

SEQUENCE LISTING

<110> PROMEGA CORPORATION

<120> MULTIPARTITE LUCIFERASE PEPTIDES AND POLYPEPTIDES

<130> PRMG-38144.601

<150> US 62/941,255

<151> 2019-11-27

<160> 986

<170> PatentIn version 3.5

<210> 1

<211> 170

<212> PRT

<213> *Oplophorus gracilirostris*

<400> 1

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Tyr	Asn	Gln	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Leu	Ser	Ser	Leu	Phe
		20						25					30		

Gln	Ala	Leu	Gly	Val	Ser	Val	Thr	Pro	Ile	Gln	Lys	Val	Val	Leu	Ser
		35					40					45			

Gly	Glu	Asn	Gly	Leu	Lys	Ala	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu
	50					55					60				

Gly	Leu	Ser	Gly	Phe	Gln	Met	Gly	Leu	Ile	Glu	Met	Ile	Phe	Lys	Val
65					70					75					80

Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Ile	Ile	Leu	His	Tyr	Gly
				85					90					95	

Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Ile	Asp	Tyr	Phe	Gly
			100					105					110		

Arg Pro Tyr Pro Gly Ile Ala Val Phe Asp Gly Lys Gln Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Tyr Asp Glu Arg Leu Ile
 130 135 140

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Gly Val Thr
 145 150 155 160

Gly Trp Arg Leu Cys Glu Asn Ile Leu Ala
 165 170

<210> 2
 <211> 513
 <212> DNA
 <213> *Oplophorus gracilirostris*

<400> 2
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 accccaatcc agaaagttgt gctgtctggg gagaatgggt taaaagctga tattcatgtc 180
 atcatccctt acgaggggact cagtggtttt caaatgggtc tgattgaaat gatcttcaaa 240
 gttgtttacc cagtggatga tcatcatttc aagattattc tccattatgg tacactcggt 300
 attgacgggtg tgacaccaaa catgattgac tactttggac gcccttacct tggaattgct 360
 gtgtttgacg gcaagcagat cacagttact ggaactctgt ggaacggcaa caagatctat 420
 gatgagcgcc tgatcaaccc agatggttca ctctcttcc gcgttactat caatggagtc 480
 accggatggc gcctttgcga gaacattctt gcc 513

<210> 3
 <211> 183
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 3

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

Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Gly Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe Gln Asn Leu Gly
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser Gly Glu Asn Gly
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Gly
65 70 75 80

Asp Gln Met Gly Gln Ile Glu Lys Ile Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Ile Asp Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Asn Pro Asp Gly
145 150 155 160

Ser Leu Leu Phe Arg Val Thr Ile Asn Gly Val Thr Gly Trp Arg Leu
165 170 175

Cys Glu Arg Ile Leu Ala Val
180

<210> 4

<211> 549
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 4
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ggggactggc gacagacagc cggctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgt ttcagaatct cgggggtgtcc gtaactccga tccaaaggat tgtcctgagc 180
ggtgaaaatg ggctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcggc 240
gaccaaattg gccagatcga aaaaattttt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcacta tggcacactg gtaatcgacg gggttacgcc gaacatgac 360
gactatttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcaa ccccgacggc 480
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ctggcgggtt 549

<210> 5
<211> 147
<212> PRT
<213> *Oplophorus gracilirostris*

<400> 5

Met Phe Thr Leu Ala Asp Phe Val Gly Asp Trp Gln Gln Thr Ala Gly
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Leu Ser Ser Leu Phe
20 25 30

Gln Ala Leu Gly Val Ser Val Thr Pro Ile Gln Lys Val Val Leu Ser
35 40 45

Gly Glu Asn Gly Leu Lys Ala Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Gly Phe Gln Met Gly Leu Ile Glu Met Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Ile Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile Asp Tyr Phe Gly
100 105 110

Arg Pro Tyr Pro Gly Ile Ala Val Phe Asp Gly Lys Gln Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Tyr Asp Glu Arg Leu Ile
130 135 140

Asn Pro Asp
145

<210> 6
<211> 10
<212> PRT
<213> *Oplophorus gracilirostris*

<400> 6

Gly Ser Leu Leu Phe Arg Val Thr Ile Asn
1 5 10

<210> 7
<211> 13
<212> PRT
<213> *Oplophorus gracilirostris*

<400> 7

Gly Val Thr Gly Trp Arg Leu Cys Glu Asn Ile Leu Ala
1 5 10

<210> 8
<211> 148

<212> PRT

<213> *Oplophorus gracilirostris*

<400> 8

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala
1 5 10 15

Gly Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Phe Gln Asn Leu Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu
35 40 45

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

Glu Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile Asp Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Asn Pro Asp
145

<210> 9

<211> 11

<212> PRT

<213> *Oplophorus gracilirostris*

<400> 9

Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
1 5 10

<210> 10

<211> 13

<212> PRT

<213> *Oplophorus gracilirostris*

<400> 10

Gly Val Thr Gly Trp Arg Leu Cys Glu Arg Ile Leu Ala
1 5 10

<210> 11

<211> 165

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 11

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
145 150 155 160

His His His His His
165

<210> 12
<211> 495
<212> DNA
<213> Artificial sequence

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<400> 12
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcgc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat 480
catcaccatc accac 495

<210> 13

<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 13

Val Thr Gly Tyr Arg Leu Phe Glu Glu Ile Leu
1 5 10

<210> 14
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 14

gtgaccggct accggctggt cgaggagatt ctg

33

<210> 15
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 15

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 16
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 16

gtgagcggct ggccggctggt caagaagatt agc

33

<210> 17
<211> 148
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 17

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp
145

<210> 18
<211> 444
<212> DNA
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<223> Synthetic

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actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctc gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacccc cgac 444

<210> 19
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 19

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp

50

55

60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 20

<211> 465

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 20

atgaaacatc accatcacca tcatgtcttc acactcgaag atttcgttgg ggactgggaa 60

cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120

cagaatctcg ccgtgtccgt aactccgatc caaaggattg tccggagcgg tgaaaatgcc 180

ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240

cagatcgaag aggtgttttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300

ctgccctatg gcacactggg aatcgacggg gttacgccga acatgctgaa ctatttcgga 360

cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcaactgtaac agggaccctg 420

tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgac

465

<210> 21
<211> 148
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 21

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp

145

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<211> 444
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacccc cgac 444

<210> 23
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 23

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 24
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 24
ggctccatgc tgttccgagt aaccatcaac agc

33

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

<220>
<223> Synthetic

<400> 25

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 26
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 26
gtgagcggct ggcggctgtt caagaagatt agc

33

<210> 27
<211> 148
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 27

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Phe Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu

35

40

45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp
 145

<210> 28
 <211> 444
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 28
 atgggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120
 actccgatcc aaaggattgt cctgagcggg gaaaatgccc tgaagatcga catccatgtc 180
 atcatcccggt atgaagggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240
 gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcacgcc 360
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 gacgagcgcc tgatcacccc cgac 444

<210> 29
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 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 29

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Val
 1 5 10

<210> 30
 <211> 30
 <212> DNA
 <213> Artificial sequence

<220>
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<400> 30
 ggctccatgc tgttccgagt aaccatcaac 30

<210> 31
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 31

Met Lys His His His His His Val Phe Thr Leu Glu Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
 20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 32
<211> 465
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 32
atgaaacatc accatcacca tcatgtcttc acactcgaag atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttctgt 120
cagaatctcg ccgtgtccgt aactccgatc caaaggattg tccggagcgg tgaaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240

cagatcgaag aggtgttttaa ggtggtgtac cctgtggatg atcatcactt taaggtgatc	300
ctgccctatg gcacactggg aatcgacggg gttacgccga acatgctgaa ctatttcgga	360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactgtaac agggaccctg	420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgac	465

<210> 33
 <211> 20
 <212> DNA
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<220>
 <223> Synthetic

<400> 33	
aagtcgagaa ccatgaccac	20

<210> 34
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 34	
cgccgcgtcc gccgaagttg	20

<210> 35
 <211> 22
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 35

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Val	Ser	Gly	Trp	Arg
1				5				10					15		

Leu	Phe	Lys	Lys	Ile	Ser
				20	

<210> 36
<211> 66
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 36
ggctccatgc tgttccgagt aaccatcaac agcgtgagcg gctggcggct gttcaagaag 60
attagc 66

<210> 37
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 37

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
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<210> 38
<211> 48
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 38
agcagctgga agcgcggctc catgctgttc cgagtaacca tcaacagc 48

<210> 39
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 39

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Asp Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Asp Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 40
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<212> DNA
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<220>
<223> Synthetic

<400> 40

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cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg	120
cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc	180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc	240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgac	300
ctgccctatg gcacactggg aatcgacggg gatacgccga acaagctgaa ctatttcgga	360
cggccgtatg atggcatcgc cgtgttcgac ggcaaaaaga tcaactgtaac agggaccctg	420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgac	465

<210> 41
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 41

Met	Lys	His	His	His	His	His	His	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val
1				5					10					15	

Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu
			20					25					30		

Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr
		35					40					45			

Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp
	50					55					60				

Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala
65					70				75					80	

Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
				85					90					95	

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Ser Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 42
<211> 465
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 42
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga gcaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcaactgtaac agggaccctg 420
tggaacggca acaaaattat cgacgagcgc ctgatacccc ccgac 465

<210> 43
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 43

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Phe Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 44

<211> 465

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 44
 atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgac 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcttcgc cgtgttcgac ggcaaaaaga tctactgtaac agggaccctg 420
 tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgac 465

<210> 45
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 45

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
 20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His

85

90

95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Cys Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
 145 150 155

<210> 46
 <211> 465
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 46
 atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgtgacgac ggcaaaaaga tcaactgtaac agggaccctg 420
 tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgac 465

<210> 47
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 47

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Ser Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 48

<211> 465

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 48

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atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcggg      360
cggccgatg  aaggcatcgc cgtgttcgac ggcaaaaaga tctctgtaac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc cgcac                        465
```

<210> 49

<211> 155

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 49

```
Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10          15
```

```
Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20          25          30
```

```
Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35          40          45
```

```
Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50          55          60
```

```
Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65          70          75          80
```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Ala Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 50
<211> 465
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 50
atgaaacatc accatcacca tcatgtcttc aactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tctactgcaac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgac 465

<210> 51
<211> 155
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 51

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 52

<211> 465

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 52

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atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
cggccgatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatacccc ccgac                        465
```

<210> 53

<211> 149

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 53

```
Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1           5           10          15
```

```
Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
          20          25          30
```

```
Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
          35          40          45
```

```
Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
          50          55          60
```

```
Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
```

65		70		75		80
Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr						
	85			90		95
Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe						
	100			105		110
Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr						
	115			120		125
Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu						
	130			135		140
Ile Thr Pro Asp Gly						
145						

<210> 54
 <211> 447
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 54	
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg	60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta	120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc	180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag	240
gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta	300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc	360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc	420
gacgagcgcc tgatcacccc cgacggc	447

<210> 55

<211> 147
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 55

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro
145

<210> 56

<211> 441
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 56
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaattctgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatggcc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgccc 360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacccc c 441

<210> 57
<211> 146
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 57

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr
145

<210> 58
<211> 438
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 58
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacc 438

<210> 59
<211> 150
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 59

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser
145 150

<210> 60
<211> 450
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 60
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctc gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 420
gacgagcgcc tgatcacccc cgacggcagc 450

<210> 61
<211> 164
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 61

Met Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu

50

55

60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His His
145 150 155 160

His His His His

<210> 62

<211> 495

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 62

atgttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300

gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg	360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac	420
gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagccatcat	480
caccatcacc actaa	495

<210> 63
 <211> 163
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 63

Met	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75				80	

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr
			85						90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
			100					105					110		

Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr
		115					120					125			

Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His His His
 145 150 155 160

His His His

<210> 64
 <211> 492
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 64
 atgacactcg aagatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 60
 gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 120
 atccaaagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 180
 ccgtatgaag gtctgagcgc cgaccaaattg gccagatcg aagaggtgtt taagggtggtg 240
 taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 300
 ggggttacgc cgaacatgct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 360
 gacggcaaaa agatcactgt aacagggacc ctgtggaacg gcaacaaaat tatcgacgag 420
 cgcctgatca ccccgacgg ctccatgctg ttccgagtaa ccatcaacag ccatcatcac 480
 catcaccact aa 492

<210> 65
 <211> 162
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 65

Met Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn
1 5 10 15

Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn
20 25 30

Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu
35 40 45

Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu
50 55 60

Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr
65 70 75 80

Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu
85 90 95

Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro
100 105 110

Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly
115 120 125

Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro
130 135 140

Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His His His His
145 150 155 160

His His

<210> 66

<211> 489

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 66

```
atgctcgaag atttcgttgg ggactgggaa cagacagccg cctacaacct ggaccaagtc      60
cttgaacagg gaggtgtgtc cagtttgctg cagaatctcg ccgtgtccgt aactccgac      120
caaaggattg tccggagcgg tgaaaatgcc ctgaagatcg acatccatgt catcatcccc      180
tatgaaggtc tgagcgccga ccaaattggcc cagatcgaag aggtgtttta ggtggtgtac      240
cctgtggatg atcatcactt taaggatgat ctgccctatg gcacactggt aatcgacggg      300
gttacgccga acatgctgaa ctatttcgga cggccgtatg aaggcatcgc cgtgttcgac      360
ggcaaaaaga tactgtaac agggaccctg tggaacggca acaaaaattat cgacgagcgc      420
ctgatcaccc ccgacggctc catgctgttc cgagtaacca tcaacagcca tcatcaccat      480
caccactaa                                         489
```

<210> 67

<211> 161

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 67

```
Met Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu
1           5           10          15
```

```
Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu
          20          25          30
```

```
Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn
          35          40          45
```

```
Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser
          50          55          60
```

```
Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro
```

65		70		75		80
Val Asp Asp His	His Phe Lys Val Ile	Leu Pro Tyr Gly Thr	Leu Val			
	85	90	95			
Ile Asp Gly Val Thr	Pro Asn Met Leu Asn Tyr Phe	Gly Arg Pro Tyr				
	100	105	110			
Glu Gly Ile Ala Val Phe	Asp Gly Lys Lys Ile Thr	Val Thr Gly Thr				
	115	120	125			
Leu Trp Asn Gly Asn Lys	Ile Ile Asp Glu Arg	Leu Ile Thr Pro Asp				
	130	135	140			
Gly Ser Met Leu Phe	Arg Val Thr Ile Asn Ser	His His His His His				
145	150	155	160			

His

<210> 68
 <211> 486
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 68	
atggaagatt tcgttgggga ctgggaacag acagccgcct acaacctgga ccaagtcctt	60
gaacagggag gtgtgtccag tttgctgcag aatctcgccg tgtccgtaac tccgatccaa	120
aggattgtcc ggagcgggtga aaatgccctg aagatcgaca tccatgtcat catcccgtat	180
gaaggctctga gcgccgacca aatggcccag atcgaagagg tgtttaagggt ggtgtaccct	240
gtggatgatc atcactttaa ggtgatcctg ccctatggca cactggtaat cgacggggtt	300
acgccgaaca tgctgaacta tttcggacgg ccgtatgaag gcatcgccgt gttcgacggc	360
aaaaagatca ctgtaacagg gaccctgtgg aacggcaaca aaattatcga cgagcgctg	420

atcacccccg acggctccat gctgttccga gtaaccatca acagccatca tcaccatcac 480
cactaa 486

<210> 69
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 69

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

Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val
20 25 30

Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser
35 40 45

Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys
50 55 60

Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln
65 70 75 80

Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp
85 90 95

His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly
100 105 110

Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile
115 120 125

Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn
130 135 140

Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met
 145 150 155 160

Leu Phe Arg Val Thr Ile Asn Ser His His His His His His
 165 170

<210> 70
 <211> 525
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 70
 atgttcaaga agattagcgg ctcgagcggg gtcttcacac tcgaagattt cgttggggac 60
 tgggaacaga cagccgccta caacctggac caagtccttg aacagggagg tgtgtccagt 120
 ttgctgcaga atctcgccgt gtccgtaact ccgatccaaa ggattgtccg gagcgggtgaa 180
 aatgccctga agatcgacat ccatgtcatc atcccgtatg aaggtctgag cgccgaccaa 240
 atggcccaga tcgaagaggt gtttaagggt gtgtaccctg tggatgatca tcactttaag 300
 gtgatcctgc cctatggcac actggtaatc gacgggggta cgccgaacat gctgaactat 360
 ttcggacggc cgtatgaagg catcgccgtg ttcgacggca aaaagatcac tgtaacaggg 420
 accctgtgga acggcaacaa aattatcgac gagcgcctga tcacccccga cggctccatg 480
 ctgttccgag taaccatcaa cagccatcat caccatcacc actaa 525

<210> 71
 <211> 173
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 71

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

Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu
20 25 30

Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val
35 40 45

Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile
50 55 60

Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met
65 70 75 80

Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His
85 90 95

His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val
100 105 110

Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala
115 120 125

Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly
130 135 140

Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu
145 150 155 160

Phe Arg Val Thr Ile Asn Ser His His His His His His
165 170

<210> 72
<211> 522
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 72

```

atgaagaaga ttagcggctc gagcgggtgtc ttcacactcg aagatttcgt tggggactgg      60
gaacagacag ccgcctacaa cctggaccaa gtccttgaac agggagggtgt gtccagtttg      120
ctgcagaatc tcgccgtgtc cgtaactccg atccaaagga ttgtccggag cggtgaaaat      180
gccctgaaga tcgacatcca tgtcatcatc ccgtatgaag gtctgagcgc cgaccaaagt      240
gcccagatcg aagagggtgt taagggtggtg taccctgtgg atgatcatca ctttaagggtg      300
atcctgccct atggcacact ggtaatcgac ggggttacgc cgaacatgct gaactatttc      360
ggacggccgt atgaaggcat cgccgtgttc gacggcaaaa agatcactgt aacagggacc      420
ctgtggaacg gcaacaaaat tatcgacgag cgcctgatca ccccgacgg ctccatgctg      480
ttccgagtaa ccatcaacag ccatcatcac catcaccact aa                          522

```

```

<210> 73
<211> 172
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 73

```

```

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

```

```

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
          20          25          30

```

```

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
          35          40          45

```

```

Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
          50          55          60

```

```

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65           70           75          80

```

```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His

```

85

90

95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe
 145 150 155 160

Arg Val Thr Ile Asn Ser His His His His His
 165 170

<210> 74
 <211> 519
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 74
 atgaagatta gcggtctgag cggtgtcttc acactcgaag atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgata caaaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggt aatcgacggg gttacgccga acatgctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcaactgtaac agggaccctg 420
 tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgacggctc catgctgttc 480
 cgagtaacca tcaacagcca tcatcaccat caccactaa 519

<210> 75
<211> 171
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 75

Met Ile Ser Gly Ser Ser Gly Val Phe Thr Leu Glu Asp Phe Val Gly
1 5 10 15

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
20 25 30

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
35 40 45

Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
50 55 60

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
65 70 75 80

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe
85 90 95

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
100 105 110

Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
115 120 125

Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn Lys
130 135 140

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg
145 150 155 160

Val Thr Ile Asn Ser His His His His His His
165 170

<210> 76
<211> 516
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 76
atgattagcg gctcgagcgg tgtcttcaca ctcgaagatt tcgttgggga ctgggaacag 60
acagccgcct acaacctgga ccaagtcctt gaacagggag gtgtgtccag tttgctgcag 120
aatctcgccg tgtccgtaac tccgatccaa aggattgtcc ggagcgggtga aaatgccctg 180
aagatcgaca tccatgtcat catcccgtat gaaggctctga gcgccgacca aatggcccag 240
atcgaagagg tgtttaaggt ggtgtaccct gtggatgata atcactttaa ggtgatacctg 300
ccctatggca cactggtaat cgacgggggtt acgccgaaca tgctgaacta tttcggacgg 360
ccgtatgaag gcatcgccgt gttcgacggc aaaaagatca ctgtaacagg gaccctgtgg 420
aacggcaaca aaattatcga cgagcgcctg atcacccccg acggctccat gctgttccga 480
gtaaccatca acagccatca tcaccatcac cactaa 516

<210> 77
<211> 170
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 77

Met Ser Gly Ser Ser Gly Val Phe Thr Leu Glu Asp Phe Val Gly Asp
1 5 10 15

Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly
20 25 30

Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile
35 40 45

Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His
50 55 60

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

Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys
85 90 95

Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn
100 105 110

Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp
115 120 125

Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile
130 135 140

Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val
145 150 155 160

Thr Ile Asn Ser His His His His His His
165 170

<210> 78
<211> 513
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 78
atgagcggct cgagcgggtgt cttcacactc gaagatttcg ttgggggactg ggaacagaca 60
gccgcctaca acctggacca agtccttgaa cagggagggtg tgtccagttt gctgcagaat 120

```

ctcgccgtgt ccgtaactcc gatccaaagg attgtccgga gcggtgaaaa tgccctgaag      180
atcgacatcc atgtcatcat cccgtatgaa ggtctgagcg ccgaccaaatt ggcccagatc      240
gaagagggtgt ttaagggtggt gtaccctgtg gatgatcatc actttaaggt gatcctgccc      300
tatggcacac tggtaatcga cgggggttacg ccgaacatgc tgaactatatt cggacggccg      360
tatgaaggca tcgccgtgtt cgacggcaaaa aagatcactg taacagggac cctgtggaac      420
ggcaacaaaaa ttatcgacga gcgcctgadc acccccgcgc gctccatgct gttccgagta      480
accatcaaca gccatcatca ccatcaccac taa                                     513

```

```

<210> 79
<211> 158
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 79

```

```

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10           15

```

```

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20           25           30

```

```

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35           40           45

```

```

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50           55           60

```

```

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65           70           75           80

```

```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85           90           95

```

```

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr

```

100

105

110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met
 145 150 155

<210> 80
 <211> 477
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 80
 atgaaacatc accatcacca tcatgtcttc aactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
 tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgacggcag catgtaa 477

<210> 81
 <211> 159
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 81

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu
145 150 155

<210> 82
<211> 480
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 82

```

atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatcacc cgcacggcag catgctgtaa      480

```

```

<210> 83
<211> 160
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 83

```

```

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10          15

```

```

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20          25          30

```

```

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35          40          45

```

```

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50          55          60

```

```

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65          70          75          80

```

```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85          90          95

```

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe
145 150 155 160

<210> 84
<211> 483
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 84
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgacggcag catgctgttc 480
taa 483

<210> 85
<211> 152
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 85

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile
145 150

<210> 86

<211> 459

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 86

```
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgccctatg gcacactggt aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
cggccgatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatctaa      459
```

<210> 87

<211> 151

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 87

```
Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10          15
```

```
Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20          25          30
```

```
Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35          40          45
```

```
Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50          55          60
```

```
Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65          70          75          80
```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu
145 150

<210> 88
<211> 456
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 88
atgaaacatc accatcacca tcatgtcttc aactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgtaa 456

<210> 89
<211> 150
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 89

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg
145 150

<210> 90

<211> 453

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 90

```
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
cggccgatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc taa                                     453
```

<210> 91

<211> 123

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 91

```
Met Val Ala Ile Leu Trp His Glu Met Trp His Glu Gly Leu Glu Glu
1           5           10          15
```

```
Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu
          20          25          30
```

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

```
Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala
          50          55          60
```

```
Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu
```

65		70		75		80									
Thr	Gln	Ala	Trp	Asp	Leu	Tyr	Tyr	His	Val	Phe	Arg	Arg	Ile	Ser	Gly
				85					90					95	

Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Ser	Ser	Ser	Gly	Gly	Ala	Ile
		100						105					110		

Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser
		115					120			

```

<210> 92
<211> 372
<212> DNA
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 92
atggtggcca tcctctggca tgagatgtgg catgaaggcc tggagaggc atctcgtttg      60
tactttgggg aaaggaacgt gaaaggcatg tttgaggtgc tggagccctt gcatgctatg      120
atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat      180
ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc      240
acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtg ttcaggtggt      300
ggcgggagcg gtggctcgag cagcgggtgga gcgatcgtga gcggctggcg gctgttcaag      360
aagattagct aa                                                                372

```

```

<210> 93
<211> 125
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 93
Met Val Ala Ile Leu Trp His Glu Met Trp His Glu Gly Leu Glu Glu

```

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

<210> 94
 <211> 378
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 94
 atggtggcca tcctctggca tgagatgtgg catgaaggcc tggaagaggc atctcgtttg 60
 tactttgggg aaaggaacgt gaaaggcatg tttgaggtgc tggagccctt gcatgctatg 120
 atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat 180
 ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc 240
 acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtgg ttcaggtggt 300

ggcgggagcg gtggctcgag cagcgggtgga gcgatcgta gcgttagcgg ctggcgctg 360
ttcaagaaga tcagctaa 378

<210> 95
<211> 129
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 95

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

Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu
20 25 30

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

Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala
50 55 60

Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu
65 70 75 80

Thr Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg Arg Ile Ser Gly
85 90 95

Gly Ser Gly Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly Ala Ile
100 105 110

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser His His His His His
115 120 125

His

<210> 96
<211> 390
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 96
atggtggcca tcctctggca tgagatgtgg catgaaggcc tggaagaggc atctcgtttg 60
tactttgggg aaaggaacgt gaaaggcatg tttgaggtgc tggagccctt gcatgctatg 120
atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat 180
ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc 240
acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtg ttcaggtggt 300
ggcgggagcg gtggctcgag cagcgggtgga gcgatcgtga gcggctggcg gctgttcaag 360
aagattagcc atcatcacca tcaccactaa 390

<210> 97
<211> 131
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 97

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

Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu
20 25 30

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

Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala
50 55 60

Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu
65 70 75 80

Thr Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg Arg Ile Ser Gly
85 90 95

Gly Ser Gly Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly Ala Ile
100 105 110

Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser His His His
115 120 125

His His His
130

<210> 98
<211> 396
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 98
atggtggcca tcctctggca tgagatgtgg catgaaggcc tggaagaggc atctcgtttg 60
tactttgggg aaaggaacgt gaaaggcatg tttgaggtgc tggagccctt gcatgctatg 120
atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat 180
ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc 240
acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtg ttcaggtggt 300
ggcgggagcg gtggctcgag cagcgggtgga gcgatcgta gcgtgagcgg ctggcggctg 360
ttcaagaaga ttagccatca tcaccatcac cactaa 396

<210> 99
<211> 118
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 99

Met Lys His His His His His Val Ala Ile Leu Trp His Glu Met
1 5 10 15

Trp His Glu Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg
20 25 30

Asn Val Lys Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met
35 40 45

Glu Arg Gly Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr
50 55 60

Gly Arg Asp Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys
65 70 75 80

Ser Gly Asn Val Lys Asp Leu Thr Gln Ala Trp Asp Leu Tyr Tyr His
85 90 95

Val Phe Arg Arg Ile Ser Gly Gly Ser Gly Gly Val Ser Gly Trp Arg
100 105 110

Leu Phe Lys Lys Ile Ser
115

<210> 100

<211> 357

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 100

atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc 60

ctggaagagg catctcgttt gtactttggg gaaaggaacg tgaaaggcat gtttgaggtg 120

ctggagccct tgcattgctat gatggaacgg ggccccccaga ctctgaagga aacatccttt	180
aatcaggccct atgggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa	240
tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga	300
atcagtgggtg gttcagggtgg tgtgagcggc tggcggctgt tcaagaagat tagctaa	357

<210> 101
 <211> 123
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 101

Met	Lys	His	His	His	His	His	His	Val	Ala	Ile	Leu	Trp	His	Glu	Met
1				5					10					15	

Trp	His	Glu	Gly	Leu	Glu	Glu	Ala	Ser	Arg	Leu	Tyr	Phe	Gly	Glu	Arg
			20					25					30		

Asn	Val	Lys	Gly	Met	Phe	Glu	Val	Leu	Glu	Pro	Leu	His	Ala	Met	Met
		35					40					45			

Glu	Arg	Gly	Pro	Gln	Thr	Leu	Lys	Glu	Thr	Ser	Phe	Asn	Gln	Ala	Tyr
	50					55					60				

Gly	Arg	Asp	Leu	Met	Glu	Ala	Gln	Glu	Trp	Cys	Arg	Lys	Tyr	Met	Lys
65					70					75					80

Ser	Gly	Asn	Val	Lys	Asp	Leu	Thr	Gln	Ala	Trp	Asp	Leu	Tyr	Tyr	His
			85						90					95	

Val	Phe	Arg	Arg	Ile	Ser	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly
			100					105					110		

Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser
		115					120			

<210> 102
<211> 372
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 102
atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc 60
ctggaagagg catctcgttt gtactttggg gaaaggaacg tgaaaggcat gtttgagggtg 120
ctggagccct tgcattgctat gatggaacgg ggcccccaga ctctgaagga aacatccttt 180
aatcaggcct atggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa 240
tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga 300
atcagtgggtg gttcagggtgg tggcgggagc ggtggcgtga gcggctggcg gctgttcaag 360
aagattagct aa 372

<210> 103
<211> 128
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 103

Met Lys His His His His His His Val Ala Ile Leu Trp His Glu Met
1 5 10 15

Trp His Glu Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg
20 25 30

Asn Val Lys Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met
35 40 45

Glu Arg Gly Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr
50 55 60

Gly Arg Asp Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys
65 70 75 80

Ser Gly Asn Val Lys Asp Leu Thr Gln Ala Trp Asp Leu Tyr Tyr His
85 90 95

Val Phe Arg Arg Ile Ser Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
100 105 110

Ser Ser Ser Gly Gly Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
115 120 125

<210> 104
<211> 387
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 104
atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc 60
ctggaagagg catctcgttt gtactttggg gaaaggaacg tgaaaggcat gtttgagggtg 120
ctggagccct tgcattgctat gatggaacgg ggcccccaga ctctgaagga aacatccttt 180
aatcaggcct atggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa 240
tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga 300
atcagtgggtg gttcagggtg tggcgggagc ggtggctcga gcagcgggtg agtgagcggc 360
tggcggctgt tcaagaagat tagctaa 387

<210> 105
<211> 120
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 105

Met Lys His His His His His Val Ala Ile Leu Trp His Glu Met
1 5 10 15

Trp His Glu Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg
20 25 30

Asn Val Lys Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met
35 40 45

Glu Arg Gly Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr
50 55 60

Gly Arg Asp Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys
65 70 75 80

Ser Gly Asn Val Lys Asp Leu Thr Gln Ala Trp Asp Leu Tyr Tyr His
85 90 95

Val Phe Arg Arg Ile Ser Gly Gly Ser Gly Gly Val Ser Val Ser Gly
100 105 110

Trp Arg Leu Phe Lys Lys Ile Ser
115 120

<210> 106

<211> 363

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 106

atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc 60

ctggaagagg catctcg ttt gtactttggg gaaaggaacg tgaaaggcat gtttgagggtg 120

ctggagccct tgcattgctat gatggaacgg ggccccccaga ctctgaagga aacatccttt 180

aatcaggcct atgggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa 240

tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga	300
atcagtgggtg gttcagggtgg tgtagcggtt agcggctggc gcctgttcaa gaagatcagc	360
taa	363

<210> 107
 <211> 125
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 107

Met	Lys	His	His	His	His	His	His	Val	Ala	Ile	Leu	Trp	His	Glu	Met
1				5					10					15	

Trp	His	Glu	Gly	Leu	Glu	Glu	Ala	Ser	Arg	Leu	Tyr	Phe	Gly	Glu	Arg
			20					25					30		

Asn	Val	Lys	Gly	Met	Phe	Glu	Val	Leu	Glu	Pro	Leu	His	Ala	Met	Met
		35					40					45			

Glu	Arg	Gly	Pro	Gln	Thr	Leu	Lys	Glu	Thr	Ser	Phe	Asn	Gln	Ala	Tyr
	50					55					60				

Gly	Arg	Asp	Leu	Met	Glu	Ala	Gln	Glu	Trp	Cys	Arg	Lys	Tyr	Met	Lys
65					70					75					80

Ser	Gly	Asn	Val	Lys	Asp	Leu	Thr	Gln	Ala	Trp	Asp	Leu	Tyr	Tyr	His
			85						90					95	

Val	Phe	Arg	Arg	Ile	Ser	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly
			100					105					110		

Val	Ser	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser
		115					120					125

<210> 108

<211> 378
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 108
atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc 60
ctggaagagg catctcgttt gtacttttggg gaaaggaacg tgaaaggcat gtttgagggtg 120
ctggagccct tgcattgctat gatggaacgg ggccccccaga ctctgaagga aacatccttt 180
aatcaggcct atggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa 240
tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga 300
atcagtgggtg gttcagggtg tggcgggagc ggtggcggtta gcgttagcgg ctggcgccctg 360
ttcaagaaga tcagctaa 378

<210> 109
<211> 130
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 109

Met Lys His His His His His Val Ala Ile Leu Trp His Glu Met
1 5 10 15

Trp His Glu Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg
20 25 30

Asn Val Lys Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met
35 40 45

Glu Arg Gly Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr
50 55 60

Gly Arg Asp Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys

65	70	75	80
Ser Gly Asn Val Lys Asp Leu Thr Gln Ala Trp Asp Leu Tyr Tyr His			
	85	90	95
Val Phe Arg Arg Ile Ser Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly			
	100	105	110
Ser Ser Ser Gly Gly Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys			
	115	120	125
Ile Ser			
	130		

<210> 110
 <211> 393
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 110	
atgaaacatc accatcacca tcatgtggcc atcctctggc atgagatgtg gcatgaaggc	60
ctggaagagg catctcgttt gtactttggg gaaaggaacg tgaaaggcat gtttgagggtg	120
ctggagccct tgcatgctat gatggaacgg ggcccccaga ctctgaagga aacatccttt	180
aatcaggcct atggtcgaga tttaatggag gcccaagagt ggtgcaggaa gtacatgaaa	240
tcagggaatg tcaaggacct cacccaagcc tgggacctct attatcatgt gttccgacga	300
atcagtgggtg gttcagggtg tggcgggagc ggtggctcga gcagcgggtg agttagcggt	360
agcggctggc gcctgttcaa gaagatcagc taa	393

<210> 111
 <211> 134
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 111

Met Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Ser Ser Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Ser Ser Gly Gly Gly Val Gln Val Glu
20 25 30

Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr
35 40 45

Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp
50 55 60

Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln
65 70 75 80

Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly
85 90 95

Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr
100 105 110

Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val
115 120 125

Glu Leu Leu Lys Leu Glu
130

<210> 112

<211> 405

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 112

atgggctcca tgctgttccg agtaaccatc aacagctcga gttcaggtgg tggcgggagc

60

```

ggtaggggga gcagcgggtgg aggagtgcag gtggaaacca tctccccagg agacgggcgc      120
accttccccca agcgcgggcca gacctgcgtg gtgcactaca ccgggatgct tgaagatgga      180
aagaaatttg attcctcccg ggacagaaac aagcccttta agtttatgct aggcaagcag      240
gaggtgatcc gaggctggga agaaggggtt gcccagatga gtgtgggtca gagagccaaa      300
ctgactatat ctccagatta tgcctatggt gccactgggc acccaggcat catcccacca      360
catgccactc tcgtcttcga tgtggagctt ctaaaaactgg aataa                        405

```

```

<210> 113
<211> 136
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 113

```

```

Met Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe
1           5           10           15

```

```

Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu
20           25           30

```

```

Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys
35           40           45

```

```

Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val
50           55           60

```

```

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

```

```

Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala
85           90           95

```

```

Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Ser Gly
100          105          110

```

Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly Ala Ile Gly Ser Met
115 120 125

Leu Phe Arg Val Thr Ile Asn Ser
130 135

<210> 114
<211> 408
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 114
atgggagtg aggtggaaac catctcccca ggagacgggc gcaccttccc caagcgcggc 60
cagacctgcg tgggtgcacta caccgggatg cttgaagatg gaaagaaatt tgattcctcc 120
cgggacagaa acaagccctt taagtttatg ctaggcaagc aggaggtgat ccgaggctgg 180
gaagaagggg ttgccagat gagtgtgggt cagagagcca aactgactat atctccagat 240
tatgcctatg gtgccactgg gcacccaggc atcatccac cacatgccac tctcgtcttc 300
gatgtggagc ttctaaaact ggaaggtggt tcagggtggt gcgggagcgg tggctcgagc 360
agcgggtggag cgatcggctc catgctgttc cgagtaacca tcaacagc 408

<210> 115
<211> 165
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 115

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
145 150 155 160

His His His His His
165

<210> 116
<211> 498
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 116
atggtcttca cactcgaaga ttctgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

```

actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      180
atcatcccggt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag      240
gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta      300
atcgacggggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc      360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc      420
gacgagcgcc tgatcacccc cgacgggtcc atgctgttcc gagtaaccat caacagccat      480
catcaccatc accactaa                                                    498

```

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<210> 117
<211> 158
<212> PRT
<213> Artificial sequence

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```

<220>
<223> Synthetic

```

```

<400> 117

```

```

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1           5           10           15

```

```

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20           25           30

```

```

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35           40           45

```

```

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50           55           60

```

```

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65           70           75           80

```

```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
85           90           95

```

```

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly

```

100

105

110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 118
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 118
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atccccgatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ctcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatagac 420
 gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 119
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 119

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Leu Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 120

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 120

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gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac      60
caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa ccgc          474

```

<210> 121
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 121

```

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1           5           10           15

```

```

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20           25           30

```

```

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35           40           45

```

```

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50           55           60

```

```

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
          65           70           75           80

```

```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
          85           90           95

```

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Arg
145 150 155

<210> 122
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 122
gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatct tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 123
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 123

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp Leu His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 124

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 124
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atccccgatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgctga tcacccccga cggctccgtg tccttccgag taaccatcaa cagc 474

<210> 125
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 125

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
 35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
 50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
 65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly

85

90

95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Val Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 126
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 126
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgtgcaga atcttgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcgtc 180
 atcccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 127
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 127

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Val Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 128

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 128

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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atccccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474
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<210> 129

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 129

```
Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1           5           10          15

Tyr Asn Leu Ala Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20          25          30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35          40          45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50          55          60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65          70          75          80
```


Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 130
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 130
gtcttcacac tcgaagattt cggtggggac tggaaacaga cagccgccta caacctggac 60
caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccta atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgta 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tctccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 131
<211> 158
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 131

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Leu Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Ser Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 132

<211> 474

<212> DNA

<213> Artificial sequence

$\langle 220 \rangle$

<223> Synthetic

$\langle 400 \rangle$ 132

gtcttcacac tcgaagattt cgttggggac tggtaccaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggatgggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgatatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacgggggтта cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 133

<211> 13

<212> PRT

<213> Artificial sequence

 $\langle 220 \rangle$

<223> Synthetic

<400> 133

Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn
1 5 10

<210> 134

<211> 13

<212> PRT

<213> Artificial sequence

$\langle 220 \rangle$

<223> Synthetic

<400> 134

Asn Val Thr Gly Tyr Arg Leu Phe Lys Lys Ile Ser Asn
1 5 10

<210> 135
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 135

Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn
1				5					10		

<210> 136
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 136

Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn
1				5					10	

<210> 137
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 137

Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn
1				5					10

<210> 138
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 138

Val Thr Gly Tyr Arg Leu Phe Glu Lys Ile Ser
1 5 10

<210> 139

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 139

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 140

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 140

Val Ser Gly Trp Arg Leu
1 5

<210> 141

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 141

Val Ser Gly Trp Arg Leu Phe
1 5

<210> 142

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

<220>
<223> Synthetic

<400> 142

Val Ser Gly Trp Arg Leu Phe Lys
1 5

<210> 143
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 143

Val Ser Gly Trp Arg Leu Phe Lys Lys
1 5

<210> 144
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 144

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile
1 5 10

<210> 145
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 145

Val Ser Gly Trp Arg Leu Tyr Lys Lys Ile Ser
1 5 10

<210> 146
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 146

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Ala
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 147
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 147

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Thr Gly Tyr Arg
1 5 10 15

Leu Phe Glu Glu Ile Leu
20

<210> 148
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 148

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Ser Ser Trp Lys Arg
1 5 10 15

<210> 149
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 149

Val Ser Gly Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 150
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 150

Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 151
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 151

Val Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 152
<211> 15
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 152

Ser	Ser	Trp	Lys	Arg	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10					15

<210> 153

<211> 14

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 153

Ser	Ser	Trp	Lys	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10				

<210> 154

<211> 17

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 154

Ser	Ser	Trp	Lys	Arg	Asp	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn
1				5					10						15

Ser

<210> 155

<211> 18

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 155

Ser Ser Trp Lys Arg Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile
1 5 10 15

Asn Ser

<210> 156

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 156

Ser Ser Trp Lys Arg Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
1 5 10 15

<210> 157

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 157

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val
1 5 10 15

<210> 158

<211> 18

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 158

Ser Ser Trp Lys Arg Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn

1 5 10 15

Ser Val

<210> 159
<211> 19
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 159

Ser Ser Trp Lys Arg Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile
1 5 10 15

Asn Ser Val

<210> 160
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 160

Ser Ser Trp Lys Arg Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
1 5 10 15

Ser

<210> 161
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 161

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10 15

<210> 162

<211> 19

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 162

Ser Ser Trp Lys Arg Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn
1 5 10 15

Ser Val Ser

<210> 163

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 163

Ser Ser Trp Lys Arg Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile
1 5 10 15

Asn Ser Val Ser
20

<210> 164

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 164

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn
1				5					10					15

<210> 165

<211> 14

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 165

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10				

<210> 166

<211> 14

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 166

Ser	Ser	Trp	Lys	Arg	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn
1				5					10				

<210> 167

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 167

Ser	Ser	Trp	Lys	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn
1				5					10			

<210> 168

<211> 16
<212> PRT
<213> Artificial sequence

<220>
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<400> 168

Ser	Ser	Trp	Lys	Arg	Asp	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn
1				5					10					15	

<210> 169
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 169

Ser	Ser	Trp	Lys	Arg	Pro	Asp	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10					15	

Asn

<210> 170
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 170

Ser	Ser	Trp	Lys	Arg	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10			

<210> 171
<211> 12
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 171

Ser	Ser	Trp	Lys	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10		

<210> 172

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 172

Ser	Ser	Trp	Lys	Arg	Asp	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10					15

<210> 173

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 173

Ser	Ser	Trp	Lys	Arg	Pro	Asp	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile
1				5					10					15	

<210> 174

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 174

Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Val	Phe	Thr	Leu
1				5					10					15

<210> 175
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 175

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Val Phe Thr
1 5 10

<210> 176
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 176

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Val Phe
1 5 10

<210> 177
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 177

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Val
1 5 10

<210> 178
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 178

Val Ser Gly Trp Arg Leu Cys Lys Lys Ile Ser
1 5 10

<210> 179

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 179

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser Met Leu Phe
1 5 10 15

Arg Val Thr Ile Asn Ser
20

<210> 180

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 180

Ser Ser Trp Lys Arg Leu Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 181

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 181

Ser Ser Trp Lys Arg Phe Arg Val Thr Ile Asn Ser

1 5 10

<210> 182
<211> 11
<212> PRT
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<220>
<223> Synthetic

<400> 182

Ser Ser Trp Lys Arg Arg Val Thr Ile Asn Ser
1 5 10

<210> 183
<211> 19
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 183

Ser Ser Trp Lys Arg Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr
1 5 10 15

Ile Asn Ser

<210> 184
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 184

Ser Ser Trp Lys Arg Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val
1 5 10 15

Thr Ile Asn Ser

20

<210> 185
<211> 21
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 185

Ser	Ser	Trp	Lys	Arg	Leu	Ile	Thr	Pro	Asp	Gly	Ser	Met	Leu	Phe	Arg
1				5					10					15	

Val	Thr	Ile	Asn	Ser
			20	

<210> 186
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 186

Ser	Ser	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10					15	

<210> 187
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 187

Ser	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Ser
1				5					10					15	

<210> 188

<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 188

Ser Trp Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 189
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 189

Ser Ser Arg Gly Ser Met Leu Phe Arg Val Thr Ile Trp Lys
1 5 10

<210> 190
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 190

Ser Ser Trp Lys Arg Gly Ser Met Leu Tyr Arg Val Thr Ile Asn Ser
1 5 10 15

<210> 191
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 191

Ser Ser Trp Lys Arg Gly Ser Met Leu Trp Arg Val Thr Ile Asn Ser
1 5 10 15

<210> 192
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 192

Ser Ser Trp Lys Arg Gly Ser Met Leu His Arg Val Thr Ile Asn Ser
1 5 10 15

<210> 193
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 193

Ser Ser Trp Lys Arg Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

<210> 194
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 194

Ser Ser Trp Lys Arg Gly Ser Lys Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

<210> 195
<211> 16
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 195

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Arg	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10					15	

<210> 196

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 196

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Phe	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10					15	

<210> 197

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 197

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Trp	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10					15	

<210> 198

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 198

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Ser	Ile	Asn	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1 5 10 15

<210> 199
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 199

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Gln Ile Asn Ser
1 5 10 15

<210> 200
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 200

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Asn Ile Asn Ser
1 5 10 15

<210> 201
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 201

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Cys

<210> 202

<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 202

Cys Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 203
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 203

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Lys

<210> 204
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 204

Lys Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 205
<211> 23
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 205

Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Gly Val Thr Gly Trp Arg
1 5 10 15

Leu Cys Glu Asn Ile Leu Ala
20

<210> 206

<211> 24

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 206

Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val Gly Val Thr Gly Trp
1 5 10 15

Arg Leu Cys Glu Arg Ile Leu Ala
20

<210> 207

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 207

Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 208

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 208

Asn Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 209

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 209

Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5

<210> 210

<211> 501

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 210

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ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa	120
gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg	180
atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc	240
ccgtatgaag gtctgagcgc cgaccaaattg gcccagatcg aagaggtgtt taaggtggtg	300
tacctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac	360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc	420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag	480
cgccctgatca cccccgacta a	501

<210> 211
<211> 166
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 211

Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser His His His His
1 5 10 15

His His His His Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp
165

<210> 212
<211> 510
<212> DNA
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<220>
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<400> 212
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agctccggtt tcacactcga cgatttcgtt ggggactggg aacagacagc cgcctacaac 120
ctggaccaag tccttgaaca gggagggtgtg tccagtttgc tgcagaatct cgccgtgtcc 180
gtaactccga tcatgaggat tgtccggagc ggtgaaaatg ccctgaagat cgacatccat 240
gtcatcatcc cgtatgaagg tctgagcgcc gaccaaattg cccagatcga agagggtgtt 300
aagggtggtg accctgtgga tgatcatcac tttaagggtga tcctgcccta tggcacactg 360
gtaatcgacg gggttacgcc gaacaagctg aactatttcg gacggccgta tgaaggcatc 420
gccgtgttcg acggcaaaaa gatcactacc acagggaccc tgtggaacgg caacaaaatt 480
atcgacgagc gcctgatcac ccccgactaa 510

<210> 213
<211> 169
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 213

Met Lys His His His His His Val Ser Gly Trp Arg Leu Phe Lys
1 5 10 15

Lys Ile Ser Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp
20 25 30

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

Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile
50 55 60

Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His
65 70 75 80

Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile
85 90 95

Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys
100 105 110

Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn
115 120 125

Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp
130 135 140

Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile
145 150 155 160

Ile Asp Glu Arg Leu Ile Thr Pro Asp
165

<210> 214
<211> 366
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 214
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tactttgggg aaaggaacgt gaaaggcatg tttgaggtgc tggagccctt gcatgctatg 120

atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat	180
ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc	240
acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtgg ttcaggtggt	300
ggcgggagcg gtggctcgag cagcgggtgga gtgagcggct ggcggctgtt caagaagatt	360
agctaa	366

<210> 215
 <211> 121
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 215

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

Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu
20 25 30

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

Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala
50 55 60

Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu
65 70 75 80

Thr Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg Arg Ile Ser Gly
85 90 95

Gly Ser Gly Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly Val Ser
100 105 110

Gly Trp Arg Leu Phe Lys Lys Ile Ser

115

120

<210> 216
 <211> 372
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 216
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 tactttgggg aaaggaacgt gaaaggcatg tttgagggtgc tggagccctt gcatgctatg 120
 atggaacggg gccccagac tctgaaggaa acatccttta atcaggccta tggtcgagat 180
 ttaatggagg cccaagagtg gtgcaggaag tacatgaaat cagggaatgt caaggacctc 240
 acccaagcct gggacctcta ttatcatgtg ttccgacgaa tcagtgggtg ttcagggtggt 300
 ggcgggagcg gtggctcgag cagcgggtgga gttagcgta gcggctggcg cctgttcaag 360
 aagatcagct aa 372

<210> 217
 <211> 123
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 217

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

Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys Gly Met Phe Glu
 20 25 30

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

Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp Leu Met Glu Ala

50

55

60

Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn Val Lys Asp Leu
65 70 75 80

Thr Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg Arg Ile Ser Gly
85 90 95

Gly Ser Gly Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly Val Ser
100 105 110

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
115 120

<210> 218
<211> 369
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 218
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cagacctgcg tggatgcacta caccgggatg cttgaagatg gaaagaaatt tgattcctcc 120
cgggacagaa acaagccctt taagtttatg ctaggcaagc aggaggtgat ccgaggctgg 180
gaagaagggg ttgccagat gagtgtgggt cagagagcca aactgactat atctccagat 240
tatgcctatg gtgccactgg gcacccaggc atcatccac cacatgccac tctcgtcttc 300
gatgtggagc ttctaaaact ggaaggtggt tcaggtggtg gcgggagcgg tggctcgagc 360
agcgggtgga 369

<210> 219
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 219

Met Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe
1 5 10 15

Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu
20 25 30

Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys
35 40 45

Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val
50 55 60

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

Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala
85 90 95

Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Ser Gly
100 105 110

Gly Gly Gly Ser Gly Gly Ser Ser Ser Gly Gly
115 120

<210> 220

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 220

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
1 5 10

<210> 221

<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 221

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10

<210> 222
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 222

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly
1 5 10

<210> 223
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 223

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp
1 5 10

<210> 224
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 224

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Lys
1 5 10

<210> 225
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 225

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Arg
1 5 10

<210> 226
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 226

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly
1 5 10

<210> 227
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 227

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp
1 5 10 15

<210> 228
<211> 16
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 228

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Val	Ser	Gly	Trp	Arg
1				5				10					15		

<210> 229

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 229

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Val	Ser	Gly	Trp	Lys
1				5				10					15		

<210> 230

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 230

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5				10		

<210> 231

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 231

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys

1 5 10

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<220>
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<400> 232

Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 233
<211> 11
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<213> Artificial sequence

<220>
<223> Synthetic

<400> 233

Met Leu Phe Arg Val Thr Ile Asn Ser Trp Ser
1 5 10

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<211> 9
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<400> 234

Met Leu Phe Arg Val Thr Ile Trp Ser
1 5

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<400> 235

Met Leu Phe Arg Val Thr Ile Trp Lys

1 5

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<400> 236

Met Leu Phe Arg Val Lys Ile Asn Ser

1 5

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<400> 237

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Trp Ser

1 5 10

<210> 238

<211> 11

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<400> 238

Gly Ser Met Leu Phe Arg Val Lys Ile Asn Ser

1 5 10

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<400> 239

Gly Ser Met Leu Phe Arg Val Thr Ile Trp Ser
1 5 10

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<400> 240

Met Leu Phe Arg Val Asn Ile Asn Ser
1 5

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<400> 241

Met Leu Phe Arg Val Trp Ile Asn Ser
1 5

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<400> 242

Leu Leu Phe Arg Val Lys Ile Asn Ser
1 5

<210> 243

<211> 9

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<400> 243

Phe Leu Phe Arg Val Thr Ile Asn Ser
1 5

<210> 244

<211> 17

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<220>

<223> Synthetic

<400> 244

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Val

<210> 245

<211> 18

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 245

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser

1 5 10 15

Val Ser

<210> 246
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<212> PRT
<213> Artificial sequence

<220>
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<400> 246

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10 15

Gly

<210> 247
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<220>
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<400> 247

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10 15

Gly Trp

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<400> 248

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10 15

Gly Trp Arg

<210> 249

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<223> Synthetic

<400> 249

Ser Ser Trp Lys Arg Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser
1 5 10 15

Gly Trp Lys

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<400> 250

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Lys
1 5 10

<210> 251

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<400> 251

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Val Ser Gly

<210> 252

<211> 20

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<223> Synthetic

<400> 252

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Val Ser Gly Trp
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<210> 253

<211> 21

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<400> 253

Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10 15

Val Ser Gly Trp Arg
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<210> 254

<211> 21

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<400> 254

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
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Val	Ser	Gly	Trp	Lys
				20

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<400> 255

Ser	Ser	Trp	Lys	Arg	Gly	Ser	Tyr	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
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<210> 256

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Ser	Ser	Trp	Lys	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Lys	Ile	Asn	Ser
1				5					10					15	

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Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Arg Ile Asn Ser
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Ser Ser Trp Lys Arg Gly Ser Met Leu Phe Arg Val Trp Ile Asn Ser
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Ser Ser Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Trp Ser Val
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<400> 260

Ser Ser Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Trp Ser Val
1 5 10 15

Ser

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<400> 261

Ser	Ser	Trp	Arg	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Lys	Ser
1				5					10				15	

<210> 262
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<220>
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<400> 262

Lys	Arg	Ser	Ser	Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Ser
1				5					10				15	

<210> 263
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<213> Artificial sequence

<220>
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<400> 263

Ser	Ser	Lys	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Ser
1				5					10			

<210> 264
<211> 13
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<213> Artificial sequence

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<400> 264

Lys Arg Ser Ser Met Leu Phe Arg Val Thr Ile Trp Ser
1 5 10

<210> 265

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 265

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 266

<211> 13

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<213> Artificial sequence

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<223> Synthetic

<400> 266

Gly Ser Met Leu Phe Arg Lys Thr Ile Asn Ser Trp Lys
1 5 10

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<213> Artificial sequence

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<223> Synthetic

<400> 267

Gly Ser Met Leu Phe Arg Val Thr Lys Asn Ser Trp Lys
1 5 10

<210> 268
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<213> Artificial sequence

<220>
<223> Synthetic

<400> 268

Gly	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 269
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<400> 269

Gly	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

<210> 270
<211> 13
<212> PRT
<213> Artificial sequence

<220>
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<400> 270

Gly	Ser	Met	Lys	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 271
<211> 11
<212> PRT
<213> Artificial sequence

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<400> 271

Gly	Ser	Met	Lys	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

<210> 272

<211> 13

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<400> 272

Gly	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 273

<211> 11

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<400> 273

Gly	Arg	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

<210> 274

<211> 13

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<213> Artificial sequence

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<223> Synthetic

<400> 274

Gly	Ser	Met	Arg	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 275

<211> 11
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<400> 275

Gly	Ser	Met	Arg	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

<210> 276
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<400> 276

Gly	Asp	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 277
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<400> 277

Gly	Asp	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

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<400> 278

Gly Ser Met Asp Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 279
<211> 11
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<400> 279

Gly Ser Met Asp Phe Arg Val Thr Ile Trp Lys
1 5 10

<210> 280
<211> 13
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<400> 280

Gly Glu Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 281
<211> 13
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<400> 281

Gly Ser Met Glu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 282
<211> 11
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<213> Artificial sequence

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<223> Synthetic

<400> 282

Gly	Ser	Met	Glu	Phe	Arg	Val	Thr	Ile	Trp	Lys
1				5					10	

<210> 283

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 283

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Lys	Val	Lys
1				5					10			

<210> 284

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 284

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Trp	Ser	Val	Lys
1				5					10			

<210> 285

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 285

Gly Ser Met Leu Phe Arg Val Thr Ile Trp Ser Lys

1 5 10

<210> 286
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 286

Gly Ser Met Leu Phe Arg Val Thr Ile Trp Lys Trp Lys
1 5 10

<210> 287
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 287

Gly Ser Met Leu Phe Arg Val Thr Ile Trp Lys Lys
1 5 10

<210> 288
<211> 11
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<400> 288

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 289
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<223> Synthetic

<400> 289

Met Leu Phe Arg Val Thr Ile Asn Ser

1 5

<210> 290

<211> 9

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<400> 290

Met Leu Phe Val Thr Ile Asn Ser Val

1 5

<210> 291

<211> 11

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<400> 291

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser

1 5 10

<210> 292

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 292

Gly Ser Met Leu Phe Arg Val Thr Ile Asn

1 5 10

<210> 293
<211> 9
<212> PRT
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<400> 293

Gly Ser Met Leu Phe Arg Val Thr Ile
1 5

<210> 294
<211> 9
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<400> 294

Ser Met Leu Phe Arg Val Thr Ile Asn
1 5

<210> 295
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<400> 295

Met Leu Phe Arg Val Thr Ile Asn
1 5

<210> 296
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<220>
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<400> 296

Met Leu Phe Arg Val Thr Ile
1 5

<210> 297

<211> 15

<212> PRT

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<223> Synthetic

<400> 297

Ser Ser Lys Arg Gly Ser Met Leu Phe Arg Val Thr Ile Trp Ser
1 5 10 15

<210> 298

<211> 23

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 298

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Gly Val Ser Gly Trp
1 5 10 15

Ala Leu Phe Lys Lys Ile Ser
20

<210> 299

<211> 23

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 299

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Gly Val Ser Gly Trp

1 5 10 15

Arg Leu Phe Lys Lys Ile Ser
20

<210> 300
<211> 11
<212> PRT
<213> Artificial sequence

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<400> 300

Val Ser Gly Trp Ala Leu Phe Lys Lys Ile Ser
1 5 10

<210> 301
<211> 25
<212> PRT
<213> Artificial sequence

<220>
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<400> 301

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Val Ser
1 5 10 15

Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

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<211> 148
<212> PRT
<213> Artificial sequence

<220>
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<400> 302

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala

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

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 <211> 444
 <212> DNA
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<220>
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta	120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc	180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag	240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacttggtta	300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgccc	360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc	420
gacgagcgcc tgatcacccc cgac	444

<210> 304
 <211> 148
 <212> PRT
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<220>
 <223> Synthetic

<400> 304

Met	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala
1				5					10					15	

Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu
		20						25					30		

Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg
	35						40					45			

Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr
50						55					60				

Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys
65					70					75					80

Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr
				85					90					95	

Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp
 145

<210> 305
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 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 305
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 actccgatcc aaaggattgt ccggagcggg gaaaatggcc tgaagatcga catccatgtc 180
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
 gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
 atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc 360
 gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420
 gacgagcgcc tgatcacccc cgac 444

<210> 306
 <211> 12
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<220>
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<400> 306

Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 307
<211> 13
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<213> Artificial sequence

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<400> 307

Asn Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 308
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<220>
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<400> 308

Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5

<210> 309
<211> 23
<212> PRT
<213> Artificial sequence

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<400> 309

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Gly Val Ser Gly Trp
1 5 10 15

Arg Leu Phe Lys Lys Ile Ser
20

<210> 310
<211> 13
<212> PRT
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<400> 310

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 311
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<213> Artificial sequence

<220>
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<400> 311

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 312
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<220>
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<400> 312

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 313
<211> 13
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<213> Artificial sequence

<220>
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<400> 313

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Lys Trp Lys
1 5 10

<210> 314

<211> 13

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<213> Artificial sequence

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<223> Synthetic

<400> 314

Gly Ser Met Leu Phe Arg Val Thr Ile Lys Ser Trp Lys
1 5 10

<210> 315

<211> 13

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<223> Synthetic

<400> 315

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Arg Trp Lys
1 5 10

<210> 316

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 316

Gly Ser Met Leu Phe Arg Val Thr Ile Arg Ser Trp Lys
1 5 10

<210> 317

<211> 13
<212> PRT
<213> Artificial sequence

<220>
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<400> 317

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Asp	Trp	Lys
1				5					10			

<210> 318
<211> 13
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<400> 318

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asp	Ser	Trp	Lys
1				5					10			

<210> 319
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<213> Artificial sequence

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<400> 319

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Glu	Trp	Lys
1				5					10			

<210> 320
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<400> 320

Gly Ser Met Leu Phe Arg Val Thr Ile Glu Ser Trp Lys
1 5 10

<210> 321
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<220>
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<400> 321

Gly Ser Met Arg Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 322
<211> 13
<212> PRT
<213> Artificial sequence

<220>
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<400> 322

Gly Ser Met Asp Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 323
<211> 13
<212> PRT
<213> Artificial sequence

<220>
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<400> 323

Gly Ser Met Glu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 324
<211> 13
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<223> Synthetic

<400> 324

Gly Ser Met Leu Phe Arg Arg Thr Ile Asn Ser Trp Lys
1 5 10

<210> 325

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 325

Gly Ser Met Leu Phe Arg Asp Thr Ile Asn Ser Trp Lys
1 5 10

<210> 326

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 326

Gly Ser Met Leu Phe Arg Glu Thr Ile Asn Ser Trp Lys
1 5 10

<210> 327

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 327

Gly Ser Met Leu Phe Arg Val Thr Asp Asn Ser Trp Lys

1 5 10

<210> 328
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 328

Gly Ser Met Leu Phe Arg Val Thr Glu Asn Ser Trp Lys
1 5 10

<210> 329
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 329

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 330
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 330

Gly Ser Met Leu Phe Arg Lys Thr Ile Asn Ser Trp Lys
1 5 10

<210> 331
<211> 13
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 331

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Lys	Asn	Ser	Trp	Lys
1				5					10			

<210> 332

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 332

Gly	Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10	

<210> 333

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 333

Gly	Ser	Met	Leu	Phe	Arg	Val	Ser	Ile	Asn	Ser
1				5					10	

<210> 334

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 334

Gly	Ser	Met	Leu	Phe	Arg	Val	Asn	Ile	Asn	Ser
1				5					10	

<210> 335
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 335

Gly	Ser	Lys	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10	

<210> 336
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 336

Gly	Ser	Arg	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10	

<210> 337
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 337

Gly	Ser	Met	Trp	Phe	Arg	Val	Thr	Ile	Asn	Ser
1				5					10	

<210> 338
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 338

Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 339

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 339

Gly Ser Met Asn Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 340

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 340

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser
1 5 10

<210> 341

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 341

Gly Ser Met Leu Phe Arg Trp Thr Ile Asn Ser
1 5 10

<210> 342

<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 342

Gly Ser Met Leu Phe Arg Ser Thr Ile Asn Ser
1 5 10

<210> 343
<211> 11
<212> PRT
<213> Artificial sequence

<220>
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<400> 343

Gly Ser Met Leu Phe Arg Asn Thr Ile Asn Ser
1 5 10

<210> 344
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 344

Gly Ser Met Leu Phe Arg Lys Thr Ile Asn Ser
1 5 10

<210> 345
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 345

Gly Ser Met Leu Phe Arg Val Thr Trp Asn Ser
1 5 10

<210> 346
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 346

Gly Ser Met Leu Phe Arg Val Thr Ser Asn Ser
1 5 10

<210> 347
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 347

Gly Ser Met Leu Phe Arg Val Thr Asn Asn Ser
1 5 10

<210> 348
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 348

Gly Ser Met Leu Phe Arg Val Thr Lys Asn Ser
1 5 10

<210> 349
<211> 11
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 349

Gly Ser Met Leu Phe Arg Val Thr Ile Lys Ser
1 5 10

<210> 350

<211> 634

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 350

Met Lys His His His His His Val Ser Lys Gly Glu Glu Leu Ile
1 5 10 15

Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly
20 25 30

His Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly
35 40 45

Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu Pro Phe
50 55 60

Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe
65 70 75 80

Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro
85 90 95

Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val
100 105 110

Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr

115

120

125

Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met
 130 135 140

Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro
 145 150 155 160

Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val
 165 170 175

Gly Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys
 180 185 190

Lys Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu
 195 200 205

Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His
 210 215 220

Ala Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly Phe Thr Leu Glu Asp
 225 230 235 240

Phe Val Gly Asp Trp Arg Gln Thr Ala Gly Tyr Asn Leu Asp Gln Val
 245 250 255

Leu Glu Gln Gly Gly Val Ser Ser Leu Phe Gln Asn Leu Gly Val Ser
 260 265 270

Val Thr Pro Ile Gln Arg Ile Val Leu Ser Gly Glu Asn Gly Leu Lys
 275 280 285

Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Gly Asp Gln
 290 295 300

Met Gly Gln Ile Glu Lys Ile Phe Lys Val Val Tyr Pro Val Asp Asp
 305 310 315 320

His His Phe Lys Val Ile Leu His Tyr Gly Thr Leu Val Ile Asp Gly
325 330 335

Val Thr Pro Asn Met Ile Asp Tyr Phe Gly Arg Pro Tyr Glu Gly Ile
340 345 350

Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn
355 360 365

Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Asn Pro Asp Gly Ser Leu
370 375 380

Leu Phe Arg Val Thr Ile Asn Gly Val Thr Gly Trp Arg Leu Cys Glu
385 390 395 400

Arg Ile Leu Ala Arg His Glu Leu Ile Lys Glu Asn Met Arg Ser Lys
405 410 415

Leu Tyr Leu Glu Gly Ser Val Asn Gly His Gln Phe Lys Cys Thr His
420 425 430

Glu Gly Glu Gly Lys Pro Tyr Glu Gly Lys Gln Thr Asn Arg Ile Lys
435 440 445

Val Val Glu Gly Gly Pro Leu Pro Phe Ala Phe Asp Ile Leu Ala Thr
450 455 460

His Phe Met Tyr Gly Ser Lys Val Phe Ile Lys Tyr Pro Ala Asp Leu
465 470 475 480

Pro Asp Tyr Phe Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg
485 490 495

Val Met Val Phe Glu Asp Gly Gly Val Leu Thr Ala Thr Gln Asp Thr
500 505 510

Ser Leu Gln Asp Gly Glu Leu Ile Tyr Asn Val Lys Val Arg Gly Val

515

520

525

Asn Phe Pro Ala Asn Gly Pro Val Met Gln Lys Lys Thr Leu Gly Trp
 530 535 540

Glu Pro Ser Thr Glu Thr Met Tyr Pro Ala Asp Gly Gly Leu Glu Gly
 545 550 555 560

Arg Cys Asp Lys Ala Leu Lys Leu Val Gly Gly Gly His Leu His Val
 565 570 575

Asn Phe Lys Thr Thr Tyr Lys Ser Lys Lys Pro Val Lys Met Pro Gly
 580 585 590

Val His Tyr Val Asp Arg Arg Leu Glu Arg Ile Lys Glu Ala Asp Asn
 595 600 605

Glu Thr Tyr Val Glu Gln Tyr Glu His Ala Val Ala Arg Tyr Ser Asn
 610 615 620

Leu Gly Gly Gly Met Asp Glu Leu Tyr Lys
 625 630

<210> 351
 <211> 1902
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 351
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 ggtgaggggaa agccctatga ggggaagcag acaaaccgca tcaagggtcgt cgaaggggga 180
 cccctcccggt ttgcctttga tatcttggct actcacttta tgtacggaag caaagttttc 240
 ataaagtatc ctgccgacct tcctgattat tttaaacagt catttcccga gggtttcaca 300

tgggaaaggg tcatggtgtt tgaggatgga ggcgtgctca ctgcaactca ggacacctca	360
ctgcaggacg gcgagctgat ctacaatgtg aagggtccggg gtgtaaaactt ccctgccaac	420
gggcctgtaa tgcagaagaa gaccctggga tgggagccgt ccaccgaaac catgtaccct	480
gctgatggtg ggctggaggg ccgatgtgac aaggctctga agctcgttgg aggtgggtcat	540
ttgcacgtaa atttcaagac aacttacaag agcaaaaaac ccgtaaaaat gcccgggggtt	600
cattacgttg acagaaggct tgaacgcata aaggaagctg ataacgagac atacgtggag	660
cagtacgagc acgccgttgc ccggtactca aacctggggg gtggctttac actggaggat	720
tttgtgggag attggagaca gacagccggc tacaatctgg atcaggtgct ggaacaagga	780
ggagtgtctt ctctgtttca gaatctggga gtgagcgtga cacctatcca gaggatcgtg	840
ctgtctggcg agaattggact gaagatcgat attcacgtga tcatccccta cgaaggcctg	900
tctggagacc agatggggcca gattgagaag atcttcaaag tgggtgtatcc tgtggacgat	960
caccacttca aggtgatcct gcactacggc accctgggtga ttgatggagt gacacctaac	1020
atgatcgact acttcggaag accttacgag ggaatcgccg tgttcgacgg aaagaagatc	1080
accgtgacag gaacactgtg gaatggaaac aagatcatcg acgagcggct gatcaaccct	1140
gatggatctc tgctgttcag agtgaccatc aacggagtga caggatggag actgtgagag	1200
agaattctgg ctagacatga gctaatacaag gaaaatatga gaagtaagct atacttagag	1260
gggtccgtca acggtcacca gtttaaatgc actcatgaag gtgaggggaa accttatgaa	1320
ggtaagcaga ctaatcgaat aaaagtggtc gagggcggtc ctctgccatt cgctttcgat	1380
attctggcca ctcactttat gtatgggtct aaggctttta ttaaataccc cgctgatttg	1440
ccagactact ttaaacagtc cttccctgaa ggattcacat gggagcgggt gatggtgttc	1500
gaggatggag gcgttcttac tgcaactcag gatacttcct tgcaagacgg ggaactgatc	1560
tacaacgtta aggtccgcgg cgtcaatttc ccagccaatg gtccagtgat gcagaagaaa	1620
accttgggggt gggagccctc aacggagaca atgtaccctg cggacggcgg gcttgagggt	1680
agatgtgata aggcattgaa actcgtcggg ggcgccacc ttcatgtgaa tttcaagact	1740
acataaaaa gtaaaaaacc agtcaagatg cctggagtgc actacgtgga tcgtaggttg	1800

gagaggataa aagaagccga caacgaaact tatgtagagc aatatgagca cgccgtggct 1860
 cgttattcca acttggggcgg aggaatggat gaactgtaca ag 1902

<210> 352
 <211> 622
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 352

Met Lys His His His His His His Val Ser Lys Gly Glu Glu Leu Ile
 1 5 10 15

Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly
 20 25 30

His Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly
 35 40 45

Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu Pro Phe
 50 55 60

Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe
 65 70 75 80

Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro
 85 90 95

Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val
 100 105 110

Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr
 115 120 125

Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met
 130 135 140

Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro
145 150 155 160

Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val
165 170 175

Gly Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys
180 185 190

Lys Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu
195 200 205

Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His
210 215 220

Ala Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly Phe Thr Leu Glu Asp
225 230 235 240

Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val
245 250 255

Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser
260 265 270

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

Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln
290 295 300

Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp
305 310 315 320

His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly
325 330 335

Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile

340

345

350

Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn
 355 360 365

Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met
 370 375 380

Leu Phe Arg Val Thr Ile Asn Ser Arg His Glu Leu Ile Lys Glu Asn
 385 390 395 400

Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly His Gln Phe
 405 410 415

Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly Lys Gln Thr
 420 425 430

Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu Pro Phe Ala Phe Asp
 435 440 445

Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe Ile Lys Tyr
 450 455 460

Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro Glu Gly Phe
 465 470 475 480

Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val Leu Thr Ala
 485 490 495

Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr Asn Val Lys
 500 505 510

Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met Gln Lys Lys
 515 520 525

Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro Ala Asp Gly
 530 535 540

Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val Gly Gly Gly
545 550 555 560

His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys Lys Pro Val
565 570 575

Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu Arg Ile Lys
580 585 590

Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His Ala Val Ala
595 600 605

Arg Tyr Ser Asn Leu Gly Gly Gly Met Asp Glu Leu Tyr Lys
610 615 620

<210> 353
<211> 1866
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 353
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cggtctaaac tgtacctcga gggctccgtc aatgggcacc agtttaagtg tacccacgag 120
ggtgagggaa agccctatga ggggaagcag acaaaccgca tcaaggctcgt cgaaggggga 180
cccctcccgt ttgcctttga tatcttggt actcacttta tgtacggaag caaagttttc 240
ataaagtatc ctgccgacct tcctgattat tttaaacagt catttcccga gggtttcaca 300
tgggaaaggg tcatggtgtt tgaggatgga ggcgtgctca ctgcaactca ggacacctca 360
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gggcctgtaa tgcagaagaa gaccctggga tgggagccgt ccaccgaaac catgtaccct 480
gctgatgggtg ggctggaggg ccgatgtgac aaggctctga agctcgttgg aggtgggtcat 540
ttgcacgtaa atttcaagac aacttacaag agcaaaaaac ccgtaaaaat gcccgggggtt 600

cattacgttg acagaaggct tgaacgcata aaggaagctg ataacgagac atacgtggag	660
cagtacgagc acgccgttgc ccggtactca aacctggggg gtggcttcac actcgaagat	720
ttcgttgggg actgggaaca gacagccgcc tacaacctgg accaagtcct tgaacaggga	780
ggtgtgtcca gtttgtgca gaatctcgcc gtgtccgtaa ctccgatcca aaggattgtc	840
cggagcgggtg aaaatgccct gaagatcgac atccatgtca tcatcccgtg tgaaggctctg	900
agcgccgacc aaatggccca gatcgaagag gtgtttaagg tgggtgtaccc tgtggatgat	960
catcacttta aggtgatcct gccctatggc aacttggtaa tcgacggggt tacgccgaac	1020
atgctgaact atttcggacg gccgtatgaa ggcatcgccg tgttcgacgg caaaaagatc	1080
actgtaacag ggacctgtg gaacggcaac aaaattatcg acgagcgctt gatcaccccc	1140
gacggctcca tgctgttccg agtaaccatc aacagcagac atgagctaata caaggaaaat	1200
atgagaagta agctatactt agaggggtcc gtcaacggtc accagttaa atgcactcat	1260
gaaggtgagg ggaaacctta tgaaggtaag cagactaatc gaataaaaagt ggtcgagggc	1320
ggtcctctgc cattcgcttt cgatattctg gccactcact ttatgtatgg gtctaaggtc	1380
tttattaaat accccgctga ttgcccagac tactttaaac agtccttccc tgaaggattc	1440
acatgggagc gggatgatgg gttcgaggat ggaggcggtt ttactgcaac tcaggatact	1500
tccttgcaag acggggaact gatctacaac gttaagggtcc gcggcgtcaa tttcccagcc	1560
aatggtccag tgatgcagaa gaaaaccttg ggggtgggagc cctcaacgga gacaatgtac	1620
cctgcggacg gcgggcttga gggtagatgt gataaggcat tgaaactcgt cgggggcggc	1680
caccttcatg tgaatttcaa gactacatat aaaagtaaaa aaccagtcaa gatgcctgga	1740
gtgcactacg tggatcgtag gttggagagg ataaaaagaag ccgacaacga aacttatgta	1800
gagcaatatg agcacgccgt ggctcgttat tccaacttgg gcggaggaat ggatgaactg	1860
tacaag	1866

<210> 354
 <211> 611
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 354

Met Lys His His His His His His Val Ser Lys Gly Glu Glu Leu Ile
1 5 10 15

Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly
20 25 30

His Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly
35 40 45

Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu Pro Phe
50 55 60

Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe
65 70 75 80

Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro
85 90 95

Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val
100 105 110

Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr
115 120 125

Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met
130 135 140

Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro
145 150 155 160

Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val
165 170 175

Gly Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys

180

185

190

Lys Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu
 195 200 205

Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His
 210 215 220

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

Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val
 245 250 255

Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser
 260 265 270

Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys
 275 280 285

Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln
 290 295 300

Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp
 305 310 315 320

His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly
 325 330 335

Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile
 340 345 350

Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn
 355 360 365

Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Arg His Glu
 370 375 380

Leu Ile Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val
385 390 395 400

Asn Gly His Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr
405 410 415

Glu Gly Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu
420 425 430

Pro Phe Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys
435 440 445

Val Phe Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser
450 455 460

Phe Pro Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly
465 470 475 480

Gly Val Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu
485 490 495

Ile Tyr Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro
500 505 510

Val Met Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met
515 520 525

Tyr Pro Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys
530 535 540

Leu Val Gly Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys
545 550 555 560

Ser Lys Lys Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg
565 570 575

Leu Glu Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr

580

585

590

Glu His Ala Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly Met Asp Glu
 595 600 605

Leu Tyr Lys
 610

<210> 355
 <211> 1833
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 355
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 ggtgagggaa agccctatga ggggaagcag acaaaccgca tcaaggctcgt cgaaggggga 180
 cccctcccggt ttgcctttga tatcttggt actcacttta tgtacggaag caaagttttc 240
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 tgggaaaagg tcatgggtgt tgaggatgga ggcgtgctca ctgcaactca ggacacctca 360
 ctgcaggacg gcgagctgat ctacaatgtg aagggtccggg gtgtaaactt ccctgccaac 420
 gggcctgtaa tgcagaagaa gaccctggga tgggagccgt ccaccgaaac catgtaccct 480
 gctgatgggtg ggctggaggg ccgatgtgac aaggctctga agctcgttgg aggtgggtcat 540
 ttgcacgtaa atttcaagac aacttacaag agcaaaaaaac ccgtaaaaat gcccgggggtt 600
 cattacgttg acagaaggct tgaacgcata aaggaagctg ataacgagac atacgtggag 660
 cagtacgagc acgccgttgc ccggtactca aacctggggg gtggcttcac actcgacgat 720
 ttcgttgggg actgggaaca gacagccgcc tacaacctgg accaagtcct tgaacaggga 780
 ggtgtgtcca gtttctgca gaatctcgcc gtgtccgtaa ctccgatcat gaggattgtc 840
 cggagcgggtg aaaatgccct gaagatcgac atccatgtca tcatcccgtg tgaaggtctg 900

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agcgccgacc aaatggccca gatcgaagag gtgtttaagg tgggtgtaccc tgtggatgat      960
catcacttta aggtgatcct gccctatggc acactggtaa tcgacgggggt tacgccgaac      1020
aagctgaact atttcggacg gccgtatgaa ggcatcgccg tgttcgacgg caaaaagatc      1080
actaccacag ggaccctgtg gaacggcaac aaaattatcg acgagcgcct gatcaccccc      1140
gacagacatg agctaataca ggaaaaatat agaagtaagc tataacttaga ggggtccgtc      1200
aacggtcacc agtttaaatg cactcatgaa ggtgagggga aaccttatga aggtaagcag      1260
actaatcgaa taaaagtggc cgagggcggt cctctgccat tcgctttcga tattctggcc      1320
actcacttta tgtatgggtc taaggctctt attaaatacc ccgctgattt gccagactac      1380
tttaaacagt ccttccctga aggattcaca tgggagcggg tgatgggtgt cgaggatgga      1440
ggcgttctta ctgcaactca ggatacttcc ttgcaagacg gggaactgat ctacaacgtt      1500
aagggtccgcg gcgtcaattt cccagccaat ggtccagtga tgcagaagaa aaccttgggg      1560
tgggagccct caacgggagc aatgtaccct gcggacggcg ggcttgaggg tagatgtgat      1620
aaggcattga aactcgtcgg gggcgggccac cttcatgtga atttcaagac tacatataaa      1680
agtaaaaaac cagtcaagat gcctggagtg cactacgtgg atcgtaggtt ggagaggata      1740
aaagaagccg acaacgaaac ttatgtagag caatatgagc acgccgtggc tcgttattcc      1800
aacttgggcg gaggaatgga tgaactgtac aag                                     1833

```

<210> 356
 <211> 401
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 356

```

Met Lys His His His His His His Phe Thr Leu Glu Asp Phe Val Gly
1           5           10          15

```

```

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
20          25          30

```

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
35 40 45

Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
50 55 60

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
65 70 75 80

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe
85 90 95

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
100 105 110

Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
115 120 125

Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn Lys
130 135 140

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg
145 150 155 160

Val Thr Ile Asn Ser Gly Gly Ser Gly Gly Ser Ser Gly Glu Leu Ile
165 170 175

Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly
180 185 190

His Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly
195 200 205

Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly Gly Pro Leu Pro Phe
210 215 220

Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe

225 230 235 240

Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro
245 250 255

Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val
260 265 270

Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr
275 280 285

Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met
290 295 300

Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro
305 310 315 320

Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val
325 330 335

Gly Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys
340 345 350

Lys Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu
355 360 365

Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His
370 375 380

Ala Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly Met Asp Glu Leu Tyr
385 390 395 400

Lys

$\langle 210 \rangle$	357
$\langle 211 \rangle$	1203
$\langle 212 \rangle$	DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 357

atgaaacatc accatcacca tcatttcaca ctcgaagatt tcgttgggga ctgggaacag	60
acagccgcct acaacctgga ccaagtcctt gaacagggag gtgtgtccag tttgctgcag	120
aatctcgccg tgtccgtaac tccgatccaa aggattgtcc ggagcgggta aaatgccctg	180
aagatcgaca tccatgtcat catcccgtat gaaggctctga gcgccgacca aatggcccag	240
atcgaagagg tgtttaaggt ggtgtaccct gtggatgata atcactttaa ggtgacccg	300
ccctatggca cactggtaat cgacgggggtt acgccgaaca tgctgaacta tttcggacgg	360
ccgtatgaag gcatcgccgt gttcgacggc aaaaagatca ctgtaacagg gaccctgtgg	420
aacggcaaca aaattatcga cgagcgcctg atcacccccg acggctccat gctgttccga	480
gtaaccatca acagcggagg ctcagggtga tcctcagggt agctaataca ggaaaatatg	540
agaagtaagc tatacttaga ggggtccgtc aacggtcacc agtttaaatg cactcatgaa	600
ggtgagggga aaccttatga aggttaagcag actaatcgaa taaaagtggc cgagggcggg	660
cctctgccat tcgctttcga tattctggcc actcacttta tgtatgggtc taaggctttt	720
attaaatacc ccgtgattt gccagactac tttaaacagt ctttccctga aggattcaca	780
tgggagcggg tgatgggtgt cgaggatgga ggcgttctta ctgcaactca ggatacttcc	840
ttgcaagacg gggaactgat ctacaacgtt aagggtccgc gcgtcaattt cccagccaat	900
ggtccagtga tgcagaagaa aaccttgggg tgggagccct caacggagac aatgtaccct	960
gcggacggcg ggcttgaggg tagatgtgat aaggcattga aactcgtcgg gggcggccac	1020
cttcatgtga atttcaagac tacatataaa agtaaaaaac cagtcaagat gcctggagt	1080
cactacgtgg atcgtagggt ggagaggata aaagaagccg acaacgaaac ttatgtagag	1140
caatatgagc acgccgtggc tcgttattcc aacttgggcg gaggaatgga tgaactgtac	1200
aag	1203

<210> 358

<211> 395
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 358

Met Lys His His His His His His Phe Thr Leu Glu Asp Phe Val Gly
1 5 10 15

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
20 25 30

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
35 40 45

Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
50 55 60

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
65 70 75 80

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe
85 90 95

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
100 105 110

Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
115 120 125

Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn Lys
130 135 140

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg
145 150 155 160

Val Thr Ile Asn Ser Arg His Glu Leu Ile Lys Glu Asn Met Arg Ser

165

170

175

Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly His Gln Phe Lys Cys Thr
 180 185 190

His Glu Gly Glu Gly Lys Pro Tyr Glu Gly Lys Gln Thr Asn Arg Ile
 195 200 205

Lys Val Val Glu Gly Gly Pro Leu Pro Phe Ala Phe Asp Ile Leu Ala
 210 215 220

Thr His Phe Met Tyr Gly Ser Lys Val Phe Ile Lys Tyr Pro Ala Asp
 225 230 235 240

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

Arg Val Met Val Phe Glu Asp Gly Gly Val Leu Thr Ala Thr Gln Asp
 260 265 270

Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr Asn Val Lys Val Arg Gly
 275 280 285

Val Asn Phe Pro Ala Asn Gly Pro Val Met Gln Lys Lys Thr Leu Gly
 290 295 300

Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro Ala Asp Gly Gly Leu Glu
 305 310 315 320

Gly Arg Cys Asp Lys Ala Leu Lys Leu Val Gly Gly Gly His Leu His
 325 330 335

Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys Lys Pro Val Lys Met Pro
 340 345 350

Gly Val His Tyr Val Asp Arg Arg Leu Glu Arg Ile Lys Glu Ala Asp
 355 360 365

Asn Glu Thr Tyr Val Glu Gln Tyr Glu His Ala Val Ala Arg Tyr Ser
 370 375 380

Asn Leu Gly Gly Gly Met Asp Glu Leu Tyr Lys
 385 390 395

<210> 359
 <211> 1185
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 359
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 acagccgcct acaacctgga ccaagtcctt gaacagggag gtgtgtccag tttgctgcag 120
 aatctcgccg tgtccgtaac tccgatccaa aggattgtcc ggagcgggtga aaatgccctg 180
 aagatcgaca tccatgtcat catcccgtat gaaggctctga gcgccgacca aatggccccag 240
 atcgaagagg tgtttaaggt ggtgtaccct gtggatgata atcactttaa ggtgatacctg 300
 ccctatggca cactggtaat cgacgggggtt acgccgaaca tgctgaacta tttcggacgg 360
 ccgtatgaag gcatcgccgt gttcgacggc aaaaagatca ctgtaacagg gaccctgtgg 420
 aacggcaaca aaattatcga cgagcgcctg atcacccccg acggctccat gctgttccga 480
 gtaaccatca acagcagaca tgagctaatac aaggaaaata tgagaagtaa gctataacta 540
 gaggggtccg tcaacgggtca ccagtttaaa tgcactcatg aaggtagagg gaaaccttat 600
 gaaggtaagc agactaatcg aataaaaagt gtcgagggcg gtcctctgcc attcgctttc 660
 gatattctgg ccactcactt tatgtatggg tctaaggctt ttattaaata ccccgctgat 720
 ttgccagact actttaaca gtccttcctt gaaggattca catgggagcg ggtgatgggtg 780
 ttcgaggatg gaggcgttct tactgcaact caggatactt ccttgcaaga cggggaactg 840
 atctacaacg ttaaggtccg cggcgtcaat ttcccagcca atgggtccagt gatgcagaag 900
 aaaaccttgg ggtgggagcc ctcaacggag acaatgtacc ctgcggacgg cgggcttgag 960

ggtagatgtg ataaggcatt gaaactcgtc gggggcggcc accttcatgt gaatttcaag 1020
 actacatata aaagtaaaaa accagtcaag atgcctggag tgcactacgt ggatcgtagg 1080
 ttggagagga taaaagaagc cgacaacgaa acttatgtag agcaatatga gcacgccgtg 1140
 gctcgttatt ccaacttggg cggaggaatg gatgaactgt acaag 1185

<210> 360
 <211> 390
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 360

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

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
 20 25 30

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
 35 40 45

Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
 50 55 60

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
 65 70 75 80

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe
 85 90 95

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
 100 105 110

Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
 115 120 125

Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys
130 135 140

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Gly Ser Gly Gly Ser
145 150 155 160

Ser Gly Glu Leu Ile Lys Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu
165 170 175

Gly Ser Val Asn Gly His Gln Phe Lys Cys Thr His Glu Gly Glu Gly
180 185 190

Lys Pro Tyr Glu Gly Lys Gln Thr Asn Arg Ile Lys Val Val Glu Gly
195 200 205

Gly Pro Leu Pro Phe Ala Phe Asp Ile Leu Ala Thr His Phe Met Tyr
210 215 220

Gly Ser Lys Val Phe Ile Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe
225 230 235 240

Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Val Met Val Phe
245 250 255

Glu Asp Gly Gly Val Leu Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp
260 265 270

Gly Glu Leu Ile Tyr Asn Val Lys Val Arg Gly Val Asn Phe Pro Ala
275 280 285

Asn Gly Pro Val Met Gln Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr
290 295 300

Glu Thr Met Tyr Pro Ala Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys
305 310 315 320

Ala Leu Lys Leu Val Gly Gly Gly His Leu His Val Asn Phe Lys Thr

325

330

335

Thr Tyr Lys Ser Lys Lys Pro Val Lys Met Pro Gly Val His Tyr Val
 340 345 350

Asp Arg Arg Leu Glu Arg Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val
 355 360 365

Glu Gln Tyr Glu His Ala Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly
 370 375 380

Met Asp Glu Leu Tyr Lys
 385 390

<210> 361
 <211> 1170
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 361
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 aatctcgccg tgtccgtaac tccgatcatg aggattgtcc ggagcgggtga aaatgccctg 180
 aagatcgaca tccatgtcat catcccgtat gaaggctctga gcgccgacca aatggcccag 240
 atcgaagagg tgtttaaggt ggtgtaccct gtggatgatc atcactttaa ggtgacccctg 300
 ccctatggca cactggtaat cgacgggggtt acgccgaaca agctgaacta tttcggacgg 360
 ccgtatgaag gcatcgccgt gttcgacggc aaaaagatca ctaccacagg gaccctgtgg 420
 aacggcaaca aaattatcga cgagcgcctg atcaccccg acggaggctc aggtggatcc 480
 tcaggtgagc taatcaagga aaatatgaga agtaagctat acttagaggg gtccgtcaac 540
 ggtcaccagt ttaaattgcac tcatgaaggt gaggggaaac cttatgaagg taagcagact 600
 aatcgaataa aagtggtcga gggcgggtcct ctgccattcg ctttcgatat tctggccact 660


```

cactttatgt atgggtctaa ggtctttatt aaatacccccg ctgatttgcc agactacttt      720
aaacagtcct tccctgaagg attcacatgg gagcgggtga tgggtttcga ggatggaggc      780
gttcttactg caactcagga tacttccttg caagacggggg aactgatcta caacgttaag      840
gtccgcggcg tcaatttccc agccaatggg ccagtgatgc agaagaaaac cttgggggtgg      900
gagccctcaa cggagacaat gtaccctgcg gacggcgggc ttgagggtag atgtgataag      960
gcattgaaac tcgtcggggg cggccacctt catgtgaatt tcaagactac atataaaaagt     1020
aaaaaaccag tcaagatgcc tggagtgcac tacgtggatc gtaggttgga gaggataaaa     1080
gaagccgaca acgaaactta tgtagagcaa tatgagcacg ccgtggctcg ttattccaac     1140
ttgggcggag gaatggatga actgtacaag                                     1170

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```

<210> 362
<211> 384
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 362

```

```

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

```

```

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
          20           25           30

```

```

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
35           40           45

```

```

Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
50           55           60

```

```

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
65           70           75           80

```

```

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe

```

85

90

95

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
 100 105 110

Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
 115 120 125

Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys
 130 135 140

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Arg His Glu Leu Ile Lys
 145 150 155 160

Glu Asn Met Arg Ser Lys Leu Tyr Leu Glu Gly Ser Val Asn Gly His
 165 170 175

Gln Phe Lys Cys Thr His Glu Gly Glu Gly Lys Pro Tyr Glu Gly Lys
 180 185 190

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

Phe Asp Ile Leu Ala Thr His Phe Met Tyr Gly Ser Lys Val Phe Ile
 210 215 220

Lys Tyr Pro Ala Asp Leu Pro Asp Tyr Phe Lys Gln Ser Phe Pro Glu
 225 230 235 240

Gly Phe Thr Trp Glu Arg Val Met Val Phe Glu Asp Gly Gly Val Leu
 245 250 255

Thr Ala Thr Gln Asp Thr Ser Leu Gln Asp Gly Glu Leu Ile Tyr Asn
 260 265 270

Val Lys Val Arg Gly Val Asn Phe Pro Ala Asn Gly Pro Val Met Gln
 275 280 285

Lys Lys Thr Leu Gly Trp Glu Pro Ser Thr Glu Thr Met Tyr Pro Ala
 290 295 300

Asp Gly Gly Leu Glu Gly Arg Cys Asp Lys Ala Leu Lys Leu Val Gly
 305 310 315 320

Gly Gly His Leu His Val Asn Phe Lys Thr Thr Tyr Lys Ser Lys Lys
 325 330 335

Pro Val Lys Met Pro Gly Val His Tyr Val Asp Arg Arg Leu Glu Arg
 340 345 350

Ile Lys Glu Ala Asp Asn Glu Thr Tyr Val Glu Gln Tyr Glu His Ala
 355 360 365

Val Ala Arg Tyr Ser Asn Leu Gly Gly Gly Met Asp Glu Leu Tyr Lys
 370 375 380

<210> 363
 <211> 1152
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 363
 atgaaacatc accatcacca tcatttcaca ctcgacgatt tcgttgggga ctgggaacag 60
 acagccgcct acaacctgga ccaagtcctt gaacagggag gtgtgtccag tttgctgcag 120
 aatctcgccg tgtccgtaac tccgatcatg aggattgtcc ggagcgggtga aaatgccctg 180
 aagatcgaca tccatgtcat catcccgtat gaaggctctga gcgccgacca aatggccccag 240
 atcgaagagg tgtttaaggt ggtgtaccct gtggatgata atcactttaa ggtgatacctg 300
 ccctatggca cactggtaat cgacgggggtt acgccgaaca agctgaacta tttcggacgg 360
 ccgtatgaag gcatcgccgt gttcgacggc aaaaagatca ctaccacagg gaccctgtgg 420
 aacggcaaca aaattatcga cgagcgcctg atcacccccg acagacatga gctaatacaag 480

gaaaatatga gaagtaagct atacttagag ggggtccgtca acggtcacca gtttaaatgc 540
 actcatgaag gtgaggggaa accttatgaa ggtaagcaga ctaatcgaat aaaagtggtc 600
 gagggcggtc ctctgccatt cgcttttcgat attctggcca ctactttat gtatgggtct 660
 aaggtcttta ttaaataccc cgctgatttg ccagactact ttaaacagtc cttccctgaa 720
 ggattcacat gggagcgggt gatgggtgtc gaggatggag gcgttcttac tgcaactcag 780
 gatacttcct tgcaagacgg ggaactgac tacaacgtta aggtccgcgg cgtcaatttc 840
 ccagccaatg gtccagtgat gcagaagaaa accttgggggt gggagccctc aacggagaca 900
 atgtaccctg cggacggcgg gcttgagggt agatgtgata aggcattgaa actcgtcggg 960
 ggcggccacc ttcatgtgaa tttcaagact acatataaaa gtaaaaaaacc agtcaagatg 1020
 cctggagtgc actacgtgga tcgtaggttg gagaggataa aagaagccga caacgaaact 1080
 tatgtagagc aatatgagca cgccgtggct cgttattcca acttgggcgg aggaatggat 1140
 gaactgtaca ag 1152

<210> 364
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 364

Met Lys His His His His His Val Phe Thr Leu Glu Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
 20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Leu Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 365
<211> 465
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 365
atgaaacatc accatcacca tcatgtcttc acactcgaag atttcgttgg ggactgggaa 60
cagaccgccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc ctaaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acatgctgaa ctatttcgga 360
cggccgatg aaggcatcgc cgtgttcgac ggcaaaaaga tcaactgtaac agggaccctg 420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgac 465

<210> 366
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 366

Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile	Thr	Pro	Asp
1				5					10					15

<210> 367
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 367

Lys	Lys	Ile	Thr	Thr	Thr	Gly	Thr	Leu	Trp	Asn	Gly	Arg
1				5					10			

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

<220>
<223> Synthetic

<400> 368

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

<210> 369
<211> 24
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 369

Gly Lys Met Leu Phe Arg Val Thr Ile Trp Lys Val Ser Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
20

<210> 370

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 370

Gly Lys Met Leu Phe Arg Val Thr Ile Trp Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 371

<211> 26

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 371

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys Val Ser Val
1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

<210> 372

<211> 24

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 372

Gly	Ser	Met	Lys	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys	Val	Ser	Gly
1				5				10					15		

Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser
				20			

<210> 373

<211> 26

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 373

Gly	Ser	Met	Lys	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys	Asn	Val	Thr
1				5				10					15		

Gly	Tyr	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn
			20				25		

<210> 374

<211> 24

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 374

Gly	Ser	Met	Lys	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys	Val	Thr	Gly
1				5				10					15		

Tyr	Arg	Leu	Phe	Glu	Lys	Ile	Ser
				20			

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<400> 375

Gly Ser Met Lys Phe Arg Val Thr Ile Trp Lys Val Ser Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
20

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<400> 376

Gly Ser Met Lys Phe Arg Val Thr Ile Trp Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

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<211> 26
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<220>
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<400> 377

Gly Arg Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys Val Ser Val
1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

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<400> 378

Gly Arg Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
20

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<400> 379

Gly Arg Met Leu Phe Arg Val Thr Ile Trp Lys Val Ser Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
20

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Gly Arg Met Leu Phe Arg Val Thr Ile Trp Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

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Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
20

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Gly Ser Met Leu Phe Lys Val Thr Ile Asn Ser Val Ser Gly Trp Arg
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Leu Phe Lys Lys Ile Ser
20

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Gly Ser Met Leu Phe Gln Val Thr Ile Asn Ser Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
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<400> 384

Gly Ser Met Leu Phe Glu Val Thr Ile Asn Ser Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
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<220>

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<400> 385

Gly Ser Met Leu Phe Asn Val Thr Ile Asn Ser Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

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<211> 21
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<220>
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<400> 386

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

Thr Thr Gly Thr Leu
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<400> 387

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys Val Thr Gly
1 5 10 15

Tyr Arg Leu Phe Glu Lys Glu Ser
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<400> 388

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys Val Glu Gly
1 5 10 15

Tyr Arg Leu Phe Glu Lys Ile Ser

20

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<400> 389

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
1 5 10 15

Asp Glu Arg Leu Ile Thr Pro Asp
20

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<220>
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<400> 390

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
1 5 10 15

Ser Met Leu Phe Arg Val Thr Ile Asn Ser
20 25

<210> 391
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<220>
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<400> 391

Gly Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys

1 5 10

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<400> 392

Gly Lys Met Leu Phe Arg Val Thr Ile Gly Lys Trp Lys
1 5 10

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<400> 393

Gly Lys Met Leu Phe Arg Val Thr Ile Gly Arg Trp Lys
1 5 10

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<400> 394

Gly Lys Met Leu Phe Arg Val Thr Ile Gly Asn Trp Lys
1 5 10

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Gly Lys Met Leu Phe Arg Val Thr Ile Gln Asn Trp Lys
1 5 10

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<400> 396

Gly Lys Met Leu Phe Arg Val Thr Ile Asp Lys Trp Lys
1 5 10

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Gly Lys Met Leu Phe Arg Val Thr Ile Glu Lys Trp Lys
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<400> 398

Gly Lys Met Leu Phe Arg Val Thr Ile Glu Arg Trp Lys
1 5 10

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<400> 399

Gly Lys Met Leu Phe Arg Val Thr Ile Asp Arg Trp Lys
1 5 10

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<400> 400

Asp Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys
1 5 10

<210> 401
<211> 13
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<400> 401

Asp Lys Met Leu Phe Arg Val Thr Ile Gly Lys Trp Lys
1 5 10

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<400> 402

Asp Lys Met Leu Phe Arg Val Thr Ile Gly Arg Trp Lys
1 5 10

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Asp Lys Met Leu Phe Arg Val Thr Ile Gly Asn Trp Lys
1 5 10

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<400> 404

Asp Lys Met Leu Phe Arg Val Thr Ile Gln Asn Trp Lys
1 5 10

<210> 405

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<400> 405

Asp Lys Met Leu Phe Arg Val Thr Ile Asp Lys Trp Lys
1 5 10

<210> 406

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<400> 406

Asp Lys Met Leu Phe Arg Val Thr Ile Glu Lys Trp Lys
1 5 10

<210> 407
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<400> 407

Asp Lys Met Leu Phe Arg Val Thr Ile Glu Arg Trp Lys
1 5 10

<210> 408
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<400> 408

Asp Lys Met Leu Phe Arg Val Thr Ile Asp Arg Trp Lys
1 5 10

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<400> 409

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

Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile
20 25 30

Thr Pro Asp
35

<210> 410
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<400> 410

Glu Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys
1 5 10

<210> 411
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<400> 411

Glu Lys Met Leu Phe Arg Val Thr Ile Gly Lys Trp Lys
1 5 10

<210> 412
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<400> 412

Glu Lys Met Leu Phe Arg Val Thr Ile Gly Arg Trp Lys
1 5 10

<210> 413
<211> 22
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<213> Artificial sequence

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<400> 413

Asp Lys Met Leu Phe Thr Val Thr Ile Gln Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 414
<211> 22
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<400> 414

Asp Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 415
<211> 24
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<400> 415

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

Trp Arg Leu Phe Lys Lys Ile Ser
20

<210> 416
<211> 24
<212> PRT
<213> Artificial sequence

<220>
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<400> 416

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

Trp Arg Leu Phe Lys Lys Ile Ser
20

<210> 417
<211> 26
<212> PRT
<213> Artificial sequence

<220>
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<400> 417

Asp Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Tyr Lys Val Ser Val
1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

<210> 418
<211> 22
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<213> Artificial sequence

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<400> 418

Lys Lys Met Leu Phe Arg Val Thr Ile Gln Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 419

<211> 26

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<213> Artificial sequence

<220>

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<400> 419

Lys Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys Val Ser Val
1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

<210> 420

<211> 24

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<400> 420

Lys Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys Val Ser Gly
1 5 10 15

Trp Arg Leu Phe Lys Lys Ile Ser
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<210> 421

<211> 22
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<400> 421

Asp Lys Leu Leu Phe Thr Val Thr Ile Gly Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 422
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<400> 422

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

Trp Arg Leu Phe Lys Lys Ile Ser
20

<210> 423
<211> 26
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<400> 423

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1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser

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25

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<400> 424

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

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

<210> 425
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<400> 425

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

Leu Phe Lys Lys Ile Ser
20

<210> 426
<211> 22
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<400> 426

Lys Lys Met Leu Phe Thr Val Thr Ile Gln Lys Val Ser Gly Trp Arg

1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 427
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<220>
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<400> 427

Lys Lys Leu Leu Phe Arg Val Thr Ile Gln Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 428
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<212> PRT
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<400> 428

Asp Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile
20

<210> 429
<211> 25
<212> PRT
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<220>
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<400> 429

Asp Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Tyr Lys Val Ser Val
1 5 10 15

Ser Gly Trp Arg Leu Phe Lys Lys Ile
20 25

<210> 430

<211> 22

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<400> 430

Asp Arg Leu Leu Phe Thr Val Thr Ile Glu Arg Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 431

<211> 22

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<213> Artificial sequence

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<400> 431

Glu Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 432

<211> 22

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<400> 432

Lys Lys Leu Leu Phe Thr Val Thr Ile Gly Lys Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 433

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<220>

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<400> 433

Gly Ser Met Arg Phe Arg Val Thr Ile Asn Ser Trp Arg Val Thr Gly
1 5 10 15

Tyr Arg Leu Phe Glu Arg Glu Ser
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<210> 434

<211> 22

<212> PRT

<213> Artificial sequence

<220>

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<400> 434

Gly Ser Met Lys Phe Arg Val Thr Ile Asn Ser Val Thr Gly Tyr Arg
1 5 10 15

Leu Phe Glu Lys Glu Ser
20

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<400> 435

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
1 5 10 15

Asp

<210> 436
<211> 29
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<400> 436

Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile
1 5 10 15

Asn Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
20 25

<210> 437
<211> 58
<212> PRT
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<220>
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<400> 437

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

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
20 25 30

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
35 40 45

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
50 55

<210> 438
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<400> 438

Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly
1 5 10 15

Ile Ala Val Asp Phe Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp
20 25 30

Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser
35 40 45

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Arg Leu Phe
50 55 60

Lys Lys Ile Ser
65

<210> 439
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<400> 439

Glu Lys Met Leu Phe Arg Val Thr Ile Gly Asn Trp Lys
1 5 10

<210> 440

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<400> 440

Glu Lys Met Leu Phe Arg Val Thr Ile Gln Asn Trp Lys
1 5 10

<210> 441

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<400> 441

Glu Lys Met Leu Phe Arg Val Thr Ile Asp Lys Trp Lys
1 5 10

<210> 442

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<400> 442

Glu Lys Met Leu Phe Arg Val Thr Ile Glu Lys Trp Lys
1 5 10

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<400> 443

Glu Lys Met Leu Phe Arg Val Thr Ile Glu Arg Trp Lys
1 5 10

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<400> 444

Glu Lys Met Leu Phe Arg Val Thr Ile Asp Arg Trp Lys
1 5 10

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<400> 445

Lys Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys
1 5 10

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<400> 446

Lys Lys Met Leu Phe Arg Val Thr Ile Gly Lys Trp Lys
1 5 10

<210> 447
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<400> 447

Lys Lys Met Leu Phe Arg Val Thr Ile Gly Arg Trp Lys
1 5 10

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<400> 448

Lys Lys Met Leu Phe Arg Val Thr Ile Gly Asn Trp Lys
1 5 10

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Lys Lys Met Leu Phe Arg Val Thr Ile Gln Asn Trp Lys
1 5 10

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Lys Lys Met Leu Phe Arg Val Thr Ile Asp Lys Trp Lys
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Lys Lys Met Leu Phe Arg Val Thr Ile Glu Lys Trp Lys
1 5 10

<210> 452

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<400> 452

Lys Lys Met Leu Phe Arg Val Thr Ile Glu Arg Trp Lys
1 5 10

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<400> 453

Lys Lys Met Leu Phe Arg Val Thr Ile Asp Arg Trp Lys

1 5 10

<210> 454
<211> 13
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<400> 454

Arg Lys Met Leu Phe Arg Val Thr Ile Gln Lys Trp Lys
1 5 10

<210> 455
<211> 13
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<400> 455

Arg Lys Met Leu Phe Arg Val Thr Ile Gly Lys Trp Lys
1 5 10

<210> 456
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<400> 456

Arg Lys Met Leu Phe Arg Val Thr Ile Gly Arg Trp Lys
1 5 10

<210> 457
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<400> 457

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Gly	Asn	Trp	Lys
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<400> 458

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Gln	Asn	Trp	Lys
1				5					10			

<210> 459

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<400> 459

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Asp	Lys	Trp	Lys
1				5					10			

<210> 460

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<400> 460

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Glu	Lys	Trp	Lys
1				5					10			

<210> 461
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<400> 461

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Glu	Arg	Trp	Lys
1				5					10			

<210> 462
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<400> 462

Arg	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Asp	Arg	Trp	Lys
1				5					10			

<210> 463
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<400> 463

Glu	Gln	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Ser	Trp	Lys
1				5					10			

<210> 464
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<400> 464

Ser Arg Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 465

<211> 13

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<400> 465

Gly Glu Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 466

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<400> 466

Gly Lys Met Lys Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 467

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Gly Lys Met Leu Phe Arg Val Lys Ile Asn Ser Trp Lys
1 5 10

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<400> 468

Gly Lys Met Leu Phe Arg Val Arg Ile Asn Ser Trp Lys
1 5 10

<210> 469
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<400> 469

Gly Lys Met Leu Phe Arg Val Asp Ile Asn Ser Trp Lys
1 5 10

<210> 470
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<400> 470

Gly Lys Met Leu Phe Arg Val Thr Ile Asp Ser Trp Lys
1 5 10

<210> 471
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<400> 471

Gly Lys Met Leu Phe Arg Val Thr Ile Asn Lys Trp Lys
1 5 10

<210> 472
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<400> 472

Glu Lys Met Leu Phe Lys Val Thr Ile Gln Lys Trp Lys
1 5 10

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<400> 473

Glu Lys Met Leu Phe Thr Val Thr Ile Gln Lys Trp Lys
1 5 10

<210> 474
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<400> 474

Glu Lys Met Leu Phe Lys Val Thr Ile Asp Lys Trp Lys
1 5 10

<210> 475
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Glu Lys Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
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His Lys Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
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Gly Leu Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
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Gly Gln Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
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Gly Thr Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
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Gly	Lys	Met	Lys	Phe	Arg	Val	Thr	Ile	Glu	Ser	Trp	Lys
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<400> 587

Lys Lys Leu Leu Phe Arg Val Thr Ile Gln Lys Trp Lys
1 5 10

<210> 588
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 588

Asp Arg Met Leu Phe Arg Val Thr Ile Gln Arg Trp Arg
1 5 10

<210> 589
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 589

Glu Arg Met Leu Phe Arg Val Thr Ile Gly Arg Trp Arg
1 5 10

<210> 590

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 590

Gly Arg Met Leu Phe Arg Val Thr Ile Asn Arg Trp Arg
1 5 10

<210> 591

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 591

Asp Arg Met Leu Phe Arg Val Thr Ile Glu Arg Trp Arg
1 5 10

<210> 592

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 592

Asp Lys Met Leu Phe Lys Val Thr Ile Gln Lys Tyr Lys
1 5 10

<210> 593

<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 593

Asp Lys Met Leu Phe Arg Val Thr Ile Asn Lys Trp Lys
1 5 10

<210> 594
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 594

Asp Lys Met Leu Phe Lys Val Thr Ile Glu Lys Tyr Lys
1 5 10

<210> 595
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 595

Asp Lys Met Leu Phe Lys Val Thr Ile Asn Lys Trp Lys
1 5 10

<210> 596
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 596

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Tyr Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 597

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 597

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gtcttcacac tcgaagattt cgttggggac tggcggcaga cagccgccta caacctggac      60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474

```

<210> 598
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 598

```

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ala
1           5           10           15

```

```

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20           25           30

```

```

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35           40           45

```

```

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50           55           60

```

```

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65           70           75           80

```

```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
          85           90           95

```

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 599
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 599
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 600
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 600

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Leu Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 601

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 601
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 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atccccgatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgctga tcacccccga cggctccatg tccttccagg taaccatcaa cagc 474

<210> 602
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 602

Val	Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Asn	Gln	Thr	Ala	Ala
1				5					10					15	

Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu
			20					25					30		

Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg	Ser
		35					40					45			

Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu
	50					55					60				

Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val
65					70					75					80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly

85

90

95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 603
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 603
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 caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atcccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacatcgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcga cagc 474

<210> 604
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 604

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asp Ser
145 150 155

<210> 605

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 605

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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474
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<210> 606

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 606

```
Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Gln Gln Thr Ala Ala
1           5           10          15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20          25          30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35          40          45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50          55          60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65          70          75          80
```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 607
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 607
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caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctg cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 608
<211> 158
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 608

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Met Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 609

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 609

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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474
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<210> 610

<211> 157

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 610

```
Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp His Gln Thr Ala Ala
1           5           10          15
```

```
Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20          25          30
```

```
Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35          40          45
```

```
Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50          55          60
```

```
Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
```

65		70		75		80
Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly						
		85		90		95
Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly						
		100		105		110
Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val						
		115		120		125
Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile						
		130		135		140
Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn						
		145		150		155

<210> 611
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 611	
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ccgatccaaa ggatggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc	180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg	240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc	300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg	360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac	420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc	474

<210> 612

<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 612

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Phe Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 613

<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 613
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggtctccatg tccttccgag taaccatcaa cagc 474

<210> 614
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 614

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Trp Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 615
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 615
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tagaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtacgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccagg taaccatcaa cagc 474

<210> 616
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 616

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 617
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 617
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atccccgatg aaggctctgag cgccgaccaa atggcccaga tagaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtacgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccagg taaccatcga cagc 474

<210> 618
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 618

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu

50

55

60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asp Ser
145 150 155

<210> 619

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 619

gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggctctgag cgccgaccaa atggcccaga tagaagaggt gtttaagggtg 240

gtgtaccctg tggatgatca tcactttaag gtgacctgc actatggcac actggtaatc 300

gacgggggta cgccgaacat gctgaactat ttcggacggc cgtacgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc

474

<210> 620

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 620

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser

145

150

155

<210> 621
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 621
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atcccgtatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc actatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttcagg taaccatcaa cagc 474

<210> 622
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 622

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
 35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 623

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 623

gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggatggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180

atccccgatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420

gagcgctga tcacccccga cggctccatg tccttccagg taaccatcga cagc 474

<210> 624

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 624

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asp Ser
 145 150 155

<210> 625
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 625
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atcccgtatg aaggtctgag cgccgaccaa atggcccaga tagaagaggt gtttaaggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc actatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtacgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac 420
 gagcgcctga tcacccccga cggtccatg tccttcagg taaccatcaa cagc 474

<210> 626
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 626

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser

35

40

45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
 50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
 65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
 85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 627

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 627

gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggctctgag cgccgaccaa atggcccaga tagaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacgggggta cgccgaacat gctgaactat ttcggacggc cgtacgaagg catcgccgtg	360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcggcaa aattatcgac	420
gagcgcctga tcacccccga cggctccatg tccttccagg taaccatcaa cagc	474

<210> 628
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 628

Val	Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala
1			5					10						15	

Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu
		20						25					30		

Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg	Ser
		35					40					45			

Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu
	50					55					60				

Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val
65					70					75					80

Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly
			85						90					95	

Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly
			100						105					110	

Arg	Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val
		115					120					125			

Thr	Gly	Thr	Leu	Trp	Asn	Gly	Gly	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 629
 <211> 470
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 629
 ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagtttag tgttacgcct 120
 atacaacgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc 470

<210> 630
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 630

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
 1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
 20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 631
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 631
ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcatataaa cttagaccaa 60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240

taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgatagactc g	471

<210> 632
 <211> 156
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 632

Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75					80

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
				85					90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
			100					105					110		

Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr
		115					120					125			

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asp
145 150 155

<210> 633
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 633
ttcacttttg acgatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
gtgttggAAC aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgta tggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattaccat atggaacttt agttatagac 300
gggtgtgactc ctaacatgtt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggt tactggtagc ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 634
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 634

Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln

20

25

30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
 35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
 50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr
 85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 635

<211> 472

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 635

ttcacttttg acgatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60

gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

ataatgcgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180

ccttatgaag gattatcggc agaccaaagtc gcacagatag aagagggtttt taaagttggt	240
tacccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc gt	472

<210> 636
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 636

Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Met	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75					80

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
			85						90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
			100					105						110	

Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 637
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 637
 ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcattcaa cttagaccca 60
 gtgttggAAC aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
 atacaacgta tggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatgtt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactgggtacg ctatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccacgtta cgataaactc g 471

<210> 638
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 638

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Phe
 1 5 10 15

Asn Leu Asp Pro Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe His Val Thr Ile Asn Ser
145 150 155

<210> 639
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 639
ttcactttgg aggttttcgt gggtgactgg aaacagactg cagcatataaa cttagaccaa 60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

atacaacgta tggtagatc gggagaaaat gcattaaaaa tagacataca tgtgataata	180
ccttatgaag gattatcggc agaccaaagtg gcacagatag aagaggtttt taaagttgtt	240
tacccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacagggt aaactatttc ggtagacctt ttgaaggaat agcagttttc	360
gacggaaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g	471

<210> 640
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 640

Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75					80

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
			85						90					95	

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

Pro Phe Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 641
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 641
 ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagtttag tgttacgcct 120
 atacaacgtg tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tacaggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 642
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 642

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr

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

<210> 643
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 643
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gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct	120
atacaacgta tagtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata	180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt	240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g	471

<210> 644
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 644

Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75				80	

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
			85						90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 645
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 645
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 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggctgtag tggtacgcca 120
 atacaacgta tggtagatc gggagaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagtg gcacagatag aagaggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacagggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 646
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 646

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

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

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 647

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 647

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ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa      60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct    120
atacaacgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata    180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt    240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac    300
ggtgtgactc ctaacacggt aaactatttc ggtagacctt atgaaggaat agcagttttc    360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag    420
agattaataa cgccagacgg aagtatgagt ttccaggtta cgataaactc g                471

```

<210> 648
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 648

```

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1           5           10           15

```

```

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
          20           25           30

```

```

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
          35           40           45

```

```

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
          50           55           60

```

```

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65           70           75           80

```

```

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
          85           90           95

```

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

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 649
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 649
ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa ctagaccaa 60
gtgttggaac aggggtggagt tagttcgctg ttacagaatt tggcagttag tgttacgcct 120
atacaacgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgactc ctaacaagtt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaaga aaataacggg tactgggtacg ttatggaacg gagccgagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 650
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 650

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Glu Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 651

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 651
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 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcaggtag tgttacgcct 120
 atacaacgta tgggtgagatc gggagaaaaac gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 652
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 652

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
 1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
 20 25 30

Asn Leu Ala Gly Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
 35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
 50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr

85

90

95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 653
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 653
 ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcgtacaa cttagaccaa 60
 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
 atacaacgta tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc tgaccaaattg gcacagatag aagagggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacttggt gaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aaaagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 654
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 654

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

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

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Lys Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 655

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 655

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gtgttggaac aggggtggagt tagttcgctt ttacagaatt tgacagttag tgttacgcct      120
atacaacgta tggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata      180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt      240
taccagttg atgatcatca ctttaaagtt atatttcact atggaacttt agttatagtc      300
gggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc      360
gacggaaaaga aaataacggt tactggtagc ttatggaacg gagccaagat aatagacgag      420
ggatcaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g                471
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<210> 656

<211> 157

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 656

```
Phe Thr Leu Glu Gly Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1           5           10          15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20          25          30

Asn Leu Thr Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly
35          40          45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50          55          60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65          70          75          80
```


Tyr Pro Val Asp Asp His His Phe Lys Val Ile Phe His Tyr Gly Thr
85 90 95

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

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Gly Ser Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 657
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 657
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gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgta aggtgagatc gggagaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 658
<211> 157
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 658

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Lys Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 659

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 659

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atacaacgtg aggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata    180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt    240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac    300
gggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc    360
gacggaaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag    420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g              471
```

<210> 660

<211> 157

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 660

```
Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1          5          10          15
```

```
Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
          20          25          30
```

```
Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Glu Val Arg Ser Gly
          35          40          45
```

```
Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
          50          55          60
```

```
Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
```

65	70	75	80
Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr	85	90	95
Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg	100	105	110
Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr	115	120	125
Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr	130	135	140
Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser	145	150	155

<210> 661
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 661	
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gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct	120
atacaacgtg cggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata	180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt	240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
gggtgtgactc ctaacatgtt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g	471

<210> 662

<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 662

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ala Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 663

<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 663
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gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacggt gtgtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgact ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 664
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 664

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Cys Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 665
<211> 472
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 665
ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacggt ggggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc gt 472

<210> 666
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 666

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Trp Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 667
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 667
ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgtg ggggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttgtt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 668
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 668

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Gly Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly

50

55

60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
 85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 669

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 669

ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60

gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

atacaacgtc atgtgagatc gggagaaaat gcattaaaaa tagacataca tgtgataata 180

ccttatgaag gattatcggc agaccaaagc gcacagatag aagaggtttt taaagttggt 240

taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300

ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360

gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420

agattaataa cgccagacgg aagtatgagt ttccaggta cgataaactc g

471

<210> 670

<211> 157

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 670

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg His Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser

145

150

155

<210> 671
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 671
 ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
 atacaacgta gtgtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaaga aaataacggt tactggtagc ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 672
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 672

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
 1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
 20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ser Val Arg Ser Gly
 35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 673
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 673
ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatataaa cttagaccaa 60
gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagtttag tgttacgcct 120
atacaacgtc aggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttgtt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgact ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360

gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g 471

<210> 674
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 674

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Gln Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 675
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 675
ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60
gtgttggaaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgtc ggggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 676
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 676

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Arg Val Arg Ser Gly

35

40

45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
 50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
 85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 677

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 677

ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatataca cttagaccaa 60

gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

atacaacgta cggtagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180

ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240

tacccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300

ggtgtgactc ctaacatgtt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 678
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 678

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
 1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
 20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Thr Val Arg Ser Gly
 35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
 50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
 85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr

130

135

140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 679
 <211> 471
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 679
 ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60
 gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagtttag tgttacgcct 120
 atacaacggt atgtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
 ccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240
 taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
 ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
 gacggaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag 420
 agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 680
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 680

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
 1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
 20 25 30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Tyr Val Arg Ser Gly
35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 681

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 681

ttcactttgg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60

gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

atacaacgtc tgggtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180

cccttatgaag gattatcggc agaccaaagt gcacagatag aagagggtttt taaagttggt 240

taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaga aaataacggt tactgggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g	471

<210> 682
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 682

Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Leu	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75					80

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
				85					90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
			100					105					110		

Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr
		115					120					125			

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 683
<211> 471
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 683
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gtgttggAAC aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120
atacaacgtc ctgtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180
ccttatgaag gattatcggc agaccaaagt gcacagatag aagaggtttt taaagttggt 240
taccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac 300
gggtgtgactc ctaacatgtt aaactatttc ggtagacctt atgaaggaat agcagttttc 360
gacggaaaga aaataacggg tactggtagc ttatggaacg gagccaagat aatagacgag 420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaactc g 471

<210> 684
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 684

Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr
1 5 10 15

Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln

20

25

30

Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Pro Val Arg Ser Gly
 35 40 45

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
 50 55 60

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
 65 70 75 80

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr
 85 90 95

Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg
 100 105 110

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr
 115 120 125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 685

<211> 471

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 685

ttcacttttg aagatttcgt gggtgactgg aaacagactg cagcatacaa cttagaccaa 60

gtgttggaac aggggtggagt tagttcgctt ttacagaatt tggcagttag tgttacgcct 120

atacaacgtt ttgtgagatc gggagaaaaat gcattaaaaa tagacataca tgtgataata 180

ccttatgaag gattatcggc agaccaaagtg gcacagatag aagaggtttt taaagttggt	240
tacccagttg atgatcatca ctttaaagtt atattacact atggaacttt agttatagac	300
ggtgtgactc ctaacatggt aaactatttc ggtagacctt atgaaggaat agcagttttc	360
gacggaaaga aaataacggt tactggtacg ttatggaacg gagccaagat aatagacgag	420
agattaataa cgccagacgg aagtatgagt ttccagggtta cgataaaactc g	471

<210> 686
 <211> 157
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 686

Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala	Tyr
1				5					10					15	

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
			20					25					30		

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Phe	Val	Arg	Ser	Gly
		35					40					45			

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
	50					55					60				

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
65					70					75					80

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr	Gly	Thr
			85						90					95	

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg
			100					105						110	

Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr
 130 135 140

Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 687
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 687
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 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgatatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 ttttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
 aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacac ccccgacggc 480
 tccatgctgt tccgagtaac catcaacggc gtttagcggct ggcgctgtt caagaagatc 540
 agc 543

<210> 688
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 688

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 689

<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 689
atgaaacatc accatcacca tcatgcatc gccatggtct tcacactcga agatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacaag 480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgccctgtt caagaagatc 540
agc 543

<210> 690
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 690

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Lys
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 691
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 691
atgaaacatc accatcacca tcatgcgatc gccatgggtct tcacactcga agatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggaggtgtg 120

tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc	180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc	240
gaccaaattgg cccagatcga agagggtgtt aagggtggtgt accctgtgga tgatcatcac	300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg	360
aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta	420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc	480
tccatgctgt tccgagtaac catcaacaag gttagcggct ggcgcctggt caagaagatc	540
agc	543

<210> 692
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 692

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

Glu	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp
			20					25					30		

Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala
		35					40					45			

Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala
	50					55					60				

Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala
65					70				75					80	

Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val
				85					90					95	

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Lys Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 693
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 693
atgaaacatc accatcacca tcatgcgatc gccatgggtct tcacactcga agatttcggt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggaggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
gaccaaattgg ccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcactg gtaatcgacg gggttacgcc gaacatgctg 360
aactatttcg gacggccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacac ccccgacggc 480

tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540

agc 543

<210> 694

<211> 181

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 694

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 695
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 695
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 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
 gaccaaattg ccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg 360
 aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
 tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540
 agc 543

<210> 696
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 696

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 697
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 697
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ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc 240
gaccaaattgg cccagatcga agagggtgtt aagggtgggtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catccagggc gttagcggct ggcgcctgtt caagaagatc 540
agc 543

<210> 698
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 698

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala

35

40

45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
 50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
 65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
 85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
 100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
 115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Gln Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 699

<211> 543

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 699

atgaaacatc accatcacca tcatgcatc gccatggtct tcacactcga agatttcggt

60

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ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg      120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc      180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc      240
gaccaaattg cccagatcga agagggtgtt aagggtggtgt accctgtgga tgatcatcac      300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg      360
aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta      420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacaag      480
aagatgctgt tccgagtaac catccagaag gttagcggct ggcgctgtt caagaagatc      540
agc                                                                    543

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<210> 700
<211> 181
<212> PRT
<213> Artificial sequence

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<220>
<223> Synthetic

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<400> 700

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

```

```

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
          20           25           30

```

```

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
          35           40           45

```

```

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
          50           55           60

```

```

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65           70           75           80

```

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Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val

```

85

90

95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
 100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
 115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Lys
 145 150 155 160

Lys Met Leu Phe Arg Val Thr Ile Gln Lys Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 701
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 701
 atgaaacatc accatcacca tcatgcatc gccatgggtc tcacactcga agatttcgtt 60
 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tcatgaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
 aactatttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420

acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540
agc 543

<210> 702
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 702

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu

130

135

140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 703
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 703
 atgaaacatc accatcacca tcatgcatc gccatgggtct tcacactcga agatttcgtt 60
 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggaggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 tttaagggtga tcctgcccta tggcactg gtaatcgacg gggttacgcc gaacatgctg 360
 aactatttcg gacacccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
 tccatgctgt tccgagtaac catcaacggc gttagcggct ggccgctgtt caagaagatc 540
 agc 543

<210> 704
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 704

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser

<210> 705
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 705
 atgaaacatc accatcacca tcatgcatc gccatggtct tcacactcga agatttcggt 60
 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
 gaccaaattgg ccagatcga agagggtgtt aagggtggtgt accctgtgga tgatcatcac 300
 tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
 aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
 aagatgctgt tccgagtaac catcaacggc gttagcggct ggcgcctgtt caagaagatc 540
 agc 543

<210> 706
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 706

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
 20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Lys Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 707
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 707

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atgaaacatc accatcacca tcatgcatc gccatgggtc tcacactcga agatttcgtt      60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg    120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc    180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc    240
gaccaaattg cccagatcga agagggtgtt aagggtggtg accctgtgga tgatcatcac    300
tttaagggtg tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg    360
aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta    420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacga tcccacggc     480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgcctgtt caagaagatc    540
agc                                                                    543

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<210> 708
<211> 181
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 708

```

```

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

```

```

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
          20          25          30

```

```

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
          35          40          45

```

```

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
          50          55          60

```

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Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65           70           75          80

```

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 709
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 709
atgaaacatc accatcacca tcatgcatc gccatggatt tcacactcga agatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc 240
gaccaaattgg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360

aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta	420
acagggacccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc	480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc	540
agc	543

<210> 710
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 710

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

Glu	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp
			20					25					30		

Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala
		35					40					45			

Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala
	50					55					60				

Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala
65					70					75					80

Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val
			85						90					95	

Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile
		100						105					110		

Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg	Pro	Tyr	Glu
		115					120					125			

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 711
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 711
atgaaacatc accatcacca tcatgcgatc gccatgggtct tcacactcga agatttcggtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc 240
gaccaaattgg cccagatcga agagggtgtt aagggtgggt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactacc 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgcctgtt caagaagatc 540
agc 543

<210> 712
<211> 181
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 712

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 713
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 713
atgaaacatc accatcacca tcatgcatc gccatgggtc tcacactcga agatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtg tcctgccccat cggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catcaacggc gtagcggct ggcgctgtt caagaagatc 540
agc 543

<210> 714
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 714

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp

20

25

30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
 35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
 50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
 65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
 85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile
 100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
 115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 715

<211> 543

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 715
atgaaacatc accatcacca tcatgcatc gccatggctc tcacactcga agatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
gaccaaattg cccagatcga agagggtgtt aagggtggtg accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg 360
aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catcaacggc gtgaccggct ggcggctgtg cgaacgcatt 540
ctg 543

<210> 716
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 716

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

Glu	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp
			20					25					30		

Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala
		35					40					45			

Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala
	50					55					60				

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala

65		70		75		80									
Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val
				85					90					95	
Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile
			100					105					110		
Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly	Arg	Pro	Tyr	Glu
		115					120					125			
Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val	Thr	Gly	Thr	Leu
	130					135					140				
Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile	Thr	Pro	Asp	Gly
145					150					155					160
Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Gly	Val	Thr	Gly	Trp	Arg	Leu
				165					170					175	
Cys	Glu	Arg	Ile	Leu											
			180												

<210> 717
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 717	
atgaaacatc accatcacca tcatgcgatc gccatggatt tcacactcga cgatttcggt	60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg	120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tcatgaggat tgtccggagc	180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc	240
gaccaaattgg cccagatcga agagggtgttt aagggtggtgt accctgtgga tgatcatcac	300

tttaagggtga tcctgcccacat cggcacactg gtaatcgacg gggttacgcc gaacaagctg	360
aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactacc	420
acagggacccc tgtggaacgg caacaaaatt atcgacgagc gcctgacga tcccgacaag	480
aagatgctgt tccgagtaac catccagaag gttagcggct ggcgcctgtt caagaagatc	540
agc	543

<210> 718
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 718

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

Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp
			20					25					30		

Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala
		35					40					45			

Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala
	50					55					60				

Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala
65					70					75					80

Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val
			85						90					95	

Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Ile	Gly	Thr	Leu	Val	Ile
			100					105					110		

Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe	Gly	His	Pro	Tyr	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp Lys
 145 150 155 160

Lys Met Leu Phe Arg Val Thr Ile Gln Lys Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 719
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 719
 atgaaacatc accatcacca tcatgcatc gccatggatt tcacactcga cgatttcgtt 60
 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tcatgaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 ttttaagggtga tcctgccccat cggcacactg gtaatcgacg gggttacgcc gaacaagctg 360
 aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactacc 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcga tcccagcggc 480
 tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540
 agc 543

<210> 720

<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 720

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp Lys
145 150 155 160

Lys Met Leu Phe Arg Val Thr Ile Gln Lys Val Ser Gly Trp Arg Leu

165

170

175

Phe Lys Lys Ile Ser
180

<210> 721
<211> 522
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 721
atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cgggtggctcg 60
agcggtttca cactcgacga ttctgttggg gactgggaac agacagccgc ctacaacctg 120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 240
atcatcccggt atgaaggctct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 360
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcgc 420
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480
gacgagcgcc tgatcacccc cgaccatcac catcaccatc at 522

<210> 722
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 722

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp

20

25

30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
 35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
 50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
 65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
 85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
 100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
 115 120 125

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
 130 135 140

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
 145 150 155 160

Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
 165 170

<210> 723
 <211> 522
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 723
 atgaacgtga ccggctaccg gctgttcaag aagattagca acggctcgag cgggtggctcg

60

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agcggtttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg      120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta      180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      240
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag      300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta      360
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcgc      420
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc      480
gacgagcgcc tgatcacccc cgaccatcac catcaccatc at                          522

```

<210> 724
 <211> 174
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 724

```

Met Asn Val Thr Gly Tyr Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1           5           10          15

```

```

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
          20          25          30

```

```

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
          35          40          45

```

```

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
          50          55          60

```

```

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65          70          75          80

```

```

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
          85          90          95

```


Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
145 150 155 160

Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 725
<211> 516
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 725
atggtgaccg gctaccggct gttcgagaag attagcggct cgagcgggtgg ctcgagcgggt 60
ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120
gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
ccgtatgaag gtctgagcgc cgaccaaagt gccagatcg aagaggtgtt taaggtgggtg 300
taccctgtgg atgatcatca ctttaaggtg atcctgccct atggcacact ggtaatcgac 360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
cgcctgatca ccccgacca tcaccatcac catcat 516

<210> 726

<211> 172
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 726

Met Val Thr Gly Tyr Arg Leu Phe Glu Lys Ile Ser Gly Ser Ser Gly
1 5 10 15

Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His

<210> 727
 <211> 516
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 727
 atggtgaccg gctaccggct gttcgagaag attctgggct cgagcgggtg ctcgagcgggt 60
 ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120
 gtccttgaac agggagggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
 atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
 ccgtatgaag gtctgagcgc cgaccaaagt gccagatcg aagagggtgt taagggtggtg 300
 taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
 ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
 gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
 cgctgatca ccccgacca tcaccatcac catcat 516

<210> 728
 <211> 172
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 728

Met Val Thr Gly Tyr Arg Leu Phe Glu Lys Ile Leu Gly Ser Ser Gly
 1 5 10 15

Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
 20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser

35

40

45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
 50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
 65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
 85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
 100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
 115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
 130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
 145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
 165 170

<210> 729

<211> 516

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 729

atggtgagcg gctggcggct gttcaagaag attagcggct cgagcgggtgg ctcgagcgggt 60

ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120

gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180

atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc	240
ccgtatgaag gtctgagcgc cgaccaaagtg gcccagatcg aagagggtgtt taagggtggtg	300
taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac	360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc	420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag	480
cgctgatca ccccgacca tcaccatcac catcat	516

<210> 730
 <211> 172
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 730

Met	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Gly	Ser	Ser	Gly
1				5					10					15	

Gly	Ser	Ser	Gly	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln
			20					25					30		

Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser
		35					40					45			

Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile
	50					55					60				

Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile
65					70					75				80	

Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val
				85					90					95	

Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu
			100					105					110		

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 731
<211> 516
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 731
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ttcacactcg acgatttcgt tggggactgg gaacagacag cgcctacaa cctggaccaa 120
gtccttgaac agggagggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
ccgtatgaag gtctgagcgc cgaccaaattg gcccagatcg aagagggtgtt taagggtggtg 300
taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
cgctgatca ccccgacca tcaccatcac catcat 516

<210> 732
<211> 172
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic

<400> 732

Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Gly Gly Ser Ser Gly
1 5 10 15

Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 733

<211> 516
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 733
atggtgagcg gctggcggct gttcaagaag tcgggcggct cgagcgggtg ctcgagcggc 60
ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120
gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
ccgtatgaag gtctgagcgc cgaccaaagt gccagatcg aagagggtgt taagggtgtg 300
taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
cgcctgatca ccccgacca tcaccatcac catcat 516

<210> 734
<211> 172
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 734

Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ser Gly Gly Ser Ser Gly
1 5 10 15

Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile

50

55

60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 735

<211> 510

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 735

atggtgagcg gctggcggct gttcaagaag ggctcgagcg gtggctcgag cggtttcaca 60

ctcgacgatt tcgttgggga ctgggaacag acagccgcct acaacctgga ccaagtcctt 120

gaacagggag gtgtgtccag tttgctgcag aatctcgccg tgtccgtaac tccgatcatg 180

aggattgtcc ggagcgggta aaatgccctg aagatcgaca tccatgtcat catcccgtat 240

gaaggtctga gcgccgacca aatggcccag atcgaagagg tgtttaaggt ggtgtaccct 300

gtggatgatc atcactttaa ggtgacccctg ccctatggca cactggtaat cgacgggggtt	360
acgccgaaca agctgaacta tttcggacgg ccgtatgaag gcatcgccgt gttcgacggc	420
aaaaagatca ctaccacagg gaccctgtgg aacggcaaca aaattatcga cgagcgccctg	480
atcacccccg accatcacca tcaccatcat	510

<210> 736
 <211> 170
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 736

Met	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Gly	Ser	Ser	Gly	Gly	Ser
1				5					10					15	

Ser	Gly	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala
			20					25					30		

Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu
		35					40					45			

Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg
	50					55					60				

Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr
65					70					75					80

Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys
				85					90					95	

Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr
			100					105					110		

Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe
		115					120					125			

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 130 135 140

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 145 150 155 160

Ile Thr Pro Asp His His His His His His
 165 170

<210> 737
 <211> 513
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 737
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 acactcgacg atttcgttgg ggactgggaa cagacagccg cctacaacct ggaccaagtc 120
 cttgaacagg gaggtgtgtc cagtttgctg cagaatctcg ccgtgtccgt aactccgac 180
 atgaggattg tccggagcgg tgaaaatgcc ctgaagatcg acatccatgt catcatccc 240
 tatgaaggtc tgagcgccga ccaaattggcc cagatcgaag aggtgtttta ggtgggtgtac 300
 cctgtggatg atcatcactt taaggatgat ctgccctatg gcacactggt aatcgacggg 360
 gttacgccga acaagctgaa ctatttcgga cggccgtatg aaggcatcgc cgtgttcgac 420
 ggcaaaaaga tctactaccac agggaccctg tggaacggca acaaaaattat cgacgagcgc 480
 ctgatcaccc ccgaccatca ccatcaccat cat 513

<210> 738
 <211> 171
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 738

Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Gly Ser Ser Gly Gly
1 5 10 15

Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr
20 25 30

Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser
35 40 45

Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val
50 55 60

Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro
65 70 75 80

Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe
85 90 95

Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro
100 105 110

Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr
115 120 125

Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile
130 135 140

Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg
145 150 155 160

Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 739

<211> 522

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 739

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atgggtttccg tgagcggctg gcggctgttc aagaagtcgg gcggctcgag cgggtggctcg      60
agcggttttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg      120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaattctgc cgtgtccgta      180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      240
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag      300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatc tgccctatgg cacactggta      360
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc      420
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc      480
gacgagcgcc tgatcacccc cgaccatcac catcaccatc at                          522
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<210> 740

<211> 174

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 740

```
Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ser Gly Gly Ser
1           5           10          15
```

```
Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
          20          25          30
```

```
Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
          35          40          45
```

```
Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
          50          55          60
```

```
Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
```

65		70		75		80
Ile Ile Pro Tyr	Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu					
	85		90		95	
Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val						
	100		105		110	
Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys						
	115		120		125	
Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly						
	130		135		140	
Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile						
	145		150		155	160
Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His						
	165		170			

<210> 741
 <211> 522
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 741	
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agcggtttca cactcgacga ttctgttggg gactgggaac agacagccgc ctacaacctg	120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta	180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc	240
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag	300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta	360
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcgc	420

gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480
gacgagcgcc tgatcacccc cgaccatcac catcaccatc at 522

<210> 742
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 742

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Gly Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
20 25 30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
 145 150 155 160

Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
 165 170

<210> 743
 <211> 516
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 743
 atggtttccg tgagcggctg gcggctgttc aagaagggct cgagcgggtgg ctcgagcgggt 60
 ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120
 gtccttgaac agggaggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
 atcatgagga ttgtccggag cggtgaaaaat gccctgaaga tcgacatcca tgtcatcatc 240
 ccgtatgaag gtctgagcgc cgaccaaattg gcccagatcg aagaggtgtt taaggtgggtg 300
 taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
 ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
 gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
 cgcctgatca ccccgacca tcaccatcac catcat 516

<210> 744
 <211> 172
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 744

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Gly Ser Ser Gly
 1 5 10 15

Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 745
<211> 518
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 745

atggtttccg tgagcggctg gcggctgttc aagaagattg gctcgagcgg tggctcgagc 60
 ggtttcacac tcgacgattt cgttggggac tgggaacaga cagccgccta caacctggac 120
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 180
 ccgatcatga ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 240
 atccccgatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 300
 gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 360
 gacgggggta cgccgaacaa gctgaactat ttcggacggc cgtatgaagg catcgccgtg 420
 ttcgacggca aaaagatcac taccacaggg accctgtgga acggcaacaa aattatcgac 480
 gagcgctga tcacccccga ccatcaccat caccatca 518

<210> 746
 <211> 173
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 746

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Gly Ser Ser
 1 5 10 15

Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu
 20 25 30

Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val
 35 40 45

Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg
 50 55 60

Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile
 65 70 75 80

Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu

85

90

95

Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile
 100 105 110

Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu
 115 120 125

Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys
 130 135 140

Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp
 145 150 155 160

Glu Arg Leu Ile Thr Pro Asp His His His His His His
 165 170

<210> 747
 <211> 513
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 747
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 acactcgacg atttcgttgg ggactgggaa cagacagccg cctacaacct ggaccaagtc 120
 cttgaacagg gaggtgtgtc cagtttgctg cagaatctcg ccgtgtccgt aactccgac 180
 atgaggattg tccggagcgg tgaaaatgcc ctgaagatcg acatccatgt catcatcccg 240
 tatgaaggctc tgagcgccga ccaaattggcc cagatcgaag aggtgtttta ggtggtgtac 300
 cctgtggatg atcatcactt taaggatgat ctgccctatg gcacactggt aatcgacggg 360
 gttacgccga acaagctgaa ctatttcgga cggccgtatg aaggcatcgc cgtgttcgac 420
 ggcaaaaaga tcactaccac agggaccctg tggaacggca acaaaaattat cgacgagcgc 480
 ctgatcacc ccgaccatca ccatcacat cat 513

<210> 748
<211> 171
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 748

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

Ser Gly Ser Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr
20 25 30

Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser
35 40 45

Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val
50 55 60

Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro
65 70 75 80

Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe
85 90 95

Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro
100 105 110

Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr
115 120 125

Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile
130 135 140

Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg
145 150 155 160

Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 749
<211> 516
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 749
atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cggaggctcg 60
ttcacactcg acgatttcgt tggggactgg gaacagacag ccgcctacaa cctggaccaa 120
gtccttgaac agggagggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
ccgtatgaag gtctgagcgc cgaccaaattg gcccagatcg aagagggtgtt taagggtggg 300
taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
cgcctgatca ccccgacca tcaccatcac catcat 516

<210> 750
<211> 172
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 750

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

Ser Gly Gly Ser Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 751

<211> 519

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 751

atgaacgtga gcggttggtcg gctgttcaag aagattagca acggctcgag cggtggctcg 60

ggttttcacac tcgacgattt cggtgggggac tgggaacaga cagccgccta caacctggac 120

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact	180
ccgatcatga ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc	240
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg	300
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc	360
gacgggggta cgccgaacaa gctgaactat ttcggacggc cgtatgaagg catcgccgtg	420
ttcgacggca aaaagatcac taccacaggg accctgtgga acggcaacaa aattatcgac	480
gagcgcctga tcacccccga ccatcaccat caccatcat	519

<210> 752
 <211> 173
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 752

Met	Asn	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn	Gly	Ser
1				5					10					15	

Ser	Gly	Gly	Ser	Gly	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu
			20					25					30		

Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val
		35					40					45			

Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg
	50					55					60				

Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile
65				70					75					80	

Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu
			85					90						95	

Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu
 115 120 125

Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys
 130 135 140

Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp
 145 150 155 160

Glu Arg Leu Ile Thr Pro Asp His His His His His His
 165 170

<210> 753
 <211> 525
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 753
 atgaacgtga gcggctggcg gctgttcaag aagattagca acggctcgag cggtggctcg 60
 agcggtggtt tcacactcga cgatttcgtt ggggactggg aacagacagc cgcctacaac 120
 ctggaccaag tccttgaaca gggagggtgtg tccagtttgc tgcagaatct cgccgtgtcc 180
 gtaactccga tcatgaggat tgtccggagc ggtgaaaatg ccctgaagat cgacatccat 240
 gtcacatcc cgtatgaagg tctgagcgcc gaccaaattg cccagatcga agagggtgtt 300
 aagggtggtg accctgtgga tgatcatcac tttaagggtga tcctgcccta tggcacactg 360
 gtaatcgacg gggttacgcc gaacaagctg aactatttcg gacggccgta tgaaggcatc 420
 gccgtgttcg acggcaaaaa gatcactacc acagggaccc tgtggaacgg caacaaaatt 480
 atcgacgagc gcctgatcac ccccgaccat caccatcacc atcat 525

<210> 754
 <211> 175
 <212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 754

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

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

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

Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile
50 55 60

Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His
65 70 75 80

Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile
85 90 95

Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys
100 105 110

Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn
115 120 125

Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp
130 135 140

Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile
145 150 155 160

Ile Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
165 170 175

<210> 755
<211> 528
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 755
atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cggtggctcg 60
agcgggtgta gcttcacact cgacgatttc gttggggact gggaacagac agccgcctac 120
aacctggacc aagtccttga acagggaggt gtgtccagtt tgctgcagaa tctcgccgtg 180
tccgtaactc cgatcatgag gattgtccgg agcggtgaaa atgccctgaa gatcgacatc 240
catgtcatca tcccgtatga aggtctgagc gccgacaaaa tggcccagat cgaagagggtg 300
tttaagggtg tgtaccctgt ggatgatcat cactttaagg tgatcctgcc ctatggcaca 360
ctggtaatcg acgggggttac gccgaacaag ctgaactatt tcggacggcc gtatgaaggc 420
atcgccgtgt tcgacggcaa aaagatcact accacaggga ccctgtggaa cggcaacaaaa 480
attatcgacg agcgcctgat ccccccgac catcaccatc accatcat 528

<210> 756
<211> 176
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 756

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

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

Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln
35 40 45

Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro
50 55 60

Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile
65 70 75 80

His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln
85 90 95

Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe
100 105 110

Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro
115 120 125

Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe
130 135 140

Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys
145 150 155 160

Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
165 170 175

<210> 757
<211> 531
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 757
atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cggtggctcg 60
agcggtggta gctcggtcac actcgacgat ttcgttgggg actgggaaca gacagccgcc 120
tacaacctgg accaagtcct tgaacaggga ggtgtgtcca gtttgctgca gaatctcgcc 180
gtgtccgtaa ctccgatcat gaggattgtc cggagcgggtg aaaatgccct gaagatcgac 240

atccatgtca tcatcccgtg tgaaggctctg agcgccgacc aaatggccca gatcgaagag	300
gtgtttaagg tgggtgtaccc tgtggatgat catcacttta aggtgacccct gccctatggc	360
acactggtaa tcgacgggggt tacgccgaac aagctgaact atttcggacg gccgtatgaa	420
ggcatcgccg tgttcgacgg caaaaagatc actaccacag ggaccctgtg gaacggcaac	480
aaaattatcg acgagcgct gatcaccccc gaccatcacc atcaccatca t	531

<210> 758
 <211> 177
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 758

Met	Asn	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Asn	Gly	Ser
1				5					10					15	

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

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

Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr
			50				55				60				

Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp
65					70					75					80

Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala
			85						90					95	

Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
			100					105					110		

Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 130 135 140

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 145 150 155 160

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp His His His His His
 165 170 175

His

<210> 759
 <211> 522
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 759
 atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cgggtggctcg 60
 agcggtttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 120
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 180
 actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 240
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 300
 gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 360
 atcgacgggg ttacgccgaa caagctgaac tatttcggac acccgatatga aggcacgcgc 420
 gtgttcgacg gcgagaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480
 gacgagcgcc tgatcacccc cgaccatcac catcaccatc at 522

<210> 760
 <211> 174
 <212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 760

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
20 25 30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
145 150 155 160

Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210> 761
<211> 522
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 761
atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cgggtggctcg 60
agcggtttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 240
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 360
atcgacgggg ttacgccgaa caagctgaac tatttcggac acccgatatga aggcacatgcc 420
gtgttcgacg gcgagaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480
gacgagcgcc tgatcgatcc cgaccatcac catcaccatc at 522

<210> 762
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 762

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
20 25 30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
145 150 155 160

Asp Glu Arg Leu Ile Asp Pro Asp His His His His His His
165 170

<210> 763

<211> 531

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 763

atgaacgtga gcggtggcg gctgttcaag aagattagca acggctcgag cggtggctcg 60

agcggtggta gctcgttcac actcgacgat ttcgttgggg actgggaaca gacagccgcc 120

tacaacctgg accaagtcct tgaacaggga ggtgtgtcca gtttgctgca gaatctcgcc 180

gtgtccgtaa ctccgatcat gaggattgtc cggagcggtg aaaatgccct gaagatcgac 240


```

atccatgtca tcatcccgtg tgaaggtctg agcgccgacc aaatggccca gatcgaagag      300
gtgtttaagg tgggtgtaccc tgtggatgat catcacttta aggtgacccct gccctatggc      360
acactggtaa tcgacgggggt tacgccgaac aagctgaact atttcggaca cccgtatgaa      420
ggcatcgccg tgttcgacgg cgagaagatc actaccacag ggaccctgtg gaacggcaac      480
aaaattatcg acgagcgcct gatcaccccc gaccatcacc atcaccatca t                531

```

<210> 764
 <211> 177
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 764

```

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1           5           10          15

```

```

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

```

```

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

```

```

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
50          55          60

```

```

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
65          70          75          80

```

```

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
85          90          95

```

```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
100         105         110

```

```

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr

```

115

120

125

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
 130 135 140

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 145 150 155 160

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp His His His His His
 165 170 175

His

<210> 765
 <211> 531
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 765
 atgaacgtga gcggttgccg gctgttcaag aagattagca acggctcgag cgggtggctcg 60
 agcggtggtta gctcgttcac actcgacgat ttcgttgggg actgggaaca gacagccgcc 120
 tacaacctgg accaagtcct tgaacaggga ggtgtgtcca gtttgctgca gaatctcgcc 180
 gtgtccgtaa ctccgatcat gaggattgtc cggagcgggtg aaaatgccct gaagatcgac 240
 atccatgtca tcatcccgtg tgaaggctctg agcgccgacc aaatggccca gatcgaagag 300
 gtgtttaagg tgggtgtaccc tgtggatgat catcacttta aggtgacccct gccctatggc 360
 aacttggtta tcgacgggggt tacgccgaac aagctgaact atttcggaca cccgtatgaa 420
 ggcatcgccg tggtcgacgg cgagaagatc actaccacag ggaccctgtg gaacggcaac 480
 aaaattatcg acgagcgccct gatcgatccc gaccatcacc atcaccatca t 531

<210> 766
 <211> 177
 <212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 766

Met Asn Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Asn Gly Ser
1 5 10 15

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

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

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
50 55 60

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
65 70 75 80

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
85 90 95

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
100 105 110

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
115 120 125

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
130 135 140

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
145 150 155 160

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp His His His His His
165 170 175

His

<210> 767
<211> 477
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 767
atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatcc aaaggatggg ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaagggtc gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgccc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc 420
gacgagcgcc tgatcacccc cgacggctcc atgtccttcc aggtaaccat caacagc 477

<210> 768
<211> 159
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 768

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg

35

40

45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 769

<211> 477

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 769

atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggatggg ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180

atcatcccggt atgaagggtct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgccc	360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc	420
gacgagcgcc tgatcacccc cgacggctcc atgtccttcc aggtaaccat caacagc	477

<210> 770
 <211> 159
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 770

Met	Val	Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala
1				5					10					15	

Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu
			20					25					30		

Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg
		35					40					45			

Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr
	50					55					60				

Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys
65					70					75					80

Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	His	Tyr
				85					90					95	

Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe
			100						105					110	

Gly	Arg	Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr
		115					120					125			

Val	Thr	Gly	Thr	Leu	Trp	Asn	Gly	Ala	Lys	Ile	Ile	Asp	Glu	Arg	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 771
 <211> 477
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 771
 atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
 actccgatcc aaaggatagt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
 gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300
 atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcgc 360
 gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc 420
 gacgagcgcc tgatcacccc cgacgggtcc atgtccttcc aggtaaccat caacagc 477

<210> 772
 <211> 159
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 772

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
 1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
 20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 773

<211> 477

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 773

atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggggtgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc 420
gacgagcgcc tgatcacccc cgacggctcc atgtccttcc aggtaaccat caacagc 477

<210> 774
<211> 159
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 774

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Val Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 775
<211> 477
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 775
atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatcc aaaggtttgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccggt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta 300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc 360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc 420
gacgagcgcc tgatcacccc cgacgggtcc atgtccttcc aggtaaccat caacagc 477

<210> 776
<211> 159
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 776

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu

20

25

30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Phe Val Arg
 35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 777

<211> 477

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 777

atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggctggt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag	240
gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgcactatgg cacactggta	300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcgc	360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgc caaaattatc	420
gacgagcgcc tgatcacccc cgacggctcc atgtccttcc aggttaaccat caacagc	477

<220>
<223> Synthetic

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
1 5 10 15

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Leu Val Arg
35 40 45

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr

115

120

125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 779
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 779
 atgaaacatc accatcacca tcatgcatc gccatgggtct tcacactcga cgatttcgtt 60
 ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggaggtgtg 120
 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgatatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 ttttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg 360
 aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacac ccccgacggc 480
 tccatgctgt tccgagtaac catcaacggc gtttagcggct ggcgctgtt caagaagatc 540
 agc 543

<210> 780
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 780

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 781

<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 781
atgaaacatc accatcacca tcatgcatc gccatggatt tcacactcga cgatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgtatgaagg tctgagcgcc 240
gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg 360
aactatttgc gacggccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
tccatgctgt tccgagtaac catcaacggc gtttagcggct ggcgccctgtt caagaagatc 540
agc 543

<210> 782
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 782

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 783
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 783
atgaaacatc accatcacca tcatgcgatc gccatggatt tcacactcga cgatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg 120

tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc	180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc	240
gaccaaattgg cccagatcga agagggtgtt aagggtgggtgt accctgtgga tgatcatcac	300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg	360
aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta	420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc	480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgcctgtt caagaagatc	540
agc	543

<210> 784
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 784

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

Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp
			20					25					30		

Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala
		35					40					45			

Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala
	50					55					60				

Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala
65					70				75					80	

Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val
				85					90					95	

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 785
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 785
atgaaacatc accatcacca tcatgcatc gccatggatt tcacactcga cgatttcgtt 60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggaggtgtg 120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgatatgaagg tctgagcgcc 240
gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
tttaagggtga tcctgcccta tggcactg gtaatcgacg gggttacgcc gaacatgctg 360
aactatttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta 420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacac ccccgacggc 480

tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540

agc 543

<210> 786

<211> 181

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 786

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile	Thr	Pro	Asp	Gly
145					150					155					160

Ser	Met	Leu	Phe	Arg	Val	Thr	Ile	Asn	Gly	Val	Ser	Gly	Trp	Arg	Leu
				165					170					175	

Phe	Lys	Lys	Ile	Ser
			180	

<210> 787
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 787

atgaaacatc accatcacca tcatgcatc gccatggatt tcacactcga agatttcgtt	60
ggggactggg aacagacagc cgcctacaac ctggaccaag tccttgaaca gggagggtgtg	120
tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc	180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc	240
gaccaaattg gccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac	300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg	360
aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta	420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc	480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc	540
agc	543

<210> 788
 <211> 170
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 788

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
145 150 155 160

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
165 170

<210> 789

<211> 170

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 789

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val
145 150 155 160

Thr Gly Tyr Arg Leu Phe Glu Glu Ile Leu
165 170

<210> 790
<211> 102
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 790

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp
100

<210> 791
<211> 124
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 791

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala

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

<210> 792
 <211> 133
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 792

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala	1	5	10	15
---	---	---	----	----

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu	20	25	30
---	----	----	----

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg

35

40

45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Thr Thr Gly Thr Leu
 130

<210> 793

<211> 148

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 793

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
 1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
 20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
 35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr

50

55

60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp
 145

<210> 794

<211> 68

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 794

Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly
 1 5 10 15

Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp
 20 25 30

Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser
 35 40 45

Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Arg Leu Phe

50

55

60

Lys Lys Ile Ser
65

<210> 795
<211> 46
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 795

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
1 5 10 15

Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr
20 25 30

Ile Asn Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
35 40 45

<210> 796
<211> 37
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 796

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
1 5 10 15

Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Arg Leu
20 25 30

Phe Lys Lys Ile Ser
35

<210> 797
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 797

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Ser Gly Trp Arg
1 5 10 15

Leu Phe Lys Lys Ile Ser
20

<210> 798
<211> 68
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 798

Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly
1 5 10 15

Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp
20 25 30

Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser
35 40 45

Met Leu Phe Arg Val Thr Ile Asn Ser Val Thr Gly Tyr Arg Leu Phe
50 55 60

Glu Glu Ile Leu
65

<210> 799

<211> 46
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 799

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
1 5 10 15

Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr
20 25 30

Ile Asn Ser Val Thr Gly Tyr Arg Leu Phe Glu Glu Ile Leu
35 40 45

<210> 800
<211> 37
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 800

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
1 5 10 15

Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Thr Gly Tyr Arg Leu
20 25 30

Phe Glu Glu Ile Leu
35

<210> 801
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 801

Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Val Thr Gly Tyr Arg
1 5 10 15

Leu Phe Glu Glu Ile Leu
20

<210> 802

<211> 181

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 802

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu

115

120

125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 803
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 803
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 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcacatcc cgatatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtggtg accctgtgga tgatcatcac 300
 ttttaaggatga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacaagctg 360
 aactattttcg gacacccgta tgaaggcatc gccgtgttcg acggcgagaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac cccgacggc 480
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 agc 543

<210> 804

<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 804

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

Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Glu Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu

165

170

175

Phe Lys Lys Ile Ser
180

<210> 805

<211> 999

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 805

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cctgtgctgt tcctgcacgg taaccgcacc tcctcctacg tgtggcgcaa catcatcccg	180
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aaaccagacc tgggttattt cttcgacgac cacgtccgct tcatggatgc cttcatcgaa	300
gccctgggtc tggaagaggt cgtcctgggtc attcacgact ggggctccgc tctgggtttc	360
cactgggcca agcgcaatcc agagcgcgtc aaaggatttg catttatgga gttcatccgc	420
cctatcccga cctgggacga atggccagaa ttgtcccgcg agaccttcca ggccctccgc	480
accaccgacg tcggccgcaa gctgatcatc gatcagaacg tttttatcga gggtacgctg	540
ccgatgggtg tcgtccgcc gctgactgaa gtcgagatgg accattaccg cgagccgttc	600
ctgaatcctg ttgaccgca gccactgtgg cgcttcccaa acgagctgcc aatcgccggt	660
gagccagcga acatcgctgc gctggctgaa gaatacatgg actggctgca ccagtcccct	720
gtcccgaagc tgctgttctg gggcacccca ggcgttctga tcccaccggc cgaagccgct	780
cgcttgcca aaagcctgcc taactgcaag gctgtggaca tcggccggg tctgaatctg	840
ctgcaagaag acaaccgga cctgatcggc agcgagatcg cgcgctggct gtcgacgctc	900
gagatttccg gcgagccaac cactagcgat aacgggtcca tgctgttccg agtaaccatc	960
aacagcgtta gcggctggcg cctgttcaag aagatcagc	999

<210> 806
<211> 333
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 806

Met Lys His His His His His His Ala Glu Ile Gly Thr Gly Phe Pro
1 5 10 15

Phe Asp Pro His Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr Val
20 25 30

Asp Val Gly Pro Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly Asn
35 40 45

Pro Thr Ser Ser Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala Pro
50 55 60

Thr His Arg Cys Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser Asp
65 70 75 80

Lys Pro Asp Leu Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met Asp
85 90 95

Ala Phe Ile Glu Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile His
100 105 110

Asp Trp Gly Ser Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro Glu
115 120 125

Arg Val Lys Gly Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro Thr
130 135 140

Trp Asp Glu Trp Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg
145 150 155 160

Thr Thr Asp Val Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe Ile
165 170 175

Glu Gly Thr Leu Pro Met Gly Val Val Arg Pro Leu Thr Glu Val Glu
180 185 190

Met Asp His Tyr Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu Pro
195 200 205

Leu Trp Arg Phe Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn
210 215 220

Ile Val Ala Leu Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser Pro
225 230 235 240

Val Pro Lys Leu Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro Pro
245 250 255

Ala Glu Ala Ala Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala Val
260 265 270

Asp Ile Gly Pro Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu
275 280 285

Ile Gly Ser Glu Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly
290 295 300

Glu Pro Thr Thr Ser Asp Asn Gly Ser Met Leu Phe Arg Val Thr Ile
305 310 315 320

Asn Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
325 330

<210> 807

<211> 543

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 807

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tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc      180
ggtgaaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc      240
gaccaaattgg cccagatcga agagggtgttt aagggtggtgt accctgtgga tgatcatcac      300
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aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta      420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc      480
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agc                                                                    543
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<210> 808

<211> 181

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 808

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

Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr Asn Leu Asp
          20          25          30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
          35          40          45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
          50          55          60
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Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 809
<211> 543
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 809
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tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc 240

gaccaaattgg cccagatcga agaggtgttt aaggtggtgt accctgtgga tgatcatcac	300
tttaaggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg	360
aactattttcg gacggccgta tgaaggcatc gccgtgttcg acggcaaaaa gatcactgta	420
acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgacac ccccgacggc	480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc	540
agc	543

<210> 810
 <211> 13
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 810

Glu	Lys	Met	Leu	Phe	Arg	Val	Thr	Ile	Glu	Ser	Trp	Lys
1				5					10			

<210> 811
 <211> 13
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 811

Glu	Lys	Leu	Leu	Phe	Arg	Val	Thr	Ile	Glu	Ser	Trp	Lys
1				5					10			

<210> 812
 <211> 13
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 812

Glu Lys Leu Leu Phe Arg Val Thr Ile Glu Ser Tyr Lys
1 5 10

<210> 813
<211> 181
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 813

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

Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 814
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 814
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 tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180
 ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc 240
 gaccaaattg cccagatcga agagggtgtt aagggtgtgt accctgtgga tgatcatcac 300
 tttaagggtga tcctgcccta tggcactcgt gtaatcgacg gggttacgcc gaacatgctg 360
 aactatttgc gacggccgtt cgaaggcatc gccgtgttcg acggcaaaaa gatcactgta 420
 acagggaccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc 480
 tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgctgtt caagaagatc 540
 agc 543

<210> 815
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 815

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

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20 25 30

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35 40 45

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50 55 60

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65 70 75 80

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85 90 95

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile
100 105 110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Phe Glu
115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
165 170 175

Phe Lys Lys Ile Ser
180

<210> 816
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 816

Asp Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Tyr Lys
1 5 10

<210> 817
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 817

Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly
1 5 10 15

Ile Ala Val Phe Asp Gly
20

<210> 818
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 818

Lys Lys Ile Thr Thr Thr Gly Thr Leu
1 5

<210> 819
<211> 15
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 819

Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile	Thr	Pro	Asp
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<210> 820

<211> 396

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 820

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cagaatctcg ccgtgtccgt aactccgadc atgaggattg tccggagcgg tgaaaatgcc	180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc	240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgac	300
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<210> 821

<211> 131

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 821

Met	Lys	His	His	His	His	His	His	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val
1				5					10					15	

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu

20

25

30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
 85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly
 130

<210> 822
 <211> 654
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 822
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 gcagaaaaag tcttcaaaca atacgctaac gacaacgggtg ttgacgggtga atggacttac 180
 gacgatgcga cgaaaacctt tacggtcacc gaaaaaccag aagtgatcga tgcgtctgaa 240
 ttaacaccag ccgtgacaac ttacaaactt gttattaatg gtaaaacatt gaaaggcgaa 300

acaactactg aggctgttga tgctgctact gcagagaagg tgttcaaaca atatgcgaat	360
gacaacgggtg ttgacgggtga gtggacttac gacgatgcga ctaagacctt tacagttact	420
gaaaaaccag aagtgatcga tgcgtctgag ttaacaccag ccgtgacaac ttacaaactt	480
gttattaatg gtaaaacatt gaaaggcgaa acaactacta aagcagtaga cgcagaaact	540
gcggagaagg ccttcaaaca atacgctaac gacaacgggtg ttgatgggtgt ttggacttat	600
gatgatgccca caaaaacctt tacggtaact gagcatcatc accatcacca ctaa	654

<210> 823
 <211> 217
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 823

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Thr	Tyr	Lys	Leu	Ile	Leu	Asn	Gly	Lys	Thr	Leu	Lys	Gly	Glu	Thr	Thr
		20					25					30			

Thr	Glu	Ala	Val	Asp	Ala	Ala	Thr	Ala	Glu	Lys	Val	Phe	Lys	Gln	Tyr
	35						40					45			

Ala	Asn	Asp	Asn	Gly	Val	Asp	Gly	Glu	Trp	Thr	Tyr	Asp	Asp	Ala	Thr
	50				55						60				

Lys	Thr	Phe	Thr	Val	Thr	Glu	Lys	Pro	Glu	Val	Ile	Asp	Ala	Ser	Glu
65				70					75					80	

Leu	Thr	Pro	Ala	Val	Thr	Thr	Tyr	Lys	Leu	Val	Ile	Asn	Gly	Lys	Thr
			85						90					95	

Leu	Lys	Gly	Glu	Thr	Thr	Thr	Glu	Ala	Val	Asp	Ala	Ala	Thr	Ala	Glu
			100					105						110	

Lys Val Phe Lys Gln Tyr Ala Asn Asp Asn Gly Val Asp Gly Glu Trp
115 120 125

Thr Tyr Asp Asp Ala Thr Lys Thr Phe Thr Val Thr Glu Lys Pro Glu
130 135 140

Val Ile Asp Ala Ser Glu Leu Thr Pro Ala Val Thr Thr Tyr Lys Leu
145 150 155 160

Val Ile Asn Gly Lys Thr Leu Lys Gly Glu Thr Thr Thr Lys Ala Val
165 170 175

Asp Ala Glu Thr Ala Glu Lys Ala Phe Lys Gln Tyr Ala Asn Asp Asn
180 185 190

Gly Val Asp Gly Val Trp Thr Tyr Asp Asp Ala Thr Lys Thr Phe Thr
195 200 205

Val Thr Glu His His His His His His
210 215

<210> 824
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 824

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 825
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 825

Val Ser Gly Trp Arg Leu Phe Lys Lys Ile
1 5 10

<210> 826

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 826

Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
1 5 10

<210> 827

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 827

Gly Lys Met Leu Phe Arg Val Thr Ile Asn Ser Trp Lys
1 5 10

<210> 828

<211> 543

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 828

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tccagtttgc tgcagaatct cgccgtgtcc gtaactccga tccaaaggat tgtccggagc 180

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ggtgaaaatg ccctgaagat cgacatccat gtcatcatcc cgtatgaagg tctgagcgcc      240
gaccaaattgg cccagatcga agagggtgtt aagggtggtgt accctgtgga tgatcatcac      300
tttaagggtga tcctgcccta tggcacactg gtaatcgacg gggttacgcc gaacatgctg      360
aactattttcg gacggccgtg ggaaggcatc gccgtgttcg acggcaaaaa gatcactgta      420
acagggacccc tgtggaacgg caacaaaatt atcgacgagc gcctgatcac ccccgacggc      480
tccatgctgt tccgagtaac catcaacggc gttagcggct ggcgccctgtt caagaagatc      540
agc                                                                           543

```

<210> 829
 <211> 181
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 829

```

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

```

```

Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp
20           25           30

```

```

Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala
35           40           45

```

```

Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg Ser Gly Glu Asn Ala
50           55           60

```

```

Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala
65           70           75           80

```

```

Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val
85           90           95

```

```

Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile

```


100

105

110

Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Trp Glu
 115 120 125

Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr Leu
 130 135 140

Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly
 145 150 155 160

Ser Met Leu Phe Arg Val Thr Ile Asn Gly Val Ser Gly Trp Arg Leu
 165 170 175

Phe Lys Lys Ile Ser
 180

<210> 830
 <211> 363
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 830
 atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 taa 363

<210> 831
 <211> 120
 <212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 831

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly
115 120

<210> 832

<211> 396

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 832

atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa

60

cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg	120
cagaatctcg ccgtgtccgt aactccgatac atgaggattg tccggagcgg tgaaaatgcc	180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc	240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgac	300
ctgccctatg gcacactggt aatcgacggg gttacgccga acaagctgaa ctatttcgga	360
cggccgtatg aaggcatcgc cgtgttcgac ggctaa	396

<210> 833
 <211> 131
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 833

Met	Lys	His	His	His	His	His	His	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val
1				5					10					15	

Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu
			20					25					30		

Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr
		35					40					45			

Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp
	50					55					60				

Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala
65					70				75					80	

Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
				85					90					95	

Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr
			100					105					110		

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly
130

<210> 834
<211> 423
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 834
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
taa 423

<210> 835
<211> 140
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 835

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu

20

25

30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
 85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu
 130 135 140

<210> 836

<211> 432

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 836

atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60

cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120

cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180

ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240

cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300

ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga	360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg	420
tggaacggct aa	432

<210> 837
 <211> 143
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 837

Met	Lys	His	His	His	His	His	His	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val
1				5					10					15	

Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu
			20					25					30		

Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr
		35					40					45			

Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp
	50					55					60				

Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala
65					70					75				80	

Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
				85					90					95	

Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr
				100					105				110		

Pro	Asn	Lys	Leu	Asn	Tyr	Phe	Gly	Arg	Pro	Tyr	Glu	Gly	Ile	Ala	Val
		115					120					125			

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly

130

135

140

<210> 838
 <211> 483
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 838
 atggtttccg tgagcggctg gcggctgttc aagaagatta gcttcacact cgacgatttc 60
 gttggggact gggaacagac agccgcctac aacctggacc aagtccttga acagggaggt 120
 gtgtccagtt tgctgcagaa tctcgccgtg tccgtaactc cgatcatgag gattgtccgg 180
 agcggtgaaa atgccctgaa gatcgacatc catgtcatca tcccgtatga aggtctgagc 240
 gccgaccaaa tggcccagat cgaagagggtg tttaagggtgg tgtaccctgt ggatgatcat 300
 cactttaagg tgatcctgcc ctatggcaca ctggtaatcg acgggggttac gccgaacaag 360
 ctgaactatt tcggacggcc gtatgaaggc atcgccgtgt tcgacggcaa aaagatcact 420
 accacaggga ccctgtggaa cggcaacaaa attatcgacg agcgcctgat ccccccgac 480
 taa 483

<210> 839
 <211> 160
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 839

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Phe Thr
 1 5 10 15

Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu
 20 25 30

Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu

35

40

45

Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn
 50 55 60

Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser
 65 70 75 80

Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro
 85 90 95

Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val
 100 105 110

Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr
 115 120 125

Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr
 130 135 140

Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
 145 150 155 160

<210> 840

<211> 495

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 840

atggtttccg tgagcggctg gcggctgttc aagaagatta gcggcagctc cggtttcaca 60

ctcgacgatt tcgttgggga ctgggaacag acagccgcct acaacctgga ccaagtcctt 120

gaacagggag gtgtgtccag tttgctgcag aatctcgccg tgtccgtaac tccgatcatg 180

aggattgtcc ggagcgggtga aaatgccctg aagatcgaca tccatgtcat catcccgtat 240

gaaggtctga gcgccgacca aatggcccag atcgaagagg tgtttaaggt ggtgtaccct 300

gtggatgatc atcactttaa ggtgacccctg ccctatggca cactggtaat cgacgggggtt	360
acgccgaaca agctgaacta tttcggacgg ccgtatgaag gcatcgccgt gttcgacggc	420
aaaaagatca ctaccacagg gaccctgtgg aacggcaaca aaattatcga cgagcgccctg	480
atcacccccg actaa	495

<210> 841
 <211> 164
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 841

Met	Val	Ser	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Gly	Ser
1				5					10					15	

Ser	Gly	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala
			20					25					30		

Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu
		35					40					45			

Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg
	50					55					60				

Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr
65					70					75				80	

Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys
				85					90					95	

Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr
			100					105					110		

Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe
		115					120					125			

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 130 135 140

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 145 150 155 160

Ile Thr Pro Asp

<210> 842
 <211> 507
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 842
 atggtttccg tgagcggctg gcggtgttc aagaagatta gcggtctgag cggtggctcg 60
 agcggtttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 120
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 180
 actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 240
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 300
 gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 360
 atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc 420
 gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480
 gacgagcgcc tgatcacccc cgactaa 507

<210> 843
 <211> 168
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 843

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
20 25 30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile
145 150 155 160

Asp Glu Arg Leu Ile Thr Pro Asp
165

<210> 844

<211> 519

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 844

```
atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cgggtggctcg      60
agcgggtggct cgagcgggtt cactctcgac gatttcgttg gggactggga acagacagcc      120
gcctacaacc tggaccaagt ccttgaacag ggaggtgtgt ccagtttgct gcagaatctc      180
gccgtgtccg taactccgat catgaggatt gtccggagcg gtgaaaatgc cctgaagatc      240
gacatccatg tcatcatccc gtatgaaggt ctgagcgccg accaaatggc ccagatcgaa      300
gaggtgttta aggtgggtga ccctgtggat gatcatcact ttaaggtgat cctgccctat      360
ggcacactgg taatcgacgg ggttacgccg aacaagctga actatttcgg acggccgtat      420
gaaggcatcg ccgtgttcga cggcaaaaag atcactacca cagggaccct gtggaacggc      480
aacaaaatta tcgacgagcg cctgatcacc cccgactaa                               519
```

<210> 845

<211> 172

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 845

```
Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1           5           10          15
```

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

```
Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu
          35          40          45
```

```
Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val
          50          55          60
```

```
Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile
```

65	70	75	80
Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met			
	85	90	95
Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His			
	100	105	110
His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val			
	115	120	125
Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala			
	130	135	140
Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly			
	145	150	155
Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp			
	165	170	

<210> 846
 <211> 531
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 846	
atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cggtaggctcg	60
agcggtaggct cgagcggtagg ctcgagcggg ttcacactcg acgatttcgt tggggactgg	120
gaacagacag ccgcctacaa cctggaccaa gtccttgaac agggagggtgt gtccagtttg	180
ctgcagaatc tcgccgtgtc cgtaactccg atcatgagga ttgtccggag cggtgaaaat	240
gccctgaaga tcgacatcca tgtcatcatc ccgtatgaag gtctgagcgc cgaccaaagt	300
gcccagatcg aagagggtgt taagggtgtg taccctgtgg atgatcatca ctttaagggt	360
atcctgccct atggcacact ggtaatcgac ggggttacgc cgaacaagct gaactatttc	420

ggacggccgt atgaaggcat cgccgtgttc gacggcaaaa agatcactac cacagggacc 480

ctgtggaacg gcaacaaaat tatcgacgag cgcctgatca ccccgacta a 531

<210> 847

<211> 176

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 847

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Phe Thr
20 25 30

Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu
35 40 45

Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu
50 55 60

Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn
65 70 75 80

Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser
85 90 95

Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro
100 105 110

Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val
115 120 125

Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr
130 135 140

Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Thr	Thr	Gly	Thr
145					150					155					160

Leu	Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu	Ile	Thr	Pro	Asp
			165						170					175	

<210> 848
 <211> 543
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 848
 atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cggtaggctcg 60
 agcggtaggct cgagcggtag ctcgagcggg ggctcgagcg gtttcacact cgacgatttc 120
 gttgggggact gggaacagac agccgcctac aacctggacc aagtccttga acagggaggt 180
 gtgtccagtt tgctgcagaa tctcgccgtg tccgtaactc cgatcatgag gattgtccgg 240
 agcggtagaaa atgccctgaa gatcgacatc catgtcatca tcccgtatga aggtctgagc 300
 gccgacaaaa tggcccagat cgaagagggtg tttaagggtg tgtaccctgt ggatgatcat 360
 cactttaagg tgatcctgcc ctatggcaca ctggtaatcg acgggggttac gccgaacaag 420
 ctgaactatt tcggacggcc gtatgaaggc atcgccgtgt tcgacggcaa aaagatcact 480
 accacaggga ccctgtggaa cggcaacaaa attatcgacg agcgcctgat ccccccgac 540
 taa 543

<210> 849
 <211> 180
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 849

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser

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

<210> 850
 <211> 537
 <212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 850

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atggtgagcg gctggcggct gttcaagaag attagcggct cgagcgggtg ctcgagcgggt      60
ggctcgagcg gtggctcgag cgggtggctcg agcggtttca cactcgacga tttcgttggg      120
gactgggaac agacagccgc ctacaacctg gaccaagtcc ttgaacaggg aggtgtgtcc      180
agtttgctgc agaatctcgc cgtgtccgta actccgatca tgaggattgt ccggagcgggt      240
gaaaatgccc tgaagatcga catccatgtc atcatcccgt atgaaggctc gagcgccgac      300
caaatggccc agatcgaaga ggtgtttaag gtggtgtacc ctgtggatga tcatcacttt      360
aaggatgatcc tgccctatgg cacactggta atcgacgggg ttacgccgaa caagctgaac      420
tatttcggac ggccgtatga aggcacgcc gtgttcgacg gcaaaaagat cactaccaca      480
gggaccctgt ggaacggcaa caaaattatc gacgagcgcc tgatcacccc cgactaa      537
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<210> 851

<211> 178

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 851

```
Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser Ser Gly
1           5           10          15
```

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

```
Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr
35          40          45
```

```
Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln
50          55          60
```

Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly
65 70 75 80

Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly
85 90 95

Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val
100 105 110

Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr
115 120 125

Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg
130 135 140

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr
145 150 155 160

Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr
165 170 175

Pro Asp

<210> 852
<211> 486
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 852
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta	300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcc	360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc	420
gacgagcgcc tgatcacccc cgacgtttcc gtgagcggct ggcggctgtt caagaagatt	480
agctaa	486

<210> 853
 <211> 161
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 853

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr

115

120

125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile
 145 150 155 160

Ser

<210> 854
 <211> 498
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 854
 atgggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
 actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
 gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
 atcgacggggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacatgcc 360
 gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 420
 gacgagcgcc tgatcacccc cgacggctcg agcgggtgtt ccgtgagcgg ctggcggctg 480
 ttcaagaaga ttagctaa 498

<210> 855
 <211> 165
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 855

Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Ser Gly Val Ser Val Ser Gly Trp Arg Leu
145 150 155 160

Phe Lys Lys Ile Ser
165

<210> 856

<211> 510

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 856

```
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg      60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta      120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      180
atcatcccggt atgaagggtct gagcgccgac caaatggccc agatcgaaga ggtgtttaag      240
gtggtgtacc ctgtggatga tcatcacttt aagggtgatcc tgccctatgg cacactggta      300
atcgacggggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgccc      360
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc      420
gacgagcgcc tgatcacccc cgacggctcg agcgggtggct cgagcgggtgt ttccgtgagc      480
ggctggcggc tgttcaagaa gattagctaa      510
```

<210> 857

<211> 169

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 857

```
Met Val Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1           5           10          15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
          20          25          30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
          35          40          45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
          50          55          60
```

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Ser Gly Gly Ser Ser Gly Val Ser Val Ser
145 150 155 160

Gly Trp Arg Leu Phe Lys Lys Ile Ser
165

<210> 858
<211> 504
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 858
atggtcttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcgc 360

gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc	420
gacgagcgcc tgatcacccc cgacggctcg agcgggtggct cgagcgggtgt gagcggctgg	480
cggctgttca agaagattag ctaa	504

<210> 859
 <211> 167
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 859

Met	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala
1				5					10					15	

Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu
			20					25					30		

Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg
		35					40					45			

Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr
	50					55					60				

Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys
65					70					75					80

Val	Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr
				85					90					95	

Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe
			100						105				110		

Gly	Arg	Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr
		115					120					125			

Thr	Thr	Gly	Thr	Leu	Trp	Asn	Gly	Asn	Lys	Ile	Ile	Asp	Glu	Arg	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Ile Thr Pro Asp Gly Ser Ser Gly Gly Ser Ser Gly Val Ser Gly Trp
 145 150 155 160

Arg Leu Phe Lys Lys Ile Ser
 165

<210> 860
 <211> 501
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 860
 atggtttccg tgagcggctg gcggctgttc aagaagatta gcttcacact cgacgatttc 60
 gttggggact gggaacagac agccgcctac aacctggacc aagtccttga acagggaggt 120
 gtgtccagtt tgctgcagaa tctcgccgtg tccgtaactc cgatcatgag gattgtccgg 180
 agcgggtgaaa atgccctgaa gatcgacatc catgtcatca tcccgtatga aggtctgagc 240
 gccgacaaa tggcccagat cgaagagggtg tttaagggtgg tgtaccctgt ggatgatcat 300
 cactttaagg tgatcctgcc ctatggcaca ctggtaatcg acgggggttac gccgaacaag 360
 ctgaactatt tcggacggcc gtatgaaggc atcgccgtgt tcgacggcaa aaagatcact 420
 accacaggga ccctgtggaa cggcaacaaa attatcgacg agcgcctgat ccccccgac 480
 catcaccatc accatcatta a 501

<210> 861
 <211> 166
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 861

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Phe Thr

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

<210> 862
 <211> 513
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

```

<400> 862
atggtttccg tgagcggctg gcggctgttc aagaagatta gcggcagctc cggtttcaca      60
ctcgacgatt tcgttgggga ctgggaacag acagccgcct acaacctgga ccaagtcctt      120
gaacagggag gtgtgtccag tttgctgcag aatctcgccg tgtccgtaac tccgatcatg      180
aggattgtcc ggagcgggtga aaatgccctg aagatcgaca tccatgtcat catcccgtat      240
gaaggtctga gcgccgacca aatggcccag atcgaagagg tgtttaaggt ggtgtaccct      300
gtggatgatc atcactttaa ggtgatacctg ccctatggca cactggtaat cgacgggggtt      360
acgccgaaca agctgaacta tttcggacgg ccgtatgaag gcatcgccgt gttcgacggc      420
aaaaagatca ctaccacagg gacctgtgg aacggcaaca aaattatcga cgagcgctg      480
atcacccccg accatcacca tcaccatcat taa                                     513

```

```

<210> 863
<211> 170
<212> PRT
<213> Artificial sequence

```

```

<220>
<223> Synthetic

```

```

<400> 863

```

```

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1           5           10          15

```

```

Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
          20          25          30

```

```

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
          35          40          45

```

```

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
          50          55          60

```

```

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
          65          70          75          80

```

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
85 90 95

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
100 105 110

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
115 120 125

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
130 135 140

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
145 150 155 160

Ile Thr Pro Asp His His His His His His
165 170

<210> 864
<211> 525
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 864
atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cgggtggctcg 60
agcggtttca cactcgacga tttcgttggg gactgggaac agacagccgc ctacaacctg 120
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 180
actccgatca tgaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 240
atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 300
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 360
atcgacgggg ttacgccgaa caagctgaac tatttcggac ggccgtatga aggcacgcgc 420
gtgttcgacg gcaaaaagat cactaccaca gggaccctgt ggaacggcaa caaaattatc 480

gacgagcgcc tgatcacccc cgaccatcac catcaccatc attaa

525

<210> 865

<211> 174

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 865

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp
20 25 30

Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
35 40 45

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met
50 55 60

Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
65 70 75 80

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
85 90 95

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
100 105 110

Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys
115 120 125

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
130 135 140

Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile

145 150 155 160

150

155

160

Asp Glu Arg Leu Ile Thr Pro Asp His His His His His His
165 170

<210>	866
<211>	537
<212>	DNA
<213>	Artificial sequence

<220>
<223> Synthetic

<400>	866						
atggtttccg	tgagcggctg	gcggctgttc	aagaagatta	gcggctcgag	cggtggctcg		60
agcggtggtc	cgagcggttt	cacactcgac	gatttcgttg	gggactggga	acagacagcc		120
gcctacaacc	tggaccaagt	ccttgaacag	ggaggtgtgt	ccagtttgct	gcagaatctc		180
gccgtgtccg	taactccgat	catgaggatt	gtccggagcg	gtgaaaatgc	cctgaagatc		240
gacatccatg	tcatcatccc	gtatgaaggt	ctgagcgccg	accaaattggc	ccagatcgaa		300
gaggtgttta	aggtggtgta	ccctgtggat	gatcatcact	ttaaggtgat	cctgccctat		360
ggcacactgg	taatcgacgg	ggttacgccg	aacaagctga	actatttcgg	acggccgtat		420
gaaggcatcg	ccgtgttcga	cggcaaaaag	atcactacca	cagggaccct	gtggaacggc		480
aacaaaatta	tcgacgagcg	cctgatcacc	cccgaccatc	accatcacca	tcattaa		537

$\langle 210 \rangle$	867
$\langle 211 \rangle$	178
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial sequence

<220>
<223> Synthetic

<400> 867

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe

20

25

30

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

Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val
 50 55 60

Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile
 65 70 75 80

Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met
 85 90 95

Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His
 100 105 110

His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val
 115 120 125

Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala
 130 135 140

Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly
 145 150 155 160

Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp His His His His
 165 170 175

His His

<210> 868

<211> 549

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 868
atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cggtaggctcg 60
agcggtaggct cgagcggtag ctcgagcggg ttacactcg acgatttcgt tggggactgg 120
gaacagacag ccgcctacaa cctggaccaa gtccttgaac agggaggtgt gtccagtttg 180
ctgcagaatc tcgccgtgtc cgtaactccg atcatgagga ttgtccggag cggtgaaaat 240
gccctgaaga tcgacatcca tgtcatcatc ccgtatgaag gtctgagcgc cgaccaaagt 300
gcccagatcg aagagggtgt taaggtagtg taccctgtgg atgatcatca ctttaagggtg 360
atcctgccct atggcacact ggtaatcgac ggggttacgc cgaacaagct gaactatttc 420
ggacggccgt atgaaggcat cgccgtgttc gacggcaaaa agatcactac cacagggacc 480
ctgtggaacg gcaacaaaat tatcgacgag cgctgatca ccccgacca tcaccatcac 540
catcattaa 549

<210> 869
<211> 182
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 869

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Phe Thr
20 25 30

Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu
35 40 45

Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu
50 55 60

Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn

65	70	75	80
Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser	85	90	95
Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro	100	105	110
Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val	115	120	125
Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr	130	135	140
Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr	145	150	155
Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp	165	170	175
His His His His His His	180		

<210> 870
 <211> 555
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 870	
atggtgagcg gctggcggct gttcaagaag attagcggct cgagcgggtgg ctcgagcgggt	60
ggctcgagcg gtggctcgag cgggtggctcg agcggtttca cactcgacga tttcgttggg	120
gactgggaac agacagccgc ctacaacctg gaccaagtcc ttgaacaggg aggtgtgtcc	180
agtttgctgc agaatctcgc cgtgtccgta actccgatca tgaggattgt ccggagcgggt	240
gaaaatgccc tgaagatcga catccatgtc atcatcccggt atgaaggtct gagcgccgac	300

caaatggccc agatcgaaga ggtgtttaag gtggtgtacc ctgtggatga tcatcacttt	360
aaggatgatcc tgccctatgg cacactggta atcgacgggg ttacgccgaa caagctgaac	420
tatttcggac ggccgtatga aggcacgcgc gtgttcgacg gcaaaaagat cactaccaca	480
gggaccctgt ggaacggcaa caaaattatc gacgagcgcc tgatcacccc cgaccatcac	540
catcaccatc attaa	555

<210> 871
 <211> 184
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 871

Met	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Gly	Ser	Ser	Gly
1			5					10					15		

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

Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr
		35					40					45			

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
	50				55					60					

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly
65				70					75					80	

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
			85					90						95	

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
			100				105						110		

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe Gly Arg
 130 135 140

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr
 145 150 155 160

Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr
 165 170 175

Pro Asp His His His His His His
 180

<210> 872
 <211> 561
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 872
 atggtttccg tgagcggctg gcggctgttc aagaagatta gcggctcgag cggtaggctcg 60
 agcggtaggct cgagcggtag ctcgagcggg ggctcgagcg gtttcacact cgacgatttc 120
 gttgggggact gggaacagac agccgcctac aacctggacc aagtccttga acagggaggt 180
 gtgtccagtt tgctgcagaa tctcgccgtg tccgtaactc cgatcatgag gattgtccgg 240
 agcggtgaaa atgccctgaa gatcgacatc catgtcatca tcccgtatga aggtctgagc 300
 gccgacaaaa tggcccagat cgaagagggtg tttaagggtg tgtaccctgt ggatgatcat 360
 cactttaagg tgatcctgcc ctatggcaca ctggtaatcg acgggggttac gccgaacaag 420
 ctgaactatt tcggacggcc gtatgaaggc atcgccgtgt tcgacggcaa aaagatcact 480
 accacaggga ccctgtggaa cggcaacaaa attatcgacg agcgcctgat ccccccgac 540
 catcaccatc accatcatta a 561

<210> 873

<211> 186
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 873

Met Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser
1 5 10 15

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

Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
35 40 45

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
50 55 60

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile Val Arg
65 70 75 80

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
85 90 95

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
100 105 110

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
115 120 125

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn Tyr Phe
130 135 140

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
145 150 155 160

Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu

165

170

175

Ile Thr Pro Asp His His His His His His
 180 185

<210> 874
 <211> 507
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 874
 atgaaacatc accatcacca tcatgtcttc aactcgcacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgac 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
 tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgacgtttc cgtgagcggc 480
 tggcggctgt tcaagaagat tagctaa 507

<210> 875
 <211> 168
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 875

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu

20

25

30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
 85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Val Ser Val Ser Gly
 145 150 155 160

Trp Arg Leu Phe Lys Lys Ile Ser
 165

<210> 876

<211> 519

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 876

atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa

60

cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggt aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
 tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgacggctc gagcgggtgtt 480
 tccgtgagcg gctggcggct gttcaagaag attagctaa 519

<210> 877
 <211> 172
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 877

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
 20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
 35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
 85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Ser Gly Val
145 150 155 160

Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
165 170

<210> 878
<211> 525
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 878
atgaaacatc accatcacca tcatgtcttc aactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgacggctc gagcgggtggc 480
tcgagcgggtg tgagcggctg gcggctgttc aagaagatta gctaa 525

<210> 879

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 879

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Ser Gly Gly
145 150 155 160

Ser Ser Gly Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser

<210> 880
 <211> 531
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 880
 atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaaga tcactaccac agggaccctg 420
 tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgacggctc gagcgggtggc 480
 tcgagcgggtg tttccgtgag cggctggcgg ctgttcaaga agattagcta a 531

<210> 881
 <211> 176
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 881

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
 1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
 20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr

35

40

45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
 50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
 65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
 85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Ser Gly Gly
 145 150 155 160

Ser Ser Gly Val Ser Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser
 165 170 175

<210> 882

<211> 498

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 882

atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag	240
gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta	300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc	360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc	420
gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat	480
catcaccatc accactaa	498

$\langle 210 \rangle$	883
$\langle 211 \rangle$	165
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial sequence

<220>
<223> Synthetic

<400> 883

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
 145 150 155 160

His His His His His
 165

<210> 884
 <211> 501
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 884
 atggtgagcg gctggcggct gttcaagaag attagccacc atcaccatca ccatcatcac 60
 ttcacactcg acgatttcgt tggggactgg gaacagacag cgcctacaa cctggaccaa 120
 gtccttgaac agggagggtgt gtccagtttg ctgcagaatc tcgccgtgtc cgtaactccg 180
 atcatgagga ttgtccggag cggtgaaaat gccctgaaga tcgacatcca tgtcatcatc 240
 ccgtatgaag gtctgagcgc cgaccaaattg gcccagatcg aagagggtgtt taagggtggtg 300
 taccctgtgg atgatcatca ctttaagggtg atcctgccct atggcacact ggtaatcgac 360
 ggggttacgc cgaacaagct gaactatttc ggacggccgt atgaaggcat cgccgtgttc 420
 gacggcaaaa agatcactac cacagggacc ctgtggaacg gcaacaaaat tatcgacgag 480
 cgcctgatca ccccgacta a 501

<210> 885
 <211> 166
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 885

Met Val Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser His His His His
1 5 10 15

His His His His Phe Thr Leu Asp Asp Phe Val Gly Asp Trp Glu Gln
20 25 30

Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser
35 40 45

Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Met Arg Ile
50 55 60

Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile
65 70 75 80

Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val
85 90 95

Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu
100 105 110

Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Lys Leu Asn
115 120 125

Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys
130 135 140

Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu
145 150 155 160

Arg Leu Ile Thr Pro Asp
165

<210> 886

<211> 510
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 886
atgaaacatc accatcacca tcatgtgagc ggctggcggc tgttcaagaa gattagcggc 60
agctccgggtt tcacactcga cgatttcgtt ggggactggg aacagacagc cgcctacaac 120
ctggaccaag tccttgaaca gggagggtgtg tccagtttgc tgcagaatct cgccgtgtcc 180
gtaactccga tcatgaggat tgtccggagc ggtgaaaatg ccctgaagat cgacatccat 240
gtcatcatcc cgtatgaagg tctgagcgcc gaccaaattg cccagatcga agagggtgtt 300
aagggtggtgt accctgtgga tgatcatcac ttttaagggtga tcctgcccta tggcacactg 360
gtaatcgacg ggggttacgcc gaacaagctg aactatttcg gacggccgta tgaaggcatc 420
gccgtgttcg acggcaaaaa gatcactacc acagggaccc tgtggaacgg caacaaaatt 480
atcgacgagc gcctgatcac ccccgactaa 510

<210> 887
<211> 169
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 887

Met Lys His His His His His Val Ser Gly Trp Arg Leu Phe Lys
1 5 10 15

Lys Ile Ser Gly Ser Ser Gly Phe Thr Leu Asp Asp Phe Val Gly Asp
20 25 30

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

Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile

50

55

60

Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His
65 70 75 80

Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile
85 90 95

Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys
100 105 110

Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn
115 120 125

Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp
130 135 140

Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile
145 150 155 160

Ile Asp Glu Arg Leu Ile Thr Pro Asp
165

<210> 888

<211> 507

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 888

atggtgagcg gctggcggct gttcaagaag attagcggca gctccggttt cacactcgac 60

gatttcgttg gggactggga acagacagcc gcctacaacc tggaccaagt ccttgaacag 120

ggagggtgtg ccagtttgct gcagaatctc gccgtgtccg taactccgat catgaggatt 180

gtccggagcg gtgaaaatgc cctgaagatc gacatccatg tcatcatccc gtatgaaggt 240

ctgagcgccg accaaatggc ccagatcgaa gaggtgttta aggtggtgta ccctgtggat 300

gatcatcact ttaaggtgat cctgccctat ggcacactgg taatcgacgg ggttacgccg	360
aacaagctga actatttcgg acggccgtat gaaggcatcg ccgtgttcga cggcaaaaag	420
atcactacca cagggaccct gtggaacggc aacaaaatta tcgacgagcg cctgatcacc	480
cccgaccatc accatcacca tcattaa	507

<210> 889
 <211> 168
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 889

Met	Val	Ser	Gly	Trp	Arg	Leu	Phe	Lys	Lys	Ile	Ser	Gly	Ser	Ser	Gly
1				5					10					15	

Phe	Thr	Leu	Asp	Asp	Phe	Val	Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr
			20					25					30		

Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln
		35					40					45			

Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly
	50					55					60				

Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly
65					70					75				80	

Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val
				85					90					95	

Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr
			100					105					110		

Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Lys	Leu	Asn	Tyr	Phe	Gly	Arg
		115					120					125			

Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Thr Thr
 130 135 140

Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile Thr
 145 150 155 160

Pro Asp His His His His His His
 165

<210> 890
 <211> 498
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 890
 atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
 actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
 atcatcccgt atgaaggctt gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
 gtgggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta 300
 atcgacggggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacatgcc 360
 gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacgagaa caaaattatc 420
 gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat 480
 catcaccatc accactaa 498

<210> 891
 <211> 165
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 891

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Glu Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
145 150 155 160

His His His His His
165

<210> 892
<211> 498
<212> DNA
<213> Artificial sequence

<220>

<223> Synthetic

<400> 892

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atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg      60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta      120
actccgatcc aaaggattgt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      180
atcatccccgt atgaaggctc gagcgccgac caaatggccc agatcgaaga ggtgtttaag      240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta      300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc      360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcgt taaaattatc      420
gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat      480
catcaccatc accactaa                                         498
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<210> 893

<211> 165

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 893

```
Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1           5           10          15
```

```
Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
          20          25          30
```

```
Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
          35          40          45
```

```
Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
          50          55          60
```

```
Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
```

65		70		75		80
Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr						
	85			90		95
Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe						
	100			105		110
Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr						
	115			120		125
Val Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu						
	130			135		140
Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His						
	145			150		155
						160
His His His His His						
						165

<210> 894
 <211> 498
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 894	
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta	120
actccgatcc aaaggatggg ccggagcggg gaaaatgccc tgaagatcga catccatgtc	180
atcatcccgt atgaagggtc gagcgccgac caaatggccc agatcgaaga ggtgtttaag	240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta	300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgccc	360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc	420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat 480
catcaccatc accactaa 498

<210> 895
<211> 165
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 895

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
 145 150 155 160

His His His His His
 165

<210> 896
 <211> 498
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 896
 atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg 60
 gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120
 actccgatcc aaaggatggt ccggagcggg gaaaatgccc tgaagatcga catccatgtc 180
 atcatcccgt atgaaggctc gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240
 gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300
 atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcc 360
 gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420
 gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat 480
 catcaccatc accactaa 498

<210> 897
 <211> 165
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 897

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
 1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg
35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
115 120 125

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
145 150 155 160

His His His His His
165

<210> 898
<211> 498
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 898


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atggtcttca cactcgaaga tttcgttggg gactggaagc agacagccgc ctacaacctg      60
gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta      120
actccgatcc aaaggatggt ccggagcggg gaaaatgccc tgaagatcga catccatgtc      180
atcatcccgt atgaagggtc gagcgccgac caaatggccc agatcgaaga ggtgtttaag      240
gtggtgtacc ctgtggatga tcatcacttt aaggatgatcc tgccctatgg cacactggta      300
atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcacgcgc      360
gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacgacgt caaaattatc      420
gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagccat      480
catcaccatc accactaa                                                    498

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<210> 899
<211> 165
<212> PRT
<213> Artificial sequence

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<220>
<223> Synthetic

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<400> 899

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```

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
1           5           10           15

```

```

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
          20           25           30

```

```

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg
          35           40           45

```

```

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
          50           55           60

```

```

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
65           70           75           80

```

```

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr

```

85

90

95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr
 115 120 125

Val Thr Gly Thr Leu Trp Asn Asp Val Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser His
 145 150 155 160

His His His His His
 165

<210> 900
 <211> 13
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 900

Gly Arg Met Leu Phe Arg Val Thr Ile Asn Ser Trp Arg
 1 5 10

<210> 901
 <211> 11
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 901

Val Ser Gly Trp Arg Leu Phe Arg Arg Ile Ser
 1 5 10

<210> 902
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 902

Gly Arg Leu Leu Phe Val Val Val Ile Glu Arg Tyr Arg
1 5 10

<210> 903
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 903

Val Ser Gly Trp Arg Leu Phe Arg Arg Ile Ser Cys
1 5 10

<210> 904
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 904

Gly Arg Met Leu Phe Arg Val Thr Ile Asn Ser Trp Arg Cys
1 5 10

<210> 905
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 905

Gly Arg Leu Leu Phe Thr Val Thr Ile Glu Arg Tyr Arg Cys
1 5 10

<210> 906

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 906

Gly Lys Leu Leu Phe Val Val Val Ile Glu Lys Tyr Lys
1 5 10

<210> 907

<211> 21

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 907

Gly Lys Leu Leu Phe Val Thr Ile Glu Lys Val Ser Gly Trp Arg Leu
1 5 10 15

Phe Lys Lys Ile Ser
20

<210> 908

<211> 468

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 908

atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa

60

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cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc	180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc	240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgac	300
ctgccctatg gcacactggt aatcgacggg gttacgccga acaagctgaa ctatttcgga	360
cacccgtatg aaggcatcgc cgtgttcgac ggcaaaaaaga tcactaccac agggaccctg	420
tggaacggca acaaaattat cgacgagcgc ctgatcaccc ccgactaa	468

<210> 909
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 909

Met	Lys	His	His	His	His	His	His	Val	Phe	Thr	Leu	Asp	Asp	Phe	Val
1				5					10					15	

Gly	Asp	Trp	Glu	Gln	Thr	Ala	Ala	Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu
			20					25					30		

Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu	Gln	Asn	Leu	Ala	Val	Ser	Val	Thr
			35				40					45			

Pro	Ile	Met	Arg	Ile	Val	Arg	Ser	Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp
	50					55					60				

Ile	His	Val	Ile	Ile	Pro	Tyr	Glu	Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala
65					70				75					80	

Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
				85					90					95	

Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile	Asp	Gly	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
 145 150 155

<210> 910
 <211> 468
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 910
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 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 cggccgtatg aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg 420
 tggaacggca acaaaaattat cgacgagcgc ctgatcaccc ccgactaa 468

<210> 911
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 911

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 912
<211> 468
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 912

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atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttaa ggtgggtgtac cctgtggatg atcatcactt taaggatgatc      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg      420
cctaacggca acaaaattat cgacgagcgc ctgatcaccc ccgactaa      468

```

<210> 913
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 913

```

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10          15

```

```

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
          20          25          30

```

```

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
          35          40          45

```

```

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
          50          55          60

```

```

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65           70           75          80

```

```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
          85          90          95

```


Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Pro Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 914
<211> 468
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 914
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cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcaactaccac agggaccctg 420
tggaacggca acaaaattat cgacgagcgc ctgatcgatc ccgactaa 468

<210> 915
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 915

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp
145 150 155

<210> 916

<211> 468

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 916
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cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgac 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
cggccgtatg aaggcatcgc cgtgttcgac ggcaaaaaga tcactaccac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgatcaccg atgactaa 468

<210> 917
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 917

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His

85

90

95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
 100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val
 115 120 125

Phe Asp Gly Lys Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
 130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Asp Asp
 145 150 155

<210> 918
 <211> 468
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 918
 atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
 cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
 cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc 180
 ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
 cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
 ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
 caccgctatg aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg 420
 tggaacggca acaaaattat cgacgagcgc ctgatcacc cccgactaa 468

<210> 919
 <211> 155
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 919

Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
145 150 155

<210> 920

<211> 468

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 920

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cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggatgatc      300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
caccctgatg aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatcgatc ccgactaa      468
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<210> 921

<211> 155

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 921

```
Met Lys His His His His His His Val Phe Thr Leu Asp Asp Phe Val
1           5           10          15
```

```
Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20          25          30
```

```
Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35          40          45
```

```
Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50          55          60
```

```
Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65          70          75          80
```

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp
145 150 155

<210> 922
<211> 468
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 922
atgaaacatc accatcacca tcatgtcttc aactcgcacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
caccgatg aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgatcgatg atgactaa 468

<210> 923
<211> 155
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 923

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Tyr Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Asp Asp
145 150 155

<210> 924

<211> 468

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 924

```
atgaaacatc accatcacca tcatgatttc acactcgacg atttcgttgg ggactgggaa      60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg      120
cagaatctcg ccgtgtccgt aactccgata atgaggattg tccggagcgg tgaaaatgcc      180
ctgaagatcg acatccatgt catcatcccc tatgaaggta tgagcgccga ccaaattggcc      240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgat      300
ctgcccatac gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga      360
caccgcgtat aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg      420
tggaacggca acaaaattat cgacgagcgc ctgatcgatc ccgactaa      468
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<210> 925

<211> 155

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 925

```
Met Lys His His His His His Asp Phe Thr Leu Asp Asp Phe Val
1           5           10          15
```

```
Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
          20          25          30
```

```
Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
          35          40          45
```

```
Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
          50          55          60
```

```
Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
```

65		70		75		80
Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His						
	85			90		95
Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile Asp Gly Val Thr						
	100			105		110
Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val						
	115			120		125
Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn						
	130			135		140
Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp						
	145			150		155

<210> 926
 <211> 468
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 926	
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa	60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg	120
cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc	180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc	240
cagatcgaag aggtgtttta ggtgggtgtac cctgtggatg atcatcactt taaggtgatc	300
ctgcccacg gcacactggg aatcgacggg gagacgccga acaagctgaa ctatttcgga	360
cacccgtatg aaggcatcgc cgtgttcgac ggcgagaaga tcactaccac agggaccctg	420
tggaacggca acaaaaattat cgacgagcgc ctgatcgatc ccgactaa	468

<210> 927

<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 927

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile Asp Gly Glu Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Val
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp
145 150 155

<210> 928

<211> 468
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 928
atgaaacatc accatcacca tcatgtcttc aactcgcacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgacg atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgac 300
ctgccccatcg gcacactggg aatcgacggg gttacgccga acaagctgaa ctatttcgga 360
caccgctatg aaggcatcgc cgatttcgac ggcgagaaga tcactaccac agggaccctg 420
tggaacggca acaaaaattat cgacgagcgc ctgatcgatc ccgactaa 468

<210> 929
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 929

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile Asp Gly Val Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Asp
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp
145 150 155

<210> 930
<211> 468
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 930
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgatc atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccc tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttta ggtggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgcccacatg gcacactggg aatcgacggg gagacgccga acaagctgaa ctatttcgga 360
caccctgatg aaggcatcgc cgatttcgac ggcgagaaga tcactaccac agggaccctg 420
tggaacggca acaaaattat cgacgagcgc ctgatcgatc ccgactaa 468

<210> 931
<211> 155
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 931

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala
65 70 75 80

Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His
85 90 95

Phe Lys Val Ile Leu Pro Ile Gly Thr Leu Val Ile Asp Gly Glu Thr
100 105 110

Pro Asn Lys Leu Asn Tyr Phe Gly His Pro Tyr Glu Gly Ile Ala Asp
115 120 125

Phe Asp Gly Glu Lys Ile Thr Thr Thr Gly Thr Leu Trp Asn Gly Asn
130 135 140

Lys Ile Ile Asp Glu Arg Leu Ile Asp Pro Asp
145 150 155

<210> 932
<211> 327
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 932
atgaaacatc accatcacca tcatgtcttc acactcgacg atttcgttgg ggactgggaa 60
cagacagccg cctacaacct ggaccaagtc cttgaacagg gaggtgtgtc cagtttgctg 120
cagaatctcg ccgtgtccgt aactccgac atgaggattg tccggagcgg tgaaaatgcc 180
ctgaagatcg acatccatgt catcatcccg tatgaaggtc tgagcgccga ccaaattggcc 240
cagatcgaag aggtgtttaa ggtgggtgtac cctgtggatg atcatcactt taaggatgatc 300
ctgccctatg gcacactggg aatcgac 327

<210> 933
<211> 109
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 933

Met Lys His His His His His Val Phe Thr Leu Asp Asp Phe Val
1 5 10 15

Gly Asp Trp Glu Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu
20 25 30

Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr
35 40 45

Pro Ile Met Arg Ile Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp
50 55 60

Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala

65		70		75		80									
Gln	Ile	Glu	Glu	Val	Phe	Lys	Val	Val	Tyr	Pro	Val	Asp	Asp	His	His
				85					90					95	

Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly	Thr	Leu	Val	Ile	Asp
			100					105				

<210> 934
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 934

Val	Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Lys	Gln	Thr	Ala	Ala
1				5					10					15	

Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu
			20					25					30		

Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Thr	Gln	Arg	Met	Val	Arg	Ser
		35					40					45			

Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu
	50					55					60				

Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val
65					70					75					80

Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly
				85					90					95	

Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly
			100					105					110		

Arg	Pro	Tyr	Glu	Gly	Ile	Ala	Val	Phe	Asp	Gly	Lys	Lys	Ile	Thr	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 935

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 935

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
 35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
 50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
 65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
 85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val

115

120

125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 936
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 936
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacacctg cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttccaag taaccatcaa cagc 474

<210> 937
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 937

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
145 150 155

<210> 938

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 938

gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctgccgt gtccgtaact 120

```

ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg  tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc      300
gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca  aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac      420
gagcgcctga  tcacccccga cgggtccatg tccttccgag taaccatcaa cagc          474

```

<210> 939
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 939

```

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1              5              10              15

```

```

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
      20              25              30

```

```

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
      35              40              45

```

```

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
      50              55              60

```

```

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
      65              70              75              80

```

```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
      85              90              95

```

```

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
      100             105             110

```

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 940
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 940
gtcttcacac tcgaagattt cgttggggac tggaaccaga cagccgccta caacctggac 60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggtccatg tccttccgag taaccatcga cagc 474

<210> 941
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 941

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ala

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

<210> 942
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 942
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact	120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccaagtcac	180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg	240
gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc	300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg	360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac	420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc	474

<210> 943
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 943

Val	Phe	Thr	Leu	Glu	Asp	Phe	Val	Gly	Asp	Trp	Asn	Gln	Thr	Ala	Ala
1				5					10					15	

Tyr	Asn	Leu	Asp	Gln	Val	Leu	Glu	Gln	Gly	Gly	Val	Ser	Ser	Leu	Leu
			20					25					30		

Gln	Asn	Leu	Ala	Val	Ser	Val	Thr	Pro	Ile	Gln	Arg	Met	Val	Arg	Ser
		35					40					45			

Gly	Glu	Asn	Ala	Leu	Lys	Ile	Asp	Ile	His	Val	Ile	Ile	Pro	Tyr	Glu
	50					55					60				

Gly	Leu	Ser	Ala	Asp	Gln	Met	Ala	Gln	Ile	Glu	Glu	Val	Phe	Lys	Val
65					70					75				80	

Val	Tyr	Pro	Val	Asp	Asp	His	His	Phe	Lys	Val	Ile	Leu	Pro	Tyr	Gly
				85					90					95	

Thr	Leu	Val	Ile	Asp	Gly	Val	Thr	Pro	Asn	Met	Leu	Asn	Tyr	Phe	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asp Ser
 145 150 155

<210> 944
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 944
 gtcttcacac tcgaagattt cggtggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccaagtcac 180
 atccccgatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacacctg cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 945
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 945

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile Gln Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 946

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 946

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gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac      60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga aactcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccacgtcatc      180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccgtcaa cagc          474

```

<210> 947
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 947

```

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1           5           10           15

```

```

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20           25           30

```

```

Gln Lys Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35           40           45

```

```

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50           55           60

```

```

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65           70           75           80

```

```

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
          85           90           95

```

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Val Asn Ser
145 150 155

<210> 948
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 948
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatggtccg gagcggtgaa aatgccctga aggtcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgcaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 949
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 949

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Val Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Ala
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn
145 150 155

<210> 950

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 950
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 ccgatccaaa ggttgggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atccccgatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgccaa aattatcgac 420
 gagcgctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 951
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 951

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Leu Val Arg Ser
 35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
 50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
 65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly

85

90

95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
 130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 952
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 952
 gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
 caagtccttg aacagggagg tgtgtccagt ttgtgcaga atctcgccgt gtccgtaact 120
 ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
 atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
 gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
 gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgcg 360
 ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
 gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 953
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthetic

<400> 953

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Ala Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 954

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 954

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gtcttcacac tcgaagattt cgttggggcc tggaaacaga cagccgccta caacctggac      60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccaagtcatc      180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc      300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474
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<210> 955

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 955

```
Val Phe Thr Leu Glu Asp Phe Val Gly Ala Trp Lys Gln Thr Ala Ala
1           5           10          15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20          25          30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35          40          45

Gly Glu Asn Ala Leu Lys Ile Asp Ile Gln Val Ile Ile Pro Tyr Glu
          50          55          60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65          70          75          80
```


Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 956
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 956
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caagtcccttg aacaggggagg tgtgtccagt ttgtgcagg atctcgccgt gtccgtaact 120
ccgacccaaa ggatggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcaactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 957
<211> 158
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 957

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asp Leu Ala Val Ser Val Thr Pro Thr Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 958

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 958

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gtcttcacac tcgaagattt cgttggggac tggagacaga ctgccgccta caacctggac      60
caagtccttg aacagggagg tgtgtccagt ttgctgcgga atctcgccgt gtccgtaact    120
ccgatccaaa ggatgggtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc    180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg    240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc    300
gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg    360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac    420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccaccaa cagc          474
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<210> 959

<211> 158

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 959

```
Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ala
1           5           10          15
```

```
Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
          20          25          30
```

```
Arg Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
          35          40          45
```

```
Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
          50          55          60
```

```
Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
```

65		70		75		80
Val Tyr Pro Val	Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly					
	85		90		95	
Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly						
	100		105		110	
Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val						
	115		120		125	
Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile						
	130		135		140	
Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Thr Asn Ser						
	145		150		155	

<210> 960
 <211> 474
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 960	
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact	120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc	180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg	240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc	300
gacgggggta cgccgaacac gctgaactat ttcggacggc cgtatgaagg catcgccgtg	360
ctcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac	420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc	474

<210> 961

<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 961

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Val Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Thr Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Leu Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 962

<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 962
gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgaaccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atcccgtatg gaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtgacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 963
<211> 157
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 963

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Asn Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Gly
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn
145 150 155

<210> 964
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 964
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga acctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa agtgccctga agatcgacat ccatgtcatc 180
atccccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 965
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 965

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Ser Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 966
<211> 474
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 966
gtcttcacac acgaagattt cgttggggac tggaaacaga cagccgccta caacctggac 60
caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc 180
atccccgatg aaggctctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg 240
gtgtaccctg tggatgatca tcactttaag gtgacctgc cctatggcac actggtaatc 300
gacgggggta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac 420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc 474

<210> 967
<211> 158
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 967

Val Phe Thr His Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu

50

55

60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 968

<211> 474

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 968

Gly Thr Cys Thr Thr Cys Ala Cys Ala Cys Thr Cys Gly Ala Ala Gly
1 5 10 15

Ala Thr Thr Thr Cys Gly Thr Thr Gly Gly Gly Gly Ala Cys Thr Gly
20 25 30

Gly Ala Ala Ala Cys Ala Gly Thr Cys Ala Gly Cys Cys Gly Cys Cys
35 40 45

Thr Ala Cys Ala Ala Cys Cys Thr Gly Gly Ala Cys Cys Ala Ala Gly

50

55

60

Thr Cys Cys Thr Thr Gly Ala Ala Cys Ala Gly Gly Gly Ala Gly Gly
 65 70 75 80

Thr Gly Thr Gly Thr Cys Cys Ala Gly Thr Thr Thr Gly Cys Thr Gly
 85 90 95

Cys Ala Gly Ala Ala Thr Cys Thr Cys Gly Cys Cys Gly Thr Gly Thr
 100 105 110

Cys Cys Gly Thr Ala Ala Cys Thr Cys Cys Gly Ala Thr Cys Cys Ala
 115 120 125

Ala Ala Gly Gly Ala Thr Gly Gly Thr Cys Cys Gly Gly Ala Gly Cys
 130 135 140

Gly Gly Thr Gly Ala Ala Ala Ala Thr Gly Cys Cys Cys Thr Gly Ala
 145 150 155 160

Ala Gly Ala Thr Cys Gly Ala Cys Ala Thr Cys Cys Ala Thr Gly Thr
 165 170 175

Cys Ala Thr Cys Ala Thr Cys Cys Cys Gly Thr Ala Thr Gly Ala Ala
 180 185 190

Gly Gly Thr Cys Thr Gly Ala Gly Cys Gly Cys Cys Gly Ala Cys Cys
 195 200 205

Ala Ala Ala Thr Gly Gly Cys Cys Cys Ala Gly Ala Thr Cys Gly Ala
 210 215 220

Ala Gly Ala Gly Gly Thr Gly Thr Thr Thr Ala Ala Gly Gly Thr Gly
 225 230 235 240

Gly Thr Gly Thr Ala Cys Cys Cys Thr Gly Thr Gly Gly Ala Thr Gly
 245 250 255

Ala Thr Cys Ala Thr Cys Ala Cys Thr Thr Thr Ala Ala Gly Gly Thr
260 265 270

Gly Ala Thr Cys Cys Thr Gly Cys Cys Cys Thr Ala Thr Gly Gly Cys
275 280 285

Ala Cys Ala Cys Thr Gly Gly Thr Ala Ala Thr Cys Gly Ala Cys Gly
290 295 300

Gly Gly Gly Thr Thr Ala Cys Gly Cys Cys Gly Ala Ala Cys Ala Thr
305 310 315 320

Gly Cys Thr Gly Ala Ala Cys Thr Ala Thr Thr Thr Cys Gly Gly Ala
325 330 335

Cys Gly Gly Cys Cys Gly Thr Ala Thr Gly Ala Ala Gly Gly Cys Ala
340 345 350

Thr Cys Gly Cys Cys Gly Thr Gly Thr Thr Cys Gly Ala Cys Gly Gly
355 360 365

Cys Ala Ala Ala Ala Ala Gly Ala Thr Cys Ala Cys Thr Gly Thr Ala
370 375 380

Ala Cys Ala Gly Gly Gly Ala Cys Cys Cys Thr Gly Thr Gly Gly Ala
385 390 395 400

Ala Cys Gly Gly Cys Gly Thr Cys Ala Ala Ala Ala Thr Thr Ala Thr
405 410 415

Cys Gly Ala Cys Gly Ala Gly Cys Gly Cys Cys Thr Gly Ala Thr Cys
420 425 430

Ala Cys Cys Cys Cys Cys Gly Ala Cys Gly Gly Cys Thr Cys Cys Ala
435 440 445

Thr Gly Thr Cys Cys Thr Thr Cys Cys Gly Ala Gly Thr Ala Ala Cys

450

455

460

Cys Ala Thr Cys Ala Ala Cys Ala Gly Cys
 465 470

<210> 969
 <211> 158
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 969

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Ser Ala Ala
 1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
 20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
 35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
 50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
 65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr Gly
 85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
 100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
 115 120 125

Thr Gly Thr Leu Trp Asn Gly Val Lys Ile Ile Asp Glu Arg Leu Ile

130

135

140

Thr Pro Asp Gly Ser Met Ser Phe Arg Val Thr Ile Asn Ser
 145 150 155

<210> 970

<211> 474

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 970

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gtcttcacac tcgaagattt cgttggggac tggaaacaga cagccgccta caacctggac      60
caagtcccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact      120
ccgatccaaa ggatgggtccg gagcgggtgaa aatgccctga agatcgacat ccatgtcatc      180
atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaagggtg      240
gtgtaccctg tggatgatca tcactttaag gtgacacctgc actatggcac actggtaatc      300
gacgggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg      360
ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcgtcaa aattatcgac      420
gagcgcctga tcacccccga cggctccatg tccttccgag taaccatcaa cagc          474
```

<210> 971

<211> 906

<212> DNA

<213> Artificial sequence

<220>

<223> Synthetic

<400> 971

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atgaactcct tctccacaag cgccttcggt ccagttgcct tctccctggg cctgctcctg      60
gtgttgcttg ctgccttccc tgccccagac tacaaagacc atgacggtga ttataaagat      120
catgacatcg attacaagga tgacgatgac aagagagtcc aacctactga atctattgtt      180
agatttccta atattactaa tctttgtcct tttggcgagg tgttcaatgc caccagattc      240
```

```

gcctctgtgt acgcctggaa ccggaagcgg atcagcaatt gcgtggccga ctactccgtg      300
ctgtacaact ccgccagctt cagcaccttc aagtgtctacg gcgtgtcccc taccaagctg      360
aacgacctgt gcttcacaaa cgtgtacgcc gacagcttcg tgatccgggg agatgaagtg      420
cggcagattg cccctggaca gacaggcaag atcgccgact acaactacaa gctgcccgac      480
gacttcaccg gctgtgtgat tgcctggaac agcaacaacc tggactccaa agtcggcggc      540
aactacaatt acctgtaccg gctgttccgg aagtccaatc tgaagccctt cgagcgggac      600
atctccaccg agatctatca ggccggcagc accccttgta acggcgtgga aggcttcaac      660
tgctacttcc cactgcagtc ctacggcttt cagcccacaa atggcgtggg ctatcagccc      720
tacagagtgg tgggtgtgag cttcgaactg ctgcatgccc ctgccacagt gtgcggccct      780
aagaaaagca ccaatctcgt gaagaacaaa tgcgtgaact tcgggagctc cgggtggtggc      840
gggagcggag gtggaggctc gagcgggtggc aagctcctgt tcacggtaac catcgagaag      900
tataag                                           906

```

<210> 972
 <211> 302
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 972

```

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

```

```

Gly Leu Leu Leu Val Leu Pro Ala Ala Phe Pro Ala Pro Asp Tyr Lys
          20          25          30

```

```

Asp His Asp Gly Asp Tyr Lys Asp His Asp Ile Asp Tyr Lys Asp Asp
          35          40          45

```

```

Asp Asp Lys Arg Val Gln Pro Thr Glu Ser Ile Val Arg Phe Pro Asn
          50          55          60

```

Ile Thr Asn Leu Cys Pro Phe Gly Glu Val Phe Asn Ala Thr Arg Phe
65 70 75 80

Ala Ser Val Tyr Ala Trp Asn Arg Lys Arg Ile Ser Asn Cys Val Ala
85 90 95

Asp Tyr Ser Val Leu Tyr Asn Ser Ala Ser Phe Ser Thr Phe Lys Cys
100 105 110

Tyr Gly Val Ser Pro Thr Lys Leu Asn Asp Leu Cys Phe Thr Asn Val
115 120 125

Tyr Ala Asp Ser Phe Val Ile Arg Gly Asp Glu Val Arg Gln Ile Ala
130 135 140

Pro Gly Gln Thr Gly Lys Ile Ala Asp Tyr Asn Tyr Lys Leu Pro Asp
145 150 155 160

Asp Phe Thr Gly Cys Val Ile Ala Trp Asn Ser Asn Asn Leu Asp Ser
165 170 175

Lys Val Gly Gly Asn Tyr Asn Tyr Leu Tyr Arg Leu Phe Arg Lys Ser
180 185 190

Asn Leu Lys Pro Phe Glu Arg Asp Ile Ser Thr Glu Ile Tyr Gln Ala
195 200 205

Gly Ser Thr Pro Cys Asn Gly Val Glu Gly Phe Asn Cys Tyr Phe Pro
210 215 220

Leu Gln Ser Tyr Gly Phe Gln Pro Thr Asn Gly Val Gly Tyr Gln Pro
225 230 235 240

Tyr Arg Val Val Val Leu Ser Phe Glu Leu Leu His Ala Pro Ala Thr
245 250 255

Val Cys Gly Pro Lys Lys Ser Thr Asn Leu Val Lys Asn Lys Cys Val

260

265

270

Asn Phe Gly Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ser
 275 280 285

Gly Gly Lys Leu Leu Phe Thr Val Thr Ile Glu Lys Tyr Lys
 290 295 300

<210> 973
 <211> 906
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 973
 atgaactcct tctccacaag cgccttcggt ccagttgcct tctccctggg cctgctcctg 60
 gtgttgcttg ctgccttccc tgccccagtc tccgtgagcg gctggcggct gttcaagaag 120
 attagcggga gctccggtgg tggcgggagc ggaggtggag gctcgagcgg tagagtccaa 180
 cctactgaat ctattgttag atttcctaatt attactaatc tttgtccttt tggcgagggtg 240
 ttcaatgcca ccagattcgc ctctgtgtac gcctggaacc ggaagcggat cagcaattgc 300
 gtggccgact actccgtgct gtacaactcc gccagcttca gcaccttcaa gtgctacggc 360
 gtgtccccta ccaagctgaa cgacctgtgc ttcacaaacg tgtacgccga cagcttcgtg 420
 atccgggggag atgaagtgcg gcagattgcc cctggacaga caggcaagat cgccgactac 480
 aactacaagc tgcccagcga cttcaccggc tgtgtgattg cctggaacag caacaacctg 540
 gactccaaaag tcggcggcaa ctacaattac ctgtaccggc tggtccggaa gtccaatctg 600
 aagcccttcg agcgggacat ctccaccgag atctatcagg ccggcagcac cccttgtaac 660
 ggcggtggaag gcttcaactg ctacttccca ctgcagtcct acggctttca gccacaaat 720
 ggcggtgggct atcagccccta cagagtgggtg gtgctgagct tcgaactgct gcatgcccct 780
 gccacagtgt gcggccctaa gaaaagcacc aatctcgtga agaacaaatg cgtgaacttc 840
 gactacaaag accatgacgg tgattataaa gatcatgaca tcgattacaa ggatgacgat 900

gacaag

906

<210> 974
<211> 302
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 974

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

Gly Leu Leu Leu Val Leu Pro Ala Ala Phe Pro Ala Pro Val Ser Val
20 25 30

Ser Gly Trp Arg Leu Phe Lys Lys Ile Ser Gly Ser Ser Gly Gly Gly
35 40 45

Gly Ser Gly Gly Gly Gly Ser Ser Gly Arg Val Gln Pro Thr Glu Ser
50 55 60

Ile Val Arg Phe Pro Asn Ile Thr Asn Leu Cys Pro Phe Gly Glu Val
65 70 75 80

Phe Asn Ala Thr Arg Phe Ala Ser Val Tyr Ala Trp Asn Arg Lys Arg
85 90 95

Ile Ser Asn Cys Val Ala Asp Tyr Ser Val Leu Tyr Asn Ser Ala Ser
100 105 110

Phe Ser Thr Phe Lys Cys Tyr Gly Val Ser Pro Thr Lys Leu Asn Asp
115 120 125

Leu Cys Phe Thr Asn Val Tyr Ala Asp Ser Phe Val Ile Arg Gly Asp
130 135 140

Glu Val Arg Gln Ile Ala Pro Gly Gln Thr Gly Lys Ile Ala Asp Tyr

gtgttgccctg ctgccttccc tgccccaggc aagctcctgt tcacggtaac catcgagaag	120
tataagggga gctccgggtgg tggcgggagc ggagggtggag gctcgagcgg tagagtccaa	180
cctactgaat ctattgttag atttcctaatt attactaatc tttgtccttt tggcgagggtg	240
ttcaatgcca ccagattcgc ctctgtgtac gcctggaacc ggaagcggat cagcaattgc	300
gtggccgact actccgtgct gtacaactcc gccagcttca gcaccttcaa gtgctacggc	360
gtgtccccta ccaagctgaa cgacctgtgc ttcacaaacg tgtacgccga cagcttcgtg	420
atccgggggag atgaagtgcg gcagattgcc cctggacaga caggcaagat cgccgactac	480
aactacaagc tgcccgcga cttcaccggc tgtgtgattg cctggaacag caacaacctg	540
gactccaaag tcggcggcaa ctacaattac ctgtaccggc tgttccggaa gtccaatctg	600
aagcccttcg agcgggacat ctccaccgag atctatcagg ccggcagcac cccttgtaac	660
ggcgtggaag gcttcaactg ctacttccca ctgcagtcct acggctttca gcccacaaat	720
ggcgtgggct atcagcccta cagagtgggtg gtgctgagct tcgaactgct gcatgcccct	780
gccacagtgt gcggccctaa gaaaagcacc aatctcgtga agaacaaatg cgtgaacttc	840
gactacaaag accatgacgg tgattataaa gatcatgaca tcgattacaa ggatgacgat	900
gacaag	906

<210> 976
 <211> 300
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic

<400> 976

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

Gly	Leu	Leu	Leu	Val	Leu	Pro	Ala	Ala	Phe	Pro	Ala	Pro	Gly	Lys	Leu
			20					25					30		

Leu Phe Thr Val Thr Ile Glu Lys Tyr Lys Gly Ser Ser Gly Gly Gly

35

40

45

Gly Ser Gly Gly Gly Gly Ser Ser Gly Arg Val Gln Pro Thr Glu Ser
50 55 60

Ile Val Arg Phe Pro Asn Ile Thr Asn Leu Cys Pro Phe Gly Glu Val
65 70 75 80

Phe Asn Ala Thr Arg Phe Ala Ser Val Tyr Ala Trp Asn Arg Lys Arg
85 90 95

Ile Ser Asn Cys Val Ala Asp Tyr Ser Val Leu Tyr Asn Ser Ala Ser
100 105 110

Phe Ser Thr Phe Lys Cys Tyr Gly Val Ser Pro Thr Lys Leu Asn Asp
115 120 125

Leu Cys Phe Thr Asn Val Tyr Ala Asp Ser Phe Val Ile Arg Gly Asp
130 135 140

Glu Val Arg Gln Ile Ala Pro Gly Gln Thr Gly Lys Ile Ala Asp Tyr
145 150 155 160

Asn Tyr Lys Leu Pro Asp Asp Phe Thr Gly Cys Val Ile Ala Trp Asn
165 170 175

Ser Asn Asn Leu Asp Ser Lys Val Gly Gly Asn Tyr Asn Tyr Leu Tyr
180 185 190

Arg Leu Phe Arg Lys Ser Asn Leu Lys Pro Phe Glu Arg Asp Ile Ser
195 200 205

Thr Glu Ile Tyr Gln Ala Gly Ser Thr Pro Cys Asn Gly Val Glu Gly
210 215 220

Phe Asn Cys Tyr Phe Pro Leu Gln Ser Tyr Gly Phe Gln Pro Thr Asn
225 230 235 240

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

Leu His Ala Pro Ala Thr Val Cys Gly Pro Lys Lys Ser Thr Asn Leu
260 265 270

Val Lys Asn Lys Cys Val Asn Phe Asp Tyr Lys Asp His Asp Gly Asp
275 280 285

Tyr Lys Asp His Asp Ile Asp Tyr Lys Asp Asp Asp
290 295 300

<210> 977
<211> 1914
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic

<400> 977
atggactcgg gccgggactt cctgaccctg cacggcctac aggatgatga ggatctacag 60
gcgctgctga agggcagcca gtcctgaag gtgaagtcca gtcctggag gagagagcgg 120
ttctacaagt tgcaggagga ctgcaagacc atctggcagg agtcccgcaa ggatcatgcgg 180
accccgaggt cccagctgtt ctccatcgag gacattcagg aggtgcgaat ggggcaccgc 240
acggaggggtc tggagaagtt cgcccgtgat gtgcccagg accgctgctt ctccattgtc 300
ttcaaggacc agcgcaatac actagacctc atcgccccat cgccagctga tgcccagcac 360
tgggtgctgg ggctgcacaa gatcatccac cactcaggct ccatggacca gcgtcagaag 420
ctacagcact ggattcactc ctgcttgcca aaagctgaca aaaacaagga caacaagatg 480
agcttcaagg agctgcagaa cttcctgaag gagctcaaca tccagctcgg ctcttcaggc 540
gcagaaaatcg gtactggctt tccattcgac cccattatg tggaagtcct gggcgagcgc 600
atgcactacg tcgatgttgg tccgcgcgat ggcacccctg tgctgttcct gcacggtaac 660
ccgacctcct cctacgtgtg gcgcaacatc atcccgcgat ttgcaccgac ccatcgctgc 720

attgctccag acctgatcgg tatgggcaaa tccgacaaac cagacctggg ttattttcttc	780
gacgaccacg tccgcttcat ggatgccttc atcgaagccc tgggtctgga agaggctcgtc	840
ctggctcattc acgactgggg ctccgctctg ggtttccact gggccaagcg caatccagag	900
cgcgtcaaag gtattgcatt tatggagttc atccgcccta tcccgacctg ggacgaatgg	960
ccagaatttg cccgcgagac cttccaggcc ttccgcacca ccgacgtcgg ccgcaagctg	1020
atcatcgatc agaacgtttt tatcgagggt acgctgccga tgggtgtcgt ccgcccgtg	1080
actgaagtcg agatggacca ttaccgcgag ccgttcctga atcctgttga ccgcgagcca	1140
ctgtggcgct tcccaaacga gctgccaatc gccggtgagc cagcgaacat cgtcgcgctg	1200
gtcgaagaat acatggactg gctgcaccag tcccctgtcc cgaagctgct gttctggggc	1260
accccaggcg ttctgatccc accggccgaa gccgctcgcc tggccaaaag cctgcctaac	1320
tgcaaggctg tggacatcgg cccgggtctg aatctgctgc aagaagacaa cccggacctg	1380
atcggcagcg agatcgcgcg ctggctgtcg acgctggaga tttccggcgg ctcgagcggt	1440
gtcttcactt tggaagattt cgtgggtgac tggaaacaga ctgcagcata caacttagac	1500
caagtgttgg aacagggtgg agttagttcg cttttacaga atttggcagt tagtgttacg	1560
cctatacaac gtatggtgag atcgggagaa aatgcattaa aaatagacat acatgtgata	1620
ataccttatg aaggattatc ggacagacaa atggcacaga tagaagaggt ttttaaagtt	1680
gtttaccag ttgatgatca tcactttaaa gttatattac actatggaac tttagttata	1740
gacggtgtga ctctaacaat gttaaactat ttcggtagac cttatgaagg aatagcagtt	1800
ttcgacggaa agaaaataac ggttactggt acgttatgga acggagccaa gataatagac	1860
gagagattaa taacgccaga cggaagtatg agtttccagg ttacgataaa ctcg	1914

<210> 978
 <211> 638
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Synthetic

 <400> 978

Met Asp Ser Gly Arg Asp Phe Leu Thr Leu His Gly Leu Gln Asp Asp
1 5 10 15

Glu Asp Leu Gln Ala Leu Leu Lys Gly Ser Gln Leu Leu Lys Val Lys
20 25 30

Ser Ser Ser Trp Arg Arg Glu Arg Phe Tyr Lys Leu Gln Glu Asp Cys
35 40 45

Lys Thr Ile Trp Gln Glu Ser Arg Lys Val Met Arg Thr Pro Glu Ser
50 55 60

Gln Leu Phe Ser Ile Glu Asp Ile Gln Glu Val Arg Met Gly His Arg
65 70 75 80

Thr Glu Gly Leu Glu Lys Phe Ala Arg Asp Val Pro Glu Asp Arg Cys
85 90 95

Phe Ser Ile Val Phe Lys Asp Gln Arg Asn Thr Leu Asp Leu Ile Ala
100 105 110

Pro Ser Pro Ala Asp Ala Gln His Trp Val Leu Gly Leu His Lys Ile
115 120 125

Ile His His Ser Gly Ser Met Asp Gln Arg Gln Lys Leu Gln His Trp
130 135 140

Ile His Ser Cys Leu Arg Lys Ala Asp Lys Asn Lys Asp Asn Lys Met
145 150 155 160

Ser Phe Lys Glu Leu Gln Asn Phe Leu Lys Glu Leu Asn Ile Gln Leu
165 170 175

Gly Ser Ser Gly Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His
180 185 190

Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro

195

200

205

Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser
 210 215 220

Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys
 225 230 235 240

Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu
 245 250 255

Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu
 260 265 270

Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile His Asp Trp Gly Ser
 275 280 285

Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly
 290 295 300

Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp
 305 310 315 320

Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val
 325 330 335

Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu
 340 345 350

Pro Met Gly Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr
 355 360 365

Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe
 370 375 380

Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu
 385 390 395 400

Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu
405 410 415

Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala
420 425 430

Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro
435 440 445

Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu
450 455 460

Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly Gly Ser Ser Gly
465 470 475 480

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
485 490 495

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
500 505 510

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
515 520 525

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
530 535 540

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
545 550 555 560

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
565 570 575

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
580 585 590

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val

595

600

605

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile
 610 615 620

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 625 630 635

<210> 979

<211> 159

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 979

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala
 1 5 10 15

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
 20 25 30

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg
 35 40 45

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 50 55 60

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 65 70 75 80

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr
 85 90 95

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
 100 105 110

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr

115

120

125

Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu
 130 135 140

Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 145 150 155

<210> 980

<211> 459

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 980

Met Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His Tyr Val Glu
 1 5 10 15

Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro Arg Asp Gly
 20 25 30

Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser Tyr Val Trp
 35 40 45

Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys Ile Ala Pro
 50 55 60

Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu Gly Tyr Phe
 65 70 75 80

Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu Ala Leu Gly
 85 90 95

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

Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly Ile Ala Phe

115

120

125

Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp Pro Glu Phe
 130 135 140

Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val Gly Arg Lys
 145 150 155 160

Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu Pro Met Gly
 165 170 175

Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr Arg Glu Pro
 180 185 190

Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe Pro Asn Glu
 195 200 205

Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu Val Glu Glu
 210 215 220

Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu Leu Phe Trp
 225 230 235 240

Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala Arg Leu Ala
 245 250 255

Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro Gly Leu Asn
 260 265 270

Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu Ile Ala Arg
 275 280 285

Trp Leu Ser Thr Leu Glu Ile Ser Gly Gly Ser Ser Gly Val Phe Thr
 290 295 300

Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr Asn Leu
 305 310 315 320

Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu
325 330 335

Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly Glu Asn
340 345 350

Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser
355 360 365

Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro
370 375 380

Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr Leu Val
385 390 395 400

Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr
405 410 415

Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr
420 425 430

Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
435 440 445

Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
450 455

<210> 981

<211> 638

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 981

Met Asp Ser Gly Arg Asp Phe Leu Thr Leu His Gly Leu Gln Asp Asp
1 5 10 15

Glu Asp Leu Gln Ala Leu Leu Lys Gly Ser Gln Leu Leu Lys Val Lys
20 25 30

Ser Ser Ser Trp Arg Arg Glu Arg Phe Tyr Lys Leu Gln Glu Asp Cys
35 40 45

Lys Thr Ile Trp Gln Glu Ser Arg Lys Val Met Arg Thr Pro Glu Ser
50 55 60

Gln Leu Phe Ser Ile Glu Asp Ile Gln Glu Val Arg Met Gly His Arg
65 70 75 80

Thr Glu Gly Leu Glu Lys Phe Ala Arg Asp Val Pro Glu Asp Arg Cys
85 90 95

Phe Ser Ile Val Phe Lys Asp Gln Arg Asn Thr Leu Asp Leu Ile Ala
100 105 110

Pro Ser Pro Ala Asp Ala Gln His Trp Val Leu Gly Leu His Lys Ile
115 120 125

Ile His His Ser Gly Ser Met Asp Gln Arg Gln Lys Leu Gln His Trp
130 135 140

Ile His Ser Cys Leu Arg Lys Ala Asp Lys Asn Lys Asp Asn Lys Met
145 150 155 160

Ser Phe Lys Glu Leu Gln Asn Phe Leu Lys Glu Leu Asn Ile Gln Leu
165 170 175

Gly Ser Ser Gly Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His
180 185 190

Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro
195 200 205

Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser

210

215

220

Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys
 225 230 235 240

Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu
 245 250 255

Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu
 260 265 270

Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile His Asp Trp Gly Ser
 275 280 285

Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly
 290 295 300

Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp
 305 310 315 320

Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val
 325 330 335

Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu
 340 345 350

Pro Met Gly Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr
 355 360 365

Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe
 370 375 380

Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu
 385 390 395 400

Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu
 405 410 415

Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala
420 425 430

Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro
435 440 445

Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu
450 455 460

Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly Gly Ser Ser Gly
465 470 475 480

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala
485 490 495

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu
500 505 510

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser
515 520 525

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu
530 535 540

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val
545 550 555 560

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly
565 570 575

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly
580 585 590

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val
595 600 605

Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile

610

615

620

Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 625 630 635

<210> 982

<211> 510

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 982

Met Pro Lys Lys Lys Arg Lys Val Ala Glu Ile Gly Thr Gly Phe Pro
 1 5 10 15

Phe Asp Pro His Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr Val
 20 25 30

Asp Val Gly Pro Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly Asn
 35 40 45

Pro Thr Ser Ser Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala Pro
 50 55 60

Thr His Arg Cys Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser Asp
 65 70 75 80

Lys Pro Asp Leu Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met Asp
 85 90 95

Ala Phe Ile Glu Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile His
 100 105 110

Asp Trp Gly Ser Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro Glu
 115 120 125

Arg Val Lys Gly Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro Thr

130

135

140

Trp Asp Glu Trp Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg
 145 150 155 160

Thr Thr Asp Val Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe Ile
 165 170 175

Glu Gly Thr Leu Pro Met Gly Val Val Arg Pro Leu Thr Glu Val Glu
 180 185 190

Met Asp His Tyr Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu Pro
 195 200 205

Leu Trp Arg Phe Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn
 210 215 220

Ile Val Ala Leu Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser Pro
 225 230 235 240

Val Pro Lys Leu Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro Pro
 245 250 255

Ala Glu Ala Ala Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala Val
 260 265 270

Asp Ile Gly Pro Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu
 275 280 285

Ile Gly Ser Glu Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly
 290 295 300

Gly Ser Ser Gly Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Lys
 305 310 315 320

Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val
 325 330 335

Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg
340 345 350

Met Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile
355 360 365

Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu
370 375 380

Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile
385 390 395 400

Leu His Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu
405 410 415

Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys
420 425 430

Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp
435 440 445

Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr Ile
450 455 460

Asn Ser Pro Lys Lys Lys Arg Lys Val Pro Lys Lys Lys Arg Lys Val
465 470 475 480

Pro Pro Pro Val Ser Lys Arg Glu Ser Lys Ser Arg Ser Arg Ser Lys
485 490 495

Ser Pro Pro Lys Ser Pro Glu Glu Glu Gly Ala Val Ser Ser
500 505 510

<210> 983

<211> 604

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 983

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

Arg Arg Leu Pro Val Pro Arg Ala Lys Ile His Ser Leu Gly Asp Pro
20 25 30

Met Ser Val Leu Thr Pro Leu Leu Leu Arg Gly Leu Thr Gly Ser Ala
35 40 45

Arg Arg Leu Pro Val Pro Arg Ala Lys Ile His Ser Leu Gly Lys Leu
50 55 60

Met Ser Val Leu Thr Pro Leu Leu Leu Arg Gly Leu Thr Gly Ser Ala
65 70 75 80

Arg Arg Leu Pro Val Pro Arg Ala Lys Ile His Ser Leu Gly Asp Pro
85 90 95

Met Ser Val Leu Thr Pro Leu Leu Leu Arg Gly Leu Thr Gly Ser Ala
100 105 110

Arg Arg Leu Pro Val Pro Arg Ala Lys Ile His Ser Leu Gly Lys Leu
115 120 125

Arg Ile Leu Gln Ser Thr Val Pro Arg Ala Arg Asp Pro Pro Val Ala
130 135 140

Thr Met Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His Tyr Val
145 150 155 160

Glu Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro Arg Asp
165 170 175

Gly Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser Tyr Val

180

185

190

Trp Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys Ile Ala
 195 200 205

Pro Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu Gly Tyr
 210 215 220

Phe Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu Ala Leu
 225 230 235 240

Gly Leu Glu Glu Val Val Leu Val Ile His Asp Trp Gly Ser Ala Leu
 245 250 255

Gly Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly Ile Ala
 260 265 270

Phe Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp Pro Glu
 275 280 285

Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val Gly Arg
 290 295 300

Lys Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu Pro Met
 305 310 315 320

Gly Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr Arg Glu
 325 330 335

Pro Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe Pro Asn
 340 345 350

Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu Val Glu
 355 360 365

Glu Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu Leu Phe
 370 375 380

Trp Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala Arg Leu
385 390 395 400

Ala Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro Gly Leu
405 410 415

Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu Ile Ala
420 425 430

Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly Gly Ser Ser Gly Val Phe
435 440 445

Thr Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr Asn
450 455 460

Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn
465 470 475 480

Leu Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly Glu
485 490 495

Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu
500 505 510

Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr
515 520 525

Pro Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr Leu
530 535 540

Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro
545 550 555 560

Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly
565 570 575

Thr Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro

580

585

590

Asp Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser
 595 600

<210> 984

<211> 480

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic

<400> 984

Met Leu Leu Ser Val Pro Leu Leu Leu Gly Leu Leu Gly Leu Ala Val
 1 5 10 15

Ala Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
 20 25 30

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu
 35 40 45

Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Arg
 50 55 60

Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr
 65 70 75 80

Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys
 85 90 95

Val Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Leu Pro Tyr
 100 105 110

Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe
 115 120 125

Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr

130

135

140

Val Thr Gly Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu
 145 150 155 160

Ile Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser Gly
 165 170 175

Ser Ser Gly Met Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His
 180 185 190

Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro
 195 200 205

Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser
 210 215 220

Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys
 225 230 235 240

Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu
 245 250 255

Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu
 260 265 270

Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile His Asp Trp Gly Ser
 275 280 285

Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly
 290 295 300

Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp
 305 310 315 320

Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val
 325 330 335

Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu
340 345 350

Pro Met Gly Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr
355 360 365

Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe
370 375 380

Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu
385 390 395 400

Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu
405 410 415

Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala
420 425 430

Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro
435 440 445

Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu
450 455 460

Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser Gly Lys Asp Glu Leu
465 470 475 480

<210> 985
<211> 595
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 985

Met Ala Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His Tyr Val Glu
1 5 10 15

Val Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro Arg Asp Gly
20 25 30

Thr Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser Tyr Val Trp
35 40 45

Arg Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys Ile Ala Pro
50 55 60

Asp Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu Gly Tyr Phe
65 70 75 80

Phe Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu Ala Leu Gly
85 90 95

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

Phe His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly Ile Ala Phe
115 120 125

Met Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp Pro Glu Phe
130 135 140

Ala Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val Gly Arg Lys
145 150 155 160

Leu Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu Pro Met Gly
165 170 175

Val Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr Arg Glu Pro
180 185 190

Phe Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe Pro Asn Glu
195 200 205

Leu Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu Val Glu Glu

210

215

220

Tyr Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu Leu Phe Trp
 225 230 235 240

Gly Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala Arg Leu Ala
 245 250 255

Lys Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro Gly Leu Asn
 260 265 270

Leu Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu Ile Ala Arg
 275 280 285

Trp Leu Ser Thr Leu Glu Ile Ser Gly Gly Ser Ser Gly Val Phe Thr
 290 295 300

Leu Glu Asp Phe Val Gly Asp Trp Lys Gln Thr Ala Ala Tyr Asn Leu
 305 310 315 320

Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Leu Gln Asn Leu
 325 330 335

Ala Val Ser Val Thr Pro Ile Gln Arg Met Val Arg Ser Gly Glu Asn
 340 345 350

Ala Leu Lys Ile Asp Ile His Val Ile Ile Pro Tyr Glu Gly Leu Ser
 355 360 365

Ala Asp Gln Met Ala Gln Ile Glu Glu Val Phe Lys Val Val Tyr Pro
 370 375 380

Val Asp Asp His His Phe Lys Val Ile Leu His Tyr Gly Thr Leu Val
 385 390 395 400

Ile Asp Gly Val Thr Pro Asn Met Leu Asn Tyr Phe Gly Arg Pro Tyr
 405 410 415

Glu Gly Ile Ala Val Phe Asp Gly Lys Lys Ile Thr Val Thr Gly Thr
420 425 430

Leu Trp Asn Gly Ala Lys Ile Ile Asp Glu Arg Leu Ile Thr Pro Asp
435 440 445

Gly Ser Met Ser Phe Gln Val Thr Ile Asn Ser Ser Gly Leu Arg Ser
450 455 460

Arg Gly Glu Pro Gln Gln Ser Phe Ser Glu Ala Gln Gln Gln Leu Cys
465 470 475 480

Asn Thr Arg Gln Glu Val Asn Glu Leu Arg Lys Leu Leu Glu Glu Glu
485 490 495

Arg Asp Gln Arg Val Ala Ala Glu Asn Ala Leu Ser Val Ala Glu Glu
500 505 510

Gln Ile Arg Arg Leu Glu His Ser Glu Trp Asp Ser Ser Arg Thr Pro
515 520 525

Ile Ile Gly Ser Cys Gly Thr Gln Glu Gln Ala Leu Leu Ile Asp Leu
530 535 540

Thr Ser Asn Ser Cys Arg Arg Thr Arg Ser Gly Val Gly Trp Lys Arg
545 550 555 560

Val Leu Arg Ser Leu Cys His Ser Arg Thr Arg Val Pro Leu Leu Ala
565 570 575

Ala Ile Tyr Phe Leu Met Ile His Val Leu Leu Ile Leu Cys Phe Thr
580 585 590

Gly His Leu
595

<210> 986

<211> 883
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic

<400> 986

Met Ala Ala Pro Gly Ser Ala Arg Arg Pro Leu Leu Leu Leu Leu Leu
1 5 10 15

Leu Leu Leu Leu Gly Leu Met His Cys Ala Ser Ala Ala Met Phe Met
20 25 30

Val Lys Asn Gly Asn Gly Thr Ala Cys Ile Met Ala Asn Phe Ser Ala
35 40 45

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

Phe Asp Leu Pro Ser Asp Ala Thr Val Val Leu Asn Arg Ser Ser Cys
65 70 75 80

Gly Lys Glu Asn Thr Ser Asp Pro Ser Leu Val Ile Ala Phe Gly Arg
85 90 95

Gly His Thr Leu Thr Leu Asn Phe Thr Arg Asn Ala Thr Arg Tyr Ser
100 105 110

Val Gln Leu Met Ser Phe Val Tyr Asn Leu Ser Asp Thr His Leu Phe
115 120 125

Pro Asn Ala Ser Ser Lys Glu Ile Lys Thr Val Glu Ser Ile Thr Asp
130 135 140

Ile Arg Ala Asp Ile Asp Lys Lys Tyr Arg Cys Val Ser Gly Thr Gln
145 150 155 160

Val His Met Asn Asn Val Thr Val Thr Leu His Asp Ala Thr Ile Gln

165

170

175

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

Gln Asp Arg Pro Ser Pro Thr Thr Ala Pro Pro Ala Pro Pro Ser Pro
 195 200 205

Ser Pro Ser Pro Val Pro Lys Ser Pro Ser Val Asp Lys Tyr Asn Val
 210 215 220

Ser Gly Thr Asn Gly Thr Cys Leu Leu Ala Ser Met Gly Leu Gln Leu
 225 230 235 240

Asn Leu Thr Tyr Glu Arg Lys Asp Asn Thr Thr Val Thr Arg Leu Leu
 245 250 255

Asn Ile Asn Pro Asn Lys Thr Ser Ala Ser Gly Ser Cys Gly Ala His
 260 265 270

Leu Val Thr Leu Glu Leu His Ser Glu Gly Thr Thr Val Leu Leu Phe
 275 280 285

Gln Phe Gly Met Asn Ala Ser Ser Ser Arg Phe Phe Leu Gln Gly Ile
 290 295 300

Gln Leu Asn Thr Ile Leu Pro Asp Ala Arg Asp Pro Ala Phe Lys Ala
 305 310 315 320

Ala Asn Gly Ser Leu Arg Ala Leu Gln Ala Thr Val Gly Asn Ser Tyr
 325 330 335

Lys Cys Asn Ala Glu Glu His Val Arg Val Thr Lys Ala Phe Ser Val
 340 345 350

Asn Ile Phe Lys Val Trp Val Gln Ala Phe Lys Val Glu Gly Gly Gln
 355 360 365

Phe Gly Ser Val Glu Glu Cys Leu Leu Asp Glu Asn Ser Met Leu Ile
370 375 380

Pro Ile Ala Val Gly Gly Ala Leu Ala Gly Leu Val Leu Ile Val Leu
385 390 395 400

Ile Ala Tyr Leu Val Gly Arg Lys Arg Ser His Ala Gly Tyr Gln Thr
405 410 415

Ile Lys Asp Pro Pro Val Ala Thr Met Ala Glu Ile Gly Thr Gly Phe
420 425 430

Pro Phe Asp Pro His Tyr Val Glu Val Leu Gly Glu Arg Met His Tyr
435 440 445

Val Asp Val Gly Pro Arg Asp Gly Thr Pro Val Leu Phe Leu His Gly
450 455 460

Asn Pro Thr Ser Ser Tyr Val Trp Arg Asn Ile Ile Pro His Val Ala
465 470 475 480

Pro Thr His Arg Cys Ile Ala Pro Asp Leu Ile Gly Met Gly Lys Ser
485 490 495

Asp Lys Pro Asp Leu Gly Tyr Phe Phe Asp Asp His Val Arg Phe Met
500 505 510

Asp Ala Phe Ile Glu Ala Leu Gly Leu Glu Glu Val Val Leu Val Ile
515 520 525

His Asp Trp Gly Ser Ala Leu Gly Phe His Trp Ala Lys Arg Asn Pro
530 535 540

Glu Arg Val Lys Gly Ile Ala Phe Met Glu Phe Ile Arg Pro Ile Pro
545 550 555 560

Thr Trp Asp Glu Trp Pro Glu Phe Ala Arg Glu Thr Phe Gln Ala Phe

565

570

575

Arg Thr Thr Asp Val Gly Arg Lys Leu Ile Ile Asp Gln Asn Val Phe
 580 585 590

Ile Glu Gly Thr Leu Pro Met Gly Val Val Arg Pro Leu Thr Glu Val
 595 600 605

Glu Met Asp His Tyr Arg Glu Pro Phe Leu Asn Pro Val Asp Arg Glu
 610 615 620

Pro Leu Trp Arg Phe Pro Asn Glu Leu Pro Ile Ala Gly Glu Pro Ala
 625 630 635 640

Asn Ile Val Ala Leu Val Glu Glu Tyr Met Asp Trp Leu His Gln Ser
 645 650 655

Pro Val Pro Lys Leu Leu Phe Trp Gly Thr Pro Gly Val Leu Ile Pro
 660 665 670

Pro Ala Glu Ala Ala Arg Leu Ala Lys Ser Leu Pro Asn Cys Lys Ala
 675 680 685

Val Asp Ile Gly Pro Gly Leu Asn Leu Leu Gln Glu Asp Asn Pro Asp
 690 695 700

Leu Ile Gly Ser Glu Ile Ala Arg Trp Leu Ser Thr Leu Glu Ile Ser
 705 710 715 720

Gly Gly Ser Ser Gly Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp
 725 730 735

Lys Gln Thr Ala Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly
 740 745 750

Val Ser Ser Leu Leu Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln
 755 760 765

Arg Met Val Arg Ser Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val
770 775 780

Ile Ile Pro Tyr Glu Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu
785 790 795 800

Glu Val Phe Lys Val Val Tyr Pro Val Asp Asp His His Phe Lys Val
805 810 815

Ile Leu His Tyr Gly Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met
820 825 830

Leu Asn Tyr Phe Gly Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly
835 840 845

Lys Lys Ile Thr Val Thr Gly Thr Leu Trp Asn Gly Ala Lys Ile Ile
850 855 860

Asp Glu Arg Leu Ile Thr Pro Asp Gly Ser Met Ser Phe Gln Val Thr
865 870 875 880

Ile Asn Ser