SEQUENCE LISTING

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Machleidt, Thomas

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<150> US 61/791,549
<151> 2013-03-15

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<170> PatentIn version 3.5

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Ser Gly Trp Arg Leu Phe Lys Lys Ile
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Ser Gly Trp Arg Leu Leu Lys Lys Ile
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Val Glu Gly Tyr Arg Leu Phe Lys Lys Ile Ser
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

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atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

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

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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<223> Synthetic

<400> 446

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

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

<210> 447

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 447
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaaccag 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 448
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 448

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

Gly Tyr Asn Gln 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 449
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 449
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gacaaggtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 450
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 450

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 Lys 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 451
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 451
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtatgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 452
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 452

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

<210> 453
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 453
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 454
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 454

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

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

<210> 455
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 455
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgttgc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 456
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 456

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

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

<210> 457
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 457
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttggttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 458
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 458

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

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

<210> 459
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 459
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc ggaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 460
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 460

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

<210> 461
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 461
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaaactcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 462
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 462

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 Lys 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 463
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 463
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agcggctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 464
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 464

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 Arg 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 465
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 465
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga caaccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 466
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 466

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

<210> 467
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 467
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 468
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 468

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 469
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 469
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

accatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 470
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 470

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

<210> 471
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 471
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcagcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 472
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 472

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

<210> 473
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 473
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgacgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 474
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 474

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

<210> 475
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 475
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaga gatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 476
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 476

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 Glu 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 477
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 477
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 478
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 478

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

<210> 479
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 479

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cattatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 480
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 480

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

<210> 481

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 481
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 482
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 482

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

<210> 483
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 483
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac agccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 484
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 484

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 Gln 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 485
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 485
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgg ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 486
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 486

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

<210> 487
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 487
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgtt 477

<210> 488
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 488

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

<210> 489
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 489
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat cgacgtt 477

<210> 490
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 490

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

<210> 491
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 491
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat cagcgtt 477

<210> 492
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 492

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 Gly Ser Leu Leu Phe Arg Val Thr Ile Ser Val
145 150 155

<210> 493
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 493
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgat 477

<210> 494
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 494

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

<210> 495
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 495
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacagc 477

<210> 496
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 496

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

<210> 497
<211> 477
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<220>
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<400> 497
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 498
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
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<400> 498

Met Val Phe Thr Leu Glu Asp Phe Val Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 499
<211> 477
<212> DNA
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<220>
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<400> 499
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 500
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 500

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 501
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 501
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gaccaagtcc ttgaacaggc cggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 502
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 502

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 503
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 503
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 504
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 504

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 505
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 505
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 506
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 506

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 507
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 507
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcgcc gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 508
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 508

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 509
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 509
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 510
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 510

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 511
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 511
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaagccct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 512
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 512

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 513
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 513

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 514
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 514

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 515

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
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<400> 515
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 516
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 516

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

<210> 517
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 517
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgc cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 518
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 518

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

Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 519
<211> 477
<212> DNA
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<400> 519
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgccg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 520
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 520

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 521
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 521
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcgccc ggccgtatga aggcatcgcc 360

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<210> 522
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<213> Artificial Sequence

<220>
<223> Synthetic

<400> 522

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala
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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

Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 523
<211> 477
<212> DNA
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<220>
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<400> 523
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atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga agccatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 524
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<213> Artificial Sequence

<220>
<223> Synthetic

<400> 524

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 525
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<400> 525
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg ccaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 526
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<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 526

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

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atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

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atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gccaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 528
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
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<400> 528

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

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

<210> 529
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<400> 529
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atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacgccaa caaaattatc 420

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<210> 530
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<212> PRT
<213> Artificial Sequence

<220>
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<400> 530

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 Ala Asn Lys Ile Ile Asp Glu Arg Leu
130 135 140

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

<210> 531
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<212> DNA
<213> Artificial Sequence

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<400> 531
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacgcctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 532
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 532

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 Ala Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 533
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<400> 533
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaaggccga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

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gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 534
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 534

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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 535
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 535
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 536
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 536

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

Ala Tyr Asn Leu Ala 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 537
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<212> DNA
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<400> 537
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 538
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 538

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

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<400> 539
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 540
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 540

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

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<212> DNA
<213> Artificial Sequence

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<400> 541
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 542
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
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<400> 542

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

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<400> 543
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 544
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
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<400> 544

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 545
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actccgatcc aaaggattgt cctgagcggt gaaaatgggc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 546
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 546

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 547
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 547

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 548
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 548

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 549

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<212> DNA
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<400> 549
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atcatcccgt atgaaggtct gagcgccgac caaatgggcc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 550
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 550

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 551
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 551
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 552
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 552

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Ala 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 553
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 553
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 554
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 554

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 555
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 555
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 556
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 556

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 557
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 557
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 558
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 558

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

<210> 559
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 559
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 560
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 560

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Phe Gln Thr Ala
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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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 561
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 561

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 562
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 562

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 563
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 563
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 564
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 564

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

<210> 565
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 565
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 566
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 566

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

145 150 155

<210> 567
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 567
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 568
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 568

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

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

<210> 569
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 569
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 570
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 570

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Leu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 571
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 571
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 572
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 572

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Met 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 573
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 573
atggtcttca cactcgaaga tttcgttggg gactggaacc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 574
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 574

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 575
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 575
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 576
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 576

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

<210> 577
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 577
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 578
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 578

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 579
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 579
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 580
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 580

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Ser 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 581
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 581

atggtcttca cactcgaaga tttcgttggg gactggaccc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 582
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 582

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Thr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 583

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 583
atggtcttca cactcgaaga tttcgttggg gactgggtgc agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 584
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 584

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Val 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 585
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 585
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 586
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 586

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 587
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 587
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 588
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 588

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 589
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 589
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 590
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 590

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

Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 591
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 591
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 592
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 592

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala

1 5 10 15

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

<210> 593
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 593
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 594
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 594

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

Glu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 595
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 595
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 596
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 596

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

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

<210> 597
<211> 477
<212> DNA
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<220>
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<400> 597
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 598
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 598

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

<210> 599
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 599
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 600
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 600

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

His 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 601
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 601
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 602
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 602

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

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

<210> 603
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 603
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 604
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 604

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

Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 605
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 605
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 606
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 606

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

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

<210> 607
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 607
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 608
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 608

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

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

<210> 609
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 609
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 610
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 610

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

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

<210> 611
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 611
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 612
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 612

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

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

<210> 613
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 613
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 614
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 614

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

Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 615
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 615

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 616
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 616

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

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

<210> 617

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 617
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 618
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 618

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

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

<210> 619
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 619
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 620
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 620

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

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

<210> 621
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 621
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 622
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 622

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

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

<210> 623
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 623
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 624
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 624

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

Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 625
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 625
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 626
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 626

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala

1 5 10 15

Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 627
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 627
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 628
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 628

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

Ala Tyr Asn Ala 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 629
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 629
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 630
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 630

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

Ala Tyr Asn Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 631
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 631
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 632
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 632

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

Ala Tyr Asn Asp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 633
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 633
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 634
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 634

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

Ala Tyr Asn Glu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 635
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 635
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 636
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 636

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

Ala Tyr Asn Phe 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 637
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 637
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 638
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 638

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

Ala Tyr Asn Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 639
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 639
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 640
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 640

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

Ala Tyr Asn His 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 641
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 641
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 642
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 642

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

Ala Tyr Asn Ile 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 643
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 643
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 644
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 644

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

Ala Tyr Asn Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 645
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 645

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc      360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc      420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt         477
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<210> 646
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 646

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

Ala Tyr Asn Met 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 647
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 647
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 648
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 648

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

Ala Tyr Asn Asn 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 649
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 649

atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacccc 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 650
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 650

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

Ala Tyr Asn Pro 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 651

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 651
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 652
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 652

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

Ala Tyr Asn Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 653
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 653
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaaccgg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 654
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 654

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

Ala Tyr Asn Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 655
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 655
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacagc 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 656
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 656

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

Ala Tyr Asn Ser 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 657
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 657
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 658
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 658

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

Ala Tyr Asn Thr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 659
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 659
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 660
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 660

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala

1 5 10 15

Ala Tyr Asn Val 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 661
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 661
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 662
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 662

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

Ala Tyr Asn Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 663
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 663
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 664
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 664

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

Ala Tyr Asn Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 665
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 665
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttggccc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 666
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 666

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Ala 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 667
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 667
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtgcc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 668
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 668

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 669
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 669
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttggacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 670
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 670

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 671
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 671
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 672
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 672

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Glu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 673
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 673
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 674
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 674

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 675
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 675
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 676
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 676

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 677
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 677
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 678
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 678

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 679
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 679
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 680
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 680

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 681
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 681
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 682
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 682

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 683
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 683

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 684
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 684

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 685

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 685
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgaacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 686
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 686

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 687
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 687
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcccc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 688
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 688

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 689
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 689
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcagc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 690
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 690

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 691
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 691
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 692
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 692

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 693
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 693
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 694
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 694

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 695
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 695
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 696
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 696

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Thr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 697
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 697

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttggtgc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 698
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 698

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

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

<210> 699
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 699
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtggc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 700
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 700

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 701
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 701
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 702
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 702

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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

Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 703
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 703
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 704
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 704

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ala 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 705
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 705
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccattgc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 706
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 706

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 707
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 707
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgac 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 708
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 708

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 709
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 709
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgag 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 710
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 710

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Glu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 711
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 711
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatttc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 712
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 712

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Phe 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 713
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 713
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatggc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 714
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 714

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 715
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 715

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatcac      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 716
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 716

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

<210> 717
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 717

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatatc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 718
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 718

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ile 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 719

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 719
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccataag 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 720
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 720

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 721
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 721
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatctg 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 722
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 722

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Leu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 723
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 723
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatatg 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 724
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 724

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Met 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 725
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 725
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccataac 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 726
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 726

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asn 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 727
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 727
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatccc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 728
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 728

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

<210> 729
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 729
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatcag 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 730
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 730

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 731
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 731
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatcgg 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 732
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 732

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 733
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 733
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatagc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 734
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 734

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ser 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 735
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 735
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatacc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 736
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 736

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

145 150 155

<210> 737
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 737
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccattgg 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 738
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 738

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 739
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 739
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccattac 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 740
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 740

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 741
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 741
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagctgcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 742
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 742

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Cys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 743
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 743
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 744
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 744

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 745
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 745
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgaggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 746
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 746

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Glu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 747
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 747
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcttcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 748
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 748

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Phe 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 749
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 749
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcggcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 750
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 750

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 751
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 751

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagccacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 752
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 752

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

<210> 753

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 753
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcatcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 754
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 754

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ile 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 755
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 755
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcaaggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 756
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 756

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 757
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 757
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcctggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 758
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 758

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Leu 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 759
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 759
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcatggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 760
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 760

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Met 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 761
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 761
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcaacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 762
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 762

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asn 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 763
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 763
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagccccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 764
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 764

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

<210> 765
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 765
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagccaggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 766
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 766

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gln 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 767
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 767
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagccgggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 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 Arg 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 Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 769
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 769
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcagcgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 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 Arg 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 Ser 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 771
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 771
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcaccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 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 Arg 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 Thr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 773
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 773
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgtggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 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 Arg 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 Val 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 775
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 775
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagctgggac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 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 Arg 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 Trp 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 777
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 777
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagctacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 778
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 778

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Tyr 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 779
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 779
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgccatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 780
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 780

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ala 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 781
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 781
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ctgcatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 782
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 782

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Cys 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 783
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 783
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgacatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 784
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 784

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asp 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 785
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 785

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgagatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 786
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 786

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Glu 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 787

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 787
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cttcatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 788
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 788

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Phe 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 789
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 789
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cggcatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 790
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 790

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 791
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 791
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ccacatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 792
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 792

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

<210> 793
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 793
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catcatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 794
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 794

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ile 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 795
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 795
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa caagatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 796
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 796

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Lys 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 797
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 797
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cctgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 798
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 798

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Leu 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 799
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 799

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa caacatcgac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 800
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 800

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asn 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 801
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 801
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ccccatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 802
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 802

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

<210> 803
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 803
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ccagatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 804
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 804

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

145 150 155

<210> 805
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 805
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ccggatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 806
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 806

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Arg 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 807
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 807
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cagcatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 808
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 808

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ser 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 809
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 809
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa caccatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 810
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 810

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Thr 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 811
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 811
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 812
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 812

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Val 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 813
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 813
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ctggatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 814
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 814

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Trp 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 815
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 815
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa ctacatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 816
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 816

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Tyr 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 817
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 817

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc gccctgttcc gagtaaccat caacgtt 477

<210> 818
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 818

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Ala Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 819
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 819

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc tgcctgttcc gagtaaccat caacgtt 477

<210> 820
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 820

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Cys Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 821

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 821
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc gacctgttcc gagtaaccat caacgtt 477

<210> 822
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 822

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Asp Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 823
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 823
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc gagctgttcc gagtaaccat caacgtt 477

<210> 824
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 824

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Glu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 825
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 825
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ttcctgttcc gagtaaccat caacgtt 477

<210> 826
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 826

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Phe Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 827
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 827
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ggcctgttcc gagtaaccat caacgtt 477

<210> 828
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 828

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Gly Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 829
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 829
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc cacctgttcc gagtaaccat caacgtt 477

<210> 830
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 830

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

<210> 831
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 831
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atcctgttcc gagtaaccat caacgtt 477

<210> 832
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 832

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Ile Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 833
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 833
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc aagctgttcc gagtaaccat caacgtt 477

<210> 834
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 834

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Lys Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 835
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 835
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgtt 477

<210> 836
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 836

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 837
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 837
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc aacctgttcc gagtaaccat caacgtt 477

<210> 838
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 838

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

145 150 155

<210> 839
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 839
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc cccctgttcc gagtaaccat caacgtt 477

<210> 840
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 840

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

<210> 841
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 841
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc cagctgttcc gagtaaccat caacgtt 477

<210> 842
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 842

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Gln Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 843
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 843
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc cggctgttcc gagtaaccat caacgtt 477

<210> 844
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 844

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Arg Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 845
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 845
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc agcctgttcc gagtaaccat caacgtt 477

<210> 846
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 846

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Ser Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 847
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 847
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc accctgttcc gagtaaccat caacgtt 477

<210> 848
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 848

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Thr Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 849
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 849
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc gtgctgttcc gagtaaccat caacgtt 477

<210> 850
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 850

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Val Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 851
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 851
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc tggctgttcc gagtaaccat caacgtt 477

<210> 852
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 852

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Trp Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 853
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 853

atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc tacctgttcc gagtaaccat caacgtt 477

<210> 854
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 854

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Tyr Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 855

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 855
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgcc 477

<210> 856
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 856

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Ala
145 150 155

<210> 857
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 857
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caactgc 477

<210> 858
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 858

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Cys
145 150 155

<210> 859
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 859
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgac 477

<210> 860
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 860

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 861
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 861
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgag 477

<210> 862
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 862

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Glu
145 150 155

<210> 863
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 863
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacttc 477

<210> 864
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 864

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Phe
145 150 155

<210> 865
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 865
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacggc 477

<210> 866
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 866

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Gly
145 150 155

<210> 867
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 867
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caaccac 477

<210> 868
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 868

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

<210> 869
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 869
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacatc 477

<210> 870
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 870

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Ile
145 150 155

<210> 871
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 871
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacaag 477

<210> 872
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 872

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

145 150 155

<210> 873
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 873
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacctg 477

<210> 874
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 874

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Leu
145 150 155

<210> 875
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 875
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacatg 477

<210> 876
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 876

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Met
145 150 155

<210> 877
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 877
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacaac 477

<210> 878
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 878

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Asn
145 150 155

<210> 879
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 879
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacccc 477

<210> 880
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 880

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

<210> 881
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 881
atggtcttca cactcgaaga tttcgttggg gactggcgac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caaccag 477

<210> 882
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 882

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Gln
145 150 155

<210> 883
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 883
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caaccgg 477

<210> 884
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 884

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Arg
145 150 155

<210> 885
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 885
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacagc 477

<210> 886
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 886

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 887
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 887

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacacc 477

<210> 888
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 888

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Thr
145 150 155

<210> 889

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 889
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caactgg 477

<210> 890
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 890

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Trp
145 150 155

<210> 891
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 891
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caactac 477

<210> 892
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 892

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Tyr
145 150 155

<210> 893
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 893
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gacaaggtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 894
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 894

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

Ala Tyr Asn Leu Asp Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 895
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 895
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 896
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 896

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

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Met 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 897
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 897
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaagctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 898
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 898

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Lys 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 899
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 899
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccatc 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 900
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 900

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Ile 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 901
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 901

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga caaccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 902
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 902

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Asn 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 903
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 903
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 904
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 904

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

<210> 905
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 905
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 906
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 906

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

145 150 155

<210> 907
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 907
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gaccaagtcc ttgaacaggg aggtatgtcc agtttgtttc agaatctcgg ggtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 908
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 908

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

Ala Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Met 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 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 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 909
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 909
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatgggcc agatcgaaga gatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 910
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 910

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly Gln Ile Glu Glu 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 911
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 911
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgtt 477

<210> 912
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 912

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

<210> 913
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 913
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacccc 477

<210> 914
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 914

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

<210> 915
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 915
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc ctgctgttcc gagtaaccat caacgtt 477

<210> 916
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 916

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 917
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 917
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 918
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 918

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg 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 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145                 150                 155
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<210> 919
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 919

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 920
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 920

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

<210> 921
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 921

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 922
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 922

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

<210> 923

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 923
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 924
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 924

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

<210> 925
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 925
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 926
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 926

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

<210> 927
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 927
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 928
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 928

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 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Glu
145 150 155

<210> 929
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 929
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 930
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 930

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

<210> 931
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 931
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 932
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 932

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

<210> 933
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 933
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 934
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 934

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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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 935
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 935

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga caaccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 936
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 936

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

<210> 937
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 937
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 938
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 938

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Glu
145 150 155

<210> 939
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 939
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga caaccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 940
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 940

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 Asn 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Glu

145 150 155

<210> 941
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 941
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 942
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 942

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

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

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 943
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 943
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

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gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 944
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 944

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

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

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 945
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 945
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 946
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 946

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

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

Ile 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 Ala Ile Ile Pro Tyr

50 55 60

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

<210> 947
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 947
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 948
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 948

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

Ser Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu

20 25 30

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 949
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 949
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 950
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 950

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

Ser Tyr Asn Gln 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 951
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 951
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 952
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 952

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

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

Ile 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 Asp 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 Val 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145                 150                 155
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<210> 953
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 953

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 954
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 954

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

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

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

<210> 955
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 955

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 956
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 956

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

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

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 957

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 957
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc ctgctgttcc gagtaaccat caacgac 477

<210> 958
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 958

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

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

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 959
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 959
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatac agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgtt 477

<210> 960
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 960

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

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

Ile 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 Ala Ile Ile Pro Tyr
50 55 60

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

<210> 961
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 961
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 962
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 962

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

Ser Tyr Asn Gln 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 Val 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 963
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 963
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgacgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 964
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 964

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

Ser Tyr Asn Gln 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 Asp 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 Val 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 965
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 965
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 966
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 966

Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala

1 5 10 15

Ser Tyr Asn Gln 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 Val 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 967
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 967
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

<210> 968
<211> 160
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 968

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

<210> 969
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 969
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgcc 480

<210> 970
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 970

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

<210> 971
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 971
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

acc 483

<210> 972
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 972

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

Thr

<210> 973
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 973
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

gcc 483

<210> 974
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 974

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

Ala

<210> 975
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 975
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgcc 480

acc 483

<210> 976
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 976

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

Thr

<210> 977
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 977
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgcc 480

gcc 483

<210> 978
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 978

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

Ala

<210> 979
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 979
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccggc 480

ggc 483

<210> 980
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 980

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

Gly

<210> 981
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 981
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccggc 480

acc 483

<210> 982
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 982

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

Thr

<210> 983
<211> 486
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 983
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgcc 480

accggc 486

<210> 984
<211> 162
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 984

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

Thr Gly

<210> 985
<211> 486
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 985
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggc 486

<210> 986
<211> 162
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 986

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

Thr Gly

<210> 987
<211> 486
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 987
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accgcc 486

<210> 988
<211> 162
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 988

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

Thr Ala
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<210> 989
<211> 486
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 989

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atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg       60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc      420
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gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccggc 480

accgcc 486

<210> 990
<211> 162
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 990

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

Thr Ala

<210> 991
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 991

atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctgg 489

<210> 992
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 992

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

Thr Gly Trp

<210> 993
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 993
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctggc gg 492

<210> 994
<211> 164
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 994

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

Thr Gly Trp Arg

<210> 995
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 995
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctggg ag 492

<210> 996
<211> 164
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 996

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

Thr Gly Trp Glu

<210> 997
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 997
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctgga ag 492

<210> 998
<211> 164
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 998

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

Thr Gly Trp Lys

<210> 999
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 999
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctggc ag 492

<210> 1000
<211> 164
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1000

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

Thr Gly Trp Gln

<210> 1001
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1001
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccccgtg 480

accggctggc ac 492

<210> 1002
<211> 164
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1002

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro Val

145 150 155 160

Thr Gly Trp His

<210> 1003
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1003
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caac 474

<210> 1004
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1004

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

<210> 1005
<211> 471
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1005
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat c 471

<210> 1006
<211> 157
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1006

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 Gly Ser Met Leu Phe Arg Val Thr Ile
145 150 155

<210> 1007
<211> 468
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1007
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaacc 468

<210> 1008
<211> 156
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1008

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 Gly Ser Met Leu Phe Arg Val Thr
145 150 155

<210> 1009
<211> 465
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1009
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagta 465

<210> 1010
<211> 155
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1010

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 Gly Ser Met Leu Phe Arg Val
145 150 155

<210> 1011
<211> 462
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1011
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc ga 462

<210> 1012
<211> 154
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1012

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 Gly Ser Met Leu Phe Arg
145 150

<210> 1013
<211> 459
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1013
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttc 459

<210> 1014
<211> 153
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1014

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 Gly Ser Met Leu Phe
145 150

<210> 1015
<211> 456
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1015
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctg 456

<210> 1016
<211> 152
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1016

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 Gly Ser Met Leu
145 150

<210> 1017
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1017
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttggccc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1018
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1018

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

Ala 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 1019
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1019
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1020
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1020

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

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

<210> 1021
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1021
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1022
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1022

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

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

<210> 1023
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1023
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttggagc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1024
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1024

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

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

<210> 1025
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1025
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgggcc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1026
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1026

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

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

<210> 1027
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1027
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1028
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1028

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

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

<210> 1029
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1029
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatcc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1030
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1030

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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

Ile 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1031
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1031

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1032
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1032

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

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

<210> 1033
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1033

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1034
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1034

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

<210> 1035

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1035
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgatgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1036
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1036

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

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

<210> 1037
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1037
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgaacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1038
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1038

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

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

<210> 1039
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1039
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcccc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1040
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1040

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

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

<210> 1041
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1041
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcagc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1042
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1042

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

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

<210> 1043
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1043
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgcggc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1044
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1044

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

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

<210> 1045
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1045
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1046
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1046

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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

Ser 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1047
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1047

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atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1048
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1048

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

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

<210> 1049
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1049
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttggtgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1050
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1050

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

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

<210> 1051
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1051
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtggc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1052
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1052

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

Trp 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 1053
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1053
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtacc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1054
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1054

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

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

<210> 1055
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1055
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cgccagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1056
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1056

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

<210> 1057
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1057
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ctgcagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1058
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1058

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

<210> 1059
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1059
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cgacagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1060
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1060

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

<210> 1061
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1061
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cgagagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1062
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1062

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

<210> 1063
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1063
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cttcagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1064
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1064

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

<210> 1065
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1065
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actccgatcc aaaggattgt cggcagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1066
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1066

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

<210> 1067
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1067

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccacagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1068
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1068

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

<210> 1069

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1069
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atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1070
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1070

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

<210> 1071
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1071
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actccgatcc aaaggattgt caagagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1072
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1072

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

<210> 1073
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1073
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actccgatcc aaaggattgt catgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1074
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1074

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

<210> 1075
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1075
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actccgatcc aaaggattgt caacagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1076
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1076

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 Asn

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

<210> 1077
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1077
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actccgatcc aaaggattgt ccccagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1078
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1078

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

<210> 1079
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1079
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccagagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1080
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1080

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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 Gln
        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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1081
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1081

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actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1082
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1082

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

<210> 1083
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1083
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cagcagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1084
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1084

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

<210> 1085
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1085
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt caccagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1086
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1086

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 Thr
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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 1087
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1087
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cgtgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

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gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1088
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1088

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

<210> 1089
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1089
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actccgatcc aaaggattgt ctggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1090
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1090

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

<210> 1091
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1091
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actccgatcc aaaggattgt ctacagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1092
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1092

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

<210> 1093
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1093
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgcc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1094
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1094

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 Ala 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 Pro
145 150 155

<210> 1095
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1095
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatctgc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1096
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1096

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 Cys 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 Pro
145 150 155

<210> 1097
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1097
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1098
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1098

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

<210> 1099
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1099
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgag tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 1100
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1100

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 Glu 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 Pro
145 150 155

<210> 1101
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1101

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcttc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1102
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1102

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 Phe 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 Pro
145 150 155

<210> 1103

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1103
atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcggc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1104
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1104

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 Gly 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 Pro
145 150 155

<210> 1105
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1105
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatccac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1106
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1106

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 His 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 Pro
145 150 155

<210> 1107
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1107
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcatc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1108
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1108

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 Ile 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 Pro
145 150 155

<210> 1109
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1109
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaag tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1110
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1110

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 Lys 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 Pro
145 150 155

<210> 1111
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1111
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcctg tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1112
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1112

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 Leu 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 Pro
145 150 155

<210> 1113
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1113
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcatg tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1114
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1114

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 Met 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 Pro
145 150 155

<210> 1115
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1115
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcccc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1116
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1116

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 Pro 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 Pro
145 150 155

<210> 1117
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1117
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatccag tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1118
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1118

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 Gln 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 Pro
145 150 155

<210> 1119
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1119
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatccgg tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1120
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1120

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 Arg 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 Pro

145 150 155

<210> 1121
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1121
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcagc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1122
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1122

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 Ser 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 Pro
145 150 155

<210> 1123
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1123
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcacc tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1124
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1124

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 Thr 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 Pro
145 150 155

<210> 1125
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1125
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcgtg tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1126
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1126

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 Val 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 Pro
145 150 155

<210> 1127
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1127
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatctgg tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1128
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1128

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 Trp 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 Pro
145 150 155

<210> 1129
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1129
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatctac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1130
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1130

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 Tyr 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 Pro
145 150 155

<210> 1131
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1131
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcgcccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1132
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1132

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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 Ala Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1133
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1133

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatctgccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1134
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1134

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

<210> 1135
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1135

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcgaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1136
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1136

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

<210> 1137

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1137
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcgagcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1138
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1138

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

<210> 1139
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1139
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcttccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1140
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1140

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

<210> 1141
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1141
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcggccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1142
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1142

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

<210> 1143
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1143
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatccaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1144
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1144

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

<210> 1145
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1145
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcatccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1146
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1146

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

<210> 1147
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1147
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaagcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1148
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1148

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Met Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala
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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 Lys Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1149
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1149

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcctgcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1150
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1150

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

<210> 1151
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1151
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcatgcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1152
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1152

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

<210> 1153
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1153
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcaaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1154
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1154

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 Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 1155
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1155
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcccccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1156
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1156

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

<210> 1157
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1157
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatccagcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1158
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1158

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

<210> 1159
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1159
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatccggcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1160
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1160

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

<210> 1161
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1161
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

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<210> 1162
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1162

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

<210> 1163
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1163
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcgtgcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1164
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1164

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

<210> 1165
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1165
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatctggcc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1166
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1166

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

<210> 1167
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1167
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatctaccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1168
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1168

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

<210> 1169
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1169

atggtcttca cactcgaaga tttcgttggg gactgggaac agacagccgc ctacaacctg 60

gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgcc 477

<210> 1170
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1170

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ala
145 150 155

<210> 1171

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1171
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caactgc 477

<210> 1172
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1172

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Cys
145 150 155

<210> 1173
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1173
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgac 477

<210> 1174
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1174

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

<210> 1175
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1175
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgag 477

<210> 1176
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1176

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Glu
145 150 155

<210> 1177
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1177
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacttc 477

<210> 1178
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1178

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

<210> 1179
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1179
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacggc 477

<210> 1180
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1180

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

<210> 1181
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1181
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccac 477

<210> 1182
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1182

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

<210> 1183
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1183
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacatc 477

<210> 1184
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1184

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

<210> 1185
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1185
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacaag 477

<210> 1186
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1186

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Lys
145 150 155

<210> 1187
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1187
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacctg 477

<210> 1188
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1188

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Leu

145 150 155

<210> 1189
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1189
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacatg 477

<210> 1190
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1190

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

<210> 1191
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1191
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacaac 477

<210> 1192
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1192

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

<210> 1193
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1193
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccag 477

<210> 1194
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1194

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Gln
145 150 155

<210> 1195
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1195
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccgg 477

<210> 1196
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1196

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

<210> 1197
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1197
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1198
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1198

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

<210> 1199
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1199
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacacc 477

<210> 1200
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1200

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

<210> 1201
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1201
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacgtg 477

<210> 1202
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1202

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

<210> 1203
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1203

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caactgg 477

<210> 1204
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1204

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Trp
145 150 155

<210> 1205

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1205
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caactac 477

<210> 1206
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1206

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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Tyr
145 150 155

<210> 1207
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1207
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1208
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1208

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 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 Pro
145 150 155

<210> 1209
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1209
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga gatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1210
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1210

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

<210> 1211
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1211
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcgagaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat cgacccc 477

<210> 1212
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1212

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 Glu 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 Asp Pro
145 150 155

<210> 1213
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1213
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa agtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1214
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1214

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

<210> 1215
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1215
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcgac gaaaatgccc tgaagatcga catccgggtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatca tgcactatgg cacactggta 300

gtggacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1216
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1216

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 Asp Glu Asn Ala Leu Lys Ile Asp Ile Arg 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 Met His Tyr
85 90 95

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

<210> 1217
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1217
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgcctccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

gtggacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1218
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1218

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

<210> 1219
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1219
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1220
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1220

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

<210> 1221
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1221
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggccatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1222
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1222

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 Ala 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 1223
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1223
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaagggtggt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1224
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1224

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

<210> 1225
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1225
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcagcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa cgtgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1226
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1226

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 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 Lys Ile Phe Lys
65 70 75 80

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

85 90 95

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

<210> 1227
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1227
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcacc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1228
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1228

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 His Leu
130 135 140

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

<210> 1229
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1229
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc aggacctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1230
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1230

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

<210> 1231
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1231
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga caaccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcca caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1232
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1232

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 Asn 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 His Lys Ile Ile Asp Glu Arg Leu
130 135 140

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

<210> 1233
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1233
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccagagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccac 477

<210> 1234
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1234

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

<210> 1235
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1235
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcgtgccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1236
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1236

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

<210> 1237
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1237

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaataccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcaaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggctgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1238
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1238

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 Thr 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 Lys 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 Leu 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 Pro
145 150 155

<210> 1239

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1239
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgcctccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1240
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1240

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

<210> 1241
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1241
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaataccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1242
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1242

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

<210> 1243
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1243
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccgggtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1244
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1244

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

<210> 1245
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1245
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgcc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1246
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1246

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

<210> 1247
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1247
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

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atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcaagaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1248
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1248

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

<210> 1249
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1249
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcagcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1250
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1250

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

<210> 1251
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1251
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

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atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1252
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1252

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

<210> 1253
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1253
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcgagaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1254
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1254

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 Glu 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 Pro
145 150 155

<210> 1255
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1255
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaagc gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1256
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1256

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 Ser 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 Pro

145 150 155

<210> 1257
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1257
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc agatcacccc cgacggctcc atgctgttcc gagtaaacat caacccc 477

<210> 1258
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1258

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 Gln
130 135 140

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

<210> 1259
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1259
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat cgacccc 477

<210> 1260
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1260

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

<210> 1261
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1261
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccaggtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

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gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1262
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1262

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

<210> 1263
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1263
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatca tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1264
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1264

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

<210> 1265
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1265
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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggctgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1266
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1266

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 Leu 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 Pro
145 150 155

<210> 1267
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1267
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actccgatcc aaaggattgt cctgagcgac gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1268
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1268

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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 Asp 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1269
<211> 444
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1269

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actccgatcc aaaggattgt cctgagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag      240
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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

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gacgagcgcc tgatcacccc cgac 444

<210> 1270
<211> 148
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1270

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> 1271
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1271

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actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1272
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1272

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

<210> 1273

<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1273
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccacagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgcactatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caaccac 477

<210> 1274
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1274

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

<210> 1275
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1275
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actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1276
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1276

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

<210> 1277
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1277
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1278
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1278

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

<210> 1279
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1279
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga gatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1280
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1280

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

<210> 1281
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1281
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa agtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacccc 477

<210> 1282
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1282

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

<210> 1283
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1283
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa aatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1284
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1284

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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 Lys Ile 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 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
145                 150                 155
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<210> 1285
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1285

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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta      120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc      180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga gatttttaag      240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta      300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc      360
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gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1286
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1286

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

<210> 1287
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1287
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgtttc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa agtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1288
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1288

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 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 Lys 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 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 Gly Ser Met Leu Phe Arg Val Thr Ile Asn Ser
145 150 155

<210> 1289
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1289
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaataccc tgaagatcga catccatgtc 180

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gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1290
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1290

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 Thr 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

145 150 155

<210> 1291
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1291
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actccgatcc aaaggattgt ccggagcggt gaaaatgccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1292
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1292

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
145 150 155

<210> 1293
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1293
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaataccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaaa agtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1294
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1294

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 Thr 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 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
145 150 155

<210> 1295
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1295
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaataccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga gatttttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgctgaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1296
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1296

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 Thr 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 Ile 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
145 150 155

<210> 1297
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1297
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gaccaagtcc ttgaacaggg aggtgtgtcc agtttgctgc agaatctcgc cgtgtccgta 120

actccgatcc aaaggattgt ccggagcggt gaaaataccc tgaagatcga catccatgtc 180

atcatcccgt atgaaggtct gagcgccgac caaatggccc agatcgaaga ggtgtttaag 240

gtggtgtacc ctgtggatga tcatcacttt aaggtgatcc tgccctatgg cacactggta 300

atcgacgggg ttacgccgaa catgatcaac tatttcggac ggccgtatga aggcatcgcc 360

gtgttcgacg gcaaaaagat cactgtaaca gggaccctgt ggaacggcaa caaaattatc 420

gacgagcgcc tgatcacccc cgacggctcc atgctgttcc gagtaaccat caacagc 477

<210> 1298
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1298

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

<210> 1299
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1299
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1300
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1300

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1301
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1301
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1302
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1302

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


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


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


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


Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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


Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1303
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1303

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1304
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1304

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1305
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1305

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1306
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1306

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1307

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1307
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

aaggtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1308
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1308

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1309
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1309
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caagtccttg aacagggagg tatgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1310
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1310

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1311
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1311
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caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1312
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1312

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1313
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1313
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caagtccttg aacagggagg tgtgtccagt ttgttgcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1314
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1314

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Gly
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 Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser

35 40 45

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1315
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1315
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ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1316
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1316

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Gly

1 5 10 15

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1317
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1317
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caagtccttg aacagggagg tgtgtccagt ttgtttcgga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1318
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1318

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1               5                  10                  15

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1319
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1319

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ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1320
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1320

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1321
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1321
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ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1322
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1322

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1323
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1323
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacaa ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1324
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1324

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1325
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1325
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1326
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1326

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1327
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1327
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcacc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1328
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1328

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1329
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1329
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cagcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1330
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1330

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

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

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

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

50 55 60

Gly Leu Ser Ser Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1331
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1331
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgacgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1332
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1332

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

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

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

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

Gly Leu Ser Asp Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1333
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1333
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1334
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1334

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Glu Ile 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 Ile Asp 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

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

<210> 1335
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1335
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1336
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1336

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Val Ile Asp 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

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

<210> 1337
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1337
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat tatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1338
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1338

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Ile Asp 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

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

<210> 1339
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1339

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ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1340
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1340

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile 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

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

<210> 1341

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1341
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacagc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1342
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1342

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp Tyr Phe Gly
100 105 110

Gln 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

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

<210> 1343
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1343
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1344
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1344

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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 Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 1345
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1345
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgtt 474

<210> 1346
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1346

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1347
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1347
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcga cgtt 474

<210> 1348
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1348

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

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

Gln Asn Leu Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser

35 40 45

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1349
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1349
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcag cgtt 474

<210> 1350
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1350

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Gly

1 5 10 15

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1351
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1351
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgat 474

<210> 1352
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1352

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1353
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1353
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cagc 474

<210> 1354
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1354

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1355
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1355
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1356
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1356

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1357
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1357
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1358
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1358

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 Phe
20 25 30

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1359
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1359
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacaggccgg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1360
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1360

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1361
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1361
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caagtccttg aacagggagc cgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1362
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1362

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1363
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1363
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1364
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1364

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

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

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

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

50 55 60

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1365
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1365
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcgccgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1366
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1366

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

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1367
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1367
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1368
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1368

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

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

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

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

<210> 1369
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1369
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aagccctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1370
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1370

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

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

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

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

Ala Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1371
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1371

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atgggccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1372
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1372

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

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

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

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

Gly Leu Ser Ala Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1373
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1373

gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1374
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1374

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1375

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1375
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatgccac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1376
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1376

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

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

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

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

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

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

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

<210> 1377
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1377
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacgccgtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1378
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1378

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

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

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

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

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

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

<210> 1379
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1379
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcgcccggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1380
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1380

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp Tyr Phe Ala
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

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

<210> 1381
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1381
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagc catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1382
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1382

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

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

Gln Asn Leu Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser

35 40 45

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Ala 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

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

<210> 1383
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1383
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacgcca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1384
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1384

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Gly

1 5 10 15

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Ala 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

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

<210> 1385
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1385
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacagcc accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1386
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1386

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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 Ala Thr Leu Trp Asn Gly Asn Lys Ile Ile Asp Glu Arg Leu Ile
    130                 135                 140

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1387
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1387

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acgccaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1388
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1388

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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 Ala Asn Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

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

<210> 1389
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1389
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cgcctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1390
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1390

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

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

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

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

Gly Leu Ser Gly Asp Gln Met Gly Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1391
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1391
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ccgatccaaa ggattgtcct gagcggtgaa aatgggctga aggccgacat ccatgtcatc 180

atcccgtatg aaggtctgag cggcgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1392
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1392

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

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

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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1393
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1393
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1394
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1394

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

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

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

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

<210> 1395
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1395
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1396
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1396

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 Phe
20 25 30

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

Gly Glu Asn Gly 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 Lys Ile 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 Ile Asp 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

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

<210> 1397
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1397
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1398
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1398

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1399
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1399
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1400
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1400

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

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1401
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1401
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1402
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1402

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 Phe
20 25 30

Gln Asn Leu Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1403
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1403
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgggctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1404
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1404

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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 Phe
            20                  25                  30

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

Gly Glu Asn Gly 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1405
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1405

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cggcgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1406
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1406

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 Phe
20 25 30

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

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

<210> 1407
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1407

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atgggccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1408
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1408

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 Phe
20 25 30

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

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

<210> 1409

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1409
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1410
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1410

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1411
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1411
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1412
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1412

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1413
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1413
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1414
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1414

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1415
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1415
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1416
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1416

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1417
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1417
gtcttcacac tcgaagattt cgttggggac tggttccaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1418
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1418

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1419
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1419
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1420
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1420

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1421
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1421

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1422
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1422

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1423
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1423
gtcttcacac tcgaagattt cgttggggac tggatccaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1424
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1424

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1425
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1425
gtcttcacac tcgaagattt cgttggggac tggaagcaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1426
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1426

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1427
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1427
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1428
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1428

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1429
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1429
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1430
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1430

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1431
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1431
gtcttcacac tcgaagattt cgttggggac tggaaccaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1432
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1432

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1433
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1433
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1434
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1434

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

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1435
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1435
gtcttcacac tcgaagattt cgttggggac tggcagcaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1436
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1436

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1437
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1437
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1438
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1438

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1439
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1439
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1440
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1440

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1441
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1441

gtcttcacac tcgaagattt cgttggggac tgggtgcaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1442
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1442

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1443

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1443
gtcttcacac tcgaagattt cgttggggac tggtggcaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1444
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1444

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1445
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1445
gtcttcacac tcgaagattt cgttggggac tggtaccaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1446
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1446

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1447
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1447
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagcctgcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1448
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1448

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1449
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1449
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgacta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1450
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1450

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1451
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1451
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgagta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1452
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1452

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Glu

1 5 10 15

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1453
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1453
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccttcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1454
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1454

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1455
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1455
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccggcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1456
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1456

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1457
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1457
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagcccacta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1458
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1458

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1459
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1459
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccatcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1460
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1460

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1461
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1461
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccaagta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1462
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1462

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1463
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1463
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1464
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1464

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1465
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1465
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1466
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1466

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1467
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1467
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1468
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1468

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

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1469
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1469
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagcccccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1470
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1470

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1471
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1471
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagcccagta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1472
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1472

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


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


Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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


Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1473
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1473

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1474
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1474

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1475
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1475

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1476
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1476

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1477

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1477
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccaccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1478
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1478

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1479
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1479
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgtgta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1480
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1480

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1481
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1481
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagcctggta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1482
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1482

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1483
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1483
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1484
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1484

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1485
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1485
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1486
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1486

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ala

1 5 10 15

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1487
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1487
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1488
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1488

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1489
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1489
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1490
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1490

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1491
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1491
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1492
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1492

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1493
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1493
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacttcgac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1494
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1494

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1495
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1495
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacggcgac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1496
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1496

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1497
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1497
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1498
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1498

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1499
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1499
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacatcgac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1500
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1500

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1501
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1501
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacaaggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1502
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1502

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

Tyr Asn Lys Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1503
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1503
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacatggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1504
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1504

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1505
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1505
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacaacgac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1506
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1506

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1507
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1507
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1508
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1508

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1509
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1509

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1510
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1510

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1511

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1511
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1512
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1512

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1513
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1513
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1514
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1514

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1515
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1515
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacaccgac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1516
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1516

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1517
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1517
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1518
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1518

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1519
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1519
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caactgggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1520
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1520

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ala

1 5 10 15

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1521
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1521
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1522
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1522

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1523
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1523
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggcccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1524
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1524

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 Ala
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1525
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1525
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caagtccttg aacagggagg tgtgtccagt ttgtgccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1526
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1526

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 Cys
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1527
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1527
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1528
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1528

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 Asp
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1529
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1529
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1530
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1530

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 Glu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1531
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1531
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caagtccttg aacagggagg tgtgtccagt ttgggccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1532
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1532

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 Gly
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1533
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1533
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caagtccttg aacagggagg tgtgtccagt ttgcaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1534
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1534

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 His
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1535
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1535
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caagtccttg aacagggagg tgtgtccagt ttgatccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1536
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1536

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 Ile

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1537
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1537
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caagtccttg aacagggagg tgtgtccagt ttgaagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1538
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1538

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 Lys
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1539
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1539
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1540
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1540

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 Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1541
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1541
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caagtccttg aacagggagg tgtgtccagt ttgatgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1542
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1542

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 Met
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1543
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1543

gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgaaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1544
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1544

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 Asn
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1545

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1545
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caagtccttg aacagggagg tgtgtccagt ttgccccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1546
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1546

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 Pro
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1547
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1547
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgcagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1548
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1548

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 Gln
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1549
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1549
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgcggcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1550
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1550

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 Arg
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1551
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1551
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caagtccttg aacagggagg tgtgtccagt ttgagccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1552
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1552

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 Ser
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1553
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1553
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgacccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1554
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1554

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 Thr
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1555
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1555
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caagtccttg aacagggagg tgtgtccagt ttggtgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1556
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1556

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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 Val
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1557
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1557

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caagtccttg aacagggagg tgtgtccagt ttgtggcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1558
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1558

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 Trp
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1559
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1559
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1560
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1560

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 Tyr
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1561
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1561
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1562
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1562

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1563
<211> 474
<212> DNA
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<220>
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<400> 1563
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccattgcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1564
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1564

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1565
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1565
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgacatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1566
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1566

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1567
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1567
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgagatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1568
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1568

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 Phe
20 25 30

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

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

50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1569
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1569
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatttcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1570
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1570

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 Phe

20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1571
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1571
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatggcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1572
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1572

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1573
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1573
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatcacatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1574
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1574

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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 Phe
            20                  25                  30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1575
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1575

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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatatcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1576
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1576

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1577
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1577

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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccataagatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1578
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1578

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1579

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1579
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatctgatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1580
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1580

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1581
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1581
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatatgatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1582
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1582

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1583
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1583
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccataacatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1584
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1584

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1585
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1585
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatcccatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1586
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1586

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 Phe
20 25 30

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

35 40 45

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1587
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1587
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatcagatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1588
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1588

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1589
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1589
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatcggatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1590
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1590

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1591
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1591
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatagcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1592
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1592

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1593
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1593
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccataccatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1594
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1594

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1595
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1595
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccattggatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1596
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1596

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1597
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1597
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccattacatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1598
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1598

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1599
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1599
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ctgcgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1600
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1600

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Cys Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1601
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1601
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1602
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1602

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 Phe
20 25 30

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

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

<210> 1603
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1603
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgaggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1604
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1604

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 Phe

20 25 30

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

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

<210> 1605
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1605
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cttcgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1606
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1606

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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 Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Phe Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1607
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1607

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cggcgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac      420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt            474
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<210> 1608
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1608

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 Phe
20 25 30

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

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

<210> 1609
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1609
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ccacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1610
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1610

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 His Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1611
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1611

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag catcgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1612
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1612

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 Phe
20 25 30

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

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

<210> 1613

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1613
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag caaggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1614
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1614

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 Phe
20 25 30

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

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

<210> 1615
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1615
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cctggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1616
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1616

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 Phe
20 25 30

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

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

<210> 1617
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1617
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag catggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1618
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1618

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 Phe
20 25 30

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

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

<210> 1619
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1619
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag caacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1620
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1620

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 Phe
20 25 30

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

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

<210> 1621
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1621
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ccccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1622
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1622

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 Phe
20 25 30

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

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

<210> 1623
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1623
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ccaggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1624
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1624

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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 Phe
            20                  25                  30

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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1625
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1625

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag ccgggaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1626
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1626

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 Phe
20 25 30

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

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

<210> 1627
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1627
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cagcgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1628
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1628

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 Phe
20 25 30

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

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

<210> 1629
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1629
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag caccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1630
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1630

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 Phe
20 25 30

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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1631
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1631
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgtggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1632
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1632

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 Phe
20 25 30

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

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

<210> 1633
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1633
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ctgggaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1634
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1634

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Trp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1635
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1635
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag ctacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1636
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1636

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Tyr Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1637
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1637
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgc catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1638
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1638

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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ala Ile Asp 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

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

<210> 1639
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1639
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaactg catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1640
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1640

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Cys Ile Asp 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

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

<210> 1641
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1641
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacga catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1642
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1642

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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 Phe
            20                  25                  30


Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Asp Ile Asp 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


Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1643
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1643

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacga gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1644
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1644

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Glu Ile Asp 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

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

<210> 1645
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1645

gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaactt catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1646
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1646

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 Phe
20 25 30

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

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

<210> 1647

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1647
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgg catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1648
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1648

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Gly Ile Asp 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

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

<210> 1649
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1649
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacca catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1650
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1650

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 His Ile Asp 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

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

<210> 1651
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1651
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1652
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1652

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Ile Asp 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

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

<210> 1653
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1653
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacaa gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1654
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1654

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Lys Ile Asp 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

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

<210> 1655
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1655
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacct gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1656
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1656

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Leu Ile Asp 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

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

<210> 1657
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1657
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacaa catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1658
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1658

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Asn Ile Asp 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

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

<210> 1659
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1659
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaaccc catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1660
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1660

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Pro Ile Asp 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

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

<210> 1661
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1661
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacca gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1662
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1662

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Gln Ile Asp 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

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

<210> 1663
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1663
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaaccg gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1664
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1664

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Arg Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1665
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1665
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacag catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1666
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1666

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ser Ile Asp 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

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

<210> 1667
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1667
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacac catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1668
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1668

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Thr Ile Asp 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

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

<210> 1669
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1669
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1670
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1670

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Val Ile Asp 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

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

<210> 1671
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1671
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaactg gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1672
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1672

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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Trp Ile Asp 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

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

<210> 1673
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1673
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacta catcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1674
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1674

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Tyr Ile Asp 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

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

<210> 1675
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1675
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccgcc ctgttccgag taaccatcaa cgtt 474

<210> 1676
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1676

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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 Phe
            20                  25                  30


Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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


Asn Pro Asp Gly Ser Ala Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1677
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1677

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcctgc ctgttccgag taaccatcaa cgtt 474

<210> 1678
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1678

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1679
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1679

gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccgac ctgttccgag taaccatcaa cgtt 474

<210> 1680
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1680

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1681

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1681
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccgag ctgttccgag taaccatcaa cgtt 474

<210> 1682
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1682

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1683
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1683
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccttc ctgttccgag taaccatcaa cgtt 474

<210> 1684
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1684

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1685
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1685
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccggc ctgttccgag taaccatcaa cgtt 474

<210> 1686
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1686

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1687
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1687
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcccac ctgttccgag taaccatcaa cgtt 474

<210> 1688
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1688

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1689
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1689
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatc ctgttccgag taaccatcaa cgtt 474

<210> 1690
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1690

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1691
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1691
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccaag ctgttccgag taaccatcaa cgtt 474

<210> 1692
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1692

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1693
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1693
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgtt 474

<210> 1694
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1694

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1695
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1695
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccaac ctgttccgag taaccatcaa cgtt 474

<210> 1696
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1696

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1697
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1697
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccccc ctgttccgag taaccatcaa cgtt 474

<210> 1698
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1698

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Pro Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1699
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1699
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcccag ctgttccgag taaccatcaa cgtt 474

<210> 1700
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1700

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1701
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1701
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcccgg ctgttccgag taaccatcaa cgtt 474

<210> 1702
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1702

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1703
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1703
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccagc ctgttccgag taaccatcaa cgtt 474

<210> 1704
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1704

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1705
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1705
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccacc ctgttccgag taaccatcaa cgtt 474

<210> 1706
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1706

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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1707
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1707
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccgtg ctgttccgag taaccatcaa cgtt 474

<210> 1708
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1708

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1709
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1709
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcctgg ctgttccgag taaccatcaa cgtt 474

<210> 1710
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1710

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Trp Leu Phe Arg Val Thr Ile Asn Val
145                 150                 155
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<210> 1711
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1711

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctcctac ctgttccgag taaccatcaa cgtt 474

<210> 1712
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1712

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1713
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1713

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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgcc 474

<210> 1714
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1714

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1715

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1715
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ctgc 474

<210> 1716
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1716

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1717
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1717
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgac 474

<210> 1718
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1718

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1719
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1719
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgag 474

<210> 1720
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1720

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1721
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1721
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cttc 474

<210> 1722
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1722

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1723
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1723
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cggc 474

<210> 1724
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1724

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1725
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1725
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ccac 474

<210> 1726
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1726

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1727
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1727
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa catc 474

<210> 1728
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1728

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1729
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1729
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa caag 474

<210> 1730
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1730

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1731
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1731
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cctg 474

<210> 1732
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1732

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Leu

145 150 155

<210> 1733
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1733
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa catg 474

<210> 1734
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1734

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1735
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1735
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa caac 474

<210> 1736
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1736

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1737
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1737
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cccc 474

<210> 1738
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1738

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1739
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1739
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ccag 474

<210> 1740
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1740

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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1741
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1741
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ccgg 474

<210> 1742
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1742

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1743
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1743
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cagc 474

<210> 1744
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1744

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1745
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1745
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cacc 474

<210> 1746
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1746

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1747
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1747

gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ctgg 474

<210> 1748
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1748

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1749

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1749
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa ctac 474

<210> 1750
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1750

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1751
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1751
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

aaggtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1752
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1752

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

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

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1753
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1753
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tatgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1754
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1754

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 Met Ser Ser Leu Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1755
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1755
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga agctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1756
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1756

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 Phe
20 25 30

Gln Lys Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1757
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1757
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccatcact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1758
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1758

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Ile Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1759
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1759
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacaa ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

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<210> 1760
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1760

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 Phe
20 25 30

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

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

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

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

<210> 1761
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1761
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1762
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1762

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 Phe
20 25 30

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

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

<210> 1763
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1763
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1764
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1764

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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 Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 1765
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1765
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caagtccttg aacagggagg tatgtccagt ttgtttcaga atctcggggt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1766
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1766

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 Met Ser Ser Leu Phe
20 25 30

Gln Asn Leu Gly Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Val

145 150 155

<210> 1767
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1767
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atgggccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1768
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1768

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Gly Gln Ile Glu Glu Ile 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 Ile Asp 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

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

<210> 1769
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1769
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgtt 474

<210> 1770
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1770

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1771
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1771
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cccc 474

<210> 1772
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1772

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1773
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1773
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccctg ctgttccgag taaccatcaa cgtt 474

<210> 1774
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1774

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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Leu Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 1775
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1775
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1776
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1776

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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1777
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1777
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1778
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1778

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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 Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145                 150                 155
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<210> 1779
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1779

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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1780
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1780

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1781
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1781

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1782
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1782

Val 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 Phe
20 25 30

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

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

<210> 1783

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1783
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1784
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1784

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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 Pro
145 150 155

<210> 1785
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1785
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 1786
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1786

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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

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

<210> 1787
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1787
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 1788
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1788

Val 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 Phe
20 25 30

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

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

<210> 1789
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1789
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 1790
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1790

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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 Glu
145 150 155

<210> 1791
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1791
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1792
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1792

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1793
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1793
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacaa ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1794
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1794

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Val 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 Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
        35                  40                  45

Gly Glu Asn Ala Leu Lys Ile Asp Asn His Val Ile Ile Pro Tyr Glu
    50                  55                  60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Pro
145                 150                 155
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<210> 1795
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1795

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gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac       60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 1796
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1796

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Glu
145 150 155

<210> 1797
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1797
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacaa ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 1798
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1798

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Asn His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Glu
145 150 155

<210> 1799
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1799
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1800
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1800

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp

145 150 155

<210> 1801
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1801
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1802
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1802

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1803
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1803
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccgccta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1804
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1804

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ala
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1805
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1805
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1806
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1806

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu

50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1807
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1807
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1808
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1808

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1809
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1809
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1810
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1810

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1811
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1811
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1812
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1812

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Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1               5                   10                  15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
        35                  40                  45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
    50                  55                  60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145                 150                 155
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<210> 1813
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1813

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gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac       60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc      180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240
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gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1814
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1814

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1815
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1815

gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccctg ctgttccgag taaccatcaa cgac 474

<210> 1816
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1816

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1817

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1817
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgatacaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgtt 474

<210> 1818
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1818

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Val
145 150 155

<210> 1819
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1819
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1820
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1820

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1821
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1821
gtcttcacac tcgaagattt cgttggggac tggcgacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgacgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1822
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1822

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Arg Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Asp Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1823
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1823
gtcttcacac tcgaagattt cgttggggac tggcaacaga cagccagcta caaccaggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 1824
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1824

Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Asn Gln Thr Ala Ser
1 5 10 15

Tyr Asn Gln Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Val Ile Asp 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Asp
145 150 155

<210> 1825
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1825
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtg 477

<210> 1826
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1826

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val
145 150 155

<210> 1827
<211> 477
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1827
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgcc 477

<210> 1828
<211> 159
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1828

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Val 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 Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Ala
145                 150                 155
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<210> 1829
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1829

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gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac       60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

<210> 1830
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1830

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

<210> 1831
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1831
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtggcc 480

<210> 1832
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1832

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Ala
145 150 155 160

<210> 1833
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1833
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgccacc 480

<210> 1834
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1834

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Ala Thr

145 150 155 160

<210> 1835
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1835
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgccgcc 480

<210> 1836
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1836

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Ala Ala
145 150 155 160

<210> 1837
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1837
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccggcggc 480

<210> 1838
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1838

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Gly Gly
145 150 155 160

<210> 1839
<211> 480
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1839
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccggcacc 480

<210> 1840
<211> 160
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1840

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Gly Thr
145 150 155 160

<210> 1841
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1841
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgccacc 480

ggc 483

<210> 1842
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1842

Val 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 Phe
            20   25   30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Ala Thr
145   150   155   160

Gly

<210> 1843
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1843
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggc 483

<210> 1844
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1844

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly

<210> 1845
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1845
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

gcc 483

<210> 1846
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1846

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Ala

<210> 1847
<211> 483
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1847
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccggcacc 480

gcc 483

<210> 1848
<211> 161
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1848

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Gly Thr
145 150 155 160

Ala

<210> 1849
<211> 486
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1849
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctgg 486

<210> 1850
<211> 162
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1850

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp

<210> 1851
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1851
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctggcgg 489

<210> 1852
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1852

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp Arg

<210> 1853
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1853
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctgggag 489

<210> 1854
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1854

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp Glu

<210> 1855
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1855
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctggaag 489

<210> 1856
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1856

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp Lys

<210> 1857
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1857
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctggcag 489

<210> 1858
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1858

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp Gln

<210> 1859
<211> 489
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1859
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccccgtgacc 480

ggctggcac 489

<210> 1860
<211> 163
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1860

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro Val Thr
145 150 155 160

Gly Trp His

<210> 1861
<211> 471
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1861
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa c 471

<210> 1862
<211> 157
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1862

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150 155

<210> 1863
<211> 468
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1863
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatc 468

<210> 1864
<211> 156
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1864

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150 155

<210> 1865
<211> 465
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1865
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taacc 465

<210> 1866
<211> 155
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1866

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150 155

<210> 1867
<211> 462
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1867
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag ta 462

<210> 1868
<211> 154
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1868

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150

<210> 1869
<211> 459
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1869
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccga 459

<210> 1870
<211> 153
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1870

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

145 150

<210> 1871
<211> 456
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1871
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttc 456

<210> 1872
<211> 152
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1872

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150

<210> 1873
<211> 453
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1873
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctg 453

<210> 1874
<211> 151
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1874

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150

<210> 1875
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1875
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggcccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1876
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1876

Val 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 Ala
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1877
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1877
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtgccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1878
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1878

Val 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 Cys

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1879
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1879
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1880
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1880

Val 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 Asp
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1881
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1881
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1882
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1882

Val 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 Glu
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1883
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1883
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgggccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1884
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1884

Val 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 Gly
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1885
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1885

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgcaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1886
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1886

Val 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 His
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1887

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1887
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgatccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1888
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1888

Val 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 Ile
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1889
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1889
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgaagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1890
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1890

Val 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 Lys
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1891
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1891
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1892
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1892

Val 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 Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1893
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1893
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgatgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1894
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1894

Val 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 Met
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1895
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1895
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgaaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1896
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1896

Val 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 Asn
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1897
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1897
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgccccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1898
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1898

Val 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 Pro
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1899
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1899
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgcagcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1900
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1900

Val 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 Gln
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1901
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1901
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgcggcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1902
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1902

Val 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 Arg
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1903
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1903
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgagccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1904
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1904

Val 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 Ser
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro

145 150 155

<210> 1905
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1905
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgacccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1906
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1906

Val 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 Thr
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1907
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1907
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttggtgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1908
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1908

Val 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 Val
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1909
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1909
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtggcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1910
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1910

Val 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 Trp
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1911
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1911
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtaccaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1912
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1912

Val 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 Tyr

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1913
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1913
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcgc cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1914
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1914

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Ala 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1915
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1915
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtctg cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1916
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1916

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Cys 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1917
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1917
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcga cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1918
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1918

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Asp 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1919
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1919

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcga gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1920
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1920

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Glu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1921

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1921
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtctt cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1922
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1922

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Phe 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1923
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1923
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcgg cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1924
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1924

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Gly 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1925
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1925
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcca cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1926
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1926

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val His 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1927
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1927
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcat cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1928
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1928

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Ile 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1929
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1929
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcaa gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1930
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1930

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Lys 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1931
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1931
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

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ccgatccaaa ggattgtcat gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1932
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1932

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Val 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 Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Met 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 Lys Ile 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 Ile 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 Pro
145                 150                 155
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<210> 1933
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1933

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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact      120

ccgatccaaa ggattgtcaa cagcggtgaa aatgccctga agatcgacat ccatgtcatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1934
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1934

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Asn 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1935
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1935
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccc cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1936
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1936

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Pro 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1937
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1937
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcca gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1938
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1938

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Gln 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 Lys Ile 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 Ile 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 Pro

145 150 155

<210> 1939
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1939
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1940
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1940

Val 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 Phe
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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1941
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1941
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcag cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1942
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1942

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Ser 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1943
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1943
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcac cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1944
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1944

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Thr 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1945
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1945
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcgt gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1946
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1946

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Val 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1947
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1947
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtctg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1948
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1948

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Trp 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1949
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1949
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcta cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1950
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1950

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Tyr 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 1951
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1951
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgcctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1952
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1952

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Ala 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 Pro
145 150 155

<210> 1953
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1953

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatctgctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1954
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1954

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Cys 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 Pro
145 150 155

<210> 1955

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1955
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1956
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1956

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asp 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 Pro
145 150 155

<210> 1957
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1957
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgagtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1958
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1958

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Glu 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 Pro
145 150 155

<210> 1959
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1959
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcttctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1960
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1960

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Phe 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 Pro
145 150 155

<210> 1961
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1961
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcggctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1962
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1962

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Gly 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 Pro
145 150 155

<210> 1963
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1963
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatccactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1964
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1964

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile His 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 Pro
145 150 155

<210> 1965
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1965
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcatctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1966
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1966

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Ile 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 Pro
145 150 155

<210> 1967
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1967
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaagtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1968
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1968

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Lys 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 Pro
145 150 155

<210> 1969
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1969
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcctgtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1970
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1970

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Leu 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 Pro
145 150 155

<210> 1971
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1971
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcatgtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1972
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1972

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Met 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 Pro

145 150 155

<210> 1973
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1973
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcccctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1974
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1974

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Pro 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 Pro
145 150 155

<210> 1975
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1975
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatccagtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1976
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1976

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Gln 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 Pro
145 150 155

<210> 1977
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1977
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatccggtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1978
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1978

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Arg 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 Pro
145 150 155

<210> 1979
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1979
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcagctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1980
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1980

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Ser 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 Pro
145 150 155

<210> 1981
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1981
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcacctat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1982
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1982

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Thr 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 Pro
145 150 155

<210> 1983
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1983
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcgtgtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1984
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1984

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Val 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 Pro
145 150 155

<210> 1985
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1985
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatctggtat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1986
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1986

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Trp 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 Pro
145 150 155

<210> 1987
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1987

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatctactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1988
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1988

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Tyr 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 Pro
145 150 155

<210> 1989

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1989
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcgcccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1990
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1990

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Ala Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 1991
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1991
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tctgccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1992
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1992

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Cys Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 1993
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1993
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcgaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1994
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1994

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Asp Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 1995
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1995
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcgagcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1996
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1996

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Glu Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 1997
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1997
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcttccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 1998
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1998

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Phe Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 1999
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 1999
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcggccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2000
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2000

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Gly Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2001
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2001
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tccaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2002
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2002

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

His Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2003
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2003
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcatccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2004
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2004

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Ile Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2005
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2005
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaagcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2006
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2006

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Lys Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro

145 150 155

<210> 2007
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2007
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcctgcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2008
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2008

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Leu Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2009
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2009
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcatgcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2010
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2010

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Met Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2011
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2011
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcaaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2012
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2012

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Asn Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2013
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2013
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tccccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2014
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2014

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Pro Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2015
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2015
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tccagcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2016
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2016

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Gln Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2017
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2017
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tccggcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2018
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2018

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Arg Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2019
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2019
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcagccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2020
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2020

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Ser Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2021
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2021

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcgtgcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2022
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2022

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Val Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2023

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2023
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tctggcccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2024
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2024

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Trp Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2025
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2025
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tctaccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2026
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2026

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Tyr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2027
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2027
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgcc 474

<210> 2028
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2028

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Ala
145 150 155

<210> 2029
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2029
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ctgc 474

<210> 2030
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2030

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Cys
145 150 155

<210> 2031
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2031
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgac 474

<210> 2032
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2032

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Asp
145 150 155

<210> 2033
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2033
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgag 474

<210> 2034
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2034

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Glu
145 150 155

<210> 2035
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2035
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cttc 474

<210> 2036
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2036

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Phe
145 150 155

<210> 2037
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2037
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cggc 474

<210> 2038
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2038

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Gly
145 150 155

<210> 2039
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2039
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccac 474

<210> 2040
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2040

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 His

145 150 155

<210> 2041
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2041
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa catc 474

<210> 2042
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2042

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Ile
145 150 155

<210> 2043
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2043
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa caag 474

<210> 2044
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2044

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Lys
145 150 155

<210> 2045
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2045
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cctg 474

<210> 2046
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2046

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Leu
145 150 155

<210> 2047
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2047
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa catg 474

<210> 2048
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2048

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Met
145 150 155

<210> 2049
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2049
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa caac 474

<210> 2050
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2050

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Asn
145 150 155

<210> 2051
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2051
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccag 474

<210> 2052
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2052

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Gln
145 150 155

<210> 2053
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2053
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccgg 474

<210> 2054
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2054

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Arg
145 150 155

<210> 2055
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2055

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2056
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2056

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145 150 155

<210> 2057

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2057
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cacc 474

<210> 2058
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2058

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Thr
145 150 155

<210> 2059
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2059
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cgtg 474

<210> 2060
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2060

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Val
145 150 155

<210> 2061
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2061
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ctgg 474

<210> 2062
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2062

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Trp
145 150 155

<210> 2063
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2063
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ctac 474

<210> 2064
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2064

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Tyr
145 150 155

<210> 2065
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2065
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2066
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2066

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 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 Pro
145 150 155

<210> 2067
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2067
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2068
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2068

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Ile 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 Ile 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 Pro
145 150 155

<210> 2069
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2069
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggcg agaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcga cccc 474

<210> 2070
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2070

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Glu 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 Asp Pro
145 150 155

<210> 2071
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2071
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaagt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2072
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2072

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys 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 Ile 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 Pro
145 150 155

<210> 2073
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2073
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcgacgaa aatgccctga agatcgacat ccgggtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcatgc actatggcac actggtagtg 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2074
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2074

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Asp Glu Asn Ala Leu Lys Ile Asp Ile Arg Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Met His Tyr Gly
85 90 95

Thr Leu Val Val Asp Gly Val Thr Pro Asn Met Ile 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 Pro

145 150 155

<210> 2075
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2075
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgc ctccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtagtg 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2076
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2076

Val 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 Ala Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Val Asp Gly Val Thr Pro Asn Met Ile 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 Pro
145 150 155

<210> 2077
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2077
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2078
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2078

Val 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 Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2079
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2079
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gccatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2080
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2080

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Ala Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile 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 Pro
145 150 155

<210> 2081
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2081
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ccgatccaaa gggtggtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2082
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2082

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Val Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2083
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2083
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca gcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacgt gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2084
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2084

Val 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 Phe
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 Lys Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp Gln His Phe Lys Val Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Val Ile 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 Pro
145 150 155

<210> 2085
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2085
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcacctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2086
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2086

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 His Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2087
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2087
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caagtccttg aacagggagg tgtgtccagt ttgtttcagg acctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2088
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2088

Val 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 Phe
20 25 30

Gln Asp Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2089
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2089

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacaa ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggccacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2090
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2090

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Asn His Val Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 His Lys Ile Ile Asp Glu Arg Leu Ile
130 135 140

Thr Pro Asp Gly Ser Met Leu Phe Arg Val Thr Ile Asn Pro
145 150 155

<210> 2091

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2091
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcca gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccac 474

<210> 2092
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2092

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Gln 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 Lys Ile 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 Ile 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 His
145 150 155

<210> 2093
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2093
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

gtgccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2094
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2094

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Val Ile Val Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2095
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2095
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcaaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc tgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2096
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2096

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Thr 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 Lys Lys Ile 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 Ile Asn Tyr Phe Gly
100 105 110

Arg Leu 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 Pro
145 150 155

<210> 2097
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2097
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgc ctccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2098
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2098

Val 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 Phe
20 25 30

Gln Asn Leu Ala Ala Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2099
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2099
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ccgatccaaa ggattgtcct gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2100
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2100

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Thr 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2101
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2101
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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccgggtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2102
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2102

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Val Phe Thr Leu Glu Asp Phe Val Gly Asp Trp Glu Gln Thr Ala Ala
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Tyr Asn Leu Asp Gln Val Leu Glu Gln Gly Gly Val Ser Ser Leu Phe
            20                  25                  30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
        35                  40                  45

Gly Glu Asn Ala Leu Lys Ile Asp Ile Arg Val Ile Ile Pro Tyr Glu
    50                  55                  60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Pro
145                 150                 155
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<210> 2103
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2103

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ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgccatc      180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg      240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc      300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg      360
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ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2104
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2104

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Gly Glu Asn Ala Leu Lys Ile Asp Ile His Ala Ile Ile Pro Tyr Glu
50 55 60

Gly Leu Ser Ala Asp Gln Met Ala Gln Ile Glu Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2105
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2105
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcaagaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2106
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2106

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2107
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2107
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca gcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2108
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2108

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp Gln His Phe Lys Val Ile Leu His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile 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 Pro

145 150 155

<210> 2109
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2109
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2110
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2110

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2111
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2111
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggcg agaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2112
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2112

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asn Tyr Phe Gly
100 105 110

Arg Pro Tyr Glu Gly Ile Ala Val Phe Asp Gly Glu 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 Pro
145 150 155

<210> 2113
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2113
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaagcggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2114
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2114

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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

Ser 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 Pro
145 150 155

<210> 2115
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2115
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgccaga tcacccccga cggctccatg ctgttccgag taaacatcaa cccc 474

<210> 2116
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2116

Val 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 Phe

20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Gln Ile
130 135 140

Thr Pro Asp Gly Ser Met Leu Phe Arg Val Asn Ile Asn Pro
145 150 155

<210> 2117
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2117
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcga cccc 474

<210> 2118
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2118

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Asp Pro
145 150 155

<210> 2119
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2119
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccaggtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2120
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2120

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2121
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2121
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcatgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2122
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2122

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile Phe Lys Val
65 70 75 80

Val Tyr Pro Val Asp Asp His His Phe Lys Val Ile Met His Tyr Gly
85 90 95

Thr Leu Val Ile Asp Gly Val Thr Pro Asn Met Ile 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 Pro
145 150 155

<210> 2123
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2123

gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc tgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2124
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2124

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile Asn Tyr Phe Gly
100 105 110

Arg Leu 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 Pro
145 150 155

<210> 2125

<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2125
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcgacgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2126
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2126

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu Ser
35 40 45

Asp 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2127
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2127
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcct gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga c 441

<210> 2128
<211> 147
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2128

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val Leu 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 Lys Ile 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 Ile 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
145

<210> 2129
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2129
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2130
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2130

Val 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 Phe
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 Lys Ile 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 Ile 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
145 150 155

<210> 2131
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2131
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtcca cagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc actatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa ccac 474

<210> 2132
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2132

Val 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 Phe
20 25 30

Gln Asn Leu Ala Val Ser Val Thr Pro Ile Gln Arg Ile Val His 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 Lys Ile 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 Ile 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 His
145 150 155

<210> 2133
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2133
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2134
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2134

Val 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 Phe
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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2135
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2135
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caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2136
<211> 158
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2136

Val 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 Lys Ile 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 Ile 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 Pro
145 150 155

<210> 2137
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2137
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2138
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2138

Val 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 Phe
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 Ile 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 Ile 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 Pro
145 150 155

<210> 2139
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2139
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaagt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cccc 474

<210> 2140
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2140

Val 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 Phe
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 Lys 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 Ile 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 Pro
145 150 155

<210> 2141
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2141
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaaat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2142
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2142

Val 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 Lys Ile 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 Ile 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

145 150 155

<210> 2143
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2143
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2144
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2144

Val 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 Phe
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 Ile 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 Ile 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
145 150 155

<210> 2145
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2145
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caagtccttg aacagggagg tgtgtccagt ttgtttcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaagt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2146
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2146

Val 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 Phe
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 Lys 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 Ile 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
145 150 155

<210> 2147
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2147
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2148
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2148

Val 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 Thr 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
145 150 155

<210> 2149
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2149
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aatgccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2150
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2150

Val 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
145 150 155

<210> 2151
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2151
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaaaaagt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2152
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2152

Val 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 Thr 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 Lys 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
145 150 155

<210> 2153
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2153
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagagat ttttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gctgaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2154
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2154

Val 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 Thr 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 Ile 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
145 150 155

<210> 2155
<211> 474
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2155
gtcttcacac tcgaagattt cgttggggac tgggaacaga cagccgccta caacctggac 60

caagtccttg aacagggagg tgtgtccagt ttgctgcaga atctcgccgt gtccgtaact 120

ccgatccaaa ggattgtccg gagcggtgaa aataccctga agatcgacat ccatgtcatc 180

atcccgtatg aaggtctgag cgccgaccaa atggcccaga tcgaagaggt gtttaaggtg 240

gtgtaccctg tggatgatca tcactttaag gtgatcctgc cctatggcac actggtaatc 300

gacggggtta cgccgaacat gatcaactat ttcggacggc cgtatgaagg catcgccgtg 360

ttcgacggca aaaagatcac tgtaacaggg accctgtgga acggcaacaa aattatcgac 420

gagcgcctga tcacccccga cggctccatg ctgttccgag taaccatcaa cagc 474

<210> 2156
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2156

Val 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 Thr 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 Ile 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
145 150 155

<210> 2157
<211> 171
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2157

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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 Gly Ser Leu Leu Phe Arg Val Thr Ile Asn Gly Val
145                 150                 155                 160

Thr Gly Trp Arg Leu Cys Glu Arg Ile Leu Ala
                165                 170
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<210> 2158
<211> 939
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2158

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ctcgagccaa ccactgagga tctgtacttt cagagcgata acgatggatc cgaaatcggt       60

actggctttc cattcgaccc ccattatgtg gaagtcctgg gcgagcgcat gcactacgtc      120

gatgttggtc cgcgcgatgg cacccctgtg ctgttcctgc acggtaaccc gacctcctcc      180

tacgtgtggc gcaacatcat cccgcatgtt gcaccgaccc atcgctgcat tgctccagac      240

ctgatcggta tgggcaaatc cgacaaacca gacctgggtt atttcttcga cgaccacgtc      300

cgcttcatgg atgccttcat cgaagccctg ggtctggaag aggtcgtcct ggtcattcac      360

gactggggct ccgctctggg tttccactgg gccaagcgca atccagagcg cgtcaaaggt      420
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attgcattta tggagttcat ccgccctatc ccgacctggg acgaatggcc agaatttgcc 480

cgcgagacct tccaggcctt ccgcaccacc gacgtcggcc gcaagctgat catcgatcag 540

aacgttttta tcgagggtac gctgccgatg ggtgtcgtcc gcccgctgac tgaagtcgag 600

atggaccatt accgcgagcc gttcctgaat cctgttgacc gcgagccact gtggcgcttc 660

ccaaacgagc tgccaatcgc cggtgagcca gcgaacatcg tcgcgctggt cgaagaatac 720

atggactggc tgcaccagtc ccctgtcccg aagctgctgt tctggggcac cccaggcgtt 780

ctgatcccac cggccgaagc cgctcgcctg gccaaaagcc tgcctaactg caaggctgtg 840

gacatcggcc cgggtctgaa tctgctgcaa gaagacaacc cggacctgat cggcagcgag 900

atcgcgcgct ggctgtctac tctggagatt tccggttaa 939

<210> 2159
<211> 312
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2159

Leu Glu Pro Thr Thr Glu Asp Leu Tyr Phe Gln Ser Asp Asn Asp Gly
1 5 10 15

Ser Glu Ile Gly Thr Gly Phe Pro Phe Asp Pro His Tyr Val Glu Val
20 25 30

Leu Gly Glu Arg Met His Tyr Val Asp Val Gly Pro Arg Asp Gly Thr
35 40 45

Pro Val Leu Phe Leu His Gly Asn Pro Thr Ser Ser Tyr Val Trp Arg
50 55 60

Asn Ile Ile Pro His Val Ala Pro Thr His Arg Cys Ile Ala Pro Asp
65 70 75 80

Leu Ile Gly Met Gly Lys Ser Asp Lys Pro Asp Leu Gly Tyr Phe Phe
85 90 95

Asp Asp His Val Arg Phe Met Asp Ala Phe Ile Glu Ala Leu Gly Leu
100 105 110

Glu Glu Val Val Leu Val Ile His Asp Trp Gly Ser Ala Leu Gly Phe
115 120 125

His Trp Ala Lys Arg Asn Pro Glu Arg Val Lys Gly Ile Ala Phe Met
130 135 140

Glu Phe Ile Arg Pro Ile Pro Thr Trp Asp Glu Trp Pro Glu Phe Ala
145 150 155 160

```
Arg Glu Thr Phe Gln Ala Phe Arg Thr Thr Asp Val Gly Arg Lys Leu
                165                 170                 175

Ile Ile Asp Gln Asn Val Phe Ile Glu Gly Thr Leu Pro Met Gly Val
            180                 185                 190

Val Arg Pro Leu Thr Glu Val Glu Met Asp His Tyr Arg Glu Pro Phe
        195                 200                 205

Leu Asn Pro Val Asp Arg Glu Pro Leu Trp Arg Phe Pro Asn Glu Leu
    210                 215                 220

Pro Ile Ala Gly Glu Pro Ala Asn Ile Val Ala Leu Val Glu Glu Tyr
225                 230                 235                 240

Met Asp Trp Leu His Gln Ser Pro Val Pro Lys Leu Leu Phe Trp Gly
                245                 250                 255

Thr Pro Gly Val Leu Ile Pro Pro Ala Glu Ala Ala Arg Leu Ala Lys
            260                 265                 270

Ser Leu Pro Asn Cys Lys Ala Val Asp Ile Gly Pro Gly Leu Asn Leu
        275                 280                 285

Leu Gln Glu Asp Asn Pro Asp Leu Ile Gly Ser Glu Ile Ala Arg Trp
    290                 295                 300

Leu Ser Thr Leu Glu Ile Ser Gly
305                 310
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<210> 2160
<211> 939
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2160

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atggcagaaa tcggtactgg ctttccattc gacccccatt atgtggaagt cctgggcgag       60

cgcatgcact acgtcgatgt tggtccgcgc gatggcaccc ctgtgctgtt cctgcacggt      120

aacccgacct cctcctacgt gtggcgcaac atcatcccgc atgttgcacc gacccatcgc      180

tgcattgctc cagacctgat cggtatgggc aaatccgaca aaccagacct gggttatttc      240

ttcgacgacc acgtccgctt catggatgcc ttcatcgaag ccctgggtct ggaagaggtc      300

gtcctggtca ttcacgactg gggctccgct ctgggtttcc actgggccaa gcgcaatcca      360

gagcgcgtca aaggtattgc atttatggag ttcatccgcc ctatcccgac ctgggacgaa      420

tggccagaat ttgcccgcga gaccttccag gccttccgca ccaccgacgt cggccgcaag      480

ctgatcatcg atcagaacgt ttttatcgag ggtacgctgc cgatgggtgt cgtccgcccg      540
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ctgactgaag tcgagatgga ccattaccgc gagccgttcc tgaatcctgt tgaccgcgag 600

ccactgtggc gcttcccaaa cgagctgcca atcgccggtg agccagcgaa catcgtcgcg 660

ctggtcgaag aatacatgga ctggctgcac cagtcccctg tcccgaagct gctgttctgg 720

ggcaccccag gcgttctgat cccaccggcc gaagccgctc gcctggccaa aagcctgcct 780

aactgcaagg ctgtggacat cggcccgggt ctgaatctgc tgcaagaaga caacccggac 840

ctgatcggca gcgagatcgc gcgctggctg tcgacgctcg agatttccgg cgagccaacc 900

actgaggatc tgtactttca gagcgataac gcgatcgcc 939

<210> 2161
<211> 313
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 2161

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 Glu Pro Thr Thr Glu Asp Leu
    290                 295                 300

Tyr Phe Gln Ser Asp Asn Ala Ile Ala
305                 310
```

ACTIVATION OF BIOLUMINESCENCE BY STRUCTURAL COMPLEMENTATION

Abstract

Provided herein are compositions and methods for the assembly of a bioluminescent complex from two or more non-luminescent (e.g., substantially non-luminescent) peptide and/or polypeptide units. In particular, bioluminescent activity is conferred upon a non-luminescent polypeptide via structural complementation with another, complementary non-luminescent peptide. Biological processes rely on covalent and non-covalent interactions between molecules, macromolecules and molecular complexes. In order to understand such processes, and to develop techniques and compounds to manipulate them for research, clinical and other practical applications, it is necessary to have tools available to detect and monitor these interactions.

(No suitable figure)