 95

Val Glu Leu Asp Pro Ala Thr Val Ala Gly Ile Ile Val Thr Asp Val
100 105 110

Ile Ala Thr Leu Leu Leu Ala Leu Gly Val Phe Cys Phe Ala Gly His
115 120 125

Glu Thr Gly Arg Leu Ser Gly Ala Ala Asp Thr Gln Ala Leu Leu Arg
130 135 140

Asn Asp Gln Val Tyr Gln Pro Leu Arg Asp Arg Asp Asp Ala Gln Tyr
145 150 155 160

Ser His Leu Gly Gly Asn Trp Ala Arg Asn Lys
165 170

<210> 1899
<211> 14507
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1899

Met Leu Lys Pro Ser Gly Leu Pro Gly Ser Ser Ser Pro Thr Arg Ser
1 5 10 15

Leu Met Thr Gly Ser Arg Ser Thr Lys Ala Thr Pro Glu Met Asp Ser
20 25 30

Gly Leu Thr Gly Ala Thr Leu Ser Pro Lys Thr Ser Thr Gly Ala Ile
35 40 45

Val Val Thr Glu His Thr Leu Pro Phe Thr Ser Pro Asp Lys Thr Leu
50 55 60

Ala Ser Pro Thr Ser Ser Val Val Gly Arg Thr Thr Gln Ser Leu Gly
65 70 75 80

Val Met Ser Ser Ala Leu Pro Glu Ser Thr Ser Arg Gly Met Thr His
85 90 95

Ser Glu Gln Arg Thr Ser Pro Ser Leu Ser Pro Gln Val Asn Gly Thr
100 105 110

Pro Ser Arg Asn Tyr Pro Ala Thr Ser Met Val Ser Gly Leu Ser Ser
115 120 125

Pro Arg Thr Arg Thr Ser Ser Thr Glu Gly Asn Phe Thr Lys Glu Ala
130 135 140

Ser Thr Tyr Thr Leu Thr Val Glu Thr Thr Ser Gly Pro Val Thr Glu
145 150 155 160

Lys Tyr Thr Val Pro Thr Glu Thr Ser Thr Thr Glu Gly Asp Ser Thr
165 170 175

Glu Thr Pro Trp Asp Thr Arg Tyr Ile Pro Val Lys Ile Thr Ser Pro
180 185 190

Met Lys Thr Phe Ala Asp Ser Thr Ala Ser Lys Glu Asn Ala Pro Val
195 200 205

Ser Met Thr Pro Ala Glu Thr Thr Val Thr Asp Ser His Thr Pro Gly
210 215 220

Arg Thr Asn Pro Ser Phe Gly Thr Leu Tyr Ser Ser Phe Leu Asp Leu
225 230 235 240

Ser Pro Lys Gly Thr Pro Asn Ser Arg Gly Glu Thr Ser Leu Glu Leu
245 250 255

Ile Leu Ser Thr Thr Gly Tyr Pro Phe Ser Ser Pro Glu Pro Gly Ser
260 265 270

Ala Gly His Ser Arg Ile Ser Thr Ser Ala Pro Leu Ser Ser Ser Ala
275 280 285

Ser Val Leu Asp Asn Lys Ile Ser Glu Thr Ser Ile Phe Ser Gly Gln
290 295 300

Ser Leu Thr Ser Pro Leu Ser Pro Gly Val Pro Glu Ala Arg Ala Ser
305 310 315 320

Thr Met Pro Asn Ser Ala Ile Pro Phe Ser Met Thr Leu Ser Asn Ala
325 330 335

Glu Thr Ser Ala Glu Arg Val Arg Ser Thr Ile Ser Ser Leu Gly Thr
340 345 350

Pro Ser Ile Ser Thr Lys Gln Thr Ala Glu Thr Ile Leu Thr Phe His
355 360 365

Ala Phe Ala Glu Thr Met Asp Ile Pro Ser Thr His Ile Ala Lys Thr
370 375 380

Leu Ala Ser Glu Trp Leu Gly Ser Pro Gly Thr Leu Gly Gly Thr Ser
385 390 395 400

Thr Ser Ala Leu Thr Thr Thr Ser Pro Ser Thr Thr Leu Val Ser Glu
405 410 415

Glu Thr Asn Thr His His Ser Thr Ser Gly Lys Glu Thr Glu Gly Thr
420 425 430

Leu Asn Thr Ser Met Thr Pro Leu Glu Thr Ser Ala Pro Gly Glu Glu
435 440 445

Ser Glu Met Thr Ala Thr Leu Val Pro Thr Leu Gly Phe Thr Thr Leu
450 455 460

Asp Ser Lys Ile Arg Ser Pro Ser Gln Val Ser Ser Ser His Pro Thr
465 470 475 480

Arg Glu Leu Arg Thr Thr Gly Ser Thr Ser Gly Arg Gln Ser Ser Ser
485 490 495

Thr Ala Ala His Gly Ser Ser Asp Ile Leu Arg Ala Thr Thr Ser Ser
500 505 510

Thr Ser Lys Ala Ser Ser Trp Thr Ser Glu Ser Thr Ala Gln Gln Phe
515 520 525

Ser Glu Pro Gln His Thr Gln Trp Val Glu Thr Ser Pro Ser Met Lys
530 535 540

Thr Glu Arg Pro Pro Ala Ser Thr Ser Val Ala Ala Pro Ile Thr Thr
545 550 555 560

Ser Val Pro Ser Val Val Ser Gly Phe Thr Thr Leu Lys Thr Ser Ser
565 570 575

Thr Lys Gly Ile Trp Leu Glu Glu Thr Ser Ala Asp Thr Leu Ile Gly
580 585 590

Glu Ser Thr Ala Gly Pro Thr Thr His Gln Phe Ala Val Pro Thr Gly
595 600 605

Ile Ser Met Thr Gly Gly Ser Ser Thr Arg Gly Ser Gln Gly Thr Thr
610 615 620

His Leu Leu Thr Arg Ala Thr Ala Ser Ser Glu Thr Ser Ala Asp Leu
625 630 635 640

Thr Leu Ala Thr Asn Gly Val Pro Val Ser Val Ser Pro Ala Val Ser
645 650 655

Lys Thr Ala Ala Gly Ser Ser Pro Pro Gly Gly Thr Lys Pro Ser Tyr
660 665 670

Thr Met Val Ser Ser Val Ile Pro Glu Thr Ser Ser Leu Gln Ser Ser
675 680 685

Ala Phe Arg Glu Gly Thr Ser Leu Gly Leu Thr Pro Leu Asn Thr Arg

690

695

700

His Pro Phe Ser Ser Pro Glu Pro Asp Ser Ala Gly His Thr Lys Ile
 705 710 715 720

Ser Thr Ser Ile Pro Leu Leu Ser Ser Ala Ser Val Leu Glu Asp Lys
 725 730 735

Val Ser Ala Thr Ser Thr Phe Ser His His Lys Ala Thr Ser Ser Ile
 740 745 750

Thr Thr Gly Thr Pro Glu Ile Ser Thr Lys Thr Lys Pro Ser Ser Ala
 755 760 765

Val Leu Ser Ser Met Thr Leu Ser Asn Ala Ala Thr Ser Pro Glu Arg
 770 775 780

Val Arg Asn Ala Thr Ser Pro Leu Thr His Pro Ser Pro Ser Gly Glu
 785 790 795 800

Glu Thr Ala Gly Ser Val Leu Thr Leu Ser Thr Ser Ala Glu Thr Thr
 805 810 815

Asp Ser Pro Asn Ile His Pro Thr Gly Thr Leu Thr Ser Glu Ser Ser
 820 825 830

Glu Ser Pro Ser Thr Leu Ser Leu Pro Ser Val Ser Gly Val Lys Thr
 835 840 845

Thr Phe Ser Ser Ser Thr Pro Ser Thr His Leu Phe Thr Ser Gly Glu
 850 855 860

Glu Thr Glu Glu Thr Ser Asn Pro Ser Val Ser Gln Pro Glu Thr Ser
 865 870 875 880

Val Ser Arg Val Arg Thr Thr Leu Ala Ser Thr Ser Val Pro Thr Pro
 885 890 895

Val Phe Pro Thr Met Asp Thr Trp Pro Thr Arg Ser Ala Gln Phe Ser
900 905 910

Ser Ser His Leu Val Ser Glu Leu Arg Ala Thr Ser Ser Thr Ser Val
915 920 925

Thr Asn Ser Thr Gly Ser Ala Leu Pro Lys Ile Ser His Leu Thr Gly
930 935 940

Thr Ala Thr Met Ser Gln Thr Asn Arg Asp Thr Phe Asn Asp Ser Ala
945 950 955 960

Ala Pro Gln Ser Thr Thr Trp Pro Glu Thr Ser Pro Arg Phe Lys Thr
965 970 975

Gly Leu Pro Ser Ala Thr Thr Thr Val Ser Thr Ser Ala Thr Ser Leu
980 985 990

Ser Ala Thr Val Met Val Ser Lys Phe Thr Ser Pro Ala Thr Ser Ser
995 1000 1005

Met Glu Ala Thr Ser Ile Arg Glu Pro Ser Thr Thr Ile Leu Thr
1010 1015 1020

Thr Glu Thr Thr Asn Gly Pro Gly Ser Met Ala Val Ala Ser Thr
1025 1030 1035

Asn Ile Pro Ile Gly Lys Gly Tyr Ile Thr Glu Gly Arg Leu Asp
1040 1045 1050

Thr Ser His Leu Pro Ile Gly Thr Thr Ala Ser Ser Glu Thr Ser
1055 1060 1065

Met Asp Phe Thr Met Ala Lys Glu Ser Val Ser Met Ser Val Ser
1070 1075 1080

Pro	Ser	Gln	Ser	Met	Asp	Ala	Ala	Gly	Ser	Ser	Thr	Pro	Gly	Arg
1085						1090					1095			
Thr	Ser	Gln	Phe	Val	Asp	Thr	Phe	Ser	Asp	Asp	Val	Tyr	His	Leu
1100						1105					1110			
Thr	Ser	Arg	Glu	Ile	Thr	Ile	Pro	Arg	Asp	Gly	Thr	Ser	Ser	Ala
1115						1120					1125			
Leu	Thr	Pro	Gln	Met	Thr	Ala	Thr	His	Pro	Pro	Ser	Pro	Asp	Pro
1130						1135					1140			
Gly	Ser	Ala	Arg	Ser	Thr	Trp	Leu	Gly	Ile	Leu	Ser	Ser	Ser	Pro
1145						1150					1155			
Ser	Ser	Pro	Thr	Pro	Lys	Val	Thr	Met	Ser	Ser	Thr	Phe	Ser	Thr
1160						1165					1170			
Gln	Arg	Val	Thr	Thr	Ser	Met	Ile	Met	Asp	Thr	Val	Glu	Thr	Ser
1175						1180					1185			
Arg	Trp	Asn	Met	Pro	Asn	Leu	Pro	Ser	Thr	Thr	Ser	Leu	Thr	Pro
1190						1195					1200			
Ser	Asn	Ile	Pro	Thr	Ser	Gly	Ala	Ile	Gly	Lys	Ser	Thr	Leu	Val
1205						1210					1215			
Pro	Leu	Asp	Thr	Pro	Ser	Pro	Ala	Thr	Ser	Leu	Glu	Ala	Ser	Glu
1220						1225					1230			
Gly	Gly	Leu	Pro	Thr	Leu	Ser	Thr	Tyr	Pro	Glu	Ser	Thr	Asn	Thr
1235						1240					1245			
Pro	Ser	Ile	His	Leu	Gly	Ala	His	Ala	Ser	Ser	Glu	Ser	Pro	Ser
1250						1255					1260			

Thr Ile Lys Leu Thr Met Ala Ser Val Val Lys Pro Gly Ser Tyr
1265 1270 1275

Thr Pro Leu Thr Phe Pro Ser Ile Glu Thr His Ile His Val Ser
1280 1285 1290

Thr Ala Arg Met Ala Tyr Ser Ser Gly Ser Ser Pro Glu Met Thr
1295 1300 1305

Ala Pro Gly Glu Thr Asn Thr Gly Ser Thr Trp Asp Pro Thr Thr
1310 1315 1320

Tyr Ile Thr Thr Thr Asp Pro Lys Asp Thr Ser Ser Ala Gln Val
1325 1330 1335

Ser Thr Pro His Ser Val Arg Thr Leu Arg Thr Thr Glu Asn His
1340 1345 1350

Pro Lys Thr Glu Ser Ala Thr Pro Ala Ala Tyr Ser Gly Ser Pro
1355 1360 1365

Lys Ile Ser Ser Ser Pro Asn Leu Thr Ser Pro Ala Thr Lys Ala
1370 1375 1380

Trp Thr Ile Thr Asp Thr Thr Glu His Ser Thr Gln Leu His Tyr
1385 1390 1395

Thr Lys Leu Ala Glu Lys Ser Ser Gly Phe Glu Thr Gln Ser Ala
1400 1405 1410

Pro Gly Pro Val Ser Val Val Ile Pro Thr Ser Pro Thr Ile Gly
1415 1420 1425

Ser Ser Thr Leu Glu Leu Thr Ser Asp Val Pro Gly Glu Pro Leu
1430 1435 1440

Val Leu Ala Pro Ser Glu Gln Thr Thr Ile Thr Leu Pro Met Ala

1445		1450		1455
Thr Trp Leu Ser Thr Ser Leu Thr Glu Glu Met Ala Ser Thr Asp				
1460		1465		1470
Leu Asp Ile Ser Ser Pro Ser Ser Pro Met Ser Thr Phe Ala Ile				
1475		1480		1485
Phe Pro Pro Met Ser Thr Pro Ser His Glu Leu Ser Lys Ser Glu				
1490		1495		1500
Ala Asp Thr Ser Ala Ile Arg Asn Thr Asp Ser Thr Thr Leu Asp				
1505		1510		1515
Gln His Leu Gly Ile Arg Ser Leu Gly Arg Thr Gly Asp Leu Thr				
1520		1525		1530
Thr Val Pro Ile Thr Pro Leu Thr Thr Thr Trp Thr Ser Val Ile				
1535		1540		1545
Glu His Ser Thr Gln Ala Gln Asp Thr Leu Ser Ala Thr Met Ser				
1550		1555		1560
Pro Thr His Val Thr Gln Ser Leu Lys Asp Gln Thr Ser Ile Pro				
1565		1570		1575
Ala Ser Ala Ser Pro Ser His Leu Thr Glu Val Tyr Pro Glu Leu				
1580		1585		1590
Gly Thr Gln Gly Arg Ser Ser Ser Glu Ala Thr Thr Phe Trp Lys				
1595		1600		1605
Pro Ser Thr Asp Thr Leu Ser Arg Glu Ile Glu Thr Gly Pro Thr				
1610		1615		1620
Asn Ile Gln Ser Thr Pro Pro Met Asp Asn Thr Thr Thr Gly Ser				
1625		1630		1635

Ser	Ser	Ser	Gly	Val	Thr	Leu	Gly	Ile	Ala	His	Leu	Pro	Ile	Gly
1640						1645					1650			
Thr	Ser	Ser	Pro	Ala	Glu	Thr	Ser	Thr	Asn	Met	Ala	Leu	Glu	Arg
1655						1660					1665			
Arg	Ser	Ser	Thr	Ala	Thr	Val	Ser	Met	Ala	Gly	Thr	Met	Gly	Leu
1670						1675					1680			
Leu	Val	Thr	Ser	Ala	Pro	Gly	Arg	Ser	Ile	Ser	Gln	Ser	Leu	Gly
1685						1690					1695			
Arg	Val	Ser	Ser	Val	Leu	Ser	Glu	Ser	Thr	Thr	Glu	Gly	Val	Thr
1700						1705					1710			
Asp	Ser	Ser	Lys	Gly	Ser	Ser	Pro	Arg	Leu	Asn	Thr	Gln	Gly	Asn
1715						1720					1725			
Thr	Ala	Leu	Ser	Ser	Ser	Leu	Glu	Pro	Ser	Tyr	Ala	Glu	Gly	Ser
1730						1735					1740			
Gln	Met	Ser	Thr	Ser	Ile	Pro	Leu	Thr	Ser	Ser	Pro	Thr	Thr	Pro
1745						1750					1755			
Asp	Val	Glu	Phe	Ile	Gly	Gly	Ser	Thr	Phe	Trp	Thr	Lys	Glu	Val
1760						1765					1770			
Thr	Thr	Val	Met	Thr	Ser	Asp	Ile	Ser	Lys	Ser	Ser	Ala	Arg	Thr
1775						1780					1785			
Glu	Ser	Ser	Ser	Ala	Thr	Leu	Met	Ser	Thr	Ala	Leu	Gly	Ser	Thr
1790						1795					1800			
Glu	Asn	Thr	Gly	Lys	Glu	Lys	Leu	Arg	Thr	Ala	Ser	Met	Asp	Leu
1805						1810					1815			

Pro	Ser	Pro	Thr	Pro	Ser	Met	Glu	Val	Thr	Pro	Trp	Ile	Ser	Leu
1820						1825					1830			
Thr	Leu	Ser	Asn	Ala	Pro	Asn	Thr	Thr	Asp	Ser	Leu	Asp	Leu	Ser
1835						1840					1845			
His	Gly	Val	His	Thr	Ser	Ser	Ala	Gly	Thr	Leu	Ala	Thr	Asp	Arg
1850						1855					1860			
Ser	Leu	Asn	Thr	Gly	Val	Thr	Arg	Ala	Ser	Arg	Leu	Glu	Asn	Gly
1865						1870					1875			
Ser	Asp	Thr	Ser	Ser	Lys	Ser	Leu	Ser	Met	Gly	Asn	Ser	Thr	His
1880						1885					1890			
Thr	Ser	Met	Thr	Tyr	Thr	Glu	Lys	Ser	Glu	Val	Ser	Ser	Ser	Ile
1895						1900					1905			
His	Pro	Arg	Pro	Glu	Thr	Ser	Ala	Pro	Gly	Ala	Glu	Thr	Thr	Leu
1910						1915					1920			
Thr	Ser	Thr	Pro	Gly	Asn	Arg	Ala	Ile	Ser	Leu	Thr	Leu	Pro	Phe
1925						1930					1935			
Ser	Ser	Ile	Pro	Val	Glu	Glu	Val	Ile	Ser	Thr	Gly	Ile	Thr	Ser
1940						1945					1950			
Gly	Pro	Asp	Ile	Asn	Ser	Ala	Pro	Met	Thr	His	Ser	Pro	Ile	Thr
1955						1960					1965			
Pro	Pro	Thr	Ile	Val	Trp	Thr	Ser	Thr	Gly	Thr	Ile	Glu	Gln	Ser
1970						1975					1980			
Thr	Gln	Pro	Leu	His	Ala	Val	Ser	Ser	Glu	Lys	Val	Ser	Val	Gln
1985						1990					1995			

Thr Gln Ser Thr Pro Tyr Val Asn Ser Val Ala Val Ser Ala Ser
 2000 2005 2010

Pro Thr His Glu Asn Ser Val Ser Ser Gly Ser Ser Thr Ser Ser
 2015 2020 2025

Pro Tyr Ser Ser Ala Ser Leu Glu Ser Leu Asp Ser Thr Ile Ser
 2030 2035 2040

Arg Arg Asn Ala Ile Thr Ser Trp Leu Trp Asp Leu Thr Thr Ser
 2045 2050 2055

Leu Pro Thr Thr Thr Trp Pro Ser Thr Ser Leu Ser Glu Ala Leu
 2060 2065 2070

Ser Ser Gly His Ser Gly Val Ser Asn Pro Ser Ser Thr Thr Thr
 2075 2080 2085

Glu Phe Pro Leu Phe Ser Ala Ala Ser Thr Ser Ala Ala Lys Gln
 2090 2095 2100

Arg Asn Pro Glu Thr Glu Thr His Gly Pro Gln Asn Thr Ala Ala
 2105 2110 2115

Ser Thr Leu Asn Thr Asp Ala Ser Ser Val Thr Gly Leu Ser Glu
 2120 2125 2130

Thr Pro Val Gly Ala Ser Ile Ser Ser Glu Val Pro Leu Pro Met
 2135 2140 2145

Ala Ile Thr Ser Arg Ser Asp Val Ser Gly Leu Thr Ser Glu Ser
 2150 2155 2160

Thr Ala Asn Pro Ser Leu Gly Thr Ala Ser Ser Ala Gly Thr Lys
 2165 2170 2175

Leu Thr Arg Thr Ile Ser Leu Pro Thr Ser Glu Ser Leu Val Ser

2180						2185						2190			
Phe	Arg	Met	Asn	Lys	Asp	Pro	Trp	Thr	Val	Ser	Ile	Pro	Leu	Gly	
2195						2200					2205				
Ser	His	Pro	Thr	Thr	Asn	Thr	Glu	Thr	Ser	Ile	Pro	Val	Asn	Ser	
2210						2215					2220				
Ala	Gly	Pro	Pro	Gly	Leu	Ser	Thr	Val	Ala	Ser	Asp	Val	Ile	Asp	
2225						2230					2235				
Thr	Pro	Ser	Asp	Gly	Ala	Glu	Ser	Ile	Pro	Thr	Val	Ser	Phe	Ser	
2240						2245					2250				
Pro	Ser	Pro	Asp	Thr	Glu	Val	Thr	Thr	Ile	Ser	His	Phe	Pro	Glu	
2255						2260					2265				
Lys	Thr	Thr	His	Ser	Phe	Arg	Thr	Ile	Ser	Ser	Leu	Thr	His	Glu	
2270						2275					2280				
Leu	Thr	Ser	Arg	Val	Thr	Pro	Ile	Pro	Gly	Asp	Trp	Met	Ser	Ser	
2285						2290					2295				
Ala	Met	Ser	Thr	Lys	Pro	Thr	Gly	Ala	Ser	Pro	Ser	Ile	Thr	Leu	
2300						2305					2310				
Gly	Glu	Arg	Arg	Thr	Ile	Thr	Ser	Ala	Ala	Pro	Thr	Thr	Ser	Pro	
2315						2320					2325				
Ile	Val	Leu	Thr	Ala	Ser	Phe	Thr	Glu	Thr	Ser	Thr	Val	Ser	Leu	
2330						2335					2340				
Asp	Asn	Glu	Thr	Thr	Val	Lys	Thr	Ser	Asp	Ile	Leu	Asp	Ala	Arg	
2345						2350					2355				
Lys	Thr	Asn	Glu	Leu	Pro	Ser	Asp	Ser	Ser	Ser	Ser	Ser	Asp	Leu	
2360						2365					2370				

Ile	Asn	Thr	Ser	Ile	Ala	Ser	Ser	Thr	Met	Asp	Val	Thr	Lys	Thr
	2375					2380					2385			
Ala	Ser	Ile	Ser	Pro	Thr	Ser	Ile	Ser	Gly	Met	Thr	Ala	Ser	Ser
	2390					2395					2400			
Ser	Pro	Ser	Leu	Phe	Ser	Ser	Asp	Arg	Pro	Gln	Val	Pro	Thr	Ser
	2405					2410					2415			
Thr	Thr	Glu	Thr	Asn	Thr	Ala	Thr	Ser	Pro	Ser	Val	Ser	Ser	Asn
	2420					2425					2430			
Thr	Tyr	Ser	Leu	Asp	Gly	Gly	Ser	Asn	Val	Gly	Gly	Thr	Pro	Ser
	2435					2440					2445			
Thr	Leu	Pro	Pro	Phe	Thr	Ile	Thr	His	Pro	Val	Glu	Thr	Ser	Ser
	2450					2455					2460			
Ala	Leu	Leu	Ala	Trp	Ser	Arg	Pro	Val	Arg	Thr	Phe	Ser	Thr	Met
	2465					2470					2475			
Val	Ser	Thr	Asp	Thr	Ala	Ser	Gly	Glu	Asn	Pro	Thr	Ser	Ser	Asn
	2480					2485					2490			
Ser	Val	Val	Thr	Ser	Val	Pro	Ala	Pro	Gly	Thr	Trp	Thr	Ser	Val
	2495					2500					2505			
Gly	Ser	Thr	Thr	Asp	Leu	Pro	Ala	Met	Gly	Phe	Leu	Lys	Thr	Ser
	2510					2515					2520			
Pro	Ala	Gly	Glu	Ala	His	Ser	Leu	Leu	Ala	Ser	Thr	Ile	Glu	Pro
	2525					2530					2535			
Ala	Thr	Ala	Phe	Thr	Pro	His	Leu	Ser	Ala	Ala	Val	Val	Thr	Gly
	2540					2545					2550			

Ser	Ser	Ala	Thr	Ser	Glu	Ala	Ser	Leu	Leu	Thr	Thr	Ser	Glu	Ser
2555						2560					2565			
Lys	Ala	Ile	His	Ser	Ser	Pro	Gln	Thr	Pro	Thr	Thr	Pro	Thr	Ser
2570						2575					2580			
Gly	Ala	Asn	Trp	Glu	Thr	Ser	Ala	Thr	Pro	Glu	Ser	Leu	Leu	Val
2585						2590					2595			
Val	Thr	Glu	Thr	Ser	Asp	Thr	Thr	Leu	Thr	Ser	Lys	Ile	Leu	Val
2600						2605					2610			
Thr	Asp	Thr	Ile	Leu	Phe	Ser	Thr	Val	Ser	Thr	Pro	Pro	Ser	Lys
2615						2620					2625			
Phe	Pro	Ser	Thr	Gly	Thr	Leu	Ser	Gly	Ala	Ser	Phe	Pro	Thr	Leu
2630						2635					2640			
Leu	Pro	Asp	Thr	Pro	Ala	Ile	Pro	Leu	Thr	Ala	Thr	Glu	Pro	Thr
2645						2650					2655			
Ser	Ser	Leu	Ala	Thr	Ser	Phe	Asp	Ser	Thr	Pro	Leu	Val	Thr	Ile
2660						2665					2670			
Ala	Ser	Asp	Ser	Leu	Gly	Thr	Val	Pro	Glu	Thr	Thr	Leu	Thr	Met
2675						2680					2685			
Ser	Glu	Thr	Ser	Asn	Gly	Asp	Ala	Leu	Val	Leu	Lys	Thr	Val	Ser
2690						2695					2700			
Asn	Pro	Asp	Arg	Ser	Ile	Pro	Gly	Ile	Thr	Ile	Gln	Gly	Val	Thr
2705						2710					2715			
Glu	Ser	Pro	Leu	His	Pro	Ser	Ser	Thr	Ser	Pro	Ser	Lys	Ile	Val
2720						2725					2730			

Ala Pro Arg Asn Thr Thr Tyr Glu Gly Ser Ile Thr Val Ala Leu
2735 2740 2745

Ser Thr Leu Pro Ala Gly Thr Thr Gly Ser Leu Val Phe Ser Gln
2750 2755 2760

Ser Ser Glu Asn Ser Glu Thr Thr Ala Leu Val Asp Ser Ser Ala
2765 2770 2775

Gly Leu Glu Arg Ala Ser Val Met Pro Leu Thr Thr Gly Ser Gln
2780 2785 2790

Gly Met Ala Ser Ser Gly Gly Ile Arg Ser Gly Ser Thr His Ser
2795 2800 2805

Thr Gly Thr Lys Thr Phe Ser Ser Leu Pro Leu Thr Met Asn Pro
2810 2815 2820

Gly Glu Val Thr Ala Met Ser Glu Ile Thr Thr Asn Arg Leu Thr
2825 2830 2835

Ala Thr Gln Ser Thr Ala Pro Lys Gly Ile Pro Val Lys Pro Thr
2840 2845 2850

Ser Ala Glu Ser Gly Leu Leu Thr Pro Val Ser Ala Ser Ser Ser
2855 2860 2865

Pro Ser Lys Ala Phe Ala Ser Leu Thr Thr Ala Pro Pro Thr Trp
2870 2875 2880

Gly Ile Pro Gln Ser Thr Leu Thr Phe Glu Phe Ser Glu Val Pro
2885 2890 2895

Ser Leu Asp Thr Lys Ser Ala Ser Leu Pro Thr Pro Gly Gln Ser
2900 2905 2910

Leu Asn Thr Ile Pro Asp Ser Asp Ala Ser Thr Ala Ser Ser Ser

2915						2920						2925			
Leu	Ser	Lys	Ser	Pro	Glu	Lys	Asn	Pro	Arg	Ala	Arg	Met	Met	Thr	
2930						2935					2940				
Ser	Thr	Lys	Ala	Ile	Ser	Ala	Ser	Ser	Phe	Gln	Ser	Thr	Gly	Phe	
2945						2950					2955				
Thr	Glu	Thr	Pro	Glu	Gly	Ser	Ala	Ser	Pro	Ser	Met	Ala	Gly	His	
2960						2965					2970				
Glu	Pro	Arg	Val	Pro	Thr	Ser	Gly	Thr	Gly	Asp	Pro	Arg	Tyr	Ala	
2975						2980					2985				
Ser	Glu	Ser	Met	Ser	Tyr	Pro	Asp	Pro	Ser	Lys	Ala	Ser	Ser	Ala	
2990						2995					3000				
Met	Thr	Ser	Thr	Ser	Leu	Ala	Ser	Lys	Leu	Thr	Thr	Leu	Phe	Ser	
3005						3010					3015				
Thr	Gly	Gln	Ala	Ala	Arg	Ser	Gly	Ser	Ser	Ser	Ser	Pro	Ile	Ser	
3020						3025					3030				
Leu	Ser	Thr	Glu	Lys	Glu	Thr	Ser	Phe	Leu	Ser	Pro	Thr	Ala	Ser	
3035						3040					3045				
Thr	Ser	Arg	Lys	Thr	Ser	Leu	Phe	Leu	Gly	Pro	Ser	Met	Ala	Arg	
3050						3055					3060				
Gln	Pro	Asn	Ile	Leu	Val	His	Leu	Gln	Thr	Ser	Ala	Leu	Thr	Leu	
3065						3070					3075				
Ser	Pro	Thr	Ser	Thr	Leu	Asn	Met	Ser	Gln	Glu	Glu	Pro	Pro	Glu	
3080						3085					3090				
Leu	Thr	Ser	Ser	Gln	Thr	Ile	Ala	Glu	Glu	Glu	Gly	Thr	Thr	Ala	
3095						3100					3105				

Glu 3110	Thr	Gln	Thr	Leu	Thr	Phe 3115	Thr	Pro	Ser	Glu	Thr 3120	Pro	Thr	Ser
Leu 3125	Leu	Pro	Val	Ser	Ser	Pro 3130	Thr	Glu	Pro	Thr	Ala 3135	Arg	Arg	Lys
Ser 3140	Ser	Pro	Glu	Thr	Trp	Ala 3145	Ser	Ser	Ile	Ser	Val 3150	Pro	Ala	Lys
Thr 3155	Ser	Leu	Val	Glu	Thr	Thr 3160	Asp	Gly	Thr	Leu	Val 3165	Thr	Thr	Ile
Lys 3170	Met	Ser	Ser	Gln	Ala	Ala 3175	Gln	Gly	Asn	Ser	Thr 3180	Trp	Pro	Ala
Pro 3185	Ala	Glu	Glu	Thr	Gly	Ser 3190	Ser	Pro	Ala	Gly	Thr 3195	Ser	Pro	Gly
Ser 3200	Pro	Glu	Met	Ser	Thr	Thr 3205	Leu	Lys	Ile	Met	Ser 3210	Ser	Lys	Glu
Pro 3215	Ser	Ile	Ser	Pro	Glu	Ile 3220	Arg	Ser	Thr	Val	Arg 3225	Asn	Ser	Pro
Trp 3230	Lys	Thr	Pro	Glu	Thr	Thr 3235	Val	Pro	Met	Glu	Thr 3240	Thr	Val	Glu
Pro 3245	Val	Thr	Leu	Gln	Ser	Thr 3250	Ala	Leu	Gly	Ser	Gly 3255	Ser	Thr	Ser
Ile 3260	Ser	His	Leu	Pro	Thr	Gly 3265	Thr	Thr	Ser	Pro	Thr 3270	Lys	Ser	Pro
Thr 3275	Glu	Asn	Met	Leu	Ala	Thr 3280	Glu	Arg	Val	Ser	Leu 3285	Ser	Pro	Ser

Pro	Pro	Glu	Ala	Trp	Thr	Asn	Leu	Tyr	Ser	Gly	Thr	Pro	Gly	Gly
3290						3295					3300			
Thr	Arg	Gln	Ser	Leu	Ala	Thr	Met	Ser	Ser	Val	Ser	Leu	Glu	Ser
3305						3310					3315			
Pro	Thr	Ala	Arg	Ser	Ile	Thr	Gly	Thr	Gly	Gln	Gln	Ser	Ser	Pro
3320						3325					3330			
Glu	Leu	Val	Ser	Lys	Thr	Thr	Gly	Met	Glu	Phe	Ser	Met	Trp	His
3335						3340					3345			
Gly	Ser	Thr	Gly	Gly	Thr	Thr	Gly	Asp	Thr	His	Val	Ser	Leu	Ser
3350						3355					3360			
Thr	Ser	Ser	Asn	Ile	Leu	Glu	Asp	Pro	Val	Thr	Ser	Pro	Asn	Ser
3365						3370					3375			
Val	Ser	Ser	Leu	Thr	Asp	Lys	Ser	Lys	His	Lys	Thr	Glu	Thr	Trp
3380						3385					3390			
Val	Ser	Thr	Thr	Ala	Ile	Pro	Ser	Thr	Val	Leu	Asn	Asn	Lys	Ile
3395						3400					3405			
Met	Ala	Ala	Glu	Gln	Gln	Thr	Ser	Arg	Ser	Val	Asp	Glu	Ala	Tyr
3410						3415					3420			
Ser	Ser	Thr	Ser	Ser	Trp	Ser	Asp	Gln	Thr	Ser	Gly	Ser	Asp	Ile
3425						3430					3435			
Thr	Leu	Gly	Ala	Ser	Pro	Asp	Val	Thr	Asn	Thr	Leu	Tyr	Ile	Thr
3440						3445					3450			
Ser	Thr	Ala	Gln	Thr	Thr	Ser	Leu	Val	Ser	Leu	Pro	Ser	Gly	Asp
3455						3460					3465			

Gln Gly Ile Thr Ser Leu Thr Asn Pro Ser Gly Gly Lys Thr Ser
3470 3475 3480

Ser Ala Ser Ser Val Thr Ser Pro Ser Ile Gly Leu Glu Thr Leu
3485 3490 3495

Arg Ala Asn Val Ser Ala Val Lys Ser Asp Ile Ala Pro Thr Ala
3500 3505 3510

Gly His Leu Ser Gln Thr Ser Ser Pro Ala Glu Val Ser Ile Leu
3515 3520 3525

Asp Val Thr Thr Ala Pro Thr Pro Gly Ile Ser Thr Thr Ile Thr
3530 3535 3540

Thr Met Gly Thr Asn Ser Ile Ser Thr Thr Thr Pro Asn Pro Glu
3545 3550 3555

Val Gly Met Ser Thr Met Asp Ser Thr Pro Ala Thr Glu Arg Arg
3560 3565 3570

Thr Thr Ser Thr Glu His Pro Ser Thr Trp Ser Ser Thr Ala Ala
3575 3580 3585

Ser Asp Ser Trp Thr Val Thr Asp Met Thr Ser Asn Leu Lys Val
3590 3595 3600

Ala Arg Ser Pro Gly Thr Ile Ser Thr Met His Thr Thr Ser Phe
3605 3610 3615

Leu Ala Ser Ser Thr Glu Leu Asp Ser Met Ser Thr Pro His Gly
3620 3625 3630

Arg Ile Thr Val Ile Gly Thr Ser Leu Val Thr Pro Ser Ser Asp
3635 3640 3645

Ala Ser Ala Val Lys Thr Glu Thr Ser Thr Ser Glu Arg Thr Leu

3650

3655

3660

Ser Pro Ser Asp Thr Thr Ala Ser Thr Pro Ile Ser Thr Phe Ser
 3665 3670 3675

Arg Val Gln Arg Met Ser Ile Ser Val Pro Asp Ile Leu Ser Thr
 3680 3685 3690

Ser Trp Thr Pro Ser Ser Thr Glu Ala Glu Asp Val Pro Val Ser
 3695 3700 3705

Met Val Ser Thr Asp His Ala Ser Thr Lys Thr Asp Pro Asn Thr
 3710 3715 3720

Pro Leu Ser Thr Phe Leu Phe Asp Ser Leu Ser Thr Leu Asp Trp
 3725 3730 3735

Asp Thr Gly Arg Ser Leu Ser Ser Ala Thr Ala Thr Thr Ser Ala
 3740 3745 3750

Pro Gln Gly Ala Thr Thr Pro Gln Glu Leu Thr Leu Glu Thr Met
 3755 3760 3765

Ile Ser Pro Ala Thr Ser Gln Leu Pro Phe Ser Ile Gly His Ile
 3770 3775 3780

Thr Ser Ala Val Thr Pro Ala Ala Met Ala Arg Ser Ser Gly Val
 3785 3790 3795

Thr Phe Ser Arg Pro Asp Pro Thr Ser Lys Lys Ala Glu Gln Thr
 3800 3805 3810

Ser Thr Gln Leu Pro Thr Thr Thr Ser Ala His Pro Gly Gln Val
 3815 3820 3825

Pro Arg Ser Ala Ala Thr Thr Leu Asp Val Ile Pro His Thr Ala
 3830 3835 3840

Lys	Thr	Pro	Asp	Ala	Thr	Phe	Gln	Arg	Gln	Gly	Gln	Thr	Ala	Leu
3845						3850					3855			
Thr	Thr	Glu	Ala	Arg	Ala	Thr	Ser	Asp	Ser	Trp	Asn	Glu	Lys	Glu
3860						3865					3870			
Lys	Ser	Thr	Pro	Ser	Ala	Pro	Trp	Ile	Thr	Glu	Met	Met	Asn	Ser
3875						3880					3885			
Val	Ser	Glu	Asp	Thr	Ile	Lys	Glu	Val	Thr	Ser	Ser	Ser	Ser	Val
3890						3895					3900			
Leu	Arg	Thr	Leu	Asn	Thr	Leu	Asp	Ile	Asn	Leu	Glu	Ser	Gly	Thr
3905						3910					3915			
Thr	Ser	Ser	Pro	Ser	Trp	Lys	Ser	Ser	Pro	Tyr	Glu	Arg	Ile	Ala
3920						3925					3930			
Pro	Ser	Glu	Ser	Thr	Thr	Asp	Lys	Glu	Ala	Ile	His	Pro	Ser	Thr
3935						3940					3945			
Asn	Thr	Val	Glu	Thr	Thr	Gly	Trp	Val	Thr	Ser	Ser	Glu	His	Ala
3950						3955					3960			
Ser	His	Ser	Thr	Ile	Pro	Ala	His	Ser	Ala	Ser	Ser	Lys	Leu	Thr
3965						3970					3975			
Ser	Pro	Val	Val	Thr	Thr	Ser	Thr	Arg	Glu	Gln	Ala	Ile	Val	Ser
3980						3985					3990			
Met	Ser	Thr	Thr	Thr	Trp	Pro	Glu	Ser	Thr	Arg	Ala	Arg	Thr	Glu
3995						4000					4005			
Pro	Asn	Ser	Phe	Leu	Thr	Ile	Glu	Leu	Arg	Asp	Val	Ser	Pro	Tyr
4010						4015					4020			

Met	Asp	Thr	Ser	Ser	Thr	Thr	Gln	Thr	Ser	Ile	Ile	Ser	Ser	Pro
4025						4030					4035			
Gly	Ser	Thr	Ala	Ile	Thr	Lys	Gly	Pro	Arg	Thr	Glu	Ile	Thr	Ser
4040						4045					4050			
Ser	Lys	Arg	Ile	Ser	Ser	Ser	Phe	Leu	Ala	Gln	Ser	Met	Arg	Ser
4055						4060					4065			
Ser	Asp	Ser	Pro	Ser	Glu	Ala	Ile	Thr	Arg	Leu	Ser	Asn	Phe	Pro
4070						4075					4080			
Ala	Met	Thr	Glu	Ser	Gly	Gly	Met	Ile	Leu	Ala	Met	Gln	Thr	Ser
4085						4090					4095			
Pro	Pro	Gly	Ala	Thr	Ser	Leu	Ser	Ala	Pro	Thr	Leu	Asp	Thr	Ser
4100						4105					4110			
Ala	Thr	Ala	Ser	Trp	Thr	Gly	Thr	Pro	Leu	Ala	Thr	Thr	Gln	Arg
4115						4120					4125			
Phe	Thr	Tyr	Ser	Glu	Lys	Thr	Thr	Leu	Phe	Ser	Lys	Gly	Pro	Glu
4130						4135					4140			
Asp	Thr	Ser	Gln	Pro	Ser	Pro	Pro	Ser	Val	Glu	Glu	Thr	Ser	Ser
4145						4150					4155			
Ser	Ser	Ser	Leu	Val	Pro	Ile	His	Ala	Thr	Thr	Ser	Pro	Ser	Asn
4160						4165					4170			
Ile	Leu	Leu	Thr	Ser	Gln	Gly	His	Ser	Pro	Ser	Ser	Thr	Pro	Pro
4175						4180					4185			
Val	Thr	Ser	Val	Phe	Leu	Ser	Glu	Thr	Ser	Gly	Leu	Gly	Lys	Thr
4190						4195					4200			

Thr Asp Met Ser Arg Ile Ser Leu Glu Pro Gly Thr Ser Leu Pro
4205 4210 4215

Pro Asn Leu Ser Ser Thr Ala Gly Glu Ala Leu Ser Thr Tyr Glu
4220 4225 4230

Ala Ser Arg Asp Thr Lys Ala Ile His His Ser Ala Asp Thr Ala
4235 4240 4245

Val Thr Asn Met Glu Ala Thr Ser Ser Glu Tyr Ser Pro Ile Pro
4250 4255 4260

Gly His Thr Lys Pro Ser Lys Ala Thr Ser Pro Leu Val Thr Ser
4265 4270 4275

His Ile Met Gly Asp Ile Thr Ser Ser Thr Ser Val Phe Gly Ser
4280 4285 4290

Ser Glu Thr Thr Glu Ile Glu Thr Val Ser Ser Val Asn Gln Gly
4295 4300 4305

Leu Gln Glu Arg Ser Thr Ser Gln Val Ala Ser Ser Ala Thr Glu
4310 4315 4320

Thr Ser Thr Val Ile Thr His Val Ser Ser Gly Asp Ala Thr Thr
4325 4330 4335

His Val Thr Lys Thr Gln Ala Thr Phe Ser Ser Gly Thr Ser Ile
4340 4345 4350

Ser Ser Pro His Gln Phe Ile Thr Ser Thr Asn Thr Phe Thr Asp
4355 4360 4365

Val Ser Thr Asn Pro Ser Thr Ser Leu Ile Met Thr Glu Ser Ser
4370 4375 4380

Gly Val Thr Ile Thr Thr Gln Thr Gly Pro Thr Gly Ala Ala Thr

4385

4390

4395

Gln Gly Pro Tyr Leu Leu Asp Thr Ser Thr Met Pro Tyr Leu Thr
 4400 4405 4410

Glu Thr Pro Leu Ala Val Thr Pro Asp Phe Met Gln Ser Glu Lys
 4415 4420 4425

Thr Thr Leu Ile Ser Lys Gly Pro Lys Asp Val Ser Trp Thr Ser
 4430 4435 4440

Pro Pro Ser Val Ala Glu Thr Ser Tyr Pro Ser Ser Leu Thr Pro
 4445 4450 4455

Phe Leu Val Thr Thr Ile Pro Pro Ala Thr Ser Thr Leu Gln Gly
 4460 4465 4470

Gln His Thr Ser Ser Pro Val Ser Ala Thr Ser Val Leu Thr Ser
 4475 4480 4485

Gly Leu Val Lys Thr Thr Asp Met Leu Asn Thr Ser Met Glu Pro
 4490 4495 4500

Val Thr Asn Ser Pro Gln Asn Leu Asn Asn Pro Ser Asn Glu Ile
 4505 4510 4515

Leu Ala Thr Leu Ala Ala Thr Thr Asp Ile Glu Thr Ile His Pro
 4520 4525 4530

Ser Ile Asn Lys Ala Val Thr Asn Met Gly Thr Ala Ser Ser Ala
 4535 4540 4545

His Val Leu His Ser Thr Leu Pro Val Ser Ser Glu Pro Ser Thr
 4550 4555 4560

Ala Thr Ser Pro Met Val Pro Ala Ser Ser Met Gly Asp Ala Leu
 4565 4570 4575

Ala Ser	Ile Ser Ile Pro Gly	Ser Glu Thr Thr Asp	Ile Glu Gly
4580	4585	4590	
Glu Pro	Thr Ser Ser Leu Thr	Ala Gly Arg Lys Glu	Asn Ser Thr
4595	4600	4605	
Leu Gln	Glu Met Asn Ser Thr	Thr Glu Ser Asn Ile	Ile Leu Ser
4610	4615	4620	
Asn Val	Ser Val Gly Ala Ile	Thr Glu Ala Thr Lys	Met Glu Val
4625	4630	4635	
Pro Ser	Phe Asp Ala Thr Phe	Ile Pro Thr Pro Ala	Gln Ser Thr
4640	4645	4650	
Lys Phe	Pro Asp Ile Phe Ser	Val Ala Ser Ser Arg	Leu Ser Asn
4655	4660	4665	
Ser Pro	Pro Met Thr Ile Ser	Thr His Met Thr Thr	Thr Gln Thr
4670	4675	4680	
Gly Ser	Ser Gly Ala Thr Ser	Lys Ile Pro Leu Ala	Leu Asp Thr
4685	4690	4695	
Ser Thr	Leu Glu Thr Ser Ala	Gly Thr Pro Ser Val	Val Thr Glu
4700	4705	4710	
Gly Phe	Ala His Ser Lys Ile	Thr Thr Ala Met Asn	Asn Asp Val
4715	4720	4725	
Lys Asp	Val Ser Gln Thr Asn	Pro Pro Phe Gln Asp	Glu Ala Ser
4730	4735	4740	
Ser Pro	Ser Ser Gln Ala Pro	Val Leu Val Thr Thr	Leu Pro Ser
4745	4750	4755	

Ser Val Ala Phe Thr Pro Gln Trp His Ser Thr Ser Ser Pro Val
4760 4765 4770

Ser Met Ser Ser Val Leu Thr Ser Ser Leu Val Lys Thr Ala Gly
4775 4780 4785

Lys Val Asp Thr Ser Leu Glu Thr Val Thr Ser Ser Pro Gln Ser
4790 4795 4800

Met Ser Asn Thr Leu Asp Asp Ile Ser Val Thr Ser Ala Ala Thr
4805 4810 4815

Thr Asp Ile Glu Thr Thr His Pro Ser Ile Asn Thr Val Val Thr
4820 4825 4830

Asn Val Gly Thr Thr Gly Ser Ala Phe Glu Ser His Ser Thr Val
4835 4840 4845

Ser Ala Tyr Pro Glu Pro Ser Lys Val Thr Ser Pro Asn Val Thr
4850 4855 4860

Thr Ser Thr Met Glu Asp Thr Thr Ile Ser Arg Ser Ile Pro Lys
4865 4870 4875

Ser Ser Lys Thr Thr Arg Thr Glu Thr Glu Thr Thr Ser Ser Leu
4880 4885 4890

Thr Pro Lys Leu Arg Glu Thr Ser Ile Ser Gln Glu Ile Thr Ser
4895 4900 4905

Ser Thr Glu Thr Ser Thr Val Pro Tyr Lys Glu Leu Thr Gly Ala
4910 4915 4920

Thr Thr Glu Val Ser Arg Thr Asp Val Thr Ser Ser Ser Ser Thr
4925 4930 4935

Ser Phe Pro Gly Pro Asp Gln Ser Thr Val Ser Leu Asp Ile Ser
4940 4945 4950

Thr Glu Thr Asn Thr Arg Leu Ser Thr Ser Pro Ile Met Thr Glu
4955 4960 4965

Ser Ala Glu Ile Thr Ile Thr Thr Gln Thr Gly Pro His Gly Ala
4970 4975 4980

Thr Ser Gln Asp Thr Phe Thr Met Asp Pro Ser Asn Thr Thr Pro
4985 4990 4995

Gln Ala Gly Ile His Ser Ala Met Thr His Gly Phe Ser Gln Leu
5000 5005 5010

Asp Val Thr Thr Leu Met Ser Arg Ile Pro Gln Asp Val Ser Trp
5015 5020 5025

Thr Ser Pro Pro Ser Val Asp Lys Thr Ser Ser Pro Ser Ser Phe
5030 5035 5040

Leu Ser Ser Pro Ala Met Thr Thr Pro Ser Leu Ile Ser Ser Thr
5045 5050 5055

Leu Pro Glu Asp Lys Leu Ser Ser Pro Met Thr Ser Leu Leu Thr
5060 5065 5070

Ser Gly Leu Val Lys Ile Thr Asp Ile Leu Arg Thr Arg Leu Glu
5075 5080 5085

Pro Val Thr Ser Ser Leu Pro Asn Phe Ser Ser Thr Ser Asp Lys
5090 5095 5100

Ile Leu Ala Thr Ser Lys Asp Ser Lys Asp Thr Lys Glu Ile Phe
5105 5110 5115

Pro Ser Ile Asn Thr Glu Glu Thr Asn Val Lys Ala Asn Asn Ser

5120						5125						5130			
Gly	His	Glu	Ser	His	Ser	Pro	Ala	Leu	Ala	Asp	Ser	Glu	Thr	Pro	
5135						5140					5145				
Lys	Ala	Thr	Thr	Gln	Met	Val	Ile	Thr	Thr	Thr	Val	Gly	Asp	Pro	
5150						5155					5160				
Ala	Pro	Ser	Thr	Ser	Met	Pro	Val	His	Gly	Ser	Ser	Glu	Thr	Thr	
5165						5170					5175				
Asn	Ile	Lys	Arg	Glu	Pro	Thr	Tyr	Phe	Leu	Thr	Pro	Arg	Leu	Arg	
5180						5185					5190				
Glu	Thr	Ser	Thr	Ser	Gln	Glu	Ser	Ser	Phe	Pro	Thr	Asp	Thr	Ser	
5195						5200					5205				
Phe	Leu	Leu	Ser	Lys	Val	Pro	Thr	Gly	Thr	Ile	Thr	Glu	Val	Ser	
5210						5215					5220				
Ser	Thr	Gly	Val	Asn	Ser	Ser	Ser	Lys	Ile	Ser	Thr	Pro	Asp	His	
5225						5230					5235				
Asp	Lys	Ser	Thr	Val	Pro	Pro	Asp	Thr	Phe	Thr	Gly	Glu	Ile	Pro	
5240						5245					5250				
Arg	Val	Phe	Thr	Ser	Ser	Ile	Lys	Thr	Lys	Ser	Ala	Glu	Met	Thr	
5255						5260					5265				
Ile	Thr	Thr	Gln	Ala	Ser	Pro	Pro	Glu	Ser	Ala	Ser	His	Ser	Thr	
5270						5275					5280				
Leu	Pro	Leu	Asp	Thr	Ser	Thr	Thr	Leu	Ser	Gln	Gly	Gly	Thr	His	
5285						5290					5295				
Ser	Thr	Val	Thr	Gln	Gly	Phe	Pro	Tyr	Ser	Glu	Val	Thr	Thr	Leu	
5300						5305					5310				

Met Gly Met Gly Pro Gly Asn Val Ser Trp Met Thr Thr Pro Pro
5315 5320 5325

Val Glu Glu Thr Ser Ser Val Ser Ser Leu Met Ser Ser Pro Ala
5330 5335 5340

Met Thr Ser Pro Ser Pro Val Ser Ser Thr Ser Pro Gln Ser Ile
5345 5350 5355

Pro Ser Ser Pro Leu Pro Val Thr Ala Leu Pro Thr Ser Val Leu
5360 5365 5370

Val Thr Thr Thr Asp Val Leu Gly Thr Thr Ser Pro Glu Ser Val
5375 5380 5385

Thr Ser Ser Pro Pro Asn Leu Ser Ser Ile Thr His Glu Arg Pro
5390 5395 5400

Ala Thr Tyr Lys Asp Thr Ala His Thr Glu Ala Ala Met His His
5405 5410 5415

Ser Thr Asn Thr Ala Val Thr Asn Val Gly Thr Ser Gly Ser Gly
5420 5425 5430

His Lys Ser Gln Ser Ser Val Leu Ala Asp Ser Glu Thr Ser Lys
5435 5440 5445

Ala Thr Pro Leu Met Ser Thr Thr Ser Thr Leu Gly Asp Thr Ser
5450 5455 5460

Val Ser Thr Ser Thr Pro Asn Ile Ser Gln Thr Asn Gln Ile Gln
5465 5470 5475

Thr Glu Pro Thr Ala Ser Leu Ser Pro Arg Leu Arg Glu Ser Ser
5480 5485 5490

Thr	Ser	Glu	Lys	Thr	Ser	Ser	Thr	Thr	Glu	Thr	Asn	Thr	Ala	Phe
5495						5500					5505			
Ser	Tyr	Val	Pro	Thr	Gly	Ala	Ile	Thr	Gln	Ala	Ser	Arg	Thr	Glu
5510						5515					5520			
Ile	Ser	Ser	Ser	Arg	Thr	Ser	Ile	Ser	Asp	Leu	Asp	Arg	Pro	Thr
5525						5530					5535			
Ile	Ala	Pro	Asp	Ile	Ser	Thr	Gly	Met	Ile	Thr	Arg	Leu	Phe	Thr
5540						5545					5550			
Ser	Pro	Ile	Met	Thr	Lys	Ser	Ala	Glu	Met	Thr	Val	Thr	Thr	Gln
5555						5560					5565			
Thr	Thr	Thr	Pro	Gly	Ala	Thr	Ser	Gln	Gly	Ile	Leu	Pro	Trp	Asp
5570						5575					5580			
Thr	Ser	Thr	Thr	Leu	Phe	Gln	Gly	Gly	Thr	His	Ser	Thr	Val	Ser
5585						5590					5595			
Gln	Gly	Phe	Pro	His	Ser	Glu	Ile	Thr	Thr	Leu	Arg	Ser	Arg	Thr
5600						5605					5610			
Pro	Gly	Asp	Val	Ser	Trp	Met	Thr	Thr	Pro	Pro	Val	Glu	Glu	Thr
5615						5620					5625			
Ser	Ser	Gly	Phe	Ser	Leu	Met	Ser	Pro	Ser	Met	Thr	Ser	Pro	Ser
5630						5635					5640			
Pro	Val	Ser	Ser	Thr	Ser	Pro	Glu	Ser	Ile	Pro	Ser	Ser	Pro	Leu
5645						5650					5655			
Pro	Val	Thr	Ala	Leu	Leu	Thr	Ser	Val	Leu	Val	Thr	Thr	Thr	Asn
5660						5665					5670			

Val Leu Gly Thr Thr Ser Pro Glu Pro Val Thr Ser Ser Pro Pro
5675 5680 5685

Asn Leu Ser Ser Pro Thr Gln Glu Arg Leu Thr Thr Tyr Lys Asp
5690 5695 5700

Thr Ala His Thr Glu Ala Met His Ala Ser Met His Thr Asn Thr
5705 5710 5715

Ala Val Ala Asn Val Gly Thr Ser Ile Ser Gly His Glu Ser Gln
5720 5725 5730

Ser Ser Val Pro Ala Asp Ser His Thr Ser Lys Ala Thr Ser Pro
5735 5740 5745

Met Gly Ile Thr Phe Ala Met Gly Asp Thr Ser Val Ser Thr Ser
5750 5755 5760

Thr Pro Ala Phe Phe Glu Thr Arg Ile Gln Thr Glu Ser Thr Ser
5765 5770 5775

Ser Leu Ile Pro Gly Leu Arg Asp Thr Arg Thr Ser Glu Glu Ile
5780 5785 5790

Asn Thr Val Thr Glu Thr Ser Thr Val Leu Ser Glu Val Pro Thr
5795 5800 5805

Thr Thr Thr Thr Glu Val Ser Arg Thr Glu Val Ile Thr Ser Ser
5810 5815 5820

Arg Thr Thr Ile Ser Gly Pro Asp His Ser Lys Met Ser Pro Tyr
5825 5830 5835

Ile Ser Thr Glu Thr Ile Thr Arg Leu Ser Thr Phe Pro Phe Val
5840 5845 5850

Thr Gly Ser Thr Glu Met Ala Ile Thr Asn Gln Thr Gly Pro Ile

5855

5860

5865

Gly Thr Ile Ser Gln Ala Thr Leu Thr Leu Asp Thr Ser Ser Thr
 5870 5875 5880

Ala Ser Trp Glu Gly Thr His Ser Pro Val Thr Gln Arg Phe Pro
 5885 5890 5895

His Ser Glu Glu Thr Thr Thr Met Ser Arg Ser Thr Lys Gly Val
 5900 5905 5910

Ser Trp Gln Ser Pro Pro Ser Val Glu Glu Thr Ser Ser Pro Ser
 5915 5920 5925

Ser Pro Val Pro Leu Pro Ala Ile Thr Ser His Ser Ser Leu Tyr
 5930 5935 5940

Ser Ala Val Ser Gly Ser Ser Pro Thr Ser Ala Leu Pro Val Thr
 5945 5950 5955

Ser Leu Leu Thr Ser Gly Arg Arg Lys Thr Ile Asp Met Leu Asp
 5960 5965 5970

Thr His Ser Glu Leu Val Thr Ser Ser Leu Pro Ser Ala Ser Ser
 5975 5980 5985

Phe Ser Gly Glu Ile Leu Thr Ser Glu Ala Ser Thr Asn Thr Glu
 5990 5995 6000

Thr Ile His Phe Ser Glu Asn Thr Ala Glu Thr Asn Met Gly Thr
 6005 6010 6015

Thr Asn Ser Met His Lys Leu His Ser Ser Val Ser Ile His Ser
 6020 6025 6030

Gln Pro Ser Gly His Thr Pro Pro Lys Val Thr Gly Ser Met Met
 6035 6040 6045

Glu Asp Ala Ile Val Ser Thr Ser Thr Pro Gly Ser Pro Glu Thr
6050 6055 6060

Lys Asn Val Asp Arg Asp Ser Thr Ser Pro Leu Thr Pro Glu Leu
6065 6070 6075

Lys Glu Asp Ser Thr Ala Leu Val Met Asn Ser Thr Thr Glu Ser
6080 6085 6090

Asn Thr Val Phe Ser Ser Val Ser Leu Asp Ala Ala Thr Glu Val
6095 6100 6105

Ser Arg Ala Glu Val Thr Tyr Tyr Asp Pro Thr Phe Met Pro Ala
6110 6115 6120

Ser Ala Gln Ser Thr Lys Ser Pro Asp Ile Ser Pro Glu Ala Ser
6125 6130 6135

Ser Ser His Ser Asn Ser Pro Pro Leu Thr Ile Ser Thr His Lys
6140 6145 6150

Thr Ile Ala Thr Gln Thr Gly Pro Ser Gly Val Thr Ser Leu Gly
6155 6160 6165

Gln Leu Thr Leu Asp Thr Ser Thr Ile Ala Thr Ser Ala Gly Thr
6170 6175 6180

Pro Ser Ala Arg Thr Gln Asp Phe Val Asp Ser Glu Thr Thr Ser
6185 6190 6195

Val Met Asn Asn Asp Leu Asn Asp Val Leu Lys Thr Ser Pro Phe
6200 6205 6210

Ser Ala Glu Glu Ala Asn Ser Leu Ser Ser Gln Ala Pro Leu Leu
6215 6220 6225

Val	Thr	Thr	Ser	Pro	Ser	Pro	Val	Thr	Ser	Thr	Leu	Gln	Glu	His
6230						6235					6240			
Ser	Thr	Ser	Ser	Leu	Val	Ser	Val	Thr	Ser	Val	Pro	Thr	Pro	Thr
6245						6250					6255			
Leu	Ala	Lys	Ile	Thr	Asp	Met	Asp	Thr	Asn	Leu	Glu	Pro	Val	Thr
6260						6265					6270			
Arg	Ser	Pro	Gln	Asn	Leu	Arg	Asn	Thr	Leu	Ala	Thr	Ser	Glu	Ala
6275						6280					6285			
Thr	Thr	Asp	Thr	His	Thr	Met	His	Pro	Ser	Ile	Asn	Thr	Ala	Val
6290						6295					6300			
Ala	Asn	Val	Gly	Thr	Thr	Ser	Ser	Pro	Asn	Glu	Phe	Tyr	Phe	Thr
6305						6310					6315			
Val	Ser	Pro	Asp	Ser	Asp	Pro	Tyr	Lys	Ala	Thr	Ser	Ala	Val	Val
6320						6325					6330			
Ile	Thr	Ser	Thr	Ser	Gly	Asp	Ser	Ile	Val	Ser	Thr	Ser	Met	Pro
6335						6340					6345			
Arg	Ser	Ser	Ala	Met	Lys	Lys	Ile	Glu	Ser	Glu	Thr	Thr	Phe	Ser
6350						6355					6360			
Leu	Ile	Phe	Arg	Leu	Arg	Glu	Thr	Ser	Thr	Ser	Gln	Lys	Ile	Gly
6365						6370					6375			
Ser	Ser	Ser	Asp	Thr	Ser	Thr	Val	Phe	Asp	Lys	Ala	Phe	Thr	Ala
6380						6385					6390			
Ala	Thr	Thr	Glu	Val	Ser	Arg	Thr	Glu	Leu	Thr	Ser	Ser	Ser	Arg
6395						6400					6405			

Thr Ser Ile Gln Gly Thr Glu Lys Pro Thr Met Ser Pro Asp Thr
6410 6415 6420

Ser Thr Arg Ser Val Thr Met Leu Ser Thr Phe Ala Gly Leu Thr
6425 6430 6435

Lys Ser Glu Glu Arg Thr Ile Ala Thr Gln Thr Gly Pro His Arg
6440 6445 6450

Ala Thr Ser Gln Gly Thr Leu Thr Trp Asp Thr Ser Ile Thr Thr
6455 6460 6465

Ser Gln Ala Gly Thr His Ser Ala Met Thr His Gly Phe Ser Gln
6470 6475 6480

Leu Asp Leu Ser Thr Leu Thr Ser Arg Val Pro Glu Tyr Ile Ser
6485 6490 6495

Gly Thr Ser Pro Pro Ser Val Glu Lys Thr Ser Ser Ser Ser Ser
6500 6505 6510

Leu Leu Ser Leu Pro Ala Ile Thr Ser Pro Ser Pro Val Pro Thr
6515 6520 6525

Thr Leu Pro Glu Ser Arg Pro Ser Ser Pro Val His Leu Thr Ser
6530 6535 6540

Leu Pro Thr Ser Gly Leu Val Lys Thr Thr Asp Met Leu Ala Ser
6545 6550 6555

Val Ala Ser Leu Pro Pro Asn Leu Gly Ser Thr Ser His Lys Ile
6560 6565 6570

Pro Thr Thr Ser Glu Asp Ile Lys Asp Thr Glu Lys Met Tyr Pro
6575 6580 6585

Ser Thr Asn Ile Ala Val Thr Asn Val Gly Thr Thr Thr Ser Glu

6590						6595						6600			
Lys	Glu	Ser	Tyr	Ser	Ser	Val	Pro	Ala	Tyr	Ser	Glu	Pro	Pro	Lys	
6605						6610					6615				
Val	Thr	Ser	Pro	Met	Val	Thr	Ser	Phe	Asn	Ile	Arg	Asp	Thr	Ile	
6620						6625					6630				
Val	Ser	Thr	Ser	Met	Pro	Gly	Ser	Ser	Glu	Ile	Thr	Arg	Ile	Glu	
6635						6640					6645				
Met	Glu	Ser	Thr	Phe	Ser	Leu	Ala	His	Gly	Leu	Lys	Gly	Thr	Ser	
6650						6655					6660				
Thr	Ser	Gln	Asp	Pro	Ile	Val	Ser	Thr	Glu	Lys	Ser	Ala	Val	Leu	
6665						6670					6675				
His	Lys	Leu	Thr	Thr	Gly	Ala	Thr	Glu	Thr	Ser	Arg	Thr	Glu	Val	
6680						6685					6690				
Ala	Ser	Ser	Arg	Arg	Thr	Ser	Ile	Pro	Gly	Pro	Asp	His	Ser	Thr	
6695						6700					6705				
Glu	Ser	Pro	Asp	Ile	Ser	Thr	Glu	Val	Ile	Pro	Ser	Leu	Pro	Ile	
6710						6715					6720				
Ser	Leu	Gly	Ile	Thr	Glu	Ser	Ser	Asn	Met	Thr	Ile	Ile	Thr	Arg	
6725						6730					6735				
Thr	Gly	Pro	Pro	Leu	Gly	Ser	Thr	Ser	Gln	Gly	Thr	Phe	Thr	Leu	
6740						6745					6750				
Asp	Thr	Pro	Thr	Thr	Ser	Ser	Arg	Ala	Gly	Thr	His	Ser	Met	Ala	
6755						6760					6765				
Thr	Gln	Glu	Phe	Pro	His	Ser	Glu	Met	Thr	Thr	Val	Met	Asn	Lys	
6770						6775					6780				

Asp	Pro	Glu	Ile	Leu	Ser	Trp	Thr	Ile	Pro	Pro	Ser	Ile	Glu	Lys
6785						6790					6795			
Thr	Ser	Phe	Ser	Ser	Ser	Leu	Met	Pro	Ser	Pro	Ala	Met	Thr	Ser
6800						6805					6810			
Pro	Pro	Val	Ser	Ser	Thr	Leu	Pro	Lys	Thr	Ile	His	Thr	Thr	Pro
6815						6820					6825			
Ser	Pro	Met	Thr	Ser	Leu	Leu	Thr	Pro	Ser	Leu	Val	Met	Thr	Thr
6830						6835					6840			
Asp	Thr	Leu	Gly	Thr	Ser	Pro	Glu	Pro	Thr	Thr	Ser	Ser	Pro	Pro
6845						6850					6855			
Asn	Leu	Ser	Ser	Thr	Ser	His	Glu	Ile	Leu	Thr	Thr	Asp	Glu	Asp
6860						6865					6870			
Thr	Thr	Ala	Ile	Glu	Ala	Met	His	Pro	Ser	Thr	Ser	Thr	Ala	Ala
6875						6880					6885			
Thr	Asn	Val	Glu	Thr	Thr	Ser	Ser	Gly	His	Gly	Ser	Gln	Ser	Ser
6890						6895					6900			
Val	Leu	Ala	Asp	Ser	Glu	Lys	Thr	Lys	Ala	Thr	Ala	Pro	Met	Asp
6905						6910					6915			
Thr	Thr	Ser	Thr	Met	Gly	His	Thr	Thr	Val	Ser	Thr	Ser	Met	Ser
6920						6925					6930			
Val	Ser	Ser	Glu	Thr	Thr	Lys	Ile	Lys	Arg	Glu	Ser	Thr	Tyr	Ser
6935						6940					6945			
Leu	Thr	Pro	Gly	Leu	Arg	Glu	Thr	Ser	Ile	Ser	Gln	Asn	Ala	Ser
6950						6955					6960			

Phe	Ser	Thr	Asp	Thr	Ser	Ile	Val	Leu	Ser	Glu	Val	Pro	Thr	Gly
6965						6970					6975			
Thr	Thr	Ala	Glu	Val	Ser	Arg	Thr	Glu	Val	Thr	Ser	Ser	Gly	Arg
6980						6985					6990			
Thr	Ser	Ile	Pro	Gly	Pro	Ser	Gln	Ser	Thr	Val	Leu	Pro	Glu	Ile
6995						7000					7005			
Ser	Thr	Arg	Thr	Met	Thr	Arg	Leu	Phe	Ala	Ser	Pro	Thr	Met	Thr
7010						7015					7020			
Glu	Ser	Ala	Glu	Met	Thr	Ile	Pro	Thr	Gln	Thr	Gly	Pro	Ser	Gly
7025						7030					7035			
Ser	Thr	Ser	Gln	Asp	Thr	Leu	Thr	Leu	Asp	Thr	Ser	Thr	Thr	Lys
7040						7045					7050			
Ser	Gln	Ala	Lys	Thr	His	Ser	Thr	Leu	Thr	Gln	Arg	Phe	Pro	His
7055						7060					7065			
Ser	Glu	Met	Thr	Thr	Leu	Met	Ser	Arg	Gly	Pro	Gly	Asp	Met	Ser
7070						7075					7080			
Trp	Gln	Ser	Ser	Pro	Ser	Leu	Glu	Asn	Pro	Ser	Ser	Leu	Pro	Ser
7085						7090					7095			
Leu	Leu	Ser	Leu	Pro	Ala	Thr	Thr	Ser	Pro	Pro	Pro	Ile	Ser	Ser
7100						7105					7110			
Thr	Leu	Pro	Val	Thr	Ile	Ser	Ser	Ser	Pro	Leu	Pro	Val	Thr	Ser
7115						7120					7125			
Leu	Leu	Thr	Ser	Ser	Pro	Val	Thr	Thr	Thr	Asp	Met	Leu	His	Thr
7130						7135					7140			

Ser Pro Glu Leu Val Thr Ser Ser Pro Pro Lys Leu Ser His Thr
7145 7150 7155

Ser Asp Glu Arg Leu Thr Thr Gly Lys Asp Thr Thr Asn Thr Glu
7160 7165 7170

Ala Val His Pro Ser Thr Asn Thr Ala Ala Ser Asn Val Glu Ile
7175 7180 7185

Pro Ser Ser Gly His Glu Ser Pro Ser Ser Ala Leu Ala Asp Ser
7190 7195 7200

Glu Thr Ser Lys Ala Thr Ser Pro Met Phe Ile Thr Ser Thr Gln
7205 7210 7215

Glu Asp Thr Thr Val Ala Ile Ser Thr Pro His Phe Leu Glu Thr
7220 7225 7230

Ser Arg Ile Gln Lys Glu Ser Ile Ser Ser Leu Ser Pro Lys Leu
7235 7240 7245

Arg Glu Thr Gly Ser Ser Val Glu Thr Ser Ser Ala Ile Glu Thr
7250 7255 7260

Ser Ala Val Leu Ser Glu Val Ser Ile Gly Ala Thr Thr Glu Ile
7265 7270 7275

Ser Arg Thr Glu Val Thr Ser Ser Ser Arg Thr Ser Ile Ser Gly
7280 7285 7290

Ser Ala Glu Ser Thr Met Leu Pro Glu Ile Ser Thr Thr Arg Lys
7295 7300 7305

Ile Ile Lys Phe Pro Thr Ser Pro Ile Leu Ala Glu Ser Ser Glu
7310 7315 7320

Met Thr Ile Lys Thr Gln Thr Ser Pro Pro Gly Ser Thr Ser Glu

7325

7330

7335

Ser Thr Phe Thr Leu Asp Thr Ser Thr Thr Pro Ser Leu Val Ile
 7340 7345 7350

Thr His Ser Thr Met Thr Gln Arg Leu Pro His Ser Glu Ile Thr
 7355 7360 7365

Thr Leu Val Ser Arg Gly Ala Gly Asp Val Pro Arg Pro Ser Ser
 7370 7375 7380

Leu Pro Val Glu Glu Thr Ser Pro Pro Ser Ser Gln Leu Ser Leu
 7385 7390 7395

Ser Ala Met Ile Ser Pro Ser Pro Val Ser Ser Thr Leu Pro Ala
 7400 7405 7410

Ser Ser His Ser Ser Ser Ala Ser Val Thr Ser Leu Leu Thr Pro
 7415 7420 7425

Gly Gln Val Lys Thr Thr Glu Val Leu Asp Ala Ser Ala Glu Pro
 7430 7435 7440

Glu Thr Ser Ser Pro Pro Ser Leu Ser Ser Thr Ser Val Glu Ile
 7445 7450 7455

Leu Ala Thr Ser Glu Val Thr Thr Asp Thr Glu Lys Ile His Pro
 7460 7465 7470

Phe Ser Asn Thr Ala Val Thr Lys Val Gly Thr Ser Ser Ser Gly
 7475 7480 7485

His Glu Ser Pro Ser Ser Val Leu Pro Asp Ser Glu Thr Thr Lys
 7490 7495 7500

Ala Thr Ser Ala Met Gly Thr Ile Ser Ile Met Gly Asp Thr Ser
 7505 7510 7515

Val	Ser	Thr	Leu	Thr	Pro	Ala	Leu	Ser	Asn	Thr	Arg	Lys	Ile	Gln
7520						7525					7530			
Ser	Glu	Pro	Ala	Ser	Ser	Leu	Thr	Thr	Arg	Leu	Arg	Glu	Thr	Ser
7535						7540					7545			
Thr	Ser	Glu	Glu	Thr	Ser	Leu	Ala	Thr	Glu	Ala	Asn	Thr	Val	Leu
7550						7555					7560			
Ser	Lys	Val	Ser	Thr	Gly	Ala	Thr	Thr	Glu	Val	Ser	Arg	Thr	Glu
7565						7570					7575			
Ala	Ile	Ser	Phe	Ser	Arg	Thr	Ser	Met	Ser	Gly	Pro	Glu	Gln	Ser
7580						7585					7590			
Thr	Met	Ser	Gln	Asp	Ile	Ser	Ile	Gly	Thr	Ile	Pro	Arg	Ile	Ser
7595						7600					7605			
Ala	Ser	Ser	Val	Leu	Thr	Glu	Ser	Ala	Lys	Met	Thr	Ile	Thr	Thr
7610						7615					7620			
Gln	Thr	Gly	Pro	Ser	Glu	Ser	Thr	Leu	Glu	Ser	Thr	Leu	Asn	Leu
7625						7630					7635			
Asn	Thr	Ala	Thr	Thr	Pro	Ser	Trp	Val	Glu	Thr	His	Ser	Ile	Val
7640						7645					7650			
Ile	Gln	Gly	Phe	Pro	His	Pro	Glu	Met	Thr	Thr	Ser	Met	Gly	Arg
7655						7660					7665			
Gly	Pro	Gly	Gly	Val	Ser	Trp	Pro	Ser	Pro	Pro	Phe	Val	Lys	Glu
7670						7675					7680			
Thr	Ser	Pro	Pro	Ser	Ser	Pro	Leu	Ser	Leu	Pro	Ala	Val	Thr	Ser
7685						7690					7695			

Pro 7700	His	Pro	Val	Ser	Thr	Thr	Phe	Leu	Ala	His	Ile	Pro	Pro	Ser
						7705					7710			
Pro	Leu	Pro	Val	Thr	Ser	Leu	Leu	Thr	Ser	Gly	Pro	Ala	Thr	Thr
	7715					7720					7725			
Thr	Asp	Ile	Leu	Gly	Thr	Ser	Thr	Glu	Pro	Gly	Thr	Ser	Ser	Ser
	7730					7735					7740			
Ser	Ser	Leu	Ser	Thr	Thr	Ser	His	Glu	Arg	Leu	Thr	Thr	Tyr	Lys
	7745					7750					7755			
Asp	Thr	Ala	His	Thr	Glu	Ala	Val	His	Pro	Ser	Thr	Asn	Thr	Gly
	7760					7765					7770			
Gly	Thr	Asn	Val	Ala	Thr	Thr	Ser	Ser	Gly	Tyr	Lys	Ser	Gln	Ser
	7775					7780					7785			
Ser	Val	Leu	Ala	Asp	Ser	Ser	Pro	Met	Cys	Thr	Thr	Ser	Thr	Met
	7790					7795					7800			
Gly	Asp	Thr	Ser	Val	Leu	Thr	Ser	Thr	Pro	Ala	Phe	Leu	Glu	Thr
	7805					7810					7815			
Arg	Arg	Ile	Gln	Thr	Glu	Leu	Ala	Ser	Ser	Leu	Thr	Pro	Gly	Leu
	7820					7825					7830			
Arg	Glu	Ser	Ser	Gly	Ser	Glu	Gly	Thr	Ser	Ser	Gly	Thr	Lys	Met
	7835					7840					7845			
Ser	Thr	Val	Leu	Ser	Lys	Val	Pro	Thr	Gly	Ala	Thr	Thr	Glu	Ile
	7850					7855					7860			
Ser	Lys	Glu	Asp	Val	Thr	Ser	Ile	Pro	Gly	Pro	Ala	Gln	Ser	Thr
	7865					7870					7875			

Ile Ser Pro Asp Ile Ser Thr Arg Thr Val Ser Trp Phe Ser Thr
7880 7885 7890

Ser Pro Val Met Thr Glu Ser Ala Glu Ile Thr Met Asn Thr His
7895 7900 7905

Thr Ser Pro Leu Gly Ala Thr Thr Gln Gly Thr Ser Thr Leu Asp
7910 7915 7920

Thr Ser Ser Thr Thr Ser Leu Thr Met Thr His Ser Thr Ile Ser
7925 7930 7935

Gln Gly Phe Ser His Ser Gln Met Ser Thr Leu Met Arg Arg Gly
7940 7945 7950

Pro Glu Asp Val Ser Trp Met Ser Pro Pro Leu Leu Glu Lys Thr
7955 7960 7965

Arg Pro Ser Phe Ser Leu Met Ser Ser Pro Ala Thr Thr Ser Pro
7970 7975 7980

Ser Pro Val Ser Ser Thr Leu Pro Glu Ser Ile Ser Ser Ser Pro
7985 7990 7995

Leu Pro Val Thr Ser Leu Leu Thr Ser Gly Leu Ala Lys Thr Thr
8000 8005 8010

Asp Met Leu His Lys Ser Ser Glu Pro Val Thr Asn Ser Pro Ala
8015 8020 8025

Asn Leu Ser Ser Thr Ser Val Glu Ile Leu Ala Thr Ser Glu Val
8030 8035 8040

Thr Thr Asp Thr Glu Lys Thr His Pro Ser Ser Asn Arg Thr Val
8045 8050 8055

Thr Asp Val Gly Thr Ser Ser Ser Gly His Glu Ser Thr Ser Phe

8060

8065

8070

Val Leu Ala Asp Ser Gln Thr Ser Lys Val Thr Ser Pro Met Val
 8075 8080 8085

Ile Thr Ser Thr Met Glu Asp Thr Ser Val Ser Thr Ser Thr Pro
 8090 8095 8100

Gly Phe Phe Glu Thr Ser Arg Ile Gln Thr Glu Pro Thr Ser Ser
 8105 8110 8115

Leu Thr Leu Gly Leu Arg Lys Thr Ser Ser Ser Glu Gly Thr Ser
 8120 8125 8130

Leu Ala Thr Glu Met Ser Thr Val Leu Ser Gly Val Pro Thr Gly
 8135 8140 8145

Ala Thr Ala Glu Val Ser Arg Thr Glu Val Thr Ser Ser Ser Arg
 8150 8155 8160

Thr Ser Ile Ser Gly Phe Ala Gln Leu Thr Val Ser Pro Glu Thr
 8165 8170 8175

Ser Thr Glu Thr Ile Thr Arg Leu Pro Thr Ser Ser Ile Met Thr
 8180 8185 8190

Glu Ser Ala Glu Met Met Ile Lys Thr Gln Thr Asp Pro Pro Gly
 8195 8200 8205

Ser Thr Pro Glu Ser Thr His Thr Val Asp Ile Ser Thr Thr Pro
 8210 8215 8220

Asn Trp Val Glu Thr His Ser Thr Val Thr Gln Arg Phe Ser His
 8225 8230 8235

Ser Glu Met Thr Thr Leu Val Ser Arg Ser Pro Gly Asp Met Leu
 8240 8245 8250

Trp	Pro	Ser	Gln	Ser	Ser	Val	Glu	Glu	Thr	Ser	Ser	Ala	Ser	Ser
8255						8260					8265			
Leu	Leu	Ser	Leu	Pro	Ala	Thr	Thr	Ser	Pro	Ser	Pro	Val	Ser	Ser
8270						8275					8280			
Thr	Leu	Val	Glu	Asp	Phe	Pro	Ser	Ala	Ser	Leu	Pro	Val	Thr	Ser
8285						8290					8295			
Leu	Leu	Asn	Pro	Gly	Leu	Val	Ile	Thr	Thr	Asp	Arg	Met	Gly	Ile
8300						8305					8310			
Ser	Arg	Glu	Pro	Gly	Thr	Ser	Ser	Thr	Ser	Asn	Leu	Ser	Ser	Thr
8315						8320					8325			
Ser	His	Glu	Arg	Leu	Thr	Thr	Leu	Glu	Asp	Thr	Val	Asp	Thr	Glu
8330						8335					8340			
Asp	Met	Gln	Pro	Ser	Thr	His	Thr	Ala	Val	Thr	Asn	Val	Arg	Thr
8345						8350					8355			
Ser	Ile	Ser	Gly	His	Glu	Ser	Gln	Ser	Ser	Val	Leu	Ser	Asp	Ser
8360						8365					8370			
Glu	Thr	Pro	Lys	Ala	Thr	Ser	Pro	Met	Gly	Thr	Thr	Tyr	Thr	Met
8375						8380					8385			
Gly	Glu	Thr	Ser	Val	Ser	Ile	Ser	Thr	Ser	Asp	Phe	Phe	Glu	Thr
8390						8395					8400			
Ser	Arg	Ile	Gln	Ile	Glu	Pro	Thr	Ser	Ser	Leu	Thr	Ser	Gly	Leu
8405						8410					8415			
Arg	Glu	Thr	Ser	Ser	Ser	Glu	Arg	Ile	Ser	Ser	Ala	Thr	Glu	Gly
8420						8425					8430			

Ser	Thr	Val	Leu	Ser	Glu	Val	Pro	Ser	Gly	Ala	Thr	Thr	Glu	Val
8435						8440					8445			
Ser	Arg	Thr	Glu	Val	Ile	Ser	Ser	Arg	Gly	Thr	Ser	Met	Ser	Gly
8450						8455					8460			
Pro	Asp	Gln	Phe	Thr	Ile	Ser	Pro	Asp	Ile	Ser	Thr	Glu	Ala	Ile
8465						8470					8475			
Thr	Arg	Leu	Ser	Thr	Ser	Pro	Ile	Met	Thr	Glu	Ser	Ala	Glu	Ser
8480						8485					8490			
Ala	Ile	Thr	Ile	Glu	Thr	Gly	Ser	Pro	Gly	Ala	Thr	Ser	Glu	Gly
8495						8500					8505			
Thr	Leu	Thr	Leu	Asp	Thr	Ser	Thr	Thr	Thr	Phe	Trp	Ser	Gly	Thr
8510						8515					8520			
His	Ser	Thr	Ala	Ser	Pro	Gly	Phe	Ser	His	Ser	Glu	Met	Thr	Thr
8525						8530					8535			
Leu	Met	Ser	Arg	Thr	Pro	Gly	Asp	Val	Pro	Trp	Pro	Ser	Leu	Pro
8540						8545					8550			
Ser	Val	Glu	Glu	Ala	Ser	Ser	Val	Ser	Ser	Ser	Leu	Ser	Ser	Pro
8555						8560					8565			
Ala	Met	Thr	Ser	Thr	Ser	Phe	Phe	Ser	Thr	Leu	Pro	Glu	Ser	Ile
8570						8575					8580			
Ser	Ser	Ser	Pro	His	Pro	Val	Thr	Ala	Leu	Leu	Thr	Leu	Gly	Pro
8585						8590					8595			
Val	Lys	Thr	Thr	Asp	Met	Leu	Arg	Thr	Ser	Ser	Glu	Pro	Glu	Thr
8600						8605					8610			

Ser	Ser	Pro	Pro	Asn	Leu	Ser	Ser	Thr	Ser	Ala	Glu	Ile	Leu	Ala
8615						8620					8625			
Thr	Ser	Glu	Val	Thr	Lys	Asp	Arg	Glu	Lys	Ile	His	Pro	Ser	Ser
8630						8635					8640			
Asn	Thr	Pro	Val	Val	Asn	Val	Gly	Thr	Val	Ile	Tyr	Lys	His	Leu
8645						8650					8655			
Ser	Pro	Ser	Ser	Val	Leu	Ala	Asp	Leu	Val	Thr	Thr	Lys	Pro	Thr
8660						8665					8670			
Ser	Pro	Met	Ala	Thr	Thr	Ser	Thr	Leu	Gly	Asn	Thr	Ser	Val	Ser
8675						8680					8685			
Thr	Ser	Thr	Pro	Ala	Phe	Pro	Glu	Thr	Met	Met	Thr	Gln	Pro	Thr
8690						8695					8700			
Ser	Ser	Leu	Thr	Ser	Gly	Leu	Arg	Glu	Ile	Ser	Thr	Ser	Gln	Glu
8705						8710					8715			
Thr	Ser	Ser	Ala	Thr	Glu	Arg	Ser	Ala	Ser	Leu	Ser	Gly	Met	Pro
8720						8725					8730			
Thr	Gly	Ala	Thr	Thr	Lys	Val	Ser	Arg	Thr	Glu	Ala	Leu	Ser	Leu
8735						8740					8745			
Gly	Arg	Thr	Ser	Thr	Pro	Gly	Pro	Ala	Gln	Ser	Thr	Ile	Ser	Pro
8750						8755					8760			
Glu	Ile	Ser	Thr	Glu	Thr	Ile	Thr	Arg	Ile	Ser	Thr	Pro	Leu	Thr
8765						8770					8775			
Thr	Thr	Gly	Ser	Ala	Glu	Met	Thr	Ile	Thr	Pro	Lys	Thr	Gly	His
8780						8785					8790			
Ser	Gly	Ala	Ser	Ser	Gln	Gly	Thr	Phe	Thr	Leu	Asp	Thr	Ser	Ser

8795		8800		8805
Arg Ala Ser Trp Pro Gly Thr His Ser Ala Ala Thr His Arg Ser				
8810		8815		8820
Pro His Ser Gly Met Thr Thr Pro Met Ser Arg Gly Pro Glu Asp				
8825		8830		8835
Val Ser Trp Pro Ser Arg Pro Ser Val Glu Lys Thr Ser Pro Pro				
8840		8845		8850
Ser Ser Leu Val Ser Leu Ser Ala Val Thr Ser Pro Ser Pro Leu				
8855		8860		8865
Tyr Ser Thr Pro Ser Glu Ser Ser His Ser Ser Pro Leu Arg Val				
8870		8875		8880
Thr Ser Leu Phe Thr Pro Val Met Met Lys Thr Thr Asp Met Leu				
8885		8890		8895
Asp Thr Ser Leu Glu Pro Val Thr Thr Ser Pro Pro Ser Met Asn				
8900		8905		8910
Ile Thr Ser Asp Glu Ser Leu Ala Thr Ser Lys Ala Thr Met Glu				
8915		8920		8925
Thr Glu Ala Ile Gln Leu Ser Glu Asn Thr Ala Val Thr Gln Met				
8930		8935		8940
Gly Thr Ile Ser Ala Arg Gln Glu Phe Tyr Ser Ser Tyr Pro Gly				
8945		8950		8955
Leu Pro Glu Pro Ser Lys Val Thr Ser Pro Val Val Thr Ser Ser				
8960		8965		8970
Thr Ile Lys Asp Ile Val Ser Thr Thr Ile Pro Ala Ser Ser Glu				
8975		8980		8985

Ile Thr	Arg Ile Glu Met Glu	Ser Thr Ser Thr	Leu Thr Pro Thr
8990	8995		9000
Pro Arg	Glu Thr Ser Thr Ser	Gln Glu Ile His	Ser Ala Thr Lys
9005	9010		9015
Pro Ser	Thr Val Pro Tyr Lys	Ala Leu Thr Ser	Ala Thr Ile Glu
9020	9025		9030
Asp Ser	Met Thr Gln Val Met	Ser Ser Ser Arg	Gly Pro Ser Pro
9035	9040		9045
Asp Gln	Ser Thr Met Ser Gln	Asp Ile Ser Thr	Glu Val Ile Thr
9050	9055		9060
Arg Leu	Ser Thr Ser Pro Ile	Lys Thr Glu Ser	Thr Glu Met Thr
9065	9070		9075
Ile Thr	Thr Gln Thr Gly Ser	Pro Gly Ala Thr	Ser Arg Gly Thr
9080	9085		9090
Leu Thr	Leu Asp Thr Ser Thr	Thr Phe Met Ser	Gly Thr His Ser
9095	9100		9105
Thr Ala	Ser Gln Gly Phe Ser	His Ser Gln Met	Thr Ala Leu Met
9110	9115		9120
Ser Arg	Thr Pro Gly Asp Val	Pro Trp Leu Ser	His Pro Ser Val
9125	9130		9135
Glu Glu	Ala Ser Ser Ala Ser	Phe Ser Leu Ser	Ser Pro Val Met
9140	9145		9150
Thr Ser	Ser Ser Pro Val Ser	Ser Thr Leu Pro	Asp Ser Ile His
9155	9160		9165

Ser	Ser	Ser	Leu	Pro	Val	Thr	Ser	Leu	Leu	Thr	Ser	Gly	Leu	Val
9170						9175					9180			
Lys	Thr	Thr	Glu	Leu	Leu	Gly	Thr	Ser	Ser	Glu	Pro	Glu	Thr	Ser
9185						9190					9195			
Ser	Pro	Pro	Asn	Leu	Ser	Ser	Thr	Ser	Ala	Glu	Ile	Leu	Ala	Ile
9200						9205					9210			
Thr	Glu	Val	Thr	Thr	Asp	Thr	Glu	Lys	Leu	Glu	Met	Thr	Asn	Val
9215						9220					9225			
Val	Thr	Ser	Gly	Tyr	Thr	His	Glu	Ser	Pro	Ser	Ser	Val	Leu	Ala
9230						9235					9240			
Asp	Ser	Val	Thr	Thr	Lys	Ala	Thr	Ser	Ser	Met	Gly	Ile	Thr	Tyr
9245						9250					9255			
Pro	Thr	Gly	Asp	Thr	Asn	Val	Leu	Thr	Ser	Thr	Pro	Ala	Phe	Ser
9260						9265					9270			
Asp	Thr	Ser	Arg	Ile	Gln	Thr	Lys	Ser	Lys	Leu	Ser	Leu	Thr	Pro
9275						9280					9285			
Gly	Leu	Met	Glu	Thr	Ser	Ile	Ser	Glu	Glu	Thr	Ser	Ser	Ala	Thr
9290						9295					9300			
Glu	Lys	Ser	Thr	Val	Leu	Ser	Ser	Val	Pro	Thr	Gly	Ala	Thr	Thr
9305						9310					9315			
Glu	Val	Ser	Arg	Thr	Glu	Ala	Ile	Ser	Ser	Ser	Arg	Thr	Ser	Ile
9320						9325					9330			
Pro	Gly	Pro	Ala	Gln	Ser	Thr	Met	Ser	Ser	Asp	Thr	Ser	Met	Glu
9335						9340					9345			

Thr Ile Thr Arg Ile Ser Thr Pro Leu Thr Arg Lys Glu Ser Thr
9350 9355 9360

Asp Met Ala Ile Thr Pro Lys Thr Gly Pro Ser Gly Ala Thr Ser
9365 9370 9375

Gln Gly Thr Phe Thr Leu Asp Ser Ser Ser Thr Ala Ser Trp Pro
9380 9385 9390

Gly Thr His Ser Ala Thr Thr Gln Arg Phe Pro Gln Ser Val Val
9395 9400 9405

Thr Thr Pro Met Ser Arg Gly Pro Glu Asp Val Ser Trp Pro Ser
9410 9415 9420

Pro Leu Ser Val Glu Lys Asn Ser Pro Pro Ser Ser Leu Val Ser
9425 9430 9435

Ser Ser Ser Val Thr Ser Pro Ser Pro Leu Tyr Ser Thr Pro Ser
9440 9445 9450

Gly Ser Ser His Ser Ser Pro Val Pro Val Thr Ser Leu Phe Thr
9455 9460 9465

Ser Ile Met Met Lys Ala Thr Asp Met Leu Asp Ala Ser Leu Glu
9470 9475 9480

Pro Glu Thr Thr Ser Ala Pro Asn Met Asn Ile Thr Ser Asp Glu
9485 9490 9495

Ser Leu Ala Ala Ser Lys Ala Thr Thr Glu Thr Glu Ala Ile His
9500 9505 9510

Val Phe Glu Asn Thr Ala Ala Ser His Val Glu Thr Thr Ser Ala
9515 9520 9525

Thr Glu Glu Leu Tyr Ser Ser Ser Pro Gly Phe Ser Glu Pro Thr

9530						9535						9540			
Lys	Val	Ile	Ser	Pro	Val	Val	Thr	Ser	Ser	Ser	Ile	Arg	Asp	Asn	
9545						9550					9555				
Met	Val	Ser	Thr	Thr	Met	Pro	Gly	Ser	Ser	Gly	Ile	Thr	Arg	Ile	
9560						9565					9570				
Glu	Ile	Glu	Ser	Met	Ser	Ser	Leu	Thr	Pro	Gly	Leu	Arg	Glu	Thr	
9575						9580					9585				
Arg	Thr	Ser	Gln	Asp	Ile	Thr	Ser	Ser	Thr	Glu	Thr	Ser	Thr	Val	
9590						9595					9600				
Leu	Tyr	Lys	Met	Pro	Ser	Gly	Ala	Thr	Pro	Glu	Val	Ser	Arg	Thr	
9605						9610					9615				
Glu	Val	Met	Pro	Ser	Ser	Arg	Thr	Ser	Ile	Pro	Gly	Pro	Ala	Gln	
9620						9625					9630				
Ser	Thr	Met	Ser	Leu	Asp	Ile	Ser	Asp	Glu	Val	Val	Thr	Arg	Leu	
9635						9640					9645				
Ser	Thr	Ser	Pro	Ile	Met	Thr	Glu	Ser	Ala	Glu	Ile	Thr	Ile	Thr	
9650						9655					9660				
Thr	Gln	Thr	Gly	Tyr	Ser	Leu	Ala	Thr	Ser	Gln	Val	Thr	Leu	Pro	
9665						9670					9675				
Leu	Gly	Thr	Ser	Met	Thr	Phe	Leu	Ser	Gly	Thr	His	Ser	Thr	Met	
9680						9685					9690				
Ser	Gln	Gly	Leu	Ser	His	Ser	Glu	Met	Thr	Asn	Leu	Met	Ser	Arg	
9695						9700					9705				
Gly	Pro	Glu	Ser	Leu	Ser	Trp	Thr	Ser	Pro	Arg	Phe	Val	Glu	Thr	
9710						9715					9720				

Thr	Arg	Ser	Ser	Ser	Ser	Leu	Thr	Ser	Leu	Pro	Leu	Thr	Thr	Ser
9725						9730					9735			
Leu	Ser	Pro	Val	Ser	Ser	Thr	Leu	Leu	Asp	Ser	Ser	Pro	Ser	Ser
9740						9745					9750			
Pro	Leu	Pro	Val	Thr	Ser	Leu	Ile	Leu	Pro	Gly	Leu	Val	Lys	Thr
9755						9760					9765			
Thr	Glu	Val	Leu	Asp	Thr	Ser	Ser	Glu	Pro	Lys	Thr	Ser	Ser	Ser
9770						9775					9780			
Pro	Asn	Leu	Ser	Ser	Thr	Ser	Val	Glu	Ile	Pro	Ala	Thr	Ser	Glu
9785						9790					9795			
Ile	Met	Thr	Asp	Thr	Glu	Lys	Ile	His	Pro	Ser	Ser	Asn	Thr	Ala
9800						9805					9810			
Val	Ala	Lys	Val	Arg	Thr	Ser	Ser	Ser	Val	His	Glu	Ser	His	Ser
9815						9820					9825			
Ser	Val	Leu	Ala	Asp	Ser	Glu	Thr	Thr	Ile	Thr	Ile	Pro	Ser	Met
9830						9835					9840			
Gly	Ile	Thr	Ser	Ala	Val	Asp	Asp	Thr	Thr	Val	Phe	Thr	Ser	Asn
9845						9850					9855			
Pro	Ala	Phe	Ser	Glu	Thr	Arg	Arg	Ile	Pro	Thr	Glu	Pro	Thr	Phe
9860						9865					9870			
Ser	Leu	Thr	Pro	Gly	Phe	Arg	Glu	Thr	Ser	Thr	Ser	Glu	Glu	Thr
9875						9880					9885			
Thr	Ser	Ile	Thr	Glu	Thr	Ser	Ala	Val	Leu	Tyr	Gly	Val	Pro	Thr
9890						9895					9900			

Ser Ala Thr Thr Glu Val Ser Met Thr Glu Ile Met Ser Ser Asn
9905 9910 9915

Arg Ile His Ile Pro Asp Ser Asp Gln Ser Thr Met Ser Pro Asp
9920 9925 9930

Ile Ile Thr Glu Val Ile Thr Arg Leu Ser Ser Ser Ser Met Met
9935 9940 9945

Ser Glu Ser Thr Gln Met Thr Ile Thr Thr Gln Lys Ser Ser Pro
9950 9955 9960

Gly Ala Thr Ala Gln Ser Thr Leu Thr Leu Ala Thr Thr Thr Ala
9965 9970 9975

Pro Leu Ala Arg Thr His Ser Thr Val Pro Pro Arg Phe Leu His
9980 9985 9990

Ser Glu Met Thr Thr Leu Met Ser Arg Ser Pro Glu Asn Pro Ser
9995 10000 10005

Trp Lys Ser Ser Leu Phe Val Glu Lys Thr Ser Ser Ser Ser Ser
10010 10015 10020

Leu Leu Ser Leu Pro Val Thr Thr Ser Pro Ser Val Ser Ser Thr
10025 10030 10035

Leu Pro Gln Ser Ile Pro Ser Ser Ser Phe Ser Val Thr Ser Leu
10040 10045 10050

Leu Thr Pro Gly Met Val Lys Thr Thr Asp Thr Ser Thr Glu Pro
10055 10060 10065

Gly Thr Ser Leu Ser Pro Asn Leu Ser Gly Thr Ser Val Glu Ile
10070 10075 10080

Leu Ala Ala Ser Glu Val Thr Thr Asp Thr Glu Lys Ile His Pro
10085 10090 10095

Ser Ser Ser Met Ala Val Thr Asn Val Gly Thr Thr Ser Ser Gly
10100 10105 10110

His Glu Leu Tyr Ser Ser Val Ser Ile His Ser Glu Pro Ser Lys
10115 10120 10125

Ala Thr Tyr Pro Val Gly Thr Pro Ser Ser Met Ala Glu Thr Ser
10130 10135 10140

Ile Ser Thr Ser Met Pro Ala Asn Phe Glu Thr Thr Gly Phe Glu
10145 10150 10155

Ala Glu Pro Phe Ser His Leu Thr Ser Gly Phe Arg Lys Thr Asn
10160 10165 10170

Met Ser Leu Asp Thr Ser Ser Val Thr Pro Thr Asn Thr Pro Ser
10175 10180 10185

Ser Pro Gly Ser Thr His Leu Leu Gln Ser Ser Lys Thr Asp Phe
10190 10195 10200

Thr Ser Ser Ala Lys Thr Ser Ser Pro Asp Trp Pro Pro Ala Ser
10205 10210 10215

Gln Tyr Thr Glu Ile Pro Val Asp Ile Ile Thr Pro Phe Asn Ala
10220 10225 10230

Ser Pro Ser Ile Thr Glu Ser Thr Gly Ile Thr Ser Phe Pro Glu
10235 10240 10245

Ser Arg Phe Thr Met Ser Val Thr Glu Ser Thr His His Leu Ser
10250 10255 10260

Thr Asp Leu Leu Pro Ser Ala Glu Thr Ile Ser Thr Gly Thr Val

10265		10270		10275
Met Pro Ser Leu Ser Glu Ala	Met Thr Ser Phe Ala	Thr Thr Gly		
10280	10285	10290		
Val Pro Arg Ala Ile Ser Gly	Ser Gly Ser Pro Phe	Ser Arg Thr		
10295	10300	10305		
Glu Ser Gly Pro Gly Asp Ala	Thr Leu Ser Thr Ile	Ala Glu Ser		
10310	10315	10320		
Leu Pro Ser Ser Thr Pro Val	Pro Phe Ser Ser Ser	Thr Phe Thr		
10325	10330	10335		
Thr Thr Asp Ser Ser Thr Ile	Pro Ala Leu His Glu	Ile Thr Ser		
10340	10345	10350		
Ser Ser Ala Thr Pro Tyr Arg	Val Asp Thr Ser Leu	Gly Thr Glu		
10355	10360	10365		
Ser Ser Thr Thr Glu Gly Arg	Leu Val Met Val Ser	Thr Leu Asp		
10370	10375	10380		
Thr Ser Ser Gln Pro Gly Arg	Thr Ser Ser Ser Pro	Ile Leu Asp		
10385	10390	10395		
Thr Arg Met Thr Glu Ser Val	Glu Leu Gly Thr Val	Thr Ser Ala		
10400	10405	10410		
Tyr Gln Val Pro Ser Leu Ser	Thr Arg Leu Thr Arg	Thr Asp Gly		
10415	10420	10425		
Ile Met Glu His Ile Thr Lys	Ile Pro Asn Glu Ala	Ala His Arg		
10430	10435	10440		
Gly Thr Ile Arg Pro Val Lys	Gly Pro Gln Thr Ser	Thr Ser Pro		
10445	10450	10455		

Ala Ser Pro Lys Gly Leu His Thr Gly Gly Thr Lys Arg Met Glu
10460 10465 10470

Thr Thr Thr Thr Ala Leu Lys Thr Thr Thr Thr Ala Leu Lys Thr
10475 10480 10485

Thr Ser Arg Ala Thr Leu Thr Thr Ser Val Tyr Thr Pro Thr Leu
10490 10495 10500

Gly Thr Leu Thr Pro Leu Asn Ala Ser Met Gln Met Ala Ser Thr
10505 10510 10515

Ile Pro Thr Glu Met Met Ile Thr Thr Pro Tyr Val Phe Pro Asp
10520 10525 10530

Val Pro Glu Thr Thr Ser Ser Leu Ala Thr Ser Leu Gly Ala Glu
10535 10540 10545

Thr Ser Thr Ala Leu Pro Arg Thr Thr Pro Ser Val Phe Asn Arg
10550 10555 10560

Glu Ser Glu Thr Thr Ala Ser Leu Val Ser Arg Ser Gly Ala Glu
10565 10570 10575

Arg Ser Pro Val Ile Gln Thr Leu Asp Val Ser Ser Ser Glu Pro
10580 10585 10590

Asp Thr Thr Ala Ser Trp Val Ile His Pro Ala Glu Thr Ile Pro
10595 10600 10605

Thr Val Ser Lys Thr Thr Pro Asn Phe Phe His Ser Glu Leu Asp
10610 10615 10620

Thr Val Ser Ser Thr Ala Thr Ser His Gly Ala Asp Val Ser Ser
10625 10630 10635

Ala Ile 10640	Pro Thr Asn Ile Ser 10645	Pro Ser Glu Leu Asp 10650	Ala Leu Thr
Pro Leu 10655	Val Thr Ile Ser Gly 10660	Thr Asp Thr Ser Thr 10665	Thr Phe Pro
Thr Leu 10670	Thr Lys Ser Pro His 10675	Glu Thr Glu Thr Arg 10680	Thr Thr Trp
Leu Thr 10685	His Pro Ala Glu Thr 10690	Ser Ser Thr Ile Pro 10695	Arg Thr Ile
Pro Asn 10700	Phe Ser His His Glu 10705	Ser Asp Ala Thr Pro 10710	Ser Ile Ala
Thr Ser 10715	Pro Gly Ala Glu Thr 10720	Ser Ser Ala Ile Pro 10725	Ile Met Thr
Val Ser 10730	Pro Gly Ala Glu Asp 10735	Leu Val Thr Ser Gln 10740	Val Thr Ser
Ser Gly 10745	Thr Asp Arg Asn Met 10750	Thr Ile Pro Thr Leu 10755	Thr Leu Ser
Pro Gly 10760	Glu Pro Lys Thr Ile 10765	Ala Ser Leu Val Thr 10770	His Pro Glu
Ala Gln 10775	Thr Ser Ser Ala Ile 10780	Pro Thr Ser Thr Ile 10785	Ser Pro Ala
Val Ser 10790	Arg Leu Val Thr Ser 10795	Met Val Thr Ser Leu 10800	Ala Ala Lys
Thr Ser 10805	Thr Thr Asn Arg Ala 10810	Leu Thr Asn Ser Pro 10815	Gly Glu Pro

Ala Thr Thr Val Ser Leu Val Thr His Pro Ala Gln Thr Ser Pro
10820 10825 10830

Thr Val Pro Trp Thr Thr Ser Ile Phe Phe His Ser Lys Ser Asp
10835 10840 10845

Thr Thr Pro Ser Met Thr Thr Ser His Gly Ala Glu Ser Ser Ser
10850 10855 10860

Ala Val Pro Thr Pro Thr Val Ser Thr Glu Val Pro Gly Val Val
10865 10870 10875

Thr Pro Leu Val Thr Ser Ser Arg Ala Val Ile Ser Thr Thr Ile
10880 10885 10890

Pro Ile Leu Thr Leu Ser Pro Gly Glu Pro Glu Thr Thr Pro Ser
10895 10900 10905

Met Ala Thr Ser His Gly Glu Glu Ala Ser Ser Ala Ile Pro Thr
10910 10915 10920

Pro Thr Val Ser Pro Gly Val Pro Gly Val Val Thr Ser Leu Val
10925 10930 10935

Thr Ser Ser Arg Ala Val Thr Ser Thr Thr Ile Pro Ile Leu Thr
10940 10945 10950

Phe Ser Leu Gly Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser
10955 10960 10965

His Gly Thr Glu Ala Gly Ser Ala Val Pro Thr Val Leu Pro Glu
10970 10975 10980

Val Pro Gly Met Val Thr Ser Leu Val Ala Ser Ser Arg Ala Val
10985 10990 10995

Thr Ser Thr Thr Leu Pro Thr Leu Thr Leu Ser Pro Gly Glu Pro

11000		11005		11010
Glu Thr Thr Pro Ser Met	Ala	Thr Ser His Gly	Ala	Glu Ala Ser
11015	11020		11025	
Ser Thr Val Pro Thr Val	Ser	Pro Glu Val Pro	Gly	Val Val Thr
11030	11035		11040	
Ser Leu Val Thr Ser Ser	Ser	Gly Val Asn Ser	Thr	Ser Ile Pro
11045	11050		11055	
Thr Leu Ile Leu Ser Pro	Gly	Glu Leu Glu Thr	Thr	Pro Ser Met
11060	11065		11070	
Ala Thr Ser His Gly Ala	Glu	Ala Ser Ser Ala	Val	Pro Thr Pro
11075	11080		11085	
Thr Val Ser Pro Gly Val	Ser	Gly Val Val Thr	Pro	Leu Val Thr
11090	11095		11100	
Ser Ser Arg Ala Val Thr	Ser	Thr Thr Ile Pro	Ile	Leu Thr Leu
11105	11110		11115	
Ser Ser Ser Glu Pro Glu	Thr	Thr Pro Ser Met	Ala	Thr Ser His
11120	11125		11130	
Gly Val Glu Ala Ser Ser	Ala	Val Leu Thr Val	Ser	Pro Glu Val
11135	11140		11145	
Pro Gly Met Val Thr Ser	Leu	Val Thr Ser Ser	Arg	Ala Val Thr
11150	11155		11160	
Ser Thr Thr Ile Pro Thr	Leu	Thr Ile Ser Ser	Asp	Glu Pro Glu
11165	11170		11175	
Thr Thr Thr Ser Leu Val	Thr	His Ser Glu Ala	Lys	Met Ile Ser
11180	11185		11190	

Ala Ile Pro Thr Leu Ala Val Ser Pro Thr Val Gln Gly Leu Val
11195 11200 11205

Thr Ser Leu Val Thr Ser Ser Gly Ser Glu Thr Ser Ala Phe Ser
11210 11215 11220

Asn Leu Thr Val Ala Ser Ser Gln Pro Glu Thr Ile Asp Ser Trp
11225 11230 11235

Val Ala His Pro Gly Thr Glu Ala Ser Ser Val Val Pro Thr Leu
11240 11245 11250

Thr Val Ser Thr Gly Glu Pro Phe Thr Asn Ile Ser Leu Val Thr
11255 11260 11265

His Pro Ala Glu Ser Ser Ser Thr Leu Pro Arg Thr Thr Ser Arg
11270 11275 11280

Phe Ser His Ser Glu Leu Asp Thr Met Pro Ser Thr Val Thr Ser
11285 11290 11295

Pro Glu Ala Glu Ser Ser Ser Ala Ile Ser Thr Thr Ile Ser Pro
11300 11305 11310

Gly Ile Pro Gly Val Leu Thr Ser Leu Val Thr Ser Ser Gly Arg
11315 11320 11325

Asp Ile Ser Ala Thr Phe Pro Thr Val Pro Glu Ser Pro His Glu
11330 11335 11340

Ser Glu Ala Thr Ala Ser Trp Val Thr His Pro Ala Val Thr Ser
11345 11350 11355

Thr Thr Val Pro Arg Thr Thr Pro Asn Tyr Ser His Ser Glu Pro
11360 11365 11370

Asp Thr 11375	Thr Pro Ser Ile 11380	Ala Thr Ser Pro Gly 11385	Ala Glu Ala Thr
Ser Asp 11390	Phe Pro Thr Ile 11395	Val Ser Pro Asp 11400	Pro Asp Met
Val Thr 11405	Ser Gln Val Thr 11410	Ser Gly Thr Asp 11415	Ser Ile Thr
Ile Pro 11420	Thr Leu Thr Leu 11425	Ser Gly Glu Pro 11430	Glu Thr Thr Thr
Ser Phe 11435	Ile Thr Tyr Ser 11440	Glu Thr His Thr 11445	Ser Ala Ile Pro
Thr Leu 11450	Pro Val Ser Pro 11455	Gly Ala Ser Lys Met 11460	Leu Thr Ser Leu
Val Ile 11465	Ser Ser Gly Thr 11470	Asp Ser Thr Thr Thr 11475	Phe Pro Thr Leu
Thr Glu 11480	Thr Pro Tyr Glu 11485	Pro Glu Thr Thr Ala 11490	Ile Gln Leu Ile
His Pro 11495	Ala Glu Thr Asn 11500	Thr Met Val Pro Arg 11505	Thr Thr Pro Lys
Phe Ser 11510	His Ser Lys Ser 11515	Asp Thr Thr Leu Pro 11520	Val Ala Ile Thr
Ser Pro 11525	Gly Pro Glu Ala 11530	Ser Ser Ala Val Ser 11535	Thr Thr Thr Ile
Ser Pro 11540	Asp Met Ser Asp 11545	Leu Val Thr Ser Leu 11550	Val Pro Ser Ser

Gly Thr Asp Thr Ser Thr Thr Phe Pro Thr Leu Ser Glu Thr Pro
11555 11560 11565

Tyr Glu Pro Glu Thr Thr Ala Thr Trp Leu Thr His Pro Ala Glu
11570 11575 11580

Thr Ser Thr Thr Val Ser Gly Thr Ile Pro Asn Phe Ser His Arg
11585 11590 11595

Gly Ser Asp Thr Ala Pro Ser Met Val Thr Ser Pro Gly Val Asp
11600 11605 11610

Thr Arg Ser Gly Val Pro Thr Thr Thr Ile Pro Pro Ser Ile Pro
11615 11620 11625

Gly Val Val Thr Ser Gln Val Thr Ser Ser Ala Thr Asp Thr Ser
11630 11635 11640

Thr Ala Ile Pro Thr Leu Thr Pro Ser Pro Gly Glu Pro Glu Thr
11645 11650 11655

Thr Ala Ser Ser Ala Thr His Pro Gly Thr Gln Thr Gly Phe Thr
11660 11665 11670

Val Pro Ile Arg Thr Val Pro Ser Ser Glu Pro Asp Thr Met Ala
11675 11680 11685

Ser Trp Val Thr His Pro Pro Gln Thr Ser Thr Pro Val Ser Arg
11690 11695 11700

Thr Thr Ser Ser Phe Ser His Ser Ser Pro Asp Ala Thr Pro Val
11705 11710 11715

Met Ala Thr Ser Pro Arg Thr Glu Ala Ser Ser Ala Val Leu Thr
11720 11725 11730

Thr Ile Ser Pro Gly Ala Pro Glu Met Val Thr Ser Gln Ile Thr

11735		11740		11745
Ser Ser Gly Ala Ala Thr Ser Thr Thr Val Pro Thr Leu Thr His				
11750		11755		11760
Ser Pro Gly Met Pro Glu Thr Thr Ala Leu Leu Ser Thr His Pro				
11765		11770		11775
Arg Thr Glu Thr Ser Lys Thr Phe Pro Ala Ser Thr Val Phe Pro				
11780		11785		11790
Gln Val Ser Glu Thr Thr Ala Ser Leu Thr Ile Arg Pro Gly Ala				
11795		11800		11805
Glu Thr Ser Thr Ala Leu Pro Thr Gln Thr Thr Ser Ser Leu Phe				
11810		11815		11820
Thr Leu Leu Val Thr Gly Thr Ser Arg Val Asp Leu Ser Pro Thr				
11825		11830		11835
Ala Ser Pro Gly Val Ser Ala Lys Thr Ala Pro Leu Ser Thr His				
11840		11845		11850
Pro Gly Thr Glu Thr Ser Thr Met Ile Pro Thr Ser Thr Leu Ser				
11855		11860		11865
Leu Gly Leu Leu Glu Thr Thr Gly Leu Leu Ala Thr Ser Ser Ser				
11870		11875		11880
Ala Glu Thr Ser Thr Ser Thr Leu Thr Leu Thr Val Ser Pro Ala				
11885		11890		11895
Val Ser Gly Leu Ser Ser Ala Ser Ile Thr Thr Asp Lys Pro Gln				
11900		11905		11910
Thr Val Thr Ser Trp Asn Thr Glu Thr Ser Pro Ser Val Thr Ser				
11915		11920		11925

Val Gly 11930	Pro Pro Glu Phe Ser 11935	Arg Thr Val Thr Gly 11940	Thr Thr Met
Thr Leu 11945	Ile Pro Ser Glu Met 11950	Pro Thr Pro Pro Lys 11955	Thr Ser His
Gly Glu 11960	Gly Val Ser Pro Thr 11965	Thr Ile Leu Arg Thr 11970	Thr Met Val
Glu Ala 11975	Thr Asn Leu Ala Thr 11980	Thr Gly Ser Ser Pro 11985	Thr Val Ala
Lys Thr 11990	Thr Thr Thr Phe Asn 11995	Thr Leu Ala Gly Ser 12000	Leu Phe Thr
Pro Leu 12005	Thr Thr Pro Gly Met 12010	Ser Thr Leu Ala Ser 12015	Glu Ser Val
Thr Ser 12020	Arg Thr Ser Tyr Asn 12025	His Arg Ser Trp Ile 12030	Ser Thr Thr
Ser Ser 12035	Tyr Asn Arg Arg Tyr 12040	Trp Thr Pro Ala Thr 12045	Ser Thr Pro
Val Thr 12050	Ser Thr Phe Ser Pro 12055	Gly Ile Ser Thr Ser 12060	Ser Ile Pro
Ser Ser 12065	Thr Ala Ala Thr Val 12070	Pro Phe Met Val Pro 12075	Phe Thr Leu
Asn Phe 12080	Thr Ile Thr Asn Leu 12085	Gln Tyr Glu Glu Asp 12090	Met Arg His
Pro Gly 12095	Ser Arg Lys Phe Asn 12100	Ala Thr Glu Arg Glu 12105	Leu Gln Gly

Leu	Leu	Lys	Pro	Leu	Phe	Arg	Asn	Ser	Ser	Leu	Glu	Tyr	Leu	Tyr
	12110					12115					12120			
Ser	Gly	Cys	Arg	Leu	Ala	Ser	Leu	Arg	Pro	Glu	Lys	Asp	Ser	Ser
	12125					12130					12135			
Ala	Thr	Ala	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Pro	Asp	Pro	Glu
	12140					12145					12150			
Asp	Leu	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Asn
	12155					12160					12165			
Leu	Thr	Asn	Gly	Ile	Gln	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg
	12170					12175					12180			
Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Met	Pro
	12185					12190					12195			
Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Val	Gly	Thr	Ser
	12200					12205					12210			
Gly	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu
	12215					12220					12225			
Leu	Met	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr
	12230					12235					12240			
Glu	Glu	Asp	Met	Arg	Arg	Thr	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Met
	12245					12250					12255			
Glu	Ser	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr
	12260					12265					12270			
Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg
	12275					12280					12285			

Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr
12290 12295 12300

His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu
12305 12310 12315

Tyr Trp Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly
12320 12325 12330

Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr
12335 12340 12345

His Gln Ser Ser Val Ser Thr Thr Ser Thr Pro Gly Thr Ser Thr
12350 12355 12360

Val Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser Leu Ser Ser Pro
12365 12370 12375

Thr Ile Met Ala Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn
12380 12385 12390

Phe Thr Ile Thr Asn Leu Gln Tyr Gly Glu Asp Met Gly His Pro
12395 12400 12405

Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
12410 12415 12420

Leu Gly Pro Ile Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser
12425 12430 12435

Gly Cys Arg Leu Thr Ser Leu Arg Ser Glu Lys Asp Gly Ala Ala
12440 12445 12450

Thr Gly Val Asp Ala Ile Cys Ile His His Leu Asp Pro Lys Ser
12455 12460 12465

Pro Gly Leu Asn Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu

12470		12475		12480
Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn				
12485		12490		12495
Ser Leu Tyr Val Asn Gly Phe Thr His Arg Thr Ser Val Pro Thr				
12500		12505		12510
Ser Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly				
12515		12520		12525
Thr Pro Phe Ser Leu Pro Ser Pro Ala Thr Ala Gly Pro Leu Leu				
12530		12535		12540
Val Leu Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Lys Tyr Glu				
12545		12550		12555
Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu				
12560		12565		12570
Arg Val Leu Gln Thr Leu Leu Gly Pro Met Phe Lys Asn Thr Ser				
12575		12580		12585
Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Ser				
12590		12595		12600
Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His				
12605		12610		12615
Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr				
12620		12625		12630
Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro				
12635		12640		12645
Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His				
12650		12655		12660

Trp Ile 12665	Pro Val	Pro Thr	Ser 12670	Ser Thr	Pro Gly	Thr 12675	Ser Thr	Val
Asp Leu 12680	Gly Ser	Gly Thr	Pro 12685	Ser Ser	Leu Pro	Ser 12690	Pro Thr	Thr
Ala Gly 12695	Pro Leu	Leu Val	Pro 12700	Phe Thr	Leu Asn	Phe 12705	Thr Ile	Thr
Asn Leu 12710	Lys Tyr	Glu Glu	Asp 12715	Met His	Cys Pro	Gly 12720	Ser Arg	Lys
Phe Asn 12725	Thr Thr	Glu Arg	Val 12730	Leu Gln	Ser Leu	Leu 12735	Gly Pro	Met
Phe Lys 12740	Asn Thr	Ser Val	Gly 12745	Pro Leu	Tyr Ser	Gly 12750	Cys Arg	Leu
Thr Leu 12755	Leu Arg	Ser Glu	Lys 12760	Asp Gly	Ala Ala	Thr 12765	Gly Val	Asp
Ala Ile 12770	Cys Thr	His Arg	Leu 12775	Asp Pro	Lys Ser	Pro 12780	Gly Val	Asp
Arg Glu 12785	Gln Leu	Tyr Trp	Glu 12790	Leu Ser	Gln Leu	Thr 12795	Asn Gly	Ile
Lys Glu 12800	Leu Gly	Pro Tyr	Thr 12805	Leu Asp	Arg Asn	Ser 12810	Leu Tyr	Val
Asn Gly 12815	Phe Thr	His Gln	Thr 12820	Ser Ala	Pro Asn	Thr 12825	Ser Thr	Pro
Gly Thr 12830	Ser Thr	Val Asp	Leu 12835	Gly Thr	Ser Gly	Thr 12840	Pro Ser	Ser

Leu Pro 12845	Ser Pro Thr Ser	Ala 12850	Gly Pro Leu Leu Val 12855	Pro Phe Thr
Leu Asn 12860	Phe Thr Ile Thr	Asn 12865	Leu Gln Tyr Glu Glu 12870	Asp Met His
His Pro 12875	Gly Ser Arg Lys	Phe 12880	Asn Thr Thr Glu Arg 12885	Val Leu Gln
Gly Leu 12890	Leu Gly Pro Met	Phe 12895	Lys Asn Thr Ser Val 12900	Gly Leu Leu
Tyr Ser 12905	Gly Cys Arg Leu Thr	12910	Leu Leu Arg Pro Glu 12915	Lys Asn Gly
Ala Ala 12920	Thr Gly Met Asp	Ala 12925	Ile Cys Ser His Arg 12930	Leu Asp Pro
Lys Ser 12935	Pro Gly Leu Asn Arg	12940	Glu Gln Leu Tyr Trp 12945	Glu Leu Ser
Gln Leu 12950	Thr His Gly Ile Lys	12955	Glu Leu Gly Pro Tyr 12960	Thr Leu Asp
Arg Asn 12965	Ser Leu Tyr Val Asn	12970	Gly Phe Thr His Arg 12975	Ser Ser Val
Ala Pro 12980	Thr Ser Thr Pro Gly	12985	Thr Ser Thr Val Asp 12990	Leu Gly Thr
Ser Gly 12995	Thr Pro Ser Ser Leu	13000	Pro Ser Pro Thr Thr 13005	Ala Val Pro
Leu Leu 13010	Val Pro Phe Thr Leu	13015	Asn Phe Thr Ile Thr 13020	Asn Leu Gln

Tyr Gly Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr
13025 13030 13035

Thr Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn
13040 13045 13050

Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu
13055 13060 13065

Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys
13070 13075 13080

Thr His His Leu Asn Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln
13085 13090 13095

Leu Tyr Trp Gln Leu Ser Gln Met Thr Asn Gly Ile Lys Glu Leu
13100 13105 13110

Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe
13115 13120 13125

Thr His Arg Ser Ser Gly Leu Thr Thr Ser Thr Pro Trp Thr Ser
13130 13135 13140

Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Pro Val Pro Ser
13145 13150 13155

Pro Thr Thr Thr Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe
13160 13165 13170

Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro Gly
13175 13180 13185

Ser Arg Lys Phe Asn Ile Thr Glu Ser Val Leu Gln Gly Leu Leu
13190 13195 13200

Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly

13205		13210		13215
Cys Arg	Leu Thr Leu Leu	Arg Pro Glu Lys Asp	Gly Val Ala Thr	
13220		13225	13230	
Arg Val	Asp Ala Ile Cys Thr	His Arg Pro Asp	Pro Lys Ile Pro	
13235		13240	13245	
Gly Leu	Asp Arg Gln Gln Leu	Tyr Trp Glu Leu	Ser Gln Leu Thr	
13250		13255	13260	
His Ser	Ile Thr Glu Leu Gly	Pro Tyr Thr Leu Asp	Arg Asp Ser	
13265		13270	13275	
Leu Tyr	Val Asn Gly Phe Thr	Gln Arg Ser Ser Val	Pro Thr Thr	
13280		13285	13290	
Ser Thr	Pro Gly Thr Phe Thr	Val Gln Pro Glu Thr	Ser Glu Thr	
13295		13300	13305	
Pro Ser	Ser Leu Pro Gly Pro	Thr Ala Thr Gly Pro	Val Leu Leu	
13310		13315	13320	
Pro Phe	Thr Leu Asn Phe Thr	Ile Thr Asn Leu Gln	Tyr Glu Glu	
13325		13330	13335	
Asp Met	Arg Arg Pro Gly Ser	Arg Lys Phe Asn Thr	Thr Glu Arg	
13340		13345	13350	
Val Leu	Gln Gly Leu Leu Met	Pro Leu Phe Lys Asn	Thr Ser Val	
13355		13360	13365	
Ser Ser	Leu Tyr Ser Gly Cys	Arg Leu Thr Leu Leu	Arg Pro Glu	
13370		13375	13380	
Lys Asp	Gly Ala Ala Thr Arg	Val Asp Ala Val Cys	Thr His Arg	
13385		13390	13395	

Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
13400 13405 13410

Lys Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr
13415 13420 13425

Thr Leu Asp Arg His Ser Leu Tyr Val Asn Gly Phe Thr His Gln
13430 13435 13440

Ser Ser Met Thr Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His
13445 13450 13455

Leu Ala Thr Ser Arg Thr Pro Ala Ser Leu Ser Gly Pro Met Thr
13460 13465 13470

Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn Phe Thr Ile Thr
13475 13480 13485

Asn Leu Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys
13490 13495 13500

Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Val
13505 13510 13515

Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu
13520 13525 13530

Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp
13535 13540 13545

Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp
13550 13555 13560

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile
13565 13570 13575

Thr Glu 13580	Leu Gly Pro Tyr Thr 13585	Leu Asp Arg Asp Ser 13590	Leu Tyr Val
Asn Gly 13595	Phe Thr Gln Arg Ser 13600	Ser Val Pro Thr Thr 13605	Ser Ile Pro
Gly Thr 13610	Pro Thr Val Asp Leu 13615	Gly Thr Ser Gly Thr 13620	Pro Val Ser
Lys Pro 13625	Gly Pro Ser Ala Ala 13630	Ser Pro Leu Leu Val 13635	Leu Phe Thr
Leu Asn 13640	Phe Thr Ile Thr Asn 13645	Leu Arg Tyr Glu Glu 13650	Asn Met Gln
His Pro 13655	Gly Ser Arg Lys Phe 13660	Asn Thr Thr Glu Arg 13665	Val Leu Gln
Gly Leu 13670	Leu Arg Ser Leu Phe 13675	Lys Ser Thr Ser Val 13680	Gly Pro Leu
Tyr Ser 13685	Gly Cys Arg Leu Thr 13690	Leu Leu Arg Pro Glu 13695	Lys Asp Gly
Thr Ala 13700	Thr Gly Val Asp Ala 13705	Ile Cys Thr His His 13710	Pro Asp Pro
Lys Ser 13715	Pro Arg Leu Asp Arg 13720	Glu Gln Leu Tyr Trp 13725	Glu Leu Ser
Gln Leu 13730	Thr His Asn Ile Thr 13735	Glu Leu Gly Pro Tyr 13740	Ala Leu Asp
Asn Asp 13745	Ser Leu Phe Val Asn 13750	Gly Phe Thr His Arg 13755	Ser Ser Val

Ser Thr Thr Ser Thr Pro Gly Thr Pro Thr Val Tyr Leu Gly Ala
13760 13765 13770

Ser Lys Thr Pro Ala Ser Ile Phe Gly Pro Ser Ala Ala Ser His
13775 13780 13785

Leu Leu Ile Leu Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Arg
13790 13795 13800

Tyr Glu Glu Asn Met Trp Pro Gly Ser Arg Lys Phe Asn Thr Thr
13805 13810 13815

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Leu Phe Lys Asn Thr
13820 13825 13830

Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg
13835 13840 13845

Pro Glu Lys Asp Gly Glu Ala Thr Gly Val Asp Ala Ile Cys Thr
13850 13855 13860

His Arg Pro Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Gln Leu
13865 13870 13875

Tyr Leu Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly
13880 13885 13890

Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr
13895 13900 13905

His Arg Ser Ser Val Pro Thr Thr Ser Thr Gly Val Val Ser Glu
13910 13915 13920

Glu Pro Phe Thr Leu Asn Phe Thr Ile Asn Asn Leu Arg Tyr Met
13925 13930 13935

Ala Asp Met Gly Gln Pro Gly Ser Leu Lys Phe Asn Ile Thr Asp

13940		13945		13950
Asn Val 13955	Met Gln His Leu	Leu 13960	Ser Pro Leu Phe	Gln Arg Ser Ser 13965
Leu Gly 13970	Ala Arg Tyr Thr	Gly 13975	Cys Arg Val Ile	Ala Leu Arg Ser 13980
Val Lys 13985	Asn Gly Ala Glu	Thr 13990	Arg Val Asp Leu	Leu Cys Thr Tyr 13995
Leu Gln 14000	Pro Leu Ser Gly	Pro 14005	Gly Leu Pro Ile	Lys Gln Val Phe 14010
His Glu 14015	Leu Ser Gln Gln	Thr 14020	His Gly Ile Thr	Arg Leu Gly Pro 14025
Tyr Ser 14030	Leu Asp Lys Asp	Ser 14035	Leu Tyr Leu Asn	Gly Tyr Asn Glu 14040
Pro Gly 14045	Pro Asp Glu Pro	Pro 14050	Thr Thr Pro Lys	Pro Ala Thr Thr 14055
Phe Leu 14060	Pro Pro Leu Ser	Glu 14065	Ala Thr Thr Ala	Met Gly Tyr His 14070
Leu Lys 14075	Thr Leu Thr Leu	Asn 14080	Phe Thr Ile Ser	Asn Leu Gln Tyr 14085
Ser Pro 14090	Asp Met Gly Lys	Gly 14095	Ser Ala Thr Phe	Asn Ser Thr Glu 14100
Gly Val 14105	Leu Gln His Leu	Leu 14110	Arg Pro Leu Phe	Gln Lys Ser Ser 14115
Met Gly 14120	Pro Phe Tyr Leu	Gly 14125	Cys Gln Leu Ile	Ser Leu Arg Pro 14130

Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Thr Thr Cys Thr Tyr
14135 14140 14145

His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile Gln Gln Leu Tyr
14150 14155 14160

Trp Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln Leu Gly Phe
14165 14170 14175

Tyr Val Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly Tyr Ala Pro
14180 14185 14190

Gln Asn Leu Ser Ile Arg Gly Glu Tyr Gln Ile Asn Phe His Ile
14195 14200 14205

Val Asn Trp Asn Leu Ser Asn Pro Asp Pro Thr Ser Ser Glu Tyr
14210 14215 14220

Ile Thr Leu Leu Arg Asp Ile Gln Asp Lys Val Thr Thr Leu Tyr
14225 14230 14235

Lys Gly Ser Gln Leu His Asp Thr Phe Arg Phe Cys Leu Val Thr
14240 14245 14250

Asn Leu Thr Met Asp Ser Val Leu Val Thr Val Lys Ala Leu Phe
14255 14260 14265

Ser Ser Asn Leu Asp Pro Ser Leu Val Glu Gln Val Phe Leu Asp
14270 14275 14280

Lys Thr Leu Asn Ala Ser Phe His Trp Leu Gly Ser Thr Tyr Gln
14285 14290 14295

Leu Val Asp Ile His Val Thr Glu Met Glu Ser Ser Val Tyr Gln
14300 14305 14310

Pro Thr 14315	Ser Ser Ser Ser Thr 14320	Gln His Phe Tyr Leu 14325	Asn Phe Thr
Ile Thr 14330	Asn Leu Pro Tyr Ser 14335	Gln Asp Lys Ala Gln 14340	Pro Gly Thr
Thr Asn 14345	Tyr Gln Arg Asn Lys 14350	Arg Asn Ile Glu Asp 14355	Ala Leu Asn
Gln Leu 14360	Phe Arg Asn Ser Ser 14365	Ile Lys Ser Tyr Phe 14370	Ser Asp Cys
Gln Val 14375	Ser Thr Phe Arg Ser 14380	Val Pro Asn Arg His 14385	His Thr Gly
Val Asp 14390	Ser Leu Cys Asn Phe 14395	Ser Pro Leu Ala Arg 14400	Arg Val Asp
Arg Val 14405	Ala Ile Tyr Glu Glu 14410	Phe Leu Arg Met Thr 14415	Arg Asn Gly
Thr Gln 14420	Leu Gln Asn Phe Thr 14425	Leu Asp Arg Ser Ser 14430	Val Leu Val
Asp Gly 14435	Tyr Ser Pro Asn Arg 14440	Asn Glu Pro Leu Thr 14445	Gly Asn Ser
Asp Leu 14450	Pro Phe Trp Ala Val 14455	Ile Leu Ile Gly Leu 14460	Ala Gly Leu
Leu Gly 14465	Val Ile Thr Cys Leu 14470	Ile Cys Gly Val Leu 14475	Val Thr Thr
Arg Arg 14480	Arg Lys Lys Glu Gly 14485	Glu Tyr Asn Val Gln 14490	Gln Gln Cys

Pro Gly Tyr Tyr Gln Ser His Leu Asp Leu Glu Asp Leu Gln
 14495 14500 14505

<210> 1900
 <211> 207
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1900

Met Gln Ser Gly Thr His Trp Arg Val Leu Gly Leu Cys Leu Leu Ser
 1 5 10 15

Val Gly Val Trp Gly Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr
 20 25 30

Gln Thr Pro Tyr Lys Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr
 35 40 45

Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys
 50 55 60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp
 65 70 75 80

His Leu Ser Leu Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr
 85 90 95

Val Cys Tyr Pro Arg Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu
 100 105 110

Tyr Leu Arg Ala Arg Val Cys Glu Asn Cys Met Glu Met Asp Val Met
 115 120 125

Ser Val Ala Thr Ile Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu
 130 135 140

Leu Leu Leu Val Tyr Tyr Trp Ser Lys Asn Arg Lys Ala Lys Ala Lys
145 150 155 160

Pro Val Thr Arg Gly Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn
165 170 175

Lys Glu Arg Pro Pro Pro Val Pro Asn Pro Asp Tyr Glu Pro Ile Arg
180 185 190

Lys Gly Gln Arg Asp Leu Tyr Ser Gly Leu Asn Gln Arg Arg Ile
195 200 205

<210> 1901

<211> 171

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1901

Met Glu His Ser Thr Phe Leu Ser Gly Leu Val Leu Ala Thr Leu Leu
1 5 10 15

Ser Gln Val Ser Pro Phe Lys Ile Pro Ile Glu Glu Leu Glu Asp Arg
20 25 30

Val Phe Val Asn Cys Asn Thr Ser Ile Thr Trp Val Glu Gly Thr Val
35 40 45

Gly Thr Leu Leu Ser Asp Ile Thr Arg Leu Asp Leu Gly Lys Arg Ile
50 55 60

Leu Asp Pro Arg Gly Ile Tyr Arg Cys Asn Gly Thr Asp Ile Tyr Lys
65 70 75 80

Asp Lys Glu Ser Thr Val Gln Val His Tyr Arg Met Cys Gln Ser Cys
85 90 95

Val Glu Leu Asp Pro Ala Thr Val Ala Gly Ile Ile Val Thr Asp Val
100 105 110

Ile Ala Thr Leu Leu Leu Ala Leu Gly Val Phe Cys Phe Ala Gly His
115 120 125

Glu Thr Gly Arg Leu Ser Gly Ala Ala Asp Thr Gln Ala Leu Leu Arg
130 135 140

Asn Asp Gln Val Tyr Gln Pro Leu Arg Asp Arg Asp Asp Ala Gln Tyr
145 150 155 160

Ser His Leu Gly Gly Asn Trp Ala Arg Asn Lys
165 170

<210> 1902
<211> 670
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1902

Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
1 5 10 15

Leu Arg Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
20 25 30

Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Glu Ala Thr Gly
35 40 45

Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro Thr Gly Pro Gly Leu
50 55 60

Asp Arg Glu Gln Leu Tyr Leu Glu Leu Ser Gln Leu Thr His Ser Ile

65		70		75		80									
Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn
				85				90					95		
Gly	Phe	Thr	His	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr	Gly	Val	Val
			100					105					110		
Ser	Glu	Glu	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Asn	Asn	Leu	Arg	Tyr
		115					120					125			
Met	Ala	Asp	Met	Gly	Gln	Pro	Gly	Ser	Leu	Lys	Phe	Asn	Ile	Thr	Asp
	130					135						140			
Asn	Val	Met	Gln	His	Leu	Leu	Ser	Pro	Leu	Phe	Gln	Arg	Ser	Ser	Leu
145					150					155					160
Gly	Ala	Arg	Tyr	Thr	Gly	Cys	Arg	Val	Ile	Ala	Leu	Arg	Ser	Val	Lys
				165				170						175	
Asn	Gly	Ala	Glu	Thr	Arg	Val	Asp	Leu	Leu	Cys	Thr	Tyr	Leu	Gln	Pro
		180					185						190		
Leu	Ser	Gly	Pro	Gly	Leu	Pro	Ile	Lys	Gln	Val	Phe	His	Glu	Leu	Ser
		195					200					205			
Gln	Gln	Thr	His	Gly	Ile	Thr	Arg	Leu	Gly	Pro	Tyr	Ser	Leu	Asp	Lys
	210					215					220				
Asp	Ser	Leu	Tyr	Leu	Asn	Gly	Tyr	Asn	Glu	Pro	Gly	Pro	Asp	Glu	Pro
225					230				235					240	
Pro	Thr	Thr	Pro	Lys	Pro	Ala	Thr	Thr	Phe	Leu	Pro	Pro	Leu	Ser	Glu
				245				250						255	
Ala	Thr	Thr	Ala	Met	Gly	Tyr	His	Leu	Lys	Thr	Leu	Thr	Leu	Asn	Phe
			260				265						270		

Thr Ile Ser Asn Leu Gln Tyr Ser Pro Asp Met Gly Lys Gly Ser Ala
275 280 285

Thr Phe Asn Ser Thr Glu Gly Val Leu Gln His Leu Leu Arg Pro Leu
290 295 300

Phe Gln Lys Ser Ser Met Gly Pro Phe Tyr Leu Gly Cys Gln Leu Ile
305 310 315 320

Ser Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Thr Thr
325 330 335

Cys Thr Tyr His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile Gln Gln
340 345 350

Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln Leu Gly
355 360 365

Phe Tyr Val Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly Tyr Ala Pro
370 375 380

Gln Asn Leu Ser Ile Arg Gly Glu Tyr Gln Ile Asn Phe His Ile Val
385 390 395 400

Asn Trp Asn Leu Ser Asn Pro Asp Pro Thr Ser Ser Glu Tyr Ile Thr
405 410 415

Leu Leu Arg Asp Ile Gln Asp Lys Val Thr Thr Leu Tyr Lys Gly Ser
420 425 430

Gln Leu His Asp Thr Phe Arg Phe Cys Leu Val Thr Asn Leu Thr Met
435 440 445

Asp Ser Val Leu Val Thr Val Lys Ala Leu Phe Ser Ser Asn Leu Asp
450 455 460

Pro Ser Leu Val Glu Gln Val Phe Leu Asp Lys Thr Leu Asn Ala Ser
465 470 475 480

Phe His Trp Leu Gly Ser Thr Tyr Gln Leu Val Asp Ile His Val Thr
485 490 495

Glu Met Glu Ser Ser Val Tyr Gln Pro Thr Ser Ser Ser Ser Thr Gln
500 505 510

His Phe Tyr Leu Asn Phe Thr Ile Thr Asn Leu Pro Tyr Ser Gln Asp
515 520 525

Lys Ala Gln Pro Gly Thr Thr Asn Tyr Gln Arg Asn Lys Arg Asn Ile
530 535 540

Glu Asp Ala Leu Asn Gln Leu Phe Arg Asn Ser Ser Ile Lys Ser Tyr
545 550 555 560

Phe Ser Asp Cys Gln Val Ser Thr Phe Arg Ser Val Pro Asn Arg His
565 570 575

His Thr Gly Val Asp Ser Leu Cys Asn Phe Ser Pro Leu Ala Arg Arg
580 585 590

Val Asp Arg Val Ala Ile Tyr Glu Glu Phe Leu Arg Met Thr Arg Asn
595 600 605

Gly Thr Gln Leu Gln Asn Phe Thr Leu Asp Arg Ser Ser Val Leu Val
610 615 620

Asp Gly Tyr Ser Pro Asn Arg Asn Glu Pro Leu Thr Gly Asn Ser Asp
625 630 635 640

Leu Pro Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Gly Glu Gln
645 650 655

Lys Leu Ile Ser Glu Glu Asp Leu His His His His His His
660 665 670

<210> 1903
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1903

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
20 25

<210> 1904
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1904

Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10 15

Gly

<210> 1905
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1905

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
1 5 10 15

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
20 25 30

Thr Ala Leu Tyr Tyr Cys
35

<210> 1906
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1906

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
1 5 10

<210> 1907
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> VARIANT
<222> (8)..(8)
<223> Xaa = Any Amino Acid

<400> 1907

Gly Phe Thr Phe Asp Asp Tyr Xaa
1 5

<210> 1908
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> VARIANT
<222> (8)..(8)
<223> Xaa = Any Amino Acid

<400> 1908

Ile Ser Trp Asn Ser Gly Ser Xaa
1 5

<210> 1909
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> VARIANT
<222> (3)..(3)
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> (12)..(12)
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> (15)..(15)
<223> Xaa = Any Amino Acid

<400> 1909

Ala Lys Xaa Gly Ser Gly Tyr Gly Lys Phe Tyr Xaa Tyr Gly Xaa Asp
1 5 10 15

Val

<210> 1910
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1910

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 Ile Ser Trp Asn Ser Gly 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 Asp Gly Tyr Ser Gly Tyr Gly Tyr Phe Tyr Tyr Tyr Gly Met
100 105 110

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 1911
<211> 330
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1911

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
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 1912

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1912

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
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 1913
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1913

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser 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 Asn Phe Gly Thr Gln Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ser Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 1914
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1914

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser 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 Asn Phe Gly Thr Gln Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ser Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 1915
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1915

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser 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 Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160

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
225 230 235 240

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
305 310 315 320

Leu Ser Leu Ser Leu Gly Lys
325

<210> 1916
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1916

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser 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 Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160

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
225 230 235 240

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 Arg Phe Thr Gln Lys Ser
305 310 315 320

Leu Ser Leu Ser Leu Gly Lys
325

<210> 1917
<211> 329
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1917

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
100 105 110

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
115 120 125

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
130 135 140

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
145 150 155 160

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
165 170 175

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
180 185 190

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
195 200 205

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
210 215 220

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
225 230 235 240

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
245 250 255

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
260 265 270

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
275 280 285

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
290 295 300

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
305 310 315 320

Lys Ser Leu Ser Leu Ser Pro Gly Lys
325

<210> 1918

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 1918

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
100 105 110

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
115 120 125

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
130 135 140

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
145 150 155 160

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
165 170 175

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
180 185 190

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
195 200 205

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
210 215 220

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
225 230 235 240

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
245 250 255

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
260 265 270

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
275 280 285

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
290 295 300

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln
305 310 315 320

Lys Ser Leu Ser Leu Ser Pro Gly Lys
325

<210> 1919
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1919

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser 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 Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320

Ser Leu Ser Leu Gly Lys
 325

<210> 1920
 <211> 326
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1920

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1 5 10 15

Ser Thr Ser Glu Ser 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 Lys Thr
 65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
 85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
 100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Leu Gly Lys
325

<210> 1921
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1921

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
20 25 30

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
35 40 45

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
50 55 60

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
85 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
100 105 110

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
115 120 125

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
130 135 140

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
145 150 155 160

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
165 170 175

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
180 185 190

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
210 215 220

Ser Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 1922
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1922

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
20 25 30

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
35 40 45

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val

50

55

60

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 85 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 100 105 110

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 115 120 125

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
 130 135 140

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 145 150 155 160

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 165 170 175

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 180 185 190

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys
 210 215 220

Ser Leu Ser Leu Ser Pro Gly Lys
 225 230

<210> 1923

<211> 228

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1923

Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val
1 5 10 15

Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
20 25 30

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
35 40 45

His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
50 55 60

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
65 70 75 80

Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn
85 90 95

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro
100 105 110

Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln
115 120 125

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ser Val
145 150 155 160

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro

165

170

175

Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 180 185 190

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 195 200 205

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 210 215 220

Ser Pro Gly Lys
 225

<210> 1924
 <211> 228
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1924

Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val
 1 5 10 15

Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 20 25 30

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 35 40 45

His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
 50 55 60

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
 65 70 75 80

Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn
85 90 95

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro
100 105 110

Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln
115 120 125

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ser Val
145 150 155 160

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
165 170 175

Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
180 185 190

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
195 200 205

Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu
210 215 220

Ser Pro Gly Lys
225

<210> 1925
<211> 229
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1925

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe
1 5 10 15

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
20 25 30

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
35 40 45

Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
50 55 60

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
65 70 75 80

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
85 90 95

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser
100 105 110

Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
115 120 125

Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln
130 135 140

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
145 150 155 160

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
165 170 175

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu
180 185 190

Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser
195 200 205

Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser
210 215 220

Leu Ser Leu Gly Lys
225

<210> 1926
<211> 229
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1926

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe
1 5 10 15

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
20 25 30

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
35 40 45

Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
50 55 60

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
65 70 75 80

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
85 90 95

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser
100 105 110

Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
115 120 125

Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln
130 135 140

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
145 150 155 160

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
165 170 175

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu
180 185 190

Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser
195 200 205

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
210 215 220

Leu Ser Leu Gly Lys
225

<210> 1927
<211> 231
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1927

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
20 25 30

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
35 40 45

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
50 55 60

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
65 70 75 80

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
85 90 95

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
100 105 110

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
115 120 125

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
130 135 140

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
145 150 155 160

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
165 170 175

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
180 185 190

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
195 200 205

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
210 215 220

Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 1928
<211> 231
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1928

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
20 25 30

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
35 40 45

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
50 55 60

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
65 70 75 80

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
85 90 95

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
100 105 110

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
115 120 125

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
130 135 140

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
145 150 155 160

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
165 170 175

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
180 185 190

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
195 200 205

Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser
210 215 220

Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 1929
<211> 228
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1929

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Pro Val
1 5 10 15

Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
20 25 30

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
35 40 45

Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu

50

55

60

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
 65 70 75 80

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 85 90 95

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser
 100 105 110

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 115 120 125

Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val
 130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 145 150 155 160

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 165 170 175

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr
 180 185 190

Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val
 195 200 205

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 210 215 220

Ser Leu Gly Lys
 225

<210> 1930

<211> 228

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1930

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Pro Val
1 5 10 15

Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
20 25 30

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
35 40 45

Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
50 55 60

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
65 70 75 80

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
85 90 95

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser
100 105 110

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
115 120 125

Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val
130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
145 150 155 160

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro

165

170

175

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr
 180 185 190

Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val
 195 200 205

Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu
 210 215 220

Ser Leu Gly Lys
 225

<210> 1931
 <211> 227
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1931

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 35 40 45

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 50 55 60

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
100 105 110

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
115 120 125

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
130 135 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145 150 155 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
165 170 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
180 185 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
195 200 205

His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu Ser
210 215 220

Pro Gly Lys
225

<210> 1932
<211> 227
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1932

Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	1	5	10	15
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	20	25	30	
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	35	40	45	
Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	50	55	60	
His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	65	70	75	80
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	85	90	95	
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	100	105	110	
Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	115	120	125	
Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val	Ser	130	135	140	
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	145	150	155	160
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	165	170	175	
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	180	185	190	

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 195 200 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 210 215 220

Pro Gly Lys
 225

<210> 1933
 <211> 233
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1933

Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro
 1 5 10 15

Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys
 20 25 30

Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val
 35 40 45

Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe
 50 55 60

Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu
 65 70 75 80

Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His
 85 90 95

Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys
 100 105 110

Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser
115 120 125

Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met
130 135 140

Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro
145 150 155 160

Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn
165 170 175

Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met
180 185 190

Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser
195 200 205

Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn Arg Phe Thr Thr
210 215 220

Lys Ser Phe Ser Arg Thr Pro Gly Lys
225 230

<210> 1934
<211> 233
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1934

Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro
1 5 10 15

Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys
20 25 30

Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val
35 40 45

Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe
50 55 60

Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu
65 70 75 80

Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His
85 90 95

Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys
100 105 110

Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser
115 120 125

Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met
130 135 140

Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro
145 150 155 160

Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn
165 170 175

Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met
180 185 190

Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser
195 200 205

Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr
210 215 220

Lys Ser Phe Ser Arg Thr Pro Gly Lys
 225 230

<210> 1935
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1935
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccttg gacgttcggc 300
 caagggacca aggtggaaat caaa 324

<210> 1936
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 1936

Glu Ile Val Leu Thr Gln Ser Pro Gly 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 Ser Ser
 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1937
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1937
cagagtgtta gcagcagcta c

21

<210> 1938
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1938

Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 1939
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1939
ggtgcatcc

9

<210> 1940
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1940

Gly Ala Ser
1

<210> 1941
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1941
cagcagtatg gtagctcacc ttggacg

27

<210> 1942
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1942

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 1943
<211> 357
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1943

```
cagggtgcagc tacagcagtg gggcgcagga ctgttgaagc cctcggagac cctgtccctc      60
acctgcgctg tctatggtgg gtccttcagt ggtttctact ggagctggat ccgccagtcc      120
ccagggaagg ggctggagtg gataggggaa atcaatcgtg gtggaagcac caactccaac      180
ccgtccctca agagtcgagt caccatgtca ctagacacgt ccaaaacca gttctccctg      240
aagctgaggt ctgtgaccgc cgcggacacg gctatatatt attgtgcgag aagtctggaa      300
ctagactctg atggttttga tatctggggc caagggacaa tggtcaccgt ctcttca      357
```

<210> 1944

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1944

```
Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
      5              10              15

Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Phe
      20              25              30

Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
      35              40              45

Gly Glu Ile Asn Arg Gly Gly Ser Thr Asn Ser Asn Pro Ser Leu Lys
      50              55              60

Ser Arg Val Thr Met Ser Leu Asp Thr Ser Lys Thr Gln Phe Ser Leu
      65              70              75              80
```


Lys Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Ile Tyr Tyr Cys Ala
85 90 95

Arg Ser Leu Glu Leu Asp Ser Asp Gly Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 1945
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1945
ggtgggtcct tcagtggttt ctac

24

<210> 1946
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1946

Gly Gly Ser Phe Ser Gly Phe Tyr
1 5

<210> 1947
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1947
atcaatcgtg gtggaagcac c

21

<210> 1948
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1948

Ile Asn Arg Gly Gly Ser Thr
1 5

<210> 1949
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1949
gcgagaagtc tggaactaga ctctgatggg tttgatatc

39

<210> 1950
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1950

Ala Arg Ser Leu Glu Leu Asp Ser Asp Gly Phe Asp Ile
1 5 10

<210> 1951
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1951
gaaactgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc agcagctacg tagcctggta ccagcagaaa 120
cctggccagg ctcccaggcg cctcatctat ggtgcatcca gcagggccac tggcatccca 180
ggcagggttca gtggcagtgg gtctgggaca gactttactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gttcaccttg gacgttcggc 300
caagggacca aggtggaaat caaa 324

<210> 1952
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1952

Glu Thr Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30

Tyr Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Arg Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Gly Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1953
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1953
cagagtgtta gcagcagcta c

21

<210> 1954
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1954

Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 1955
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1955
ggtgcatcc

9

<210> 1956
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1956

Gly Ala Ser
1

<210> 1957

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1957

cagagtgtta gcagcagcta c

21

<210> 1958

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1958

Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 1959

<211> 443

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 1959

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ser Tyr Ile Ser Gly Arg Gly Ser Thr Ile Phe Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Ile Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Val Lys Asp Arg Gly Gly Tyr Ser Pro Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn
195 200 205

Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro
210 215 220

Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
225 230 235 240

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
245 250 255

Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn
260 265 270

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
275 280 285

Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
290 295 300

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
305 310 315 320

Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys
325 330 335

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu
340 345 350

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
355 360 365

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
370 375 380

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
385 390 395 400

Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
405 410 415

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
420 425 430

Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
435 440

<210> 1960
<211> 215
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1960

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
85 90 95

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 1961
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1961

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Lys 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr His Tyr Gly Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
115 120 125

Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
130 135 140

Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
145 150 155 160

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
165 170 175

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
180 185 190

Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn
195 200 205

Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser
210 215 220

Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu
260 265 270

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 1962
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1962

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly 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 Tyr Gly Ser Gly Tyr Gly Lys Phe Tyr Tyr Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
115 120 125

Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
130 135 140

Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
145 150 155 160

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
165 170 175

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
180 185 190

Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn
195 200 205

Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser
210 215 220

Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu
260 265 270

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg
290 295 300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450