SEQUENCE LISTING

<110> DANA-FARBER CANCER INSTITUTE, INC.

<120> THERAPEUTIC PEPTIDES

<130> 00530-0293WO1

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<150> 61/541,921
<151> 2011-09-30

<160> 238

<170> PatentIn version 3.5

<210> 1
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

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acctgcgctg tctctggtgg gtccttcact gatcattact ggagttggat ccgtcaggcc 120

ccagggaagg ggctggagtg gattggagaa atcaatcata gtggagtcac caactacaac 180

ccgtccctca agagtcgact caccatatca gtagacacgt ccaagagcca gttctccctg 240

aggctgacct ctgtgaccgc cgcggacacg gctctgtact actgtgcgaa aactggcctg 300

tattatgatg acgtttgggg gacttttcgt ccacggggcg ggttcgactc ctggggccag 360

ggaaccctgg tcaccgtctc ctca 384

<210> 2
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 2
Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15

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

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

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

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

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

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

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

<210> 3
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 3
Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15

Thr Leu Ala Leu Thr Cys Ala Val Ser
20 25

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 4
Gly Gly Ser Phe Thr Asp His Tyr
1 5

<210> 5
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 5
Trp Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10 15

Glu

<210> 6

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 6
Ile Asn His Ser Gly Val Thr
1 5

<210> 7
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 7
Asn Tyr Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Val Asp Thr
1 5 10 15

Ser Lys Ser Gln Phe Ser Leu Arg Leu Thr Ser Val Thr Ala Ala Asp
20 25 30

Thr Ala Leu Tyr Tyr Cys
35

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 8
Ala Lys Thr Gly Leu Tyr Tyr Asp Asp Val Trp Gly Thr Phe Arg Pro
1 5 10 15

Arg Gly Gly Phe Asp Ser
20

<210> 9
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 9
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 10

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

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 10
gacatcgtga tgacccagtc tccggactcc ctggctgtgt ctctgggcga gagggccacc 60

atcaactgca agtccagcca gagtatttta tatagctccg acaataagaa ttacttagct 120

tggtaccagc acaagccagg acagcctcct aagctcctct tttactgggc atctatccgg 180

gaatccgggg tccctgaccg attcagtggc ggcgggtctg ggacagattt cactctcacc 240

atcagcagtc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtcct 300

ccttgcagtt ttggccaggg gaccaagctg gagatccaa 339

<210> 11
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 11
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

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

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

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

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

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

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

Gln

<210> 12
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 12
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser
20 25

<210> 13
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 13
Gln Ser Ile Leu Tyr Ser Ser Asp Asn Lys Asn Tyr
1 5 10

<210> 14
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 14
Leu Ala Trp Tyr Gln His Lys Pro Gly Gln Pro Pro Lys Leu Leu Phe
1 5 10 15

Tyr

<210> 15
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 15
Trp Ala Ser
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<210> 16
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 16
Ile Arg Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly Ser Gly
1 5 10 15

Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala
20 25 30

Val Tyr Tyr Cys
35

<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 17
Gln Gln Tyr Tyr Ser Pro Pro Cys Ser
1 5

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 18
Phe Gly Gln Gly Thr Lys Leu Glu Ile Gln
1 5 10

<210> 19
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 19
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagt agttatgcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcaggt atttattgga gtggtggtag cacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca tatccaagaa cacgctgtat 240

ctgcaaatga acagtctgag agccgacgac acggccgtgt attactgtgc gagaggcgat 300

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tca 363

<210> 20

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 20
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Asp Tyr Tyr Gly Ser Gly Ala His Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 21
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 21
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 22
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 23
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 23
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10 15

Gly

<210> 24
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 24
Ile Tyr Trp Ser Gly Gly Ser Thr
1 5

<210> 25
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 25
Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ile
1 5 10 15

Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Asp Asp
20 25 30

Thr Ala Val Tyr Tyr Cys
35

<210> 26
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 26
Ala Arg Gly Asp Tyr Tyr Gly Ser Gly Ala His Phe Asp Tyr
1 5 10

<210> 27
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 27
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 28
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 28
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atctcctgca ggtctagcca aagcctcgta cacagtgatg gaaacaccta cttgagttgg 120

cttcagcaga ggccaggcca gcctccaaga ctcctaattt atcagatttc taaccggttc 180

tctggggtcc cagacagatt cagtggcagt ggggcaggga cagatttcac actgaaaatc 240

agcagggtgg aagctgagga tgtcggggtt tactactgca tgcaaggtac acaatttcct 300

cggacgttcg gccaagggac caaggtggaa atcaaa 336

<210> 29
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 29
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
35 40 45

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

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

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

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

<210> 30
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 30
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
20 25

<210> 31
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 31
Gln Ser Leu Val His Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 32
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 32
Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 33
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 33
Gln Ile Ser
1

<210> 34
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 34
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly
1 5 10 15

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
20 25 30

Val Tyr Tyr Cys
35

<210> 35
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 35
Met Gln Gly Thr Gln Phe Pro Arg Thr
1 5

<210> 36
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 36
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 37
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 37

gaggtgcagc tggtggagtc cgggggaggc ttagttcagc ctgggggatc cctgagactc 60

tcctgtgcag cctcagggtt cacctttagt aataactgga tgcactgggt ccgccaggct 120

ccagggaagg ggctggagtg gatctcagag attagaagtg atgggaattt cacaaggtac 180

gcggactcca tgaagggccg attcaccatc tccagagaca acgccaagag cacactgtat 240

ttgcaaatga acagtctgag agtcgaggac acgggtctgt attactgtgc aagagactac 300

ccctatagca ttgactactg gggccaggga accctggtca ccgtctcctc a 351

<210> 38
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 38
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 39
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 39
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 40
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 40
Gly Phe Thr Phe Ser Asn Asn Trp
1 5

<210> 41
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ser
1 5 10 15

Glu

<210> 42
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Ile Arg Ser Asp Gly Asn Phe Thr
1 5

<210> 43
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 43
Arg Tyr Ala Asp Ser Met Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
1 5 10 15

Ala Lys Ser Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Val Glu Asp
20 25 30

Thr Gly Leu Tyr Tyr Cys
35

<210> 44
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 44
Ala Arg Asp Tyr Pro Tyr Ser Ile Asp Tyr
1 5 10

<210> 45
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 45
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 46
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 46
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atctcctgca catctagtca aagcctcgta cacagtaatg gaaacaccta cttgagttgg 120

cttcagcaga ggccaggcca gcccccaaga ctcctaattt atgagatttc taagcgggtc 180

tctggggtcc cagacagatt cagtggcagt ggggcaggga cagatttcac actgaaaatc 240

agcagggtgg aagctgagga tgtcggggtt tattactgca tgcaaggtaa acaacttcgg 300

actttggcc aggggaccaa gctggagatc aaa 333

<210> 47
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 47
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Thr Ser Ser Gln Ser Leu Val His Ser
20 25 30

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

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

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

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

Lys Gln Leu Arg Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 48
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 48
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Thr Ser Ser
20 25

<210> 49
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 49
Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr
1 5 10

<210> 50
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 50

Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 51
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 51
Glu Ile Ser
1

<210> 52
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 52
Lys Arg Val Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly
1 5 10 15

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
20 25 30

Val Tyr Tyr Cys
35

<210> 53
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 53
Met Gln Gly Lys Gln Leu Arg Thr
1 5

<210> 54
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 54

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
1 5 10

<210> 55
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 55
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggctc cgtgagactg 60

tcttgtgcgg cctcaggctt cattcttagc aactttgcca tgagttgggt ccgccaggct 120

ccagggaagg ggctggactg ggtctcaggt aattttggtg gtcgtgaaaa tacatattac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca gttccaagag cacactgtat 240

ctgcaaatga acaatttgag agccgaggac acggccgtat attactgtgc gcgaggcgat 300

taccatggtt cgggggctca ctttgactac tggggccagg gaatactggt caccgtctcc 360

tca 363

<210> 56
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 56
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Asp Tyr His Gly Ser Gly Ala His Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Ile Leu Val Thr Val Ser Ser

115 120

<210> 57
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 57
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Val Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 58
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 58
Gly Phe Ile Leu Ser Asn Phe Ala
1 5

<210> 59
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 59
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val Ser
1 5 10 15

Gly

<210> 60
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 60
Asn Phe Gly Gly Arg Glu Asn Thr
1 5

<210> 61

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 61
Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser
1 5 10 15

Ser Lys Ser Thr Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp
20 25 30

Thr Ala Val Tyr Tyr Cys
35

<210> 62
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62
Ala Arg Gly Asp Tyr His Gly Ser Gly Ala His Phe Asp Tyr
1 5 10

<210> 63
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63
Trp Gly Gln Gly Ile Leu Val Thr Val Ser Ser
1 5 10

<210> 64
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 64
gatattgtga tgacccagag tccactctcc tcacctgtca tccttggaca gccggcctcc 60

atctcctgca ggtctagtca aagcctccta cacagtgatg gaaacaccta cttgagttgg 120

cttcaccaga ggccaggcca gcctcctaga ctcctaattt atcagatttc taaccggttc 180

tctggggtcc cagacagatt cagtggcagt gggacaggga cagatttcac actgaaaatc 240

agcagggtgg aagctgagga tgccgggatt tattactgca tgcaaggtac agaatttcct 300

cggacgttcg gccaagggac caaggtggaa atcaaa 336

<210> 65
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 65
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Ser Pro Val Ile Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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

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

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

Ser Arg Val Glu Ala Glu Asp Ala Gly Ile Tyr Tyr Cys Met Gln Gly
85 90 95

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

<210> 66
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 66
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Ser Pro Val Ile Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
20 25

<210> 67
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 67
Gln Ser Leu Leu His Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 68
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 68
Leu Ser Trp Leu His Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 69
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 69
Gln Ile Ser
1

<210> 70
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 70
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Thr Gly
1 5 10 15

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Ala Gly
20 25 30

Ile Tyr Tyr Cys
35

<210> 71
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 71
Met Gln Gly Thr Glu Phe Pro Arg Thr
1 5

<210> 72
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 72
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 73
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 73
gaggtgcagc tggtggagtc tgggggaggc ttgatacagc ctgggggtc cctgagactc 60

tcctgtgcaa cctctggatt cacctttaga acttcttcca tgagttgggt ccgtcgggct 120

ccagggaagg ggctggaatg ggtctcagct attggtgctg aaagtcatga cacgcactac 180

acagactccg cggagggccg gttcaccatc tccaaagact attcaaagaa cacagtatat 240

ctgcagatga acggcctgag agtcgacgac acggccatat attattgtgc ccatcactat 300

tactatggct cgcggcagaa acccaaagat tggggagatg cttttgatat gtggggccag 360

gggacaatgg tctccgtctc ttca 384

<210> 74
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 74
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

Ser Ala Ile Gly Ala Glu Ser His Asp Thr His Tyr Thr Asp Ser Ala

50 55 60

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

Leu Gln Met Asn Gly Leu Arg Val Asp Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala His His Tyr Tyr Tyr Gly Ser Arg Gln Lys Pro Lys Asp Trp Gly
100 105 110

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

<210> 75
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 75
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Thr Ser
20 25

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 76
Gly Phe Thr Phe Arg Thr Ser Ser
1 5

<210> 77
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 77
Met Ser Trp Val Arg Arg Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10 15

Ala

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 78
Ile Gly Ala Glu Ser His Asp Thr
1 5

<210> 79
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 79
His Tyr Thr Asp Ser Ala Glu Gly Arg Phe Thr Ile Ser Lys Asp Tyr
1 5 10 15

Ser Lys Asn Thr Val Tyr Leu Gln Met Asn Gly Leu Arg Val Asp Asp
20 25 30

Thr Ala Ile Tyr Tyr Cys
35

<210> 80
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 80
Ala His His Tyr Tyr Tyr Gly Ser Arg Gln Lys Pro Lys Asp Trp Gly
1 5 10 15

Asp Ala Phe Asp Met
20

<210> 81
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 81
Trp Gly Gln Gly Thr Met Val Ser Val Ser Ser
1 5 10

<210> 82
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 82
gacatccaga tgacccagtc tccatcttct gtgtctgcat ctgtaggaga cagagtcacc 60

atcacttgtc gggcgagtca ggatattagc acctggttaa cctggtatca gcagagagca 120

gggaaggccc ctaacctcct gatctatggt gcatccactt tggaagatgg ggtcccatcc 180

aggttcagcg gcagtggatc cgggacagat ttcactctca ctatcgacag cctgcagcct 240

gacgattttg caacttacta ttgtcaacag tctcacagtt tcccctacac ttttggccag 300

gggacccagc tggggatctc a 321

<210> 83
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 83
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

Thr Phe Gly Gln Gly Thr Gln Leu Gly Ile Ser
100 105

<210> 84
<211> 26
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 84
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
20 25

<210> 85
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 85
Gln Asp Ile Ser Thr Trp
1 5

<210> 86
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 86
Leu Thr Trp Tyr Gln Gln Arg Ala Gly Lys Ala Pro Asn Leu Leu Ile
1 5 10 15

Tyr

<210> 87
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 87
Gly Ala Ser
1

<210> 88
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 88

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

Thr Asp Phe Thr Leu Thr Ile Asp Ser Leu Gln Pro Asp Asp Phe Ala
20 25 30

Thr Tyr Tyr Cys
35

<210> 89
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 89
Gln Gln Ser His Ser Phe Pro Tyr Thr
1 5

<210> 90
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 90
Phe Gly Gln Gly Thr Gln Leu Gly Ile Ser
1 5 10

<210> 91
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 91
taatacgact cactataggt tcggggaagt agtccttgac cagg 44

<210> 92
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 92
taatacgact cactataggg atagaagtta ttcagcaggc acac 44

<210> 93
<211> 46

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 93
taatacgact cactataggc gtcaggctca grtagctgct ggccgc 46

<210> 94
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 94
aatacgactc actataggtt cggggaagta gtccttgacc agg 43

<210> 95
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 95
taatacgact cactataggg atagaagtta ttcagcaggc acac 44

<210> 96
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 96
taatacgact cactataggc gtcaggctca grtagctgct ggccgc 46

<210> 97
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 97
tcaccatgga ctgsacctgg a 21

<210> 98
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 98
ccatggacac actttgytcc ac 22

<210> 99
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 99
tcaccatgga gtttgggctg agc 23

<210> 100
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 100
agaacatgaa acayctgtgg ttctt 25

<210> 101
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 101
atggggtcaa ccgccatcct 20

<210> 102
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 102
acaatgtctg tctccttcct cat 23

<210> 103
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 103
gctcagctcc tggggctcct g 21

<210> 104
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 104
ctggggctgc taatgctctg g 21

<210> 105
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 105
ttcctcctgc tactctggct c 21

<210> 106
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 106
cagacccagg tcttcatttc t 21

<210> 107
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 107
cctctcctcc tcaccctcct 20

<210> 108
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 108
ctcctcactc agggcaca 18

<210> 109
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 109
atggcctgga ycsctctcc 19

<210> 110
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 110
gccaggggga agacsgatg 19

<210> 111
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 111
tttcaactgc tcatcagatg gcgg 24

<210> 112
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 112
agctcctcag aggagggygg 20

<210> 113
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 113
caggtscagc tggtrcagtc 20

<210> 114

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 114
cagrtcacct tgaaggagtc 20

<210> 115
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 115
saggtgcagc tggtggagtc 20

<210> 116
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 116
caggtgcagc tgcaggagtc 20

<210> 117
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 117
gargtgcagc tggtgcagtc 20

<210> 118
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 118
caggtacagc tgcagcagtc 20

<210> 119
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 119
cgmcatccrg wtgacccagt 20

<210> 120
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 120
cgatrttgtg atgacycag 19

<210> 121
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 121
cgaaatwgtg wtgacrcagt ct 22

<210> 122
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 122
cgacatcgtg atgacccagt 20

<210> 123
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 123
ccagtctgtg ctgactcagc 20

<210> 124
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

primer

<400> 124
ccagtctgcc ctgactcagc 20

<210> 125
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 125
ctcctatgag ctgacwcagc 20

<210> 126
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 126
gacsgatggg cccttggtgg a 21

<210> 127
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 127
aagatgaaga cagatggtgc 20

<210> 128
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 128
gggaacagag tgaccg 16

<210> 129
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 129

tcactatgga ctggatttgg a 21

<210> 130
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 130
ccatggacay actttgytcc ac 22

<210> 131
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 131
gtaggagaca tgcaaatagg gcc 23

<210> 132
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 132
aacaaagcta tgacatatag atc 23

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

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 133
atggagttgg ggctgagctg ggtt 24

<210> 134
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 134
agttgttaaa tgtttatcgc aga 23

<210> 135
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 135
aggtaattca tggagaaata gaa 23

<210> 136
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 136
agaacatgaa gcayctgtgg ttctt 25

<210> 137
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 137
atggactgga cctggagcat c 21

<210> 138
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 138
cctctgctga tgaaaaccag ccc 23

<210> 139
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 139
caggtycagc tkgtgcagtc 20

<210> 140
<211> 20
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 140
caratgcagc tggtgcagtc 20

<210> 141
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 141
cagrtcacct tgarggagtc tggt 24

<210> 142
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 142
gargtgcagc tgktggagtc 20

<210> 143
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 143
gaggtacaac tggtggagtc 20

<210> 144
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 144
gaggatcagc tggtggagtc 20

<210> 145
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 145
caggtgcagc tacagcagtg 20

<210> 146
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 146
cagctgcagc tgcaggagtc 20

<210> 147
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 147
caggtgcagc tggtgcaatc 20

<210> 148
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 148
caggtgcagc tgcaggagtc gggcccagga ctggtggagc cttcggggac cctgtccctc 60

acctgcactg tgtctggtgg ctccatcagc aggagtaact ggtggagttg ggtccgccag 120

cccccagggg aggggctgga atggattgga gaaatccatc acattgggag gtccagctac 180

aatccgtccc tcaagagtcg agtcaccatg tctgtagaca agtcccagaa ccagttctcc 240

ctgaggctga cctctgtgac cgccgcggac acggccgtgt attactgtgc gaaaaatggc 300

tactacgcta tggacgtctg gggccaaggg accacggtca ccgtctcctc g 351

<210> 149
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 149
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Glu Pro Ser Gly
1 5 10 15

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

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

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

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

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

Ala Lys Asn Gly Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly Thr Thr
100 105 110

Val Thr Val Ser Ser
115

<210> 150
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 150
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc agcgacttcc tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatctac gctacatcct tcagggccac tggcatctca 180

gacaggttca gtggcagtgg gtctgggaca gacttctctc tcaccatcaa cagactggaa 240

cctgaagatt ttgcagtgta ttactgtcag cactatcgta gttcacctcc gtggtacact 300

tttgcccagg ggaccaagct ggacatgaga cgtacggtgg ctgcaccatc tgtc 354

<210> 151
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 151
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asp

20 25 30

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

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

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

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

Pro Trp Tyr Thr Phe Ala Gln Gly Thr Lys Leu Asp Met Arg Arg Thr
100 105 110

Val Ala Ala Pro Ser Val
115

<210> 152
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 152
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Glu Pro Ser Gly
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser
20 25

<210> 153
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 153
Gly Gly Ser Ile Ser Arg Ser Asn Trp
1 5

<210> 154
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 154
Trp Ser Trp Val Arg Gln Pro Pro Gly Glu Gly Leu Glu Trp Ile Gly
1 5 10 15

Glu

<210> 155
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 155
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
1 5 10

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 156
Ile His His Ile Gly Arg Ser
1 5

<210> 157
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 157
Ser Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Met Ser Val Asp Lys
1 5 10 15

Ser Gln Asn Gln Phe Ser Leu Arg Leu Thr Ser Val Thr Ala Ala Asp
20 25 30

Thr Ala Val Tyr Tyr
35

<210> 158
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 158
Cys Ala Lys Asn Gly Tyr Tyr Ala Met Asp Val Trp
1 5 10

<210> 159
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 159
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser
20 25

<210> 160
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 160
Gln Ser Val Ser Ser Asp Phe
1 5

<210> 161
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 161
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 162
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 162
Ala Thr Ser
1

<210> 163
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 163
Phe Arg Ala Thr Gly Ile Ser Asp Arg Phe Ser Gly Ser Gly Ser Gly
1 5 10 15

Thr Asp Phe Ser Leu Thr Ile Asn Arg Leu Glu Pro Glu Asp Phe Ala
20 25 30

Val Tyr Tyr
35

<210> 164
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 164
Cys Gln His Tyr Arg Ser Ser Pro Pro Trp Tyr Thr Phe
1 5 10

<210> 165
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 165
Ala Gln Gly Thr Lys Leu Asp Met Arg Arg Thr Val Ala Ala Pro Ser
1 5 10 15

Val

<210> 166
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 166
Asn Ser Asn Pro Ser Leu Lys Ser Arg Val Ile Ile Ser Val Asp Lys
1 5 10 15

Ser Lys Asn His Phe Ser Leu Thr Leu Asn Ser Val Thr Ala Ala Asp
20 25 30

Thr Ala Val Tyr Tyr
35

<210> 167
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 167
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggggac cctgtccctc 60

acctgcgctg tctctggtgc ctccattacc aatggtgcct ggtggagttg ggtccgccag 120

cccccaggga aggggctgga gtggattgga gaaatctatc ttaatgggaa caccaactcc 180

aacccgtccc tgaagagtcg agtcatcata tcagtggaca agtccaagaa ccacttctcg 240

ctgaccctga actctgtgac cgccgcggac acggccgtgt attactgtgc gaagaacgct 300

gcctacaacc ttgagttctg gggccaggga gccctggtca ccgtctcctc a 351

<210> 168
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 168
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gly
1 5 10 15

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

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

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

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

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

Ala Lys Asn Ala Ala Tyr Asn Leu Glu Phe Trp Gly Gln Gly Ala Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 169
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 169
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gactgttagc agcccctacg tagcctggta ccagcagaaa 120

cgtggccagg ctcccaggct cctcatctat ggtgcatcca ccagggccac cggcatccca 180

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgta ttactgtcag cagtatgata gatcatacta ttacactttt 300

ggccagggga ccaagctgga gatcaaa 327

<210> 170
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 170
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

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

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

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

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

<210> 171

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 171
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gly
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser
20 25

<210> 172
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 172
Gly Ala Ser Ile Thr Asn Gly Ala Trp
1 5

<210> 173
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 173
Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10 15

Glu

<210> 174
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 174
Ile Tyr Leu Asn Gly Asn Thr
1 5

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 175
Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
1 5 10

<210> 176
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 176
Cys Ala Lys Asn Ala Ala Tyr Asn Leu Glu Phe Trp
1 5 10

<210> 177
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 177
Gly Gln Gly Ala Leu Val Thr Val Ser Ser
1 5 10

<210> 178
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 178
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser
20 25

<210> 179
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 179
Gln Thr Val Ser Ser Pro Tyr
1 5

<210> 180
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 180
Val Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 181
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 181
Gly Ala Ser
1

<210> 182
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 182
Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
1 5 10 15

Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala
20 25 30

Val Tyr Tyr
35

<210> 183
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 183
Cys Gln Gln Tyr Asp Arg Ser Tyr Tyr Tyr Thr Phe
1 5 10

<210> 184
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 184
Gly Gln Gly Thr Lys Leu Glu Ile Lys
1 5

<210> 185
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 185
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagaa cctgtcgctc 60

acctgcactg tctctgatgc ctccatgagt gattatcact ggagctggat ccggcaggcc 120

gccgggaagg gactggagtg gattgggcgt atgtacagca ctgggagtcc ctactacaaa 180

ccctccctca aaggtcgggt caccatgtca atagacacgt ccaagaacca gttctccctg 240

aagctggcct ctgtgaccgc cgcagacacg gccatctatt attgtgcgag cggacaacat 300

attggtggct gggtcccccc tgacttctgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 186
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 186
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Asn Leu Ser Leu Thr Cys Thr Val Ser Asp Ala Ser Met Ser Asp Tyr
20 25 30

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

Gly Arg Met Tyr Ser Thr Gly Ser Pro Tyr Tyr Lys Pro Ser Leu Lys
50 55 60

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

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

Ser Gly Gln His Ile Gly Gly Trp Val Pro Pro Asp Phe Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 187
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 187
gatattgtga tgacccagac tccactctcc tcacctgtca cccttggaca gccggcctcc 60

atctcctgca ggtctagtga aggcctcgta tatagtgatg gagacaccta cttgagttgg 120

tttcaccaga ggccaggcca gcctccaaga ctcctgattt ataaaatttc taaccggttc 180

tctggggtcc ccgacagatt cagtggcagt ggggcaggca cagatttcac actgaaaatc 240

agcagggtgg aggctgagga tgtcggggtt tattactgca tgcaagctac acattttccg 300

tggacgttcg gccaggggac caaagtggaa gtcaaacgt 339

<210> 188
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 188
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

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

Asp Gly Asp Thr Tyr Leu Ser Trp Phe His Gln Arg Pro Gly Gln Pro
35 40 45

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

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

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

Thr His Phe Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Val Lys
100 105 110

Arg

<210> 189
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 189
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Asn Leu Ser Leu Thr Cys Thr Val Ser
20 25

<210> 190
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 190
Asp Ala Ser Met Ser Asp Tyr His
1 5

<210> 191
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 191
Trp Ser Trp Ile Arg Gln Ala Ala Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10 15

Arg

<210> 192
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 192
Met Tyr Ser Thr Gly Ser Pro
1 5

<210> 193
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 193
Tyr Tyr Lys Pro Ser Leu Lys Gly Arg Val Thr Met Ser Ile Asp Thr
1 5 10 15

Ser Lys Asn Gln Phe Ser Leu Lys Leu Ala Ser Val Thr Ala Ala Asp
20 25 30

Thr Ala Ile Tyr Tyr
35

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 194
Cys Ala Ser Gly Gln His Ile Gly Gly Trp Val Pro Pro Asp Phe Trp
1 5 10 15

<210> 195
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 195
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 196
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 196
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
20 25

<210> 197
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 197
Glu Gly Leu Val Tyr Ser Asp Gly Asp Thr Tyr
1 5 10

<210> 198
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 198
Leu Ser Trp Phe His Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 199
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 199
Lys Ile Ser
1

<210> 200
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 200
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly
1 5 10 15

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
20 25 30

Val Tyr Tyr
35

<210> 201
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 201
Cys Met Gln Ala Thr His Phe Pro Trp Thr Phe
1 5 10

<210> 202
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 202
Gly Gln Gly Thr Lys Val Glu Val Lys Arg
1 5 10

<210> 203
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 203
gaggtgcagc tgttggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagt tcatatggct tgacctggat acgccaggct 120

ccggggaagg gcctggagtg ggtctcaagt atcagtggca gtggcaataa cacatactac 180

gcagactctg tgaagggccg gttcaccatc tccagagaca aagtcaagaa gacactatat 240

ctacaaatgg acagcctgac agtcggagac acggccgtct attactgctt aggagtcggt 300

cagggccacg gaattccggt catcgtctcc tca 333

<210> 204
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 204
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1 5 10 15

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

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

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

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

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

Leu Gly Val Gly Gln Gly His Gly Ile Pro Val Ile Val Ser Ser
100 105 110

<210> 205
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 205
gatattgtga tgacccagac tccactctcc tcacctgtca cccttggaca gccggcctcc 60

atctcctgca ggtctagtca gagcctcgta caccgtgatg gaaacaccta cttgagttgg 120

tttctgcaga ggccaggcca ggctccaaga ctcctaattt atcggatttc taaccggttc 180

tctggggtcc cagacagatt cagtggcagt ggggcaggga cggatttcac actgaaaatc 240

agcagggtgg aagctgagga tgtcggcgtt tactactgca tgcaagctac acaaatcccc 300

aacacttttg gccaggggac caagctggag atcaag 336

<210> 206
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 206
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg
20 25 30

Asp Gly Asn Thr Tyr Leu Ser Trp Phe Leu Gln Arg Pro Gly Gln Ala
35 40 45

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

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

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

Thr Gln Ile Pro Asn Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 207
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 207
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 208
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 208
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 209
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 209
Leu Thr Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10 15

Ser

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 210
Ile Ser Gly Ser Gly Asn Asn Thr
1 5

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 211
Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Lys
1 5 10 15

Val Lys Lys Thr Leu Tyr Leu Gln Met Asp Ser Leu Thr Val Gly Asp
20 25 30

Thr Ala Val Tyr Tyr
35

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 212
Cys Leu Gly Val Gly Gln
1 5

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

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 213
Gly His Gly Ile Pro Val Ile Val Ser Ser
1 5 10

<210> 214
<211> 26

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 214
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
20 25

<210> 215
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 215
Gln Ser Leu Val His Arg Asp Gly Asn Thr Tyr
1 5 10

<210> 216
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 216
Leu Ser Trp Phe Leu Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
1 5 10 15

Tyr

<210> 217
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 217
Arg Ile Ser
1

<210> 218
<211> 35
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 218
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly
1 5 10 15

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
20 25 30

Val Tyr Tyr
35

<210> 219
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 219
Cys Met Gln Ala Thr Gln Ile Pro Asn Thr Phe
1 5 10

<210> 220
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 220
Gly Gln Gly Thr Lys Leu Glu Ile Lys
1 5

<210> 221
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 221
gaggtgcagc tggtggagtc tggaggaggc ttaatccagc cgggggggtc cctaagactc 60

tcctgtgcag cctcgggctt cctcatcagt agttatttca tgagctgggt ccgccaggct 120

ccagggaagg ggccggagtg ggtctcagtt atttatagcg atggtagtac atattacgta 180

gactccgtga agggccgatt caccatctcc acagacaatt ccaagaacac actatatctt 240

cagatgaaca gcctgagagc cgaggacacg gcccgatatt actgtgcgac acggcatttg 300

aattatgacg gtgaccactg gggccaggga accctggtca ccgtctcctc agcctccacc 360

aag 363

<210> 222
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 222
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

Ser Val Ile Tyr Ser Asp Gly Ser Thr Tyr Tyr Val Asp Ser Val Lys
50 55 60

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

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

Thr Arg His Leu Asn Tyr Asp Gly Asp His Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser Ala Ser Thr Lys
115 120

<210> 223
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 223
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60

atctcctgca ggtctagtca aagcctcgta cacagtgacg gaaacaccta cttgaattgg 120

tttcaccaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taagcgggac 180

tctggggtcc cagacagatt cagcggcagt gggtcaggta gtgatttcac actgaaaatc 240

agcagggtgg aggctgagga tgttggaatt tattactgca tgcaaggtac acattggccg 300

acgttcggcc aagggaccaa ggtggaaatc aaacgaactg tggctgca 348

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Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asp Gly Asn Thr Tyr Leu Asn Trp Phe His Gln Arg Pro Gly Gln Ser
35 40 45

Pro Arg Arg Leu Ile Tyr Lys Val Ser Lys Arg Asp Ser Gly Val Pro
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Gly
85 90 95

Thr His Trp Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

Thr Val Ala Ala
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<210> 225
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<212> PRT
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<220>
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<400> 225
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 226
<211> 8
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<220>
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<400> 226

Gly Phe Leu Ile Ser Ser Tyr Phe
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<210> 227
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<212> PRT
<213> Artificial Sequence

<220>
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<400> 227
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Pro Glu Trp Val Ser
1 5 10 15

Val

<210> 228
<211> 7
<212> PRT
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<220>
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<400> 228
Ile Tyr Ser Asp Gly Ser Thr
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<210> 229
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 229
Tyr Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Thr Asp Asn
1 5 10 15

Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
20 25 30

Thr Ala Arg Tyr Tyr
35

<210> 230
<211> 13
<212> PRT
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<220>
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<400> 230

Cys Ala Thr Arg His Leu Asn Tyr Asp Gly Asp His Trp
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<210> 231
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<212> PRT
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<220>
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<400> 231
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
20 25

<210> 232
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 232
Gln Ser Leu Val His Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 233
<211> 17
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 233
Leu Asn Trp Phe His Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile
1 5 10 15

Tyr

<210> 234
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<212> PRT
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<220>
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Lys Val Ser
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<210> 235
<211> 35
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 235
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1 5 10 15

Ser Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
20 25 30

Ile Tyr Tyr
35

<210> 236
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<400> 236
Cys Met Gln Gly Thr His Trp Pro Thr Phe
1 5 10

<210> 237
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<400> 237
Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
1 5 10

<210> 238
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<212> PRT
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<400> 238
Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
1 5 10 15