SEQUENCE LISTING

<110> ALTHEIA SCIENCE

<120> DIAGNOSIS AND TREATMENT OF MYELOID DISORDERS AND ACUTE LEUKEMIAS USING NOVEL TUMOR SPECIFIC ANTIGENS

<130> 008227621

<140>
<141>

<150> 63/170,976
<151> 2021-04-05

<160> 105

<170> PatentIn version 3.5

<210> 1
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<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<220>
<221> source
<223> /note="See specification as filed for detailed description of substitutions and preferred embodiments"

<400> 1
Gly Gly Gly Gly Ser
1 5

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<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 2
Gly Gly Gly Gly Ser
1 5

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<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 3
Ser Gly Gly Gly Gly
1 5

<210> 4
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<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<220>
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<222> (1)..(50)
<223> /note="This sequence may encompass 1-10 'Gly Gly Gly Gly Ser' repeating units"

<400> 4
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser
50

<210> 5
<211> 50
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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<220>
<221> SITE
<222> (1)..(50)
<223> /note="This sequence may encompass 1-10 'Ser Gly Gly Gly Gly'
repeating units"

<400> 5
Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
20 25 30

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
35 40 45

Gly Gly
50

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 6
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
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Gly Gly Gly Ser
20

<210> 7
<211> 25
<212> PRT
<213> Artificial Sequence

<220>

<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 7
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1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 8
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 9
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 9
Gly Gly Gly Gly Gly Gly Gly Gly
1 5

<210> 10
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 10

Gly Gly Gly Gly Gly Gly
1 5

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 11
Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys
1 5 10 15

<210> 12
<211> 15
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<213> Artificial Sequence

<220>
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<220>
<221> SITE
<222> (1)..(15)
<223> /note="This sequence may encompass 1-3 'Glu Ala Ala Ala Lys' repeating units"

<400> 12
Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys
1 5 10 15

<210> 13
<211> 46
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 13
Ala Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys
1 5 10 15

Glu Ala Ala Ala Lys Ala Leu Glu Ala Glu Ala Ala Ala Lys Glu Ala
            20   25   30

Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Ala
        35   40   45

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

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 14
Pro Ala Pro Ala Pro
1   5

<210> 15
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 15
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1   5   10

<210> 16
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> SITE
<222> (1)..(34)

<223> /note="This sequence may encompass 5-17 'Ala Pro'
repeating units"

<400> 16
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1 5 10 15

Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro
20 25 30

Ala Pro

<210> 17
<211> 17
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<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 17
Val Ser Gln Thr Ser Lys Leu Thr Arg Ala Glu Thr Val Phe Pro Asp
1 5 10 15

Val

<210> 18
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 18
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1 5

<210> 19
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 19
Arg Val Leu Ala Glu Ala
1 5

<210> 20
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 20
Glu Asp Val Val Cys Cys Ser Met Ser Tyr
1 5 10

<210> 21
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 21
Gly Gly Ile Glu Gly Arg Gly Ser
1 5

<210> 22
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 22
Thr Arg His Arg Gln Pro Arg Gly Trp Glu
1 5 10

<210> 23
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 23
Ala Gly Asn Arg Val Arg Arg Ser Val Gly
1 5 10

<210> 24
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 24
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tgggttctga gccaggtgca gctgcagcag tccggccctg gcctggtgca gcctagcaga 120

accctgagcc tgacatgtgc catcagcggc gattccatct ccagcaatac cgcctcctgg 180

aactggatca gacagagccc tagcaggggc ctggagtggg tgggcaagac agagtacaga 240

tccggctggt tcttcgagta cgcccctcc gtgggcggca gagtgaatat ctcccccgat 300

acaagcaaga accagttcag cctgcagctg aatagcgtga cacctgagga tacagccgtg 360

tacttctgcg ccagggactc ctacaatgac tacgataacg acggctttga catctggggc 420

cagggcacac tggtgacagt gagcagcggc ggcggcggaa gcggaggagg aggatctggc 480

ggcggcggta gcggaggagg tggatctcag tccgtgctga cccagccccc cagcgtgtcc 540

gctgctcctg gacagaaggt gaccatcagc tgcagcggct cctcctccaa tatcggctcc 600

aactacgtgg cctggtacca gcagctgccc ggcacagccc ccaagctgct gatctacgac 660

accaacaaga ggcccagcgg catccccgat aggtttagcg gctccaagag cggcacatcc 720

gccaccctgg gcatcaccgg cctgcagaca ggcgatgagg ccgactacta ctgtggcaca 780

tgggacagct ccctgagcgc cgaggtgttc ggcacaggca caaaggtgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 25
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

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tgggtgctgt cccaggtgca gctgcagcag agcggccctg gcctggtgaa gcccagccag 120

accctgtccc tgacctgcgc catcagcggc gatagcgtga gcagcaactc cgccagctgg 180

aattggatca ggcagtcccc cagcaggggc ctggagtggc tgggaaagac agagtacaga 240

tccaagtggt actacgagtt tgcccctagc gtgaagagca gaatcaccat cacccctgat 300

accagcaaga accagttttc cctgcagctg aattccgtga cccctgagga caccgccgtg 360

tactactgcg tgagagactc ctacaacggc tacgattttg acggcttcga tatctggggc 420

cagggcaccc tggtgaccgt gtccagcggc ggaggcggaa gcggaggagg aggaagcggc 480

ggaggaggca gcggaggagg tggaagccag agcgtgctga cacagccccc tagcgtgtcc 540

gccgccccag gacaaaaggt gacaatcagc tgctccggct cctcctccaa tatcggcagc 600

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tgggattcct ccctgtccgc cgaggtgttt ggcaccggca caaaggtgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 26
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 26
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tgggtgctga gccaggtgca gctgcagcag tccggccctg gcctggtgaa gccttcccag 120

acactgtccc tgacatgtgc catcagcggc gactccgtgt tctccaatag cgccagctgg 180

aattggatca gacagagccc ctccagaggc ctggagtggc tgggcaagac agagtacagg 240

tccaagtggt ttgacgagta cgcccccagc gtgaagggca gaatcgccat cagacctgac 300

acctccaaga accaggtgtc cctgcagctg aatagcgtga cccccgagga caccgccgtg 360

tactactgtg tgagagatag ctacaacggc tacgattttg atggctttga catctggggc 420

cagggcaccc tggtgaccgt gagctccggc ggaggcggaa gcggaggagg aggaagcggc 480

ggaggcggta gcggaggagg tggaagccag agcgtgctga cccagcctcc tagcgtgagc 540

gccgcccctg gacagcaggt gatcatctcc tgcagcggct ccagctccaa cgtgggcaat 600

aactacgtgg cctggtacca gcaggtgccc ggcgctgctc ccaggctgct gatctacgac 660

aactacaaga gaccctccgg catccccgac aggttttccg gcagcaagtc cggcacctcc 720

gccaccctgg gcatcaccgg actgcagagc ggcgacgagg ccgactacta ctgtggcagc 780

tgggatagct ccctgagcgc cgaggtgttt ggcggcggca ccaagctgac agccctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

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gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 27
<211> 1506
<212> DNA
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<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 27

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tgggttctga gccaggtgca gctgcagcag tccggccctg gcctggtgaa gccctcccag 120

acactgagcc tgacatgcgc catctccggc gacagcgtgt tcagcaccac cgccagctgg 180

aattggatca gacagagccc cagcagaggc ctggagtggc tgggcaagac cgagtacagg 240

agcaagtggt tcgacgagta cgcccccagc gtgaagggca ggatcgccat cagacctgac 300

acatccagaa atcaggtgag cctgcagctg aatagcatga cacccgagga taccgccgtg 360

tacttctgtg tgagagacag ctacaacggc tacgacttcg acggcttcga catctggggc 420

cagggcacaa cagtgacagt gagctccggc ggcggcggct ctggaggagg aggatctggc 480

ggcggcggaa gcggaggagg aggttctcag agcgtggtga cacagccccc cagcgtgagc 540

gccgctcctg gacaaaaggt gaccatctcc tgctccggca gcagcagcaa catcggcaat 600

aactacgtgt cctggtacca gcagctgcct ggcaccgccc ccaagctgct gatctacgac 660

aacaataaga ggcccagcgg catccctgac agattctccg gctccaagag cggcacctcc 720

gccaccctgg gcatcacagg cctgcagaca ggcgacgagg ccgactacta ctgtggcaca 780

tgggatagct ccctgtccgc cgagatgttt ggcggcggca ccaaggtgac cgtgctgatc 840

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gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

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gtcgac 1506

<210> 28
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 28
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tgggtgctga gccaggtgca gctgcagcag agcggccctg gcctggtgaa gcccagccag 120

accctgtccc tgacatgcgc catcagcggc gatagcgtgt ccagcaatag cgcctcctgg 180

aattggatca gacagagccc tagcagaggc ctggagtggc tgggcaaggt ggagtacagg 240

tccaagtggt acgatgagta cgccccctcc gtgaagagca gaatcgccat cagacctgac 300

acatccaaga accaggtgag cctgcacctg atctccgtga cacctgatga tacagccgtg 360

tactactgcg ccagggactc ctacaacggc cacgccttcg atggctttga tgtgtggggc 420

cagggcacac tggtgaccgt gtccagcggc ggcggcggat ctggaggagg aggaagcggc 480

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caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

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gtcgac 1506

<210> 29
<211> 1506
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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 29
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accctgagcc tgacctgcgc catcagcggc gactccgtgt ttagcaactc cgcctcctgg 180

aactggatca gacagtcccc ctccagaggc ctggagtggc tgggcaagac agagtacagg 240

agcaagtggt ttgacgagta cgccccttcc gtgaagggca ggatcgccat cagacccgat 300

acctccaaga atcaggtgag cctgcagctg aatagcgtga cacccgagga caccgccgtg 360

tactactgtg tgagagactc ctacaatggc tacgacttcg acggctttga catctggggc 420

cagggcaccc tggtgaccgt gtccagcggc ggaggcggaa gcggaggagg aggaagcggc 480

ggaggaggct ccggaggagg aggttcccag agcgtgctga cccagccccc tagcgtgagc 540

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gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

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tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 30
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 30
ggatccgccg ccaccatgaa gcacctgtgg ttctttctgc tgctggtggc cgcccccaga 60

tgggtgctga gccaggtgca gctgcagcag agcggccctg gcctggtgaa gccttcccag 120

acactgagcc tgacctgtgc catcagcggc gatagcgtgt ttagcaacag cgccagctgg 180

aattggatca ggcagagccc ttccaggggc ctggagtggc tgggcaagac cgagtacagg 240

tccaagtggt tcgatgagta cgcccctagc gtgaagggca ggatcgccat caggcctgac 300

acctccaaga accaggtgtc cctgcagctg aattccgtga cacctgagga taccgccgtg 360

tactactgcg tgagggattc ctacaacggc tacgacttcg acggctttga tatctggggc 420

cagggcacac tggtgacagt gtcctccggc ggcggcggaa gcggaggagg aggatctggc 480

ggcggcggtt ccggaggagg aggttctcag tccgtggtga cccagcctcc cagcgtgagc 540

gccgctcctg gacagaaggt gaccatcagc tgtagcggca gctcctccaa catcggcaac 600

aactacgtgt cctggtacca gcagctgccc ggcaccgccc caaagctgct gatctacgat 660

aataataaga gaccttccgg catccccgat agattttccg gcagcaagag cggcacaagc 720

gccaccctgg gcatcacagg cctgcagacc ggcgacgagg ccgattacta ctgcggcacc 780

tgggatagca gcctgtccgc cgaggtgttt ggcggcggca ccaagctgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 31
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 31
ggatccgccg ccaccatgaa gcacctgtgg tttttcctgc tgctggtggc cgccccccagg 60

tgggttctgt cccaggtgca gctgcagcag agcggccccg gactggtgaa gcccagccag 120

acactgagcc tgacatgtga catctccggc gattccgtgt tctccaacac agccagctgg 180

aattggatca ggcagagccc cagcaggggc ctggagtggc tgggaaagac agagtacaga 240

tcccagtggc tgcacgagta cgccccttcc gtgagatcca ggatcgccat cagacccgac 300

acctccaaga accaggtgtc cctgcagctg tccttcgtga cccccgagga caccgccgtg 360

tactactgtg tgagggattc ctacaatggc tacgccttcg atggctttga cacctggggc 420

cagggcaccc tggtgaccgt gagcagcggc ggaggcggaa gcggaggagg aggaagcggc 480

ggaggaggct ccggaggagg aggtagccag agcgtggtga cccagccccc cagcgtgtcc 540

gctgctcctg gacagaaggt gaccatcagc tgttccggca ggaactccaa catcgccaac 600

aactttgtgt cctggtacag acagctgcct ggcaccgccc ctaagctgct gatctacgac 660

aataataaga ggcctagcgg catccccgat agattctccg gctccaagag cggcacatcc 720

gccaccctgg ccatcaccgg cctgcagacc ggcgacgagg ccgattacta ctgcgagtcc 780

tgggatagct ccctgaccgc cgaggtgttt ggcaccggca ccaaggtgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 32
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 32

ggatccgccg ccaccatgaa gcacctgtgg ttctttctgc tgctggtggc cgcccctagg 60

tgggtgctga gccaggtgca gctgcagcag tccggccctg gcctggtgaa gcccagccag 120

acactgagcc tgacctgtgc catctccggc gactccgtgt ccagcaacag cgcctcctgg 180

aactggatca gacagtcccc tagcaggggc ctggagtggc tgggcaaggt ggagtacaga 240

tccaagtggt acgatgagta cgcccccagc gtgaagagca gaatcgccat cagacctgac 300

accagcaaga accaggtgtc cctgcacctg atcagcgtga cccctgatga cacagccgtg 360

tactactgcg ccagagatag ctacaacggc cacgcctttg atggctttga tgtgtggggc 420

cagggcacaa tggtgaccgt gagctccggc ggcggcggat ctggaggagg aggaagcggc 480

ggcggcggtt ctggaggagg tggaagccag agcgtggtga cacagcctcc ctccgtgtcc 540

gccgcccctg gacaaaaggt gaccatctcc tgcagcggca gcagcagcaa catcggcaat 600

aactacgtgt cctggtacca gcagctgcct ggcacagccc ccaagctgct gatctacgac 660

aacaataaga ggcccagcgg catccccgac aggttctccg gctccaagtc cggcacctcc 720

gccacactgg gcatcacagg cctgcagacc ggcgacgagg ccgactacta ctgtggcacc 780

tgggattcca gcctgagcgc cgaggtgttt ggcggcggca caaaggtgac agtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 33

<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 33
ggatccgccg ccaccatgaa gcacctgtgg ttttttctgc tgctggtggc cgcccccaga 60

tgggtgctga gccaggtgca gctgcagcag tccggccctg gcctggtgaa gccttcccag 120

acactgtccc tgacctgcgc catcagcggc gacagcgtga gcagcaattc cgccagctgg 180

aactggatca ggcagtcccc cagcaggggc ctggagtggc tgggaaaggt ggagtacagg 240

agcaagtggt acgacgagta cgcccccagc gtgaagagca gaatcgccat caggcccgac 300

acatccaaga atcaggtgag cctgcacctg atcagcgtga cccccgatga cacagccgtg 360

tactactgcg ccagagactc ctacaacggc cacgccttcg acggctttga cgtgtggggc 420

cagggcacaa tggtgacagt gagctccggc ggcggcggct ctggaggagg aggatctggc 480

ggcggcggaa gcggaggagg aggttctcag agcgtgctga cccagccccc tagcctgagc 540

gccgctcctg gacagagagt gaccatcagc tgctccggca caacctccaa tatcgccaat 600

aatttcgtgt cctggtacca gcagctgtcc ggctccgccc ccaagctgct gatcaatgac 660

aataacaaga gaccctccgg catccccgat aggttctccg gcagcaagtc cggcgcctcc 720

gccacactgg ccatcaccgg actgcagaca gaggacgagg ccgactacta ctgtggcgtg 780

tgggacaaca gcctgaatgc cgaggtgttt ggcggcggca ccaaggtgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 34
<211> 1506
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 34
ggatccgccg ccaccatgaa gcacctgtgg tttttcctgc tgctggtggc cgcccctagg 60

tgggtgctgt cccaggtgca gctgcagcag tccggccccg gactggtgaa gccttcccag 120

accctgagcc tgacatgtgc catctccggc gacagcgtgt cctccaactc cgccagctgg 180

aactggatca ggcagtcccc ttccagaggc ctggagtggc tgggcaagac agagtacaga 240

agcaagtggt actacgagtt tgcccctagc gtgaagtcca gaatcaccat caccccgac 300

accagcaaga atcagtttag cctgcagctg aatagcgtga cccctgagga tacagccgtg 360

tactactgcg tgagggatag ctacaacggc tacgacttcg acggctttga tatctggggc 420

cagggcacac tggtgaccgt gtccagcggc ggcggcggat ctggaggagg aggaagcggc 480

ggcggaggct ctggaggagg tggaagccag agcgtgctga cccagccccc tagcgtgagc 540

gccgctcctg gacagaaggt gacaatcagc tgctccggct ccagcagcaa catcggcagc 600

aattacgtgg cctggtacca gcagctgcct ggcaccgccc ccaagctgct gatctacgac 660

acaaacaaga ggcccagcgg catccctgac aggttcagcg gcagcaagag cggcaccagc 720

gccaccctgg gcatcaccgg actgcagaca ggcgacgagg ccgattacta ctgtggcacc 780

tgggactcca gcctgagcgc cgaggtgttt ggcacaggca caaaggtgac cgtgctgatc 840

gaggtgatgt acccccccccc ctacctggac aatgagaagt ccaacggcac aatcatccac 900

gtgaagggca agcacctgtg tcccagcccc ctgtttcccg gccctagcaa gcccttctgg 960

gtgctggtgg tggtgggcgg cgtgctggct tgttacagcc tgctggtgac agtcgccttc 1020

atcatctttt gggtgaagag gggcaggaag aagctgctgt acatctttaa gcagcccttt 1080

atgaggcccg tgcagacaac ccaggaggag gacggctgta gctgcaggtt tcctgaggag 1140

gaggagggcg gctgtgagct gagagtgaag ttcagcaggt ccgccgacgc ccccgcctac 1200

caacagggac agaatcagct gtacaatgag ctgaacctgg gcagaagaga ggagtacgac 1260

gtgctggata agaggagagg cagggaccct gagatgggcg gcaagcctag aagaaagaac 1320

ccccaggagg gcctgtacaa tgaactgcag aaggacaaga tggccgaggc ctacagcgag 1380

atcggcatga agggcgagag aaggaggggc aagggccacg atggcctgta ccagggcctg 1440

tccacagcca ccaaggacac atacgacgcc ctgcacatgc aggccctgcc cccaaggtga 1500

gtcgac 1506

<210> 35
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 35
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Gln
20 25 30

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

Ser Ser Asn Thr Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
50 55 60

Gly Leu Glu Trp Val Gly Lys Thr Glu Tyr Arg Ser Gly Trp Phe Phe
65 70 75 80

Glu Tyr Ala Pro Ser Val Gly Gly Arg Val Asn Ile Ser Pro Asp Thr
85 90 95

```
Ser Lys Asn Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Phe Cys Ala Arg Asp Ser Tyr Asn Asp Tyr Asp Asn
        115                 120                 125

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Ser Asn Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205

Pro Lys Leu Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320
```

```
Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
            420                 425                 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
        435                 440                 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
    450                 455                 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465                 470                 475                 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
                485                 490
```

<210> 36
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 36

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Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1               5                  10                  15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
            20                  25                  30

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

Ser Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
    50                  55                  60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Tyr Tyr
65                  70                  75                  80

Glu Phe Ala Pro Ser Val Lys Ser Arg Ile Thr Ile Thr Pro Asp Thr
                85                  90                  95

Ser Lys Asn Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe
        115                 120                 125

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Ser Asn Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205
```

```
Pro Lys Leu Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320

Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
```

420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 37
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 37
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
20 25 30

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

Phe Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
50 55 60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp
65 70 75 80

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

```
Ser Lys Asn Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe
        115                 120                 125

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Gln Val Ile Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Val Gly Asn Asn Tyr Val Ala Trp Tyr Gln Gln Val Pro Gly Ala Ala
        195                 200                 205

Pro Arg Leu Leu Ile Tyr Asp Asn Tyr Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Ser Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Ser Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Leu Thr
            260                 265                 270

Ala Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320
```

```
Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
            420                 425                 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
        435                 440                 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
    450                 455                 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465                 470                 475                 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
                485                 490
```

<210> 38
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 38

```
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1               5                  10                  15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
            20                  25                  30

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

Phe Ser Thr Thr Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
    50                  55                  60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp
65                  70                  75                  80

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

Ser Arg Asn Gln Val Ser Leu Gln Leu Asn Ser Met Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Phe Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe
        115                 120                 125

Asp Gly Phe Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Asn Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205
```

```
Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Met Phe Gly Gly Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320

Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
```

420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 39
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 39
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
20 25 30

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

Ser Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
50 55 60

Gly Leu Glu Trp Leu Gly Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp
65 70 75 80

Glu Tyr Ala Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr
85 90 95

```
Ser Lys Asn Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp
            100                 105                 110

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

Asp Gly Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Asp Asn Leu Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205

Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Asp Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Glu Ser Trp
                245                 250                 255

Asp Asn Asn Leu Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320
```

```
Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
            420                 425                 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
        435                 440                 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
    450                 455                 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465                 470                 475                 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
                485                 490
```

<210> 40
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 40

```
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1               5                  10                  15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
            20                  25                  30

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

Phe Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
    50                  55                  60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp
65                  70                  75                  80

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

Ser Lys Asn Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe
        115                 120                 125

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Gly Ser Ser Asn
            180                 185                 190

Ile Glu Lys Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205
```

```
Pro Lys Leu Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Ala Trp
                245                 250                 255

Asp Asn Ile Leu Asn Ser Glu Met Phe Gly Gly Gly Thr Lys Leu Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320

Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
```

420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 41
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 41
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
20 25 30

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

Phe Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
50 55 60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp
65 70 75 80

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

```
Ser Lys Asn Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe
        115                 120                 125

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Asn Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205

Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Leu Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320
```

```
Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
            420                 425                 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
        435                 440                 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
    450                 455                 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465                 470                 475                 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
                485                 490
```

<210> 42
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 42

```
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1               5                  10                  15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
            20                  25                  30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Asp Ile Ser Gly Asp Ser Val
        35                  40                  45

Phe Ser Asn Thr Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
    50                  55                  60

Gly Leu Glu Trp Leu Gly Lys Thr Glu Tyr Arg Ser Gln Trp Leu His
65                  70                  75                  80

Glu Tyr Ala Pro Ser Val Arg Ser Arg Ile Ala Ile Arg Pro Asp Thr
                85                  90                  95

Ser Lys Asn Gln Val Ser Leu Gln Leu Ser Phe Val Thr Pro Glu Asp
            100                 105                 110

Thr Ala Val Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Ala Phe
        115                 120                 125

Asp Gly Phe Asp Thr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Arg Asn Ser Asn
            180                 185                 190

Ile Ala Asn Asn Phe Val Ser Trp Tyr Arg Gln Leu Pro Gly Thr Ala
        195                 200                 205
```

```
Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Glu Ser Trp
                245                 250                 255

Asp Ser Ser Leu Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320

Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
```

420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 43
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 43
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
20 25 30

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

Ser Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
50 55 60

Gly Leu Glu Trp Leu Gly Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp
65 70 75 80

Glu Tyr Ala Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr
85 90 95

```
Ser Lys Asn Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp
            100                 105                 110

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

Asp Gly Phe Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala
                165                 170                 175

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn
            180                 185                 190

Ile Gly Asn Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
        195                 200                 205

Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp
                245                 250                 255

Asp Ser Ser Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320
```

```
Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
            420                 425                 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
        435                 440                 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
    450                 455                 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465                 470                 475                 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
                485                 490
```

<210> 44
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 44

```
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1               5                  10                  15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys
            20                  25                  30

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

Ser Ser Asn Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg
    50                  55                  60

Gly Leu Glu Trp Leu Gly Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp
65                  70                  75                  80

Glu Tyr Ala Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr
                85                  90                  95

Ser Lys Asn Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp
            100                 105                 110

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

Asp Gly Phe Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145                 150                 155                 160

Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Leu Ser Ala
                165                 170                 175

Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Thr Thr Ser Asn
            180                 185                 190

Ile Ala Asn Asn Phe Val Ser Trp Tyr Gln Gln Leu Ser Gly Ser Ala
        195                 200                 205
```

```
Pro Lys Leu Leu Ile Asn Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro
    210                 215                 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Ala Ser Ala Thr Leu Ala Ile
225                 230                 235                 240

Thr Gly Leu Gln Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Trp
                245                 250                 255

Asp Asn Ser Leu Asn Ala Glu Val Phe Gly Gly Gly Thr Lys Val Thr
            260                 265                 270

Val Leu Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys
        275                 280                 285

Ser Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser
    290                 295                 300

Pro Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val
305                 310                 315                 320

Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile
                325                 330                 335

Ile Phe Trp Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
            340                 345                 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
        355                 360                 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
    370                 375                 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385                 390                 395                 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
                405                 410                 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
```

420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 45
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 45
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Ala
1 5 10

<210> 46
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 46
Ser Gly Ser Ser Ser Asn Val Gly Asn Asn Tyr Val Ala
1 5 10

<210> 47
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 47
Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
1 5 10

<210> 48
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 48
Ser Gly Ser Ser Ser Asn Ile Gly Asp Asn Leu Val Ser
1 5 10

<210> 49
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 49
Ser Gly Gly Ser Ser Asn Ile Glu Lys Asn Tyr Val Ser
1 5 10

<210> 50
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 50
Ser Gly Arg Asn Ser Asn Ile Ala Asn Asn Phe Val Ser
1 5 10

<210> 51
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 51
Ser Gly Thr Thr Ser Asn Ile Ala Asn Asn Phe Val Ser
1 5 10

<210> 52
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 52
Asp Thr Asn Lys Arg Pro Ser
1 5

<210> 53
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 53
Asp Asn Tyr Lys Arg Pro Ser
1 5

<210> 54
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

peptide"

<400> 54
Asp Asn Asn Lys Arg Pro Ser
1 5

<210> 55
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 55
Gly Thr Trp Asp Ser Ser Leu Ser Ala Glu Val
1 5 10

<210> 56
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 56
Gly Ser Trp Asp Ser Ser Leu Ser Ala Glu Val
1 5 10

<210> 57
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 57
Gly Thr Trp Asp Ser Ser Leu Ser Ala Glu Met
1 5 10

<210> 58
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 58
Glu Ser Trp Asp Asn Asn Leu Thr Ala Glu Val
1 5 10

<210> 59
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 59
Gly Ala Trp Asp Asn Ile Leu Asn Ser Glu Met
1 5 10

<210> 60
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 60
Glu Ser Trp Asp Ser Ser Leu Thr Ala Glu Val
1 5 10

<210> 61
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 61

Gly Val Trp Asp Asn Ser Leu Asn Ala Glu Val
1 5 10

<210> 62
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 62
Ser Asn Thr Ala Ser Trp Asn
1 5

<210> 63
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 63
Ser Asn Ser Ala Ser Trp Asn
1 5

<210> 64
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 64
Ser Thr Thr Ala Ser Trp Asn
1 5

<210> 65
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 65
Lys Thr Glu Tyr Arg Ser Gly Trp Phe Phe Glu Tyr Ala Pro Ser Val
1 5 10 15

Gly Gly

<210> 66
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 66
Lys Thr Glu Tyr Arg Ser Lys Trp Tyr Tyr Glu Phe Ala Pro Ser Val
1 5 10 15

Lys Ser

<210> 67
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 67
Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala Pro Ser Val
1 5 10 15

Lys Gly

<210> 68
<211> 18

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 68
Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp Glu Tyr Ala Pro Ser Val
1 5 10 15

Lys Ser

<210> 69
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 69
Lys Thr Glu Tyr Arg Ser Gln Trp Leu His Glu Tyr Ala Pro Ser Val
1 5 10 15

Arg Ser

<210> 70
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 70
Asp Ser Tyr Asn Asp Tyr Asp Asn Asp Gly Phe Asp Ile
1 5 10

<210> 71
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 71
Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe Asp Ile
1 5 10

<210> 72
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 72
Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe Asp Val
1 5 10

<210> 73
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 73
Asp Ser Tyr Asn Gly Tyr Ala Phe Asp Gly Phe Asp Thr
1 5 10

<210> 74
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 74
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln

1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

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

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

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

<210> 75
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 75
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Gln Val Ile Ile Ser Cys Ser Gly Ser Ser Ser Asn Val Gly Asn Asn
20 25 30

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

Ile Tyr Asp Asn Tyr Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

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

<210> 76
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 76
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

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

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

Ser Ala Glu Met Phe Gly Gly Gly Thr Lys Val Thr Val
100 105

<210> 77
<211> 110
<212> PRT

<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 77
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asp Asn
20 25 30

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

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Asp Ile Thr Gly Leu Gln
65 70 75 80

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

Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 78
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 78
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

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

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

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

<210> 79
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 79
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

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

Phe Val Ser Trp Tyr Arg Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

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

Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 80
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 80
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

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

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

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

<210> 81
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 81
Gln Ser Val Leu Thr Gln Pro Pro Ser Leu Ser Ala Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Thr Thr Ser Asn Ile Ala Asn Asn
20 25 30

Phe Val Ser Trp Tyr Gln Gln Leu Ser Gly Ser Ala Pro Lys Leu Leu
35 40 45

Ile Asn Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Ala Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

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

Asn Ala Glu Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 82
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 82
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Gln Pro Ser Arg
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Ile Ser Ser Asn
20 25 30

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

Trp Val Gly Lys Thr Glu Tyr Arg Ser Gly Trp Phe Phe Glu Tyr Ala

```
    50                  55                  60

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

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95

Tyr Phe Cys Ala Arg Asp Ser Tyr Asn Asp Tyr Asp Asn Asp Gly Phe
            100                 105                 110

Asp Ile Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 83
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 83

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

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

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

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

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

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95
```

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
100 105 110

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

<210> 84
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 84
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala
50 55 60

Pro Ser Val Lys Gly Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
100 105 110

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

<210> 85
<211> 110
<212> PRT

<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 85
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

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

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

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

Ser Ala Glu Met Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 86
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 86
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

```
Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
        35                  40                  45

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

Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80

Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp Thr Ala Val
                85                  90                  95

Tyr Tyr Cys Ala Arg Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe
            100                 105                 110

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

<210> 87
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 87

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

Thr Leu Ser Leu Thr Cys Asp Ile Ser Gly Asp Ser Val Phe Ser Asn
            20                  25                  30

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Gln Trp Leu His Glu Tyr Ala
    50                  55                  60

Pro Ser Val Arg Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80
```

Gln Val Ser Leu Gln Leu Ser Phe Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Ala Phe Asp Gly Phe
100 105 110

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

<210> 88
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 88
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

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

Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Ala Arg Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe
100 105 110

Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser

115 120 125

<210> 89
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 89
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Gln Pro Ser Arg
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Ile Ser Ser Asn
20 25 30

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

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

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

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Phe Cys Ala Arg Asp Ser Tyr Asn Asp Tyr Asp Asn Asp Gly Phe
100 105 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145 150 155 160

```
Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser
                165                 170                 175

Asn Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser
225                 230                 235                 240

Leu Ser Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
                245                 250                 255
```

<210> 90
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 90

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

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

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

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

Pro Ser Val Lys Ser Arg Ile Thr Ile Thr Pro Asp Thr Ser Lys Asn
65                  70                  75                  80
```

```
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
            100                 105                 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser
                165                 170                 175

Asn Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser
225                 230                 235                 240

Leu Ser Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
                245                 250                 255
```

<210> 91
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 91
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala
50 55 60

Pro Ser Val Lys Gly Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
100 105 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145 150 155 160

Gln Gln Val Ile Ile Ser Cys Ser Gly Ser Ser Ser Asn Val Gly Asn
165 170 175

Asn Tyr Val Ala Trp Tyr Gln Gln Val Pro Gly Ala Ala Pro Arg Leu
180 185 190

Leu Ile Tyr Asp Asn Tyr Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
195 200 205

```
Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Ser Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Ser Trp Asp Ser Ser
225                 230                 235                 240

Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Leu Thr Ala Leu
                245                 250                 255
```

<210> 92
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 92

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

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

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala
    50                  55                  60

Pro Ser Val Lys Gly Arg Ile Ala Ile Arg Pro Asp Thr Ser Arg Asn
65                  70                  75                  80

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

Tyr Phe Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
            100                 105                 110

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

```
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn
                165                 170                 175

Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser
225                 230                 235                 240

Leu Ser Ala Glu Met Phe Gly Gly Gly Thr Lys Val Thr Val Leu
                245                 250                 255
```

<210> 93
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 93

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

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

Ser Ala Ser Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
        35                  40                  45
```

```
Trp Leu Gly Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp Glu Tyr Ala
    50                  55                  60

Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80

Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp Thr Ala Val
                85                  90                  95

Tyr Tyr Cys Ala Arg Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe
            100                 105                 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asp
                165                 170                 175

Asn Leu Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Asp Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Glu Ser Trp Asp Asn Asn
225                 230                 235                 240

Leu Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
                245                 250                 255
```

<210> 94
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 94
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala
50 55 60

Pro Ser Val Lys Gly Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
100 105 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145 150 155 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Gly Ser Ser Asn Ile Glu Lys
165 170 175

```
Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Thr Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Ala Trp Asp Asn Ile
225                 230                 235                 240

Leu Asn Ser Glu Met Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
                245                 250                 255
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<210> 95
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 95

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

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

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Lys Trp Phe Asp Glu Tyr Ala
    50                  55                  60

Pro Ser Val Lys Gly Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80

Gln Val Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95
```

```
Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Asp Phe Asp Gly Phe
            100                 105                 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn
                165                 170                 175

Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser
225                 230                 235                 240

Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
                245                 250                 255
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<210> 96
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 96

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

Thr Leu Ser Leu Thr Cys Asp Ile Ser Gly Asp Ser Val Phe Ser Asn
            20                  25                  30

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

Trp Leu Gly Lys Thr Glu Tyr Arg Ser Gln Trp Leu His Glu Tyr Ala
    50                  55                  60

Pro Ser Val Arg Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80

Gln Val Ser Leu Gln Leu Ser Phe Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95

Tyr Tyr Cys Val Arg Asp Ser Tyr Asn Gly Tyr Ala Phe Asp Gly Phe
            100                 105                 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Lys Val Thr Ile Ser Cys Ser Gly Arg Asn Ser Asn Ile Ala Asn
                165                 170                 175

Asn Phe Val Ser Trp Tyr Arg Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190

Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu
    210                 215                 220
```

Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Glu Ser Trp Asp Ser Ser
225 230 235 240

Leu Thr Ala Glu Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
245 250 255

<210> 97
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 97
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

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

Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Ala Arg Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe
100 105 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

```
Ser Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly
145                 150                 155                 160


Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn
                165                 170                 175


Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
            180                 185                 190


Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205


Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu
    210                 215                 220


Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser
225                 230                 235                 240


Leu Ser Ala Glu Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
                245                 250                 255


<210> 98
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      polypeptide"

<400> 98
Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1               5                   10                  15


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


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


Trp Leu Gly Lys Val Glu Tyr Arg Ser Lys Trp Tyr Asp Glu Tyr Ala
```

```
    50                  55                  60

Pro Ser Val Lys Ser Arg Ile Ala Ile Arg Pro Asp Thr Ser Lys Asn
65                  70                  75                  80

Gln Val Ser Leu His Leu Ile Ser Val Thr Pro Asp Asp Thr Ala Val
                85                  90                  95

Tyr Tyr Cys Ala Arg Asp Ser Tyr Asn Gly His Ala Phe Asp Gly Phe
            100                 105                 110

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    130                 135                 140

Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Leu Ser Ala Ala Pro Gly
145                 150                 155                 160

Gln Arg Val Thr Ile Ser Cys Ser Gly Thr Thr Ser Asn Ile Ala Asn
                165                 170                 175

Asn Phe Val Ser Trp Tyr Gln Gln Leu Ser Gly Ser Ala Pro Lys Leu
            180                 185                 190

Leu Ile Asn Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe
        195                 200                 205

Ser Gly Ser Lys Ser Gly Ala Ser Ala Thr Leu Ala Ile Thr Gly Leu
    210                 215                 220

Gln Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Trp Asp Asn Ser
225                 230                 235                 240

Leu Asn Ala Glu Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
                245                 250                 255

<210> 99
<211> 39
<212> PRT
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<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 99
Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser Asn
1 5 10 15

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

Phe Pro Gly Pro Ser Lys Pro
35

<210> 100
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 100
Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser Leu
1 5 10 15

Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val
20 25

<210> 101
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 101
Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
1 5 10 15

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
35 40 45

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 102
<211> 66
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 102
Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser Asn
1 5 10 15

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

Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly Gly
35 40 45

Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe
50 55 60

Trp Val
65

<210> 103
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 103
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser

<210> 104
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 104
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt cctgtcc 57

<210> 105
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 105
Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
1 5 10 15

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
20 25 30

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu

35 40