SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> HUAMN ANTIBODIES TO HUMAN ANGIOPOIETIN-LIKE PROTEIN 4

<130> 6250A-WO

<140> To be assigned
<141> Filed herewith

<150> 61/290,092
<151> 2009-12-24

<150> 61/306,359
<151> 2010-02-19

<150> 61/328,316
<151> 2010-04-27

<150> 61/349,273
<151> 2010-05-28

<150> 61/356,126
<151> 2010-06-18

<160> 492

<170> FastSEQ for Windows Version 4.0

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<220>
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tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt tctgtgcaag aggagacagt 300
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tcctca 366

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<220>
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<400> 2

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 3
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<220>
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<400> 3
ggattcactt tcagtagcta cgac 24

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

<220>
<223> Synthetic

<400> 4
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Gly Phe Thr Phe Ser Ser Tyr Asp
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<210> 5
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<220>
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<400> 5
attggtactg ctggtgacac a 21

<210> 6
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6
Ile Gly Thr Ala Gly Asp Thr
 1   5

<210> 7
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 7
gcaagaggag acagtagaaa ctactacgtt ggggactact ttgactac   48

<210> 8
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 8
Ala Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 9
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 9
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atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctatcag gcgtccaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attctcgggc gttcggccga 300
gggaccaagg tggaaatcaa a   321

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<213> Artificial Sequence

<220>
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<400> 10
Ala Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Gln Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly

```
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Ser Arg
                85                  90                  95
Ala Phe Gly Arg Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 11
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<220>
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<400> 11
cagagtatta gtaggtgg                                                  18

<210> 12
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<220>
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<400> 12
Gln Ser Ile Ser Arg Trp
 1               5


<210> 13
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<220>
<223> Synthetic

<400> 13
caggcgtcc                                                            9

<210> 14
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 14
Gln Ala Ser
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<210> 15
<211> 27
<212> DNA
<213> Artificial Sequence
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<220>
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<400> 15
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<210> 16
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<220>
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<400> 16
Gln Gln Tyr Asp Ser Tyr Ser Arg Ala
1 5

<210> 17
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<212> DNA
<213> Artificial Sequence

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tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt tctgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 18
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 18
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
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Phe Cys Ala
85 90 95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 19
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 19
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atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctatcag gcgtccaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attctcgggc gttcggccga 300
gggaccaagg tggaaatcaa a 321

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

<220>
<223> Synthetic

<400> 20
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
35 40 45
Tyr Gln Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Ser Arg
85 90 95
Ala Phe Gly Arg Gly Thr Lys Val Glu Ile Lys
100 105

<210> 21
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 21
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtactg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 22
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 22
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 23
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 23
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atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatcag gcgtccagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attctcgggc gttcggccaa 300
gggaccaagg tggaaatcaa ac   322

<210> 24
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 24
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gln Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

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65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Ser Arg
                85                  90                  95
Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 25
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 25
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acctgcactg tctatggtgg atccttcagt attcatcact ggacctggat ccgccatccc 120
ccagggaagg ggctggagtg gattggggag atcaatcatc gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca atagacacgt ccaagaacca gttctccctg 240
aagctgagcg ctgtgaccgc cgcggacacg gctgtatatt actgtgcgag aggcttacga 300
tttttggact ggttatcgtc ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 26
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 26
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Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Tyr Gly Gly Ser Phe Ser Ile His
            20                  25                  30
His Trp Thr Trp Ile Arg His Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asn His Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Ser Ala Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Leu Arg Phe Leu Asp Trp Leu Ser Ser Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 27
ggtggatcct tcagtattca tcac 24

<210> 28
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 28
Gly Gly Ser Phe Ser Ile His His
 1   5

<210> 29
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 29
atcaatcatc gtggaagcac c   21

<210> 30
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 30
Ile Asn His Arg Gly Ser Thr
 1   5

<210> 31
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 31
gcgagaggct tacgattttt ggactggtta tcgtcctact ttgactac   48

<210> 32
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 32
Ala Arg Gly Leu Arg Phe Leu Asp Trp Leu Ser Ser Tyr Phe Asp Tyr
 1   5   10   15

<210> 33
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 33
gacatccagt tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc gattatttag cctggtatca gcagaaacca 120
gggaaagttc ctaacctcct gatctatgct gcgtccgctt tacaatcagg ggtcccatct 180
cgtttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaggatgttg caacttatta ctgtcaaaat tataacactg ccccgctcac tttcggcggg 300
gggaccaagg tggaaatcaa a 321

<210> 34
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 34
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asp Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Thr Ala Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 35
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 35
cagggcatta gcgattat 18

<210> 36
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 36
Gln Gly Ile Ser Asp Tyr
 1   5

<210> 37
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 37
gctgcgtcc   9

<210> 38
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 38
Ala Ala Ser
 1

<210> 39
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 39
caaaattata acactgcccc gctcact   27

<210> 40
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 40
Gln Asn Tyr Asn Thr Ala Pro Leu Thr
 1   5

<210> 41
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 41
caggtgcagc tgcaggagtc gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcactg tctatggtgg atccttcagt attcatcact ggacctggat ccgccatccc 120
ccagggaagg ggctggagtg gattggggag atcaatcatc gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca atagacacgt ccaagaacca gttctccctg 240
aagctgagcg ctgtgaccgc cgcggacacg gctgtatatt actgtgcgag aggcttacga 300
tttttggact ggttatcgtc ctactttgac tactggggcc agggaaccct ggtcactgtc 360
tcctca 366

<210> 42
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 42
Gln Val Gln Leu Gln Glu Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Tyr Gly Gly Ser Phe Ser Ile His
            20   25   30
His Trp Thr Trp Ile Arg His Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ala Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Leu Arg Phe Leu Asp Trp Leu Ser Ser Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 43
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 43
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc gattatttag cctggtatca gcagaaacca 120
gggaaagttc ctaacctcct gatctatgct gcgtccgctt tacaatcagg ggtcccatct 180
cgtttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaggatgttg caacttatta ctgtcaaaat tataacactg ccccgctcac tttcggcggg 300
gggaccaagg tggaaatcaa a 321

<210> 44
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 44

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asp Tyr
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Thr Ala Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 45
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 45
caggtgcagc tacagcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg atccttcagt attcatcact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcatc gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggcttacga 300
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tcctca 366

<210> 46
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 46
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Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Ile His
            20                  25                  30
His Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asn His Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Leu Arg Phe Leu Asp Trp Leu Ser Ser Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 47

<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 47
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc gattatttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgct gcgtccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaat tataacactg ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa ac 322

<210> 48
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 48
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asp Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Thr Ala Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 49
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 49
caggtgcagc tggtgcagtc tgggggaggc ttggtgcagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt tctgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 50
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 50
Gln Val Gln Leu Val Gln 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
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 51
ggattcactt tcagtagcta cgac   24

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

<220>
<223> Synthetic

<400> 52
Gly Phe Thr Phe Ser Ser Tyr Asp
 1   5

<210> 53
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 53
attggtactg ctggtgacac a   21

<210> 54
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 54
Ile Gly Thr Ala Gly Asp Thr
 1   5

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

<220>
<223> Synthetic

<400> 55
gcaagaggag acagtagaaa ctactacgtt ggggactact ttgactac 48

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

<220>
<223> Synthetic

<400> 56
Ala Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 57
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 57
gacatcgtga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
ggaaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 58
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 58
Asp Ile Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

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

<220>
<223> Synthetic

<400> 59
cagagtatta gtaggtgg 18

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

<220>
<223> Synthetic

<400> 60
```
Gln Ser Ile Ser Arg Trp
 1               5
```

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

<220>
<223> Synthetic

<400> 61
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 62
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Lys Ala Ser
 1
```

<210> 63
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 63
caacagtata atagttattc tcggacg 27

<210> 64
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 64
Gln Gln Tyr Asn Ser Tyr Ser Arg Thr
1 5

<210> 65
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 65
gaggtgcagc tggtggagtc tgggggaggc ttggtgcagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt tctgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 66
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 66
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

```
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 67
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 67
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
ggaaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a   321

<210> 68
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 68
```
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 69
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 69
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cactttcagt agctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtactg ctggtgacac atactatcca 180

ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 70
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 70
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 71
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 71
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 72
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 72
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 73
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 73
gaggtgcagc tggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gatggcagtt atatcatttg atggaggtaa taaaaataat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attattgtgc gaaagagggc 300
gatagaagtg gtcacccctta cttctactat tacggtttgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 74
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 74
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Glu Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35                  40                  45
Ala Val Ile Ser Phe Asp Gly Gly Asn Lys Asn Asn Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Lys Glu Gly Asp Arg Ser Gly His Pro Tyr Phe Tyr Tyr Tyr Gly
            100                 105                 110
Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
```

<210> 75
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 75
ggattcacct tcagtagtta tggc 24

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

<220>
<223> Synthetic

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

<210> 77
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 77
atatcatttg atggaggtaa taaa 24

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

<220>
<223> Synthetic

<400> 78
Ile Ser Phe Asp Gly Gly Asn Lys
1 5

<210> 79
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 79
gcgaaagagg gcgatagaag tggtcaccct tacttctact attacggttt ggacgtc 57

<210> 80
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 80
Ala Lys Glu Gly Asp Arg Ser Gly His Pro Tyr Phe Tyr Tyr Tyr Gly
 1   5   10   15
Leu Asp Val

<210> 81
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 81
gccatccaga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcattagc agttatttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgagacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttcatagtt accctctcac tttcggcgga 300
gggaccaagg tggaaatcaa a   321

<210> 82
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 82
Ala Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu His Ser Tyr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 83
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 83
cagggcatta gcagttat   18

<210> 84

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

<220>
<223> Synthetic

<400> 84
Gln Gly Ile Ser Ser Tyr
 1   5

<210> 85
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 85
gctgcatcc   9

<210> 86
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 86
Ala Ala Ser
 1

<210> 87
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 87
caacagcttc atagttaccc tctcact   27

<210> 88
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 88
Gln Gln Leu His Ser Tyr Pro Leu Thr
 1   5

<210> 89

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

<220>
<223> Synthetic

<400> 89
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gatggcagtt atatcatttg atggaggtaa taaaaataat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attattgtgc gaaagagggc 300
gatagaagtg gtcaccctta cttctactat tacggtttgg acgtctgggg ccaagggacc 360
acggtcaccg tctcc 375

<210> 90
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 90
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Ala Val Ile Ser Phe Asp Gly Gly Asn Lys Asn Asn Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Glu Gly Asp Arg Ser Gly His Pro Tyr Phe Tyr Tyr Tyr Gly
            100   105   110
Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125

<210> 91
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 91
gacatccagt tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcattagc agttatttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgagacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttcatagtt accctctcac tttcggcgga 300
gggaccaagg tggaaatcaa a 321

<210> 92
<211> 107

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 92
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu His Ser Tyr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 93
<211> 376
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 93
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatcatttg atggaggtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gaaagagggc 300
gatagaagtg gtcaccctta cttctactat tacggtttgg acgtctgggg ccaagggacc 360
acggtcaccg tctcct   376

<210> 94
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 94
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Ser Phe Asp Gly Gly Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

```
Ala Lys Glu Gly Asp Arg Ser Gly His Pro Tyr Phe Tyr Tyr Tyr Gly
            100                 105                 110
Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115                 120                 125


<210> 95
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 95
gacatccagt tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgca gagccagtca gggcattagc agttatttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttcatagtt acctctcac tttcggcgga 300
gggaccaagg tggagatcaa a                                          321

<210> 96
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 96
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu His Ser Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 97
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 97
gaggtgcagc tggtgcagtc tgggggaggc ttagtacagc cgggggggtc cctgcgactc 60
tcctgtgcag cctctggatt caccttcagt cggtacgaca tgcactgggt ccgccaagtg 120
acaggaaaag gtctggaatg ggtatcaggc attggtacag caggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg acaagaactc cctgtatctt 240
caaatgaaca gcctgagagt cggggacacg gctgtttatt actgtgcaag aggagatagt 300
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aagaactact acgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 98
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 98
Glu Val Gln Leu Val Gln 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 Arg Tyr
20 25 30
Asp Met His Trp Val Arg Gln Val Thr Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Asp Lys Asn Ser Leu Tyr Leu
65 70 75 80
Gln Met Asn Ser Leu Arg Val Gly Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Asp Ser Lys Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

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

<220>
<223> Synthetic

<400> 99
ggattcacct tcagtcggta cgac 24

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

<220>
<223> Synthetic

<400> 100
Gly Phe Thr Phe Ser Arg Tyr Asp
1 5

<210> 101
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 101
attggtacag caggtgacac a 21

<210> 102
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 102
Ile Gly Thr Ala Gly Asp Thr
1 5

<210> 103
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
gcaagaggag atagtaagaa ctactacgtt ggggactact ttgactac 48

<210> 104
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
Ala Arg Gly Asp Ser Lys Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr
1 5 10 15

<210> 105
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 105
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
ttcacttgcc gggccagtca cagtattggt aattggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctatgag gcgtctagtt tagaagatgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacaa tatgatactt attttcggac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 106
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 106
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser His Ser Ile Gly Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Glu Ala Ser Ser Leu Glu Asp Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Thr Tyr Phe Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 107
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 107
cacagtattg gtaattgg   18

<210> 108
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 108
His Ser Ile Gly Asn Trp
 1   5

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

<220>
<223> Synthetic

<400> 109
gaggcgtct   9

<210> 110
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 110
Glu Ala Ser
 1

<210> 111
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 111
caacaatatg atacttattt tcggacg 27

<210> 112
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 112
Gln Gln Tyr Asp Thr Tyr Phe Arg Thr
 1   5

<210> 113
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 113
gaggtgcagc tggtggagtc tgggggaggc ttagtacagc cgggggggtc cctgcgactc 60
tcctgtgcag cctctggatt caccttcagt cggtacgaca tgcactgggt ccgccaagtg 120
acaggaaaag gtctggaatg ggtatcaggc attggtacag caggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg acaagaactc cctgtatctt 240
caaatgaaca gcctgagagt cggggacacg gctgtttatt actgtgcaag aggagatagt 300
aagaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 114
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr

```
            20                  25                  30
Asp Met His Trp Val Arg Gln Val Thr Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Asp Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Val Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Lys Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 115
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 115
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
ttcacttgcc gggccagtca cagtattggt aattggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctatgag gcgtctagtt tagaagatgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacaa tatgatactt attttcggac gttcggccaa 300
gggaccaagg tggaaatcaa a   321

<210> 116
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116
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Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser His Ser Ile Gly Asn Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Glu Ala Ser Ser Leu Glu Asp Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Thr Tyr Phe Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 117
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 117
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt cggtacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtacag caggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagatagt 300
aagaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 118
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118
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 Arg Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Lys Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 119
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 119
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca cagtattggt aattggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacaa tatgatactt attttcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 120
<211> 107
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 120
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser His Ser Ile Gly Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Glu Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Thr Tyr Phe Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 121
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 121
caggtgcagc tggtggagtc cgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaaggt 120
ctaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgctt caccatctcc agagacaatg ccaagagctc cttgtttctt 240
cacatgaaca gcctgagagc cggggacacg gctctatatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca   366

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

<220>
<223> Synthetic

<400> 122
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Gly Leu Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe Leu
65   70   75   80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Leu Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 123
ggattcacct tcagtaccta cgac 24

<210> 124
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 124
Gly Phe Thr Phe Ser Thr Tyr Asp
1 5

<210> 125
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 125
attggttctg ctggtgacac a 21

<210> 126
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 126
Ile Gly Ser Ala Gly Asp Thr
1 5

<210> 127
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 127
gcaagaggag atagtcggaa ctacttcgtt ggggactact ttgactac 48

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

<220>
<223> Synthetic

<400> 128
Ala Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 129
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 129
gccatccaga tgacccagtc tccgtccacc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agttggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt tagaagctgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctacagcct 240
gatgattttg caagttatta ctgccaacag tatagtagtt attctcggac gttcggccaa 300
gggaccaagg tggagatcaa a   321

<210> 130
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 130
Ala Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ala Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Ser Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 131
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 131
cagagtatta gtagttgg 18

<210> 132
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 132
Gln Ser Ile Ser Ser Trp
1 5

<210> 133
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 133
aaggcgtct 9

<210> 134
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 134
Lys Ala Ser
1

<210> 135
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 135
caacagtata gtagttattc tcggacg 27

<210> 136
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 136

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Gln Gln Tyr Ser Ser Tyr Ser Arg Thr
 1               5


<210> 137
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 137
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaaggt 120
ctaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgctt caccatctcc agagacaatg ccaagagctc cttgtttctt 240
cacatgaaca gcctgagagc cggggacacg gctctatatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca                                                          366

<210> 138
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 138
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 Thr Tyr
            20                  25                  30
Asp Met His Trp Val Arg Gln Gly Leu Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe Leu
65                  70                  75                  80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Leu Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 139
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 139
gacatccaga tgacccagtc tccgtccacc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agttggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt tagaagctgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctacagcct 240
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gatgattttg caagttatta ctgccaacag tatagtagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 140
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 140
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
35 40 45
Tyr Lys Ala Ser Ser Leu Glu Ala Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Ser Arg
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 141
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 141
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 142
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 142
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 Thr Tyr
20 25 30
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys

```
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 143
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 143
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agttggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatagtagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac   322

<210> 144
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 144
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Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Ser Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 145
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 145

caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgtag cctctggatt caccttcagt agttacgaca tgcactgggt ccgccaactt 120
ccaggaaaag gtctggagtg ggtctcagcc attggtgttg ctggtgacac atactatcca 180
gcctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
gggaactact acgatgggga ctactttgac ttctggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 146
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 146
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Leu Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Val Ala Gly Asp Thr Tyr Tyr Pro Ala Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Gly Asn Tyr Tyr Asp Gly Asp Tyr Phe Asp Phe Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 147
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 147
ggattcacct tcagtagtta cgac 24

<210> 148
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 148
Gly Phe Thr Phe Ser Ser Tyr Asp
 1   5

<210> 149
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 149
attggtgttg ctggtgacac a 21

<210> 150
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 150
Ile Gly Val Ala Gly Asp Thr
1 5

<210> 151
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 151
gcaagaggag acagtgggaa ctactacgat ggggactact ttgacttc 48

<210> 152
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 152
Ala Arg Gly Asp Ser Gly Asn Tyr Tyr Asp Gly Asp Tyr Phe Asp Phe
1 5 10 15

<210> 153
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 153
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattaat aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attttcggac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 154
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 154
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Asn Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Phe Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 155
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 155
cagagtatta ataggtgg   18

<210> 156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 156
Gln Ser Ile Asn Arg Trp
 1   5

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

<220>
<223> Synthetic

<400> 157
aaggcgtct   9

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

<220>
<223> Synthetic

<400> 158
Lys Ala Ser
 1

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

<220>
<223> Synthetic

<400> 159
caacagtatg atagttattt tcggacg 27

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

<220>
<223> Synthetic

<400> 160
Gln Gln Tyr Asp Ser Tyr Phe Arg Thr
 1   5

<210> 161
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 161
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgtag cctctggatt caccttcagt agttacgaca tgcactgggt ccgccaactt 120
ccaggaaaag gtctggagtg ggtctcagcc attggtgttg ctggtgacac atactatcca 180
gcctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
gggaactact acgatgggga ctactttgac ttctggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 162
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 162
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 Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Leu Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Val Ala Gly Asp Thr Tyr Tyr Pro Ala Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Gly Asn Tyr Tyr Asp Gly Asp Tyr Phe Asp Phe Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 163
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 163
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattaat aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attttcggac gttcggccaa 300
gggaccaagg tggagatcaa a   321

<210> 164
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 164
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Asn Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Phe Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 165
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 165
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtgttg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
gggaactact acgatgggga ctactttgac ttctggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 166
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 166
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Val Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Gly Asn Tyr Tyr Asp Gly Asp Tyr Phe Asp Phe Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 167
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 167
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattaat aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatgatagtt attttcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 168

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

<220>
<223> Synthetic

<400> 168
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Asn Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ser Tyr Phe Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 169
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 169
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaagct 120
ccaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagacaatg ccaagagctc cttgtttctt 240
caaatgaaca gcctgagagc cggggacacg gctctatatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 170
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 170
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 Thr Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Leu Tyr Tyr Cys Ala

```
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 171
ggattcacct tcagtaccta cgac 24

<210> 172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 172
```
Gly Phe Thr Phe Ser Thr Tyr Asp
 1               5
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<210> 173
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 173
attggttctg ctggtgacac a 21

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

<220>
<223> Synthetic

<400> 174
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Ile Gly Ser Ala Gly Asp Thr
 1               5
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<210> 175
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 175
gcaagaggag atagtcggaa ctacttcgtt ggggactact ttgactac 48

<210> 176
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 176
Ala Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 177
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 177
gacatccagt tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattggt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagatcct gatctataag gcgtctagtt tagaaggtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caaattacta ctgccaacag tataatagtt tttatcggac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 178
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 178
Asp Ile Gln Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Thr Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Gly Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Asn Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Tyr Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 179
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 179
cagagtattg gtacctgg 18

<210> 180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 180
Gln Ser Ile Gly Thr Trp
1 5

<210> 181
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 181
aaggcgtct 9

<210> 182
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 182
Lys Ala Ser
1

<210> 183
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 183
caacagtata atagttttta tcggacg 27

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

<220>
<223> Synthetic

<400> 184
Gln Gln Tyr Asn Ser Phe Tyr Arg Thr
 1   5

<210> 185
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 185
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaagct 120
ccaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagacaatg ccaagagctc cttgtttctt 240
caaatgaaca gcctgagagc cggggacacg gctctatatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca   366

<210> 186
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 186
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 Thr Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Leu Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 187
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 187
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattggt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagatcct gatctataag gcgtctagtt tagaaggtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caaattacta ctgccaacag tataatagtt tttatcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 188
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 188
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Thr Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Gly Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Asn Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Tyr Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 189
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 189
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggttctg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagatagt 300
cggaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 190
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 190
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 Thr Tyr
            20                  25                  30
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Gly Ser Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 191
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 191
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gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattggt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt tttatcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac                                          322
```

<210> 192
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 192
```
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Thr Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Tyr Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 193
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 193
caggtgcagc tggtgcagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctgaatt catttttagc agctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagtc attagtggta gtggtgatag caaatactac 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgag agtcgaggac acggccgtgt attactgtgc gaaagatggg 300
aaggacaggt atggttttta ctacaacttc tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 194
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 194
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Phe Ile Phe Ser Ser Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Ser Gly Ser Gly Asp Ser Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Lys Asp Arg Tyr Gly Phe Tyr Tyr Asn Phe Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

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

<220>
<223> Synthetic

<400> 195
gaattcattt ttagcagcta tgcc 24

<210> 196
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 196
Glu Phe Ile Phe Ser Ser Tyr Ala

1 5

<210> 197
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 197
attagtggta gtggtgatag caaa 24

<210> 198
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 198
Ile Ser Gly Ser Gly Asp Ser Lys
1 5

<210> 199
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 199
gcgaaagatg ggaaggacag gtatggtttt tactacaact tctacggtat ggacgtc 57

<210> 200
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 200
Ala Lys Asp Gly Lys Asp Arg Tyr Gly Phe Tyr Tyr Asn Phe Tyr Gly
1 5 10 15
Met Asp Val

<210> 201
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 201
gcacatccga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcataagc agttatttag cctggtatca gcaaaaacca 120
gggaaagccc ctaagatcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg ccagtgggtc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatca ctgtcaacag cttaatagtt acccattcac tttcggccct 300
gggaccaagg tggaaatcaa acga 324

<210> 202
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 202
Ala His Pro Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Ala
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr His Cys Gln Gln Leu Asn Ser Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 203
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 203
cagggcataa gcagttat 18

<210> 204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 204
Gln Gly Ile Ser Ser Tyr
 1   5

<210> 205
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 205
gctgcatcc 9

<210> 206
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 206
Ala Ala Ser
1

<210> 207
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 207
caacagctta atagttaccc attcact 27

<210> 208
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 208
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
1 5

<210> 209
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 209
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctgaatt cattttagc agctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagtc attagtggta gtggtgatag caaatactac 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgag agtcgaggac acggccgtgt attactgtgc gaaagatggg 300
aaggacaggt atggttttta ctacaacttc tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcc 375

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

<220>
<223> Synthetic

<400> 210
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 Glu Phe Ile Phe Ser Ser Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Ser Gly Ser Gly Asp Ser Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Lys Asp Arg Tyr Gly Phe Tyr Tyr Asn Phe Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125

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

<220>
<223> Synthetic

<400> 211
gacatccaga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcataagc agttatttag cctggtatca gcaaaaacca 120
gggaaagccc ctaagatcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg ccagtgggtc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatca ctgtcaacag cttaatagtt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a   321

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

<220>
<223> Synthetic

<400> 212
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Ala
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

```
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr His Cys Gln Gln Leu Asn Ser Tyr Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105
```

<210> 213
<211> 376
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 213
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctgaatt cattttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgatag caaatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatggg 300
aaggacaggt atggttttta ctacaacttc tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcct 376

<210> 214
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 214
```
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 Glu Phe Ile 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 Ala Ile Ser Gly Ser Gly Asp Ser Lys Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp Gly Lys Asp Arg Tyr Gly Phe Tyr Tyr Asn Phe Tyr Gly
            100                 105                 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115                 120                 125
```

<210> 215
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 215
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcataagc agttatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccattcac tttcggccct 300
gggaccaaag tggatatcaa ac 322

<210> 216
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 216
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 217
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 217
gaggtgcagc tggtgcagtc tgggggagac ttggtacagt ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt tcctacgaca tgcactgggt ccgccaagtt 120
aaaggaaaag gtctggagtg ggtctcagct attggaactg ctggtgacac atactatcaa 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtttctt 240
caaatgaaca gcctgagagc cggggacacg gctgtatatt actgtgcaag aggagatagt 300
agaaactact tcgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 218
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 218
Glu Val Gln Leu Val Gln Ser Gly Gly Asp Leu Val Gln Ser Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30

```
Asp Met His Trp Val Arg Gln Val Lys Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Gln Gly Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Phe Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

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

<220>
<223> Synthetic

<400> 219
ggattcacct tcagttccta cgac 24

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

<220>
<223> Synthetic

<400> 220
```
Gly Phe Thr Phe Ser Ser Tyr Asp
 1               5
```

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

<220>
<223> Synthetic

<400> 221
attggaactg ctggtgacac a 21

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

<220>
<223> Synthetic

<400> 222
```
Ile Gly Thr Ala Gly Asp Thr
 1               5
```

<210> 223
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 223
gcaagaggag atagtagaaa ctacttcgtt ggggactact ttgactac 48

<210> 224
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 224
Ala Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

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

<220>
<223> Synthetic

<400> 225
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aactggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaggtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccataagcaa cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa acga 324

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

<220>
<223> Synthetic

<400> 226
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Asn Leu Glu Gly Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asn Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg

```
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 227
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 227
cagagtatta gtaactgg                                                  18

<210> 228
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 228
Gln Ser Ile Ser Asn Trp
 1               5


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

<220>
<223> Synthetic

<400> 229
aaggcgtct                                                            9

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

<220>
<223> Synthetic

<400> 230
Lys Ala Ser
 1


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

<220>
<223> Synthetic
```

<400> 231
caacagtata atagttattc tcggacg 27

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

<220>
<223> Synthetic

<400> 232
Gln Gln Tyr Asn Ser Tyr Ser Arg Thr
1 5

<210> 233
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 233
gaggtgcagc tggtggagtc tgggggagac ttggtacagt ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt tcctacgaca tgcactgggt ccgccaagtt 120
aaaggaaaag gtctggagtg ggtctcagct attggaactg ctggtgacac atactatcaa 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtttctt 240
caaatgaaca gcctgagagc cggggacacg gctgtatatt actgtgcaag aggagatagt 300
agaaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 234
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 234
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Ser Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Asp Met His Trp Val Arg Gln Val Lys Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Gln Gly Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Phe Leu
65 70 75 80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 235

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

<220>
<223> Synthetic

<400> 235
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aactggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaggtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccataagcaa cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 236
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 236
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Asn Leu Glu Gly Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asn Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 237
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 237
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt tcctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggaactg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagatagt 300
agaaactact tcgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 238
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 238
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Phe Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 239
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 239
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aactggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac   322

<210> 240
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 240
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

100 105

<210> 241
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 241
caggtgcagc tggtgcagtc tgggggaggc ttggtgcagc ctgggggtc cctgagactc 60
tcctgtgtag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtcgcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtctctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 242
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 242
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Ser Leu
65 70 75 80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 243
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 243
ggattcacct tcagtagcta cgac 24

<210> 244
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 244
Gly Phe Thr Phe Ser Ser Tyr Asp
 1   5

<210> 245
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 245
attggtactg ctggtgacac a   21

<210> 246
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 246
Ile Gly Thr Ala Gly Asp Thr
 1   5

<210> 247
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 247
gcaagaggag acagtagaaa ctactacgtt ggggactact ttgactac   48

<210> 248
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 248
Ala Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 249
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 249
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt taaaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagtct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 250
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 250
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
35 40 45
Tyr Lys Ala Ser Ser Leu Lys Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 251
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 251
cagagtatta gtaggtgg 18

<210> 252
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 252
Gln Ser Ile Ser Arg Trp
1 5

<210> 253
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 253
aaggcgtct 9

<210> 254
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 254
Lys Ala Ser
1

<210> 255
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 255
caacagtata atagttattc tcggacg 27

<210> 256
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 256
Gln Gln Tyr Asn Ser Tyr Ser Arg Thr
1 5

<210> 257
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 257
gaggtgcagc tggtggagtc tgggggaggc ttggtgcagc ctgggggggtc cctgagactc 60
tcctgtgtag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtcgcagcc attggtactg ctggtgacac atactatcca 180

gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtctctt 240
cacatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 258
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 258
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 Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Ser Leu
65   70   75   80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 259
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 259
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt taaaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagtct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 260
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 260
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Lys Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 261
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 261
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtactg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 262
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 262
```
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 263
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 263
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 264
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 264
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 265
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 265
caggtgcagc tggtacagtc tgggggaggc ttggtgcagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggatacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 266
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 266
Gln Val Gln Leu Val Gln 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
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 267
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 267
ggattcacct tcagtagcta cgac   24

<210> 268
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 268
Gly Phe Thr Phe Ser Ser Tyr Asp
 1   5

<210> 269
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 269
attggtactg ctggtgacac a   21

<210> 270
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 270
Ile Gly Thr Ala Gly Asp Thr
 1   5

<210> 271
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 271
gcaagaggag acagtagaaa ctactacgtt ggggactact ttgactac   48

<210> 272
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 272
Ala Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr
 1   5   10   15

<210> 273
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 273
gacatccagt tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa acga   324

<210> 274
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 274
Asp Ile Gln Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45

```
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
```

<210> 275
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 275
cagagtatta gtaggtgg 18

<210> 276
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 276
```
Gln Ser Ile Ser Arg Trp
 1               5
```

<210> 277
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 277
aaggcgtct 9

<210> 278
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 278
```
Lys Ala Ser
 1
```

<210> 279
<211> 27
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 279
caacagtata atacttattc tcggacg 27

<210> 280
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 280
Gln Gln Tyr Asn Thr Tyr Ser Arg Thr
1 5

<210> 281
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 281
gaggtgcagc tggtggagtc tgggggaggc ttggtgcagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagtt 120
gcaggaaaag gtctggagtg ggtctcagcc attggtactg ctggtgacac atactatcca 180
gtctccgtga agggccgatt caccatctct agagaaaatg ccaagaactc cttgtatctt 240
cacatgaaca gcctgagagc cggggatacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 282
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 282
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
Asp Met His Trp Val Arg Gln Val Ala Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Val Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80
His Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
100 105 110

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


<210> 283
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 283
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcaaaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctaatt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a                                          321

<210> 284
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 284
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 285
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 285
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtactg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggagacagt 300
agaaactact acgttgggga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca                                                          366
```

<210> 286
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 286
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
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Asp Ser Arg Asn Tyr Tyr Val Gly Asp Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 287
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 287
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attctcggac gttcggccaa 300
gggaccaagg tggaaatcaa ac   322

<210> 288
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 288
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

```
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 289
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 289
caggtgcagc tgcaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgtag cgtctggatt caccttcagc agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gatggcagtt atttggtatg atggaagtaa taagtacttt 180
gcagactccg tgaaggaccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acactctgag acctgacgac acggctgtgt attactgtgt gaaggcggac 300
gccccccctcc tgatctatgg tgtggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 290
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 290
```
Gln Val Gln Leu Gln Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35                  40                  45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Phe Ala Asp Ser Val
    50                  55                  60
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Thr Leu Arg Pro Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Val Lys Ala Asp Ala Pro Leu Leu Ile Tyr Gly Val Asp Val Trp Gly
            100                 105                 110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 291
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 291

ggattcacct tcagcagcta tggc 24

<210> 292
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 292
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 293
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 293
atttggtatg atggaagtaa taag 24

<210> 294
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 294
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 295
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 295
gtgaaggcgg acgcccccct cctgatctat ggtgtggacg tc 42

<210> 296
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 296
Val Lys Ala Asp Ala Pro Leu Leu Ile Tyr Gly Val Asp Val
1 5 10

<210> 297
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 297
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca agagaaacca 120
ggaaaagccc ctaagcgcct gatctatttt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacgtatta ctgtctacag cataatagtt acccttacac ttttggccag 300
gggaccaagc tggagatcaa acga 324

<210> 298
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 298
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Glu Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 299
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 299
cagggcatta gaaatgat 18

<210> 300
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 300
Gln Gly Ile Arg Asn Asp
1 5

<210> 301
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 301
tttgcatcc 9

<210> 302
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 302
Phe Ala Ser
1

<210> 303
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 303
ctacagcata atagttaccc ttacact 27

<210> 304
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 304
Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 305
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 305
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgtag cgtctggatt caccttcagc agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gatggcagtt atttggtatg atggaagtaa taagtacttt 180
gcagactccg tgaaggaccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acactctgag acctgacgac acggctgtgt attactgtgt gaaggcggac 300
gccccctcc tgatctatgg tgtggacgtc tggggccaag ggaccacggt caccgtctcc 360

<210> 306
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 306
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Phe Ala Asp Ser Val
    50   55   60
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Thr Leu Arg Pro Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Lys Ala Asp Ala Pro Leu Leu Ile Tyr Gly Val Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser
        115   120

<210> 307
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 307
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca agagaaacca 120
ggaaaagccc ctaagcgcct gatctatttt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacgtatta ctgtctacag cataatagtt acccttacac ttttggccag 300
gggaccaagc tggagatcaa a   321

<210> 308
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 308
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Glu Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 309
<211> 361
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 309
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagc agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atttggtatg atggaagtaa taagtactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgt gaaggcggac 300
gccccctcc tgatctatgg tgtggacgtc tggggccaag ggaccacggt caccgtctcc 360
t   361

<210> 310
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 310
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Lys Ala Asp Ala Pro Leu Leu Ile Tyr Gly Val Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser
        115   120

<210> 311
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 311
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatttt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccttacac ttttggccag 300
gggaccaagc tggagatcaa ac   322

<210> 312
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 312
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 313
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 313
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagg agttatggca tacactgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggcactt atattatatg atggaagtag tgaggactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa tatggtgttt 240
ctgcaaatga acagcctgag agtcgaggac acggctgtct attactgtgc gagagattta 300
ttggcaattg gctggttcga ccgctggggc cagggaaccc tggtcaccgt ctcctca   357

<210> 314
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 314
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
            20   25   30
Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Leu Tyr Asp Gly Ser Ser Glu Asp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Met Val Phe
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Leu Leu Ala Ile Gly Trp Phe Asp Arg Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

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

<220>
<223> Synthetic

<400> 315
ggattcacct tcaggagtta tggc   24

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

<220>
<223> Synthetic

<400> 316
Gly Phe Thr Phe Arg Ser Tyr Gly
 1   5

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

<220>
<223> Synthetic

<400> 317
atattatatg atggaagtag tgag   24

<210> 318
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 318
Ile Leu Tyr Asp Gly Ser Ser Glu
 1   5

<210> 319
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 319
gcgagagatt tattggcaat tggctggttc gaccgc   36

<210> 320
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 320
Ala Arg Asp Leu Leu Ala Ile Gly Trp Phe Asp Arg
 1   5   10

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

<220>
<223> Synthetic

<400> 321
gaaattgtgt tgacgcagtc tccaggcacc ctgactttgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtcttagt agttataact tagcctggta ccagcagaag 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacttgag 240
cctgaagatt ttacagtgta ttattgtcag caatatggta gctcacctct cactttcggc 300
ggagggacca cggtggagat caaa   324

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

<220>
<223> Synthetic

<400> 322
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Thr Leu Ser Pro Gly
 1   5   10   15

```
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Ser Ser Tyr
            20                  25                  30
Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Thr Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85                  90                  95
Leu Thr Phe Gly Gly Gly Thr Thr Val Glu Ile Lys
            100                 105
```

<210> 323
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 323
cagagtctta gtagttataa c 21

<210> 324
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 324
```
Gln Ser Leu Ser Ser Tyr Asn
 1               5
```

<210> 325
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 325
ggtacatcc 9

<210> 326
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 326
```
Gly Thr Ser
 1
```

<210> 327
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 327
cagcaatatg gtagctcacc tctcact 27

<210> 328
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 328
Gln Gln Tyr Gly Ser Ser Pro Leu Thr
1 5

<210> 329
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 329
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagg agttatggca tacactgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggcactt atattatatg atggaagtag tgaggactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa tatggtgttt 240
ctgcaaatga acagcctgag agtcgaggac acggctgtct attactgtgc gagagattta 300
ttggcaattg gctggttcga ccgctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 330
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 330
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
20 25 30
Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Leu Ile Leu Tyr Asp Gly Ser Ser Glu Asp Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Met Val Phe
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys

```
                85                  90                  95
Ala Arg Asp Leu Leu Ala Ile Gly Trp Phe Asp Arg Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115
```

<210> 331
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 331
gaaattgtgt tgacgcagtc tccaggcacc ctgactttgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtcttagt agttataact tagcctggta ccagcagaag 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacttgag 240
cctgaagatt ttacagtgta ttattgtcag caatatggta gctcacctct cactttcggc 300
ggagggacca aggtggagat caaa 324

<210> 332
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 332
```
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Thr Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Ser Ser Tyr
            20                  25                  30
Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Thr Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85                  90                  95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 333
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 333
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagg agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atattatatg atggaagtag tgagtactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gagagattta 300
ttggcaattg gctggttcga ccgctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 334
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 334
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Leu Tyr Asp Gly Ser Ser Glu Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Leu Leu Ala Ile Gly Trp Phe Asp Arg Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 335
<211> 325
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 335
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtcttagt agttataact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag caatatggta gctcacctct cactttcggc 300
ggagggacca aggtggagat caaac 325

<210> 336
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 336
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 Leu Ser Ser Tyr
            20   25   30
Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45

```
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85                  90                  95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 337
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 337
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgaactgggt ccgccaagct 120
acaggaaaag gtctggaatg ggtctcaggt attgatactg ctggtgacac atactatcca 180
gactccgtga agggccgttt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagt cggggacacg gctgtgtatt actgtgcaag agggggcgat 300
ttttggagtg gtccagacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 338
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 338
```
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 Thr Tyr
            20                  25                  30
Asp Met Asn Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Asp Thr Ala Gly Asp Thr Tyr Tyr Pro Asp Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Val Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Gly Asp Phe Trp Ser Gly Pro Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
```

<210> 339
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 339
ggattcacct tcagtaccta cgac 24

<210> 340
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 340
Gly Phe Thr Phe Ser Thr Tyr Asp
1 5

<210> 341
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 341
attgatactg ctggtgacac a 21

<210> 342
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 342
Ile Asp Thr Ala Gly Asp Thr
1 5

<210> 343
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 343
gcaagagggg gcgatttttg gagtggtcca gactac 36

<210> 344
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 344
Ala Arg Gly Gly Asp Phe Trp Ser Gly Pro Asp Tyr

```
 1               5                  10


<210> 345
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 345
gacatccaga tgacccagtc tccatcatca ctgtctgcat ctgtcggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcattcagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtgtatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ttgccaacag tatattactt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a                                           321

<210> 346
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 346
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
            20                  25                  30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
        35                  40                  45
Tyr Ala Ala Phe Ser Leu Gln Ser Gly Val Pro Ser Lys Phe Ser Gly
    50                  55                  60
Ser Val Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ile Thr Tyr Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105


<210> 347
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 347
caggacatta gcaattat                                              18

<210> 348
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<223> Synthetic

<400> 348
Gln Asp Ile Ser Asn Tyr
 1   5

<210> 349
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 349
gctgcattc   9

<210> 350
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 350
Ala Ala Phe
 1

<210> 351
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 351
caacagtata ttacttaccc attcact   27

<210> 352
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 352
Gln Gln Tyr Ile Thr Tyr Pro Phe Thr
 1   5

<210> 353
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 353
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggGTC cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgaactgggt ccgccaagct 120
acaggaaaag gtctggaatg ggtctcaggt attgatactg ctggtgacac atactatcca 180
gactccgtga agggccgttt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagt cggggacacg gctgtgtatt actgtgcaag agggggcgat 300
ttttggagtg gtccagacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 354
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 354
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 Thr Tyr
            20   25   30
Asp Met Asn Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asp Thr Ala Gly Asp Thr Tyr Tyr Pro Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Val Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Gly Asp Phe Trp Ser Gly Pro Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 355
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 355
gacatccaga tgacccagtc tccatcatca ctgtctgcat ctgtcggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcattcagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtgtatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ttgccaacag tatattactt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a 321

<210> 356
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 356
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
            20   25   30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
        35   40   45
Tyr Ala Ala Phe Ser Leu Gln Ser Gly Val Pro Ser Lys Phe Ser Gly
    50   55   60
Ser Val Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ile Thr Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 357
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 357
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt acctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attgatactg ctggtgacac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag agggggcgat 300
ttttggagtg gtccagacta ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 358
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 358
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 Thr Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Asp Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Gly Asp Phe Trp Ser Gly Pro Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 359

<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 359
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcattcagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tatattactt acccattcac tttcggccct 300
gggaccaaag tggatatcaa ac 322

<210> 360
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 360
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
            20   25   30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
        35   40   45
Tyr Ala Ala Phe Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ile Thr Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 361
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 361
gaagtggaac tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagaatat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatcac 300
tgggactacg actttgaata cttccaccac tggggccagg gcaccctggt caccgtctcc 360
tca 363

<210> 362
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 362
Glu Val Glu Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Glu Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp His Trp Asp Tyr Asp Phe Glu Tyr Phe His His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

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

<220>
<223> Synthetic

<400> 363
ggattcacct ttgatgatta tgcc   24

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

<220>
<223> Synthetic

<400> 364
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 365
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 365
attagttgga atagtggtag cata   24

<210> 366
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 366
Ile Ser Trp Asn Ser Gly Ser Ile
 1   5

<210> 367
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 367
gcaaaagatc actgggacta cgactttgaa tacttccacc ac   42

<210> 368
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 368
Ala Lys Asp His Trp Asp Tyr Asp Phe Glu Tyr Phe His His
 1   5   10

<210> 369
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 369
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaggccc ctaacctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attacacttt tggccagggg 300
accaagctgg agatcaaa   318

<210> 370
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 370
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Tyr Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105
```

<210> 371
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 371
cagagtatta gtagctgg 18

<210> 372
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 372
```
Gln Ser Ile Ser Ser Trp
 1               5
```

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

<220>
<223> Synthetic

<400> 373
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 374
```
Lys Ala Ser
 1
```

<210> 375
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 375
caacagtata atagttatta cact 24

<210> 376
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 376
Gln Gln Tyr Asn Ser Tyr Tyr Thr
1 5

<210> 377
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 377
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagaatat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatcac 300
tgggactacg actttgaata cttccaccac tggggccagg gcaccctggt caccgtctcc 360
tca 363

<210> 378
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 378
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Glu Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

```
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp His Trp Asp Tyr Asp Phe Glu Tyr Phe His His Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 379
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 379
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaggccc ctaacctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attacacttt tggccagggg 300
accaagctgg agatcaaa                                               318

<210> 380
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 380
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Tyr Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105


<210> 381
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 381
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
```

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatcac 300
tgggactacg actttgaata cttccaccac tggggccagg gcaccctggt caccgtctcc 360
tca 363

<210> 382
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 382
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp His Trp Asp Tyr Asp Phe Glu Tyr Phe His His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 383
<211> 319
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 383
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attacacttt tggccagggg 300
accaagctgg agatcaaac 319

<210> 384
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 384
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Tyr Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105
```

<210> 385
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 385
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagtctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctaat atctgaggac acggccttgt attactgtgc aaaagatgaa 300
aacagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 386
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 386
```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20                  25                  30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Val Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Ile Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp Glu Asn Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 387
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 387
ggattcacct ttgatgatta tgcc 24

<210> 388
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 388
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 389
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 389
attagttgga atagtggtag cata 24

<210> 390
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 390
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 391
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 391
gcaaaagatg aaaacagctc gtcggggaac tggttcgacc cc 42

<210> 392
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 392
Ala Lys Asp Glu Asn Ser Ser Ser Gly Asn Trp Phe Asp Pro
 1   5   10

<210> 393
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 393
gaagtagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaggaa tataataatt ggatcacctt cggccaaggg 300
acacgactgg agattaaa   318

<210> 394
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 394
Glu Val Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Glu Tyr Asn Asn Trp Ile Thr
                85   90   95
Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100   105

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

<220>
<223> Synthetic

<400> 395
cagagtgtta gcagcaac   18

<210> 396
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 396
Gln Ser Val Ser Ser Asn
 1   5

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

<220>
<223> Synthetic

<400> 397
ggtgcatcc   9

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

<220>
<223> Synthetic

<400> 398
Gly Ala Ser
 1

<210> 399
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 399
caggaatata ataattggat cacc   24

<210> 400
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 400
Gln Glu Tyr Asn Asn Trp Ile Thr
 1   5

<210> 401
<211> 363
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 401
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagtctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctaat atctgaggac acggccttgt attactgtgc aaaagatgaa 300
aacagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 402
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 402
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Val Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Ile Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Glu Asn Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 403
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 403
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaggaa tataataatt ggatcacctt cggccaaggg 300
acacgactgg agattaaa 318

<210> 404
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 404
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Glu Tyr Asn Asn Trp Ile Thr
                85   90   95
Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100   105

<210> 405
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 405
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatgaa 300
aacagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca   363

<210> 406
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 406
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Glu Asn Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100   105   110

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


<210> 407
<211> 319
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 407
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaggaa tataataatt ggatcacctt cggccaaggg 300
acacgactgg agattaaac                                              319

<210> 408
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 408
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Glu Tyr Asn Asn Trp Ile Thr
                85                  90                  95
Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100                 105


<210> 409
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 409
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggggtc ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccat attcaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtacaaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcttca                                                           366
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<210> 410
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 410
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly His Ile Gln Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 411
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 411
ggattcactt tcagtaacgc ctgg   24

<210> 412
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 412
Gly Phe Thr Phe Ser Asn Ala Trp
 1   5

<210> 413
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 413

attcaaagca aaactgatgg tgggacaaca 30

<210> 414
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 414
Ile Gln Ser Lys Thr Asp Gly Gly Thr Thr
1 5 10

<210> 415
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 415
acaacagcag attacgattt ttggagtggg gttgactac 39

<210> 416
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 416
Thr Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr
1 5 10

<210> 417
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 417
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag tctggtatca gcagaaacca 120
gggaaggccc ctaagctcct gatttatgct gcatccagtt tacaaagtgg ggtcccatca 180
agattcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatgtcaa a 321

<210> 418
<211> 107
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 418
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Val Lys
            100   105

<210> 419
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 419
cagggtatta gcagctgg   18

<210> 420
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 420
Gln Gly Ile Ser Ser Trp
 1   5

<210> 421
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 421
gctgcatcc   9

<210> 422
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 422
Ala Ala Ser
 1

<210> 423
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 423
caacaggcta acagtttccc attcact 27

<210> 424
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 424
Gln Gln Ala Asn Ser Phe Pro Phe Thr
 1   5

<210> 425
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 425
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggGTC ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccat attcaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtacaaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 426
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 426
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

```
        35                  40                  45
Gly His Ile Gln Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50                  55                  60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Thr Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 427
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 427
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag tctggtatca gcagaaacca 120
gggaaggccc ctaagctcct gatttatgct gcatccagtt tacaaagtgg ggtcccatca 180
agattcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatatcaa a   321

<210> 428
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 428
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20                  25                  30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105
```

<210> 429
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 429
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggGTC ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccgt attcaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtacaaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 430
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 430
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Arg Ile Gln Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 431
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 431
gacatccaga tgacccagtc tccatcttct gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ctatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatatcaa ac 322

<210> 432
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 432
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 433
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 433
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggGTC ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccgt attaaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtatcaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca   366

<210> 434
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 434
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Ile Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

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

<220>
<223> Synthetic

<400> 435
ggattcactt tcagtaacgc ctgg 24

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

<220>
<223> Synthetic

<400> 436
Gly Phe Thr Phe Ser Asn Ala Trp
1 5

<210> 437
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 437
attaaaagca aaactgatgg tgggacaaca 30

<210> 438
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 438
Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr
1 5 10

<210> 439
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 439
atcacagcag attacgattt ttggagtggg gttgactac 39

<210> 440
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 440
Ile Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr
 1   5   10

<210> 441
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 441
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatatcaa a   321

<210> 442
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 442
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

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

<220>
<223> Synthetic

<400> 443

cagggtatta gcagctgg 18

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

<220>
<223> Synthetic

<400> 444
Gln Gly Ile Ser Ser Trp
1 5

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

<220>
<223> Synthetic

<400> 445
gctgcatcc 9

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

<220>
<223> Synthetic

<400> 446
Ala Ala Ser
1

<210> 447
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 447
caacaggcta acagtttccc attcact 27

<210> 448
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 448
Gln Gln Ala Asn Ser Phe Pro Phe Thr
1 5

<210> 449
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 449
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggGTC ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccgt attaaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtatcaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 450
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 450
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Ile Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 451
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 451
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatatcaa a 321

<210> 452
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 452
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 453
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 453
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggGTC ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgcctgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggttggccgt attaaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtatcaca 300
gcagattacg atttttggag tggggttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca   366

<210> 454
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 454
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr

```
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Ile Thr Ala Asp Tyr Asp Phe Trp Ser Gly Val Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 455
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 455
gacatccaga tgacccagtc tccatcttct gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ctatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaaag tggatatcaa ac   322

<210> 456
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 456
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105
```

<210> 457
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 457
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagtctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcccctgtat 240
ctgcaaatga acagtctaat atctgaggac acggccttgt attactgtgc aaaagatgaa 300
agcagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 458
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 458
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Val Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Ile Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Glu Ser Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 459
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 459
ggattcacct ttgatgatta tgcc 24

<210> 460
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 460
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 461
attagttgga atagtggtag cata 24

<210> 462
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 462
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 463
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 463
gcaaaagatg aaagcagctc gtcggggaac tggttcgacc cc 42

<210> 464
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 464
Ala Lys Asp Glu Ser Ser Ser Ser Gly Asn Trp Phe Asp Pro
1 5 10

<210> 465
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 465
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagtctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctaat atctgaggac acggccttgt attactgtgc aaaagatgaa 300
agcagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 466
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 466
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Val Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Ile Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Glu Ser Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 467
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 467
gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatgaa 300
agcagctcgt cggggaactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca   363

<210> 468
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 468
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp Glu Ser Ser Ser Ser Gly Asn Trp Phe Asp Pro Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 469
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Gly

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Gly or Phe

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ser or Thr

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Phe

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Ser

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Ile, Ser, or Thr

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = His or Tyr

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = His, Gly, or Asp

<400> 469
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

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

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Ile

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Asn, Ser, or Gly

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = His, Phe, Ser, or Val

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Arg, Asp, or Ala

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Gly

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Gly or absent

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Ser, Asn, or Asp

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Thr or Lys

<400> 470
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

<210> 471
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Ala

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Arg or Lys

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Gly or Glu

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Gly, Asp, or absent

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Asp or absent

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Leu, Arg, or absent

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Arg or Ser

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Phe, Gly, or Arg

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Leu, His, or Asn

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Asp, Pro, or Tyr

<220>
<221> VARIANT
<222> (11)...(11)
<223> Xaa = Trp, Tyr, or Phe

<220>
<221> VARIANT
<222> (12)...(12)
<223> Xaa = Leu, Phe, Val, or Asp

<220>
<221> VARIANT
<222> (13)...(13)
<223> Xaa = Ser, Tyr, or Gly

<220>
<221> VARIANT
<222> (14)...(14)
<223> Xaa = Ser, Tyr, or Asp

<220>
<221> VARIANT
<222> (15)...(15)
<223> Xaa = Tyr

<220>
<221> VARIANT
<222> (16)...(16)
<223> Xaa = Phe or Gly

<220>
<221> VARIANT
<222> (17)...(17)
<223> Xaa = Leu or absent

<220>
<221> VARIANT
<222> (18)...(18)
<223> Xaa = Asp

<220>
<221> VARIANT
<222> (19)...(19)
<223> Xaa = Tyr, Val, or Phe

<220>
<221> VARIANT

<222> (20)...(20)
<223> Xaa = Trp

<400> 471
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5   10   15
Xaa Xaa Xaa Xaa
            20

<210> 472
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Gln

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Gly or Ser

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ile

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Ser or Asn

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Asp, Ser, or Arg

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Tyr or Trp

<400> 472
Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

<210> 473
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Ala or Lys

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Ala

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ser

<400> 473
Xaa Xaa Xaa
 1

<210> 474
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Gln

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Asn or Gln

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Tyr or Leu

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Asn, His, Ser, or Asp

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Thr or Ser

<220>
<221> VARIANT
<222> (6)...(6)

<223> Xaa = Ala or Tyr

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Pro, Ser, or Phe

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Leu or Arg

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Thr

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Phe

<400> 474
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5   10

<210> 475
<211> 1221
<212> DNA
<213> Homo sapiens

<400> 475
atgagcggtg ctccgacggc cggggcagcc ctgatgctct gcgccgccac cgccgtgcta 60
ctgagcgctc agggcggacc cgtgcagtcc aagtcgccgc gctttgcgtc ctgggacgag 120
atgaatgtcc tggcgcacgg actcctgcag ctcggccagg ggctgcgcga acacgcggag 180
cgcacccgca gtcagctgag cgcgctggag cggcgcctga gcgcgtgcgg gtccgcctgt 240
cagggaaccg aggggtccac cgacctcccg ttagcccctg agagccgggt ggaccctgag 300
gtccttcaca gcctgcagac acaactcaag gctcagaaca gcaggatcca gcaactcttc 360
cacaaggtgg cccagcagca gcggcacctg gagaagcagc acctgcgaat tcagcatctg 420
caaagccagt ttggcctcct ggaccacaag cacctagacc atgaggtggc caagcctgcc 480
cgaagaaaga ggctgcccga gatggcccag ccagttgacc cggctcacaa tgtcagccgc 540
ctgcaccggc tgcccaggga ttgccaggag ctgttccagg ttggggagag gcagagtgga 600
ctatttgaaa tccagcctca ggggtctccg ccatttttgg tgaactgcaa gatgacctca 660
gatggaggct ggacagtaat tcagaggcgc cacgatggct cagtggactt caaccggccc 720
tgggaagcct acaaggcggg gtttggggat ccccacggcg agttctggct gggtctggag 780
aaggtgcata gcatcacggg ggaccgcaac agccgcctgg ccgtgcagct gcgggactgg 840
gatggcaacg ccgagttgct gcagttctcc gtgcacctgg gtggcgagga cacggcctat 900
agcctgcagc tcactgcacc cgtggccggc cagctgggcg ccaccaccgt cccacccagc 960
ggcctctccg tacccttctc cacttgggac caggatcacg acctccgcag ggacaagaac 1020
tgcgccaaga gcctctctgg aggctggtgg tttggcacct gcagccattc caacctcaac 1080
ggccagtact tccgctccat cccacagcag cggcagaagc ttaagaaggg aatcttctgg 1140
aagacctggc ggggccgcta ctacccgctg caggccacca ccatgttgat ccagcccatg 1200
gcagcagagg cagcctccta g   1221

<210> 476
<211> 406

<212> PRT
<213> Homo sapiens

<400> 476
Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu Cys Ala Ala
 1   5   10   15
Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln Ser Lys Ser
            20   25   30
Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu
        35   40   45
Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser
    50   55   60
Gln Leu Ser Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly Ser Ala Cys
65   70   75   80
Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro Glu Ser Arg
                85   90   95
Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys Ala Gln
            100   105   110
Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln Gln Arg
        115   120   125
His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln Ser Gln Phe
    130   135   140
Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala Lys Pro Ala
145   150   155   160
Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp Pro Ala His
                165   170   175
Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln Glu Leu Phe
            180   185   190
Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln Pro Gln Gly
        195   200   205
Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp Gly Gly Trp
    210   215   220
Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe Asn Arg Pro
225   230   235   240
Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly Glu Phe Trp
                245   250   255
Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg Asn Ser Arg
            260   265   270
Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu Leu Leu Gln
        275   280   285
Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser Leu Gln Leu
    290   295   300
Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val Pro Pro Ser
305   310   315   320
Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His Asp Leu Arg
                325   330   335
Arg Asp Lys Asn Cys Ala Lys Ser Leu Ser Gly Gly Trp Trp Phe Gly
            340   345   350
Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe Arg Ser Ile Pro
        355   360   365
Gln Gln Arg Gln Lys Leu Lys Lys Gly Ile Phe Trp Lys Thr Trp Arg
    370   375   380
Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Met Leu Ile Gln Pro Met
385   390   395   400
Ala Ala Glu Ala Ala Ser
                405

<210> 477
<211> 1233
<212> DNA

<213> Mus muscular

<400> 477
atgcgctgcg ctccgacagc aggcgctgcc ctggtgctat gcgcggctac tgcggggctt 60
ttgagcgcgc aagggcgccc tgcacagcca gagccaccgc gctttgcatc ctgggacgag 120
atgaacttgc tggctcacgg gctgctacag ctcggccatg ggctgcgcga acacgtggag 180
cgcacccgtg ggcagctggg cgcgctggag cgccgcatgg ctgcctgtgg taacgcttgt 240
caggggccca agggaaaaga tgcacccttc aaagactccg aggatagagt ccctgaaggc 300
cagactcctg agactctgca gagtttgcag actcagctca aggctcaaaa cagcaagatc 360
cagcaattgt tccagaaggt ggcccagcag cagagatacc tatcaaagca gaatctgaga 420
atacagaatc ttcagagcca gatagacctc ttggccccca cgcacctaga caatggagta 480
gacaagactt cgaggggaaa gaggcttccc aagatgaccc agctcattgg cttgactccc 540
aacgccaccc acttacacag gccgccccgg gactgccagg aactcttcca agaaggggag 600
cggcacagtg gacttttcca gatccagcct ctggggtctc caccattttt ggtcaactgt 660
gagatgactt cagatggagg ctggacagtg attcagagac gcctgaacgg ctctgtggac 720
ttcaaccagt cctgggaagc ctacaaggat ggcttcggag atccccaagg cgagttctgg 780
ctgggcctgg aaaagatgca cagcatcaca gggaaccgag gaagccaatt ggctgtgcag 840
ctccaggact gggatggcaa tgccaaattg ctccaatttc ccatccattt ggggggtgag 900
gacacagcct acagcctgca gctcactgag cccacggcca atgagctggg tgccaccaat 960
gtttccccca atggcctttc cctgcccttc tctacttggg accaagacca tgacctccgt 1020
ggggacctta actgtgccaa gagcctctct ggtggctggt ggtttggtac ctgtagccat 1080
tccaatctca atggacaata cttccactct atcccacggc aacggcagga gcgtaaaaag 1140
ggtatcttct ggaaaacatg gaagggccgc tactatcctc tgcaggctac caccctgctg 1200
atccagccca tggaggctac agcagcctct tag 1233

<210> 478
<211> 410
<212> PRT
<213> Mus muscular

<400> 478
Met Arg Cys Ala Pro Thr Ala Gly Ala Ala Leu Val Leu Cys Ala Ala
 1   5   10   15
Thr Ala Gly Leu Leu Ser Ala Gln Gly Arg Pro Ala Gln Pro Glu Pro
            20   25   30
Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Leu Leu Ala His Gly Leu
        35   40   45
Leu Gln Leu Gly His Gly Leu Arg Glu His Val Glu Arg Thr Arg Gly
    50   55   60
Gln Leu Gly Ala Leu Glu Arg Arg Met Ala Ala Cys Gly Asn Ala Cys
65   70   75   80
Gln Gly Pro Lys Gly Lys Asp Ala Pro Phe Lys Asp Ser Glu Asp Arg
                85   90   95
Val Pro Glu Gly Gln Thr Pro Glu Thr Leu Gln Ser Leu Gln Thr Gln
            100   105   110
Leu Lys Ala Gln Asn Ser Lys Ile Gln Gln Leu Phe Gln Lys Val Ala
        115   120   125
Gln Gln Gln Arg Tyr Leu Ser Lys Gln Asn Leu Arg Ile Gln Asn Leu
    130   135   140
Gln Ser Gln Ile Asp Leu Leu Ala Pro Thr His Leu Asp Asn Gly Val
145   150   155   160
Asp Lys Thr Ser Arg Gly Lys Arg Leu Pro Lys Met Thr Gln Leu Ile
                165   170   175
Gly Leu Thr Pro Asn Ala Thr His Leu His Arg Pro Pro Arg Asp Cys
            180   185   190
Gln Glu Leu Phe Gln Glu Gly Glu Arg His Ser Gly Leu Phe Gln Ile
        195   200   205
Gln Pro Leu Gly Ser Pro Pro Phe Leu Val Asn Cys Glu Met Thr Ser
    210   215   220
Asp Gly Gly Trp Thr Val Ile Gln Arg Arg Leu Asn Gly Ser Val Asp
225   230   235   240

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Phe Asn Gln Ser Trp Glu Ala Tyr Lys Asp Gly Phe Gly Asp Pro Gln
                245                 250                 255
Gly Glu Phe Trp Leu Gly Leu Glu Lys Met His Ser Ile Thr Gly Asn
            260                 265                 270
Arg Gly Ser Gln Leu Ala Val Gln Leu Gln Asp Trp Asp Gly Asn Ala
        275                 280                 285
Lys Leu Leu Gln Phe Pro Ile His Leu Gly Gly Glu Asp Thr Ala Tyr
    290                 295                 300
Ser Leu Gln Leu Thr Glu Pro Thr Ala Asn Glu Leu Gly Ala Thr Asn
305                 310                 315                 320
Val Ser Pro Asn Gly Leu Ser Leu Pro Phe Ser Thr Trp Asp Gln Asp
                325                 330                 335
His Asp Leu Arg Gly Asp Leu Asn Cys Ala Lys Ser Leu Ser Gly Gly
            340                 345                 350
Trp Trp Phe Gly Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe
        355                 360                 365
His Ser Ile Pro Arg Gln Arg Gln Glu Arg Lys Lys Gly Ile Phe Trp
    370                 375                 380
Lys Thr Trp Lys Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Leu Leu
385                 390                 395                 400
Ile Gln Pro Met Glu Ala Thr Ala Ala Ser
                405                 410
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<210> 479
<211> 1110
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 479
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ggacccgtgc agtccaagtc gccgcgcttt gcgtcctggg acgagatgaa tgtcctggcg 60
cacggactcc tgcagctcgg ccaggggctg cgcgaacacg cggagcgcac ccgcagtcag 120
ctgagcgcgc tggagcggcg cctgagcgcg tgcgggtccg cctgtcaggg aaccgagggg 180
tccaccgacc tcccgttagc ccctgagagc cgggtggacc ctgaggtcct tcacagcctg 240
cagacacaac tcaaggctca gaacagcagg atccagcaac tcttccacaa ggtggcccag 300
cagcagcggc acctggagaa gcagcacctg cgaattcagc atctgcaaag ccagtttggc 360
ctcctggacc ccgggtctct cgaattcgcc cttgagagaa actccggaga gcccagaggg 420
cccacaatca agccctgtcc tccatgcaaa tgcccagcac ctaacctctt gggtggacca 480
tccgtcttca tcttccctcc aaagatcaag gatgtactca tgatctccct gagccccata 540
gtcacatgtg tggtggtgga tgtgagcgag gatgacccag atgtccagat cagctggttt 600
gtgaacaacg tggaagtaca cacagctcag acacaaaccc atagagagga ttacaacagt 660
actctccggg tggtcagtgc cctccccatc cagcaccagg actggatgag tggcaaggag 720
ttcaaatgca aggtcaacaa caaagacctc ccagcgccca tcgagagaac catctcaaaa 780
cccaaagggt cagtaagagc tccacaggta tatgtcttgc ctccaccaga agaagagatg 840
actaagaaac aggtcactct gacctgcatg gtcacagact tcatgcctga agacatttac 900
gtggagtgga ccaacaacgg gaaaacagag ctaaactaca agaacactga accagtcctg 960
gactctgatg gttcttactt catgtacagc aagctgagag tggaaaagaa gaactgggtg 1020
gaaagaaata gctactcctg ttcagtggtc cacgagggtc tgcacaatca ccacacgact 1080
aagagcttct cccggactcc gggtaaatga                                  1110
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<210> 480
<211> 369
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 480
Gly Pro Val Gln Ser Lys Ser Pro Arg Phe Ala Ser Trp Asp Glu Met
 1   5   10   15
Asn Val Leu Ala His Gly Leu Leu Gln Leu Gly Gln Gly Leu Arg Glu
            20   25   30
His Ala Glu Arg Thr Arg Ser Gln Leu Ser Ala Leu Glu Arg Arg Leu
        35   40   45
Ser Ala Cys Gly Ser Ala Cys Gln Gly Thr Glu Gly Ser Thr Asp Leu
    50   55   60
Pro Leu Ala Pro Glu Ser Arg Val Asp Pro Glu Val Leu His Ser Leu
65   70   75   80
Gln Thr Gln Leu Lys Ala Gln Asn Ser Arg Ile Gln Gln Leu Phe His
                85   90   95
Lys Val Ala Gln Gln Gln Arg His Leu Glu Lys Gln His Leu Arg Ile
            100   105   110
Gln His Leu Gln Ser Gln Phe Gly Leu Leu Asp Pro Gly Ser Leu Glu
        115   120   125
Phe Ala Leu Glu Arg Asn Ser Gly Glu Pro Arg Gly Pro Thr Ile Lys
    130   135   140
Pro Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro
145   150   155   160
Ser Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser
                165   170   175
Leu Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp
            180   185   190
Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr
        195   200   205
Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val
    210   215   220
Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu
225   230   235   240
Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg
                245   250   255
Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val
            260   265   270
Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr
        275   280   285
Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr
    290   295   300
Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu
305   310   315   320
Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys
                325   330   335
Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu
            340   345   350
Gly Leu His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly
        355   360   365
Lys

<210> 481
<211> 330
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 481
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys

```
 1               5                  10                  15
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80
Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95
Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
        115                 120                 125
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205
Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
    210                 215                 220
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240
Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300
Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320
Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325                 330
```

<210> 482
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 482

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1               5                  10                  15
Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
```

```
65                  70                  75                  80
Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95
Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
            100                 105                 110
Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        115                 120                 125
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    130                 135                 140
Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145                 150                 155                 160
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205
Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    210                 215                 220
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285
Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320
Leu Ser Leu Ser Leu Gly Lys
                325
```

<210> 483
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 483

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1               5                  10                  15
Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65                  70                  75                  80
Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95
Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110
Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        115                 120                 125
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
```

```
    130                 135                 140
Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145                 150                 155                 160
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205
Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    210                 215                 220
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285
Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320
Leu Ser Leu Ser Leu Gly Lys
                325
```

<210> 484
<211> 455
<212> PRT
<213> Mus muscular

<400> 484

```
Met His Thr Ile Lys Leu Phe Leu Phe Val Val Pro Leu Val Ile Ala
 1               5                  10                  15
Ser Arg Val Asp Pro Asp Leu Ser Ser Phe Asp Ser Ala Pro Ser Glu
            20                  25                  30
Pro Lys Ser Arg Phe Ala Met Leu Asp Asp Val Lys Ile Leu Ala Asn
        35                  40                  45
Gly Leu Leu Gln Leu Gly His Gly Leu Lys Asp Phe Val His Lys Thr
    50                  55                  60
Lys Gly Gln Ile Asn Asp Ile Phe Gln Lys Leu Asn Ile Phe Asp Gln
65                  70                  75                  80
Ser Phe Tyr Asp Leu Ser Leu Arg Thr Asn Glu Ile Lys Glu Glu Glu
                85                  90                  95
Lys Glu Leu Arg Arg Thr Thr Ser Thr Leu Gln Val Lys Asn Glu Glu
            100                 105                 110
Val Lys Asn Met Ser Val Glu Leu Asn Ser Lys Leu Glu Ser Leu Leu
        115                 120                 125
Glu Glu Lys Thr Ala Leu Gln His Lys Val Arg Ala Leu Glu Glu Gln
    130                 135                 140
Leu Thr Asn Leu Ile Leu Ser Pro Ala Gly Ala Gln Glu His Pro Glu
145                 150                 155                 160
Val Thr Ser Leu Lys Ser Phe Val Glu Gln Gln Asp Asn Ser Ile Arg
                165                 170                 175
Glu Leu Leu Gln Ser Val Glu Glu Gln Tyr Lys Gln Leu Ser Gln Gln
            180                 185                 190
His Met Gln Ile Lys Glu Ile Glu Lys Gln Leu Arg Lys Thr Gly Ile
        195                 200                 205
Gln Glu Pro Ser Glu Asn Ser Leu Ser Ser Lys Ser Arg Ala Pro Arg
    210                 215                 220
```

```
Thr Thr Pro Pro Leu Gln Leu Asn Glu Thr Glu Asn Thr Glu Gln Asp
225                 230                 235                 240
Asp Leu Pro Ala Asp Cys Ser Ala Val Tyr Asn Arg Gly Glu His Thr
                245                 250                 255
Ser Gly Val Tyr Thr Ile Lys Pro Arg Asn Ser Gln Gly Phe Asn Val
            260                 265                 270
Tyr Cys Asp Thr Gln Ser Gly Ser Pro Trp Thr Leu Ile Gln His Arg
        275                 280                 285
Lys Asp Gly Ser Gln Asp Phe Asn Glu Thr Trp Glu Asn Tyr Glu Lys
    290                 295                 300
Gly Phe Gly Arg Leu Asp Gly Glu Phe Trp Leu Gly Leu Glu Lys Ile
305                 310                 315                 320
Tyr Ala Ile Val Gln Gln Ser Asn Tyr Ile Leu Arg Leu Glu Leu Gln
                325                 330                 335
Asp Trp Lys Asp Ser Lys His Tyr Val Glu Tyr Ser Phe His Leu Gly
            340                 345                 350
Ser His Glu Thr Asn Tyr Thr Leu His Val Ala Glu Ile Ala Gly Asn
        355                 360                 365
Ile Pro Gly Ala Leu Pro Glu His Thr Asp Leu Met Phe Ser Thr Trp
    370                 375                 380
Asn His Arg Ala Lys Gly Gln Leu Tyr Cys Pro Glu Ser Tyr Ser Gly
385                 390                 395                 400
Gly Trp Trp Trp Asn Asp Ile Cys Gly Glu Asn Asn Leu Asn Gly Lys
                405                 410                 415
Tyr Asn Lys Pro Arg Thr Lys Ser Arg Pro Glu Arg Arg Arg Gly Ile
            420                 425                 430
Tyr Trp Arg Pro Gln Ser Arg Lys Leu Tyr Ala Ile Lys Ser Ser Lys
        435                 440                 445
Met Met Leu Gln Pro Thr Thr
    450                 455


<210> 485
<211> 460
<212> PRT
<213> Homo sapiens

<400> 485
Met Phe Thr Ile Lys Leu Leu Leu Phe Ile Val Pro Leu Val Ile Ser
 1               5                  10                  15
Ser Arg Ile Asp Gln Asp Asn Ser Ser Phe Asp Ser Leu Ser Pro Glu
            20                  25                  30
Pro Lys Ser Arg Phe Ala Met Leu Asp Asp Val Lys Ile Leu Ala Asn
        35                  40                  45
Gly Leu Leu Gln Leu Gly His Gly Leu Lys Asp Phe Val His Lys Thr
    50                  55                  60
Lys Gly Gln Ile Asn Asp Ile Phe Gln Lys Leu Asn Ile Phe Asp Gln
65                  70                  75                  80
Ser Phe Tyr Asp Leu Ser Leu Gln Thr Ser Glu Ile Lys Glu Glu Glu
                85                  90                  95
Lys Glu Leu Arg Arg Thr Thr Tyr Lys Leu Gln Val Lys Asn Glu Glu
            100                 105                 110
Val Lys Asn Met Ser Leu Glu Leu Asn Ser Lys Leu Glu Ser Leu Leu
        115                 120                 125
Glu Glu Lys Ile Leu Leu Gln Gln Lys Val Lys Tyr Leu Glu Glu Gln
    130                 135                 140
Leu Thr Asn Leu Ile Gln Asn Gln Pro Glu Thr Pro Glu His Pro Glu
145                 150                 155                 160
Val Thr Ser Leu Lys Thr Phe Val Glu Lys Gln Asp Asn Ser Ile Lys
                165                 170                 175
Asp Leu Leu Gln Thr Val Glu Asp Gln Tyr Lys Gln Leu Asn Gln Gln
```

```
            180                 185                 190
His Ser Gln Ile Lys Glu Ile Glu Asn Gln Leu Arg Arg Thr Ser Ile
        195                 200                 205
Gln Glu Pro Thr Glu Ile Ser Leu Ser Ser Lys Pro Arg Ala Pro Arg
    210                 215                 220
Thr Thr Pro Phe Leu Gln Leu Asn Glu Ile Arg Asn Val Lys His Asp
225                 230                 235                 240
Gly Ile Pro Ala Glu Cys Thr Thr Ile Tyr Asn Arg Gly Glu His Thr
                245                 250                 255
Ser Gly Met Tyr Ala Ile Arg Pro Ser Asn Ser Gln Val Phe His Val
            260                 265                 270
Tyr Cys Asp Val Ile Ser Gly Ser Pro Trp Thr Leu Ile Gln His Arg
        275                 280                 285
Ile Asp Gly Ser Gln Asn Phe Asn Glu Thr Trp Glu Asn Tyr Lys Tyr
    290                 295                 300
Gly Phe Gly Arg Leu Asp Gly Glu Phe Trp Leu Gly Leu Glu Lys Ile
305                 310                 315                 320
Tyr Ser Ile Val Lys Gln Ser Asn Tyr Val Leu Arg Ile Glu Leu Glu
                325                 330                 335
Asp Trp Lys Asp Asn Lys His Tyr Ile Glu Tyr Ser Phe Tyr Leu Gly
            340                 345                 350
Asn His Glu Thr Asn Tyr Thr Leu His Leu Val Ala Ile Thr Gly Asn
        355                 360                 365
Val Pro Asn Ala Ile Pro Glu Asn Lys Asp Leu Val Phe Ser Thr Trp
    370                 375                 380
Asp His Lys Ala Lys Gly His Phe Asn Cys Pro Glu Gly Tyr Ser Gly
385                 390                 395                 400
Gly Trp Trp Trp His Asp Glu Cys Gly Glu Asn Asn Leu Asn Gly Lys
                405                 410                 415
Tyr Asn Lys Pro Arg Ala Lys Ser Lys Pro Glu Arg Arg Arg Gly Leu
            420                 425                 430
Ser Trp Lys Ser Gln Asn Gly Arg Leu Tyr Ser Ile Lys Ser Thr Lys
        435                 440                 445
Met Leu Ile His Pro Thr Asp Ser Glu Ser Phe Glu
    450                 455                 460
```

<210> 486
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 486
caggtacagc tgcagcagtc gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcactg tctatggtgg atccttcagt attcatcact ggacctggat ccgccatccc 120
ccagggaagg ggctggagtg gattggggag atcaatcatc gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca atagacacgt ccaagaacca gttctccctg 240
aagctgagcg ctgtgaccgc cgcggacacg gctgtatatt actgtgcgag aggcttacga 300
tttttggact ggttatcgtc ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 487
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 487
Gln Val Gln Leu Gln Gln Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Tyr Gly Gly Ser Phe Ser Ile His
            20   25   30
His Trp Thr Trp Ile Arg His Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ala Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Leu Arg Phe Leu Asp Trp Leu Ser Ser Tyr Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 488
<211> 130
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 488
Met His His His His His His Gly Pro Val Gln Ser Lys Ser Pro Arg
 1   5   10   15
Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu Leu Gln
            20   25   30
Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser Gln Leu
        35   40   45
Asn Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly Ser Ala Cys Gln Gly
    50   55   60
Thr Glu Gly Ser Thr Ala Leu Pro Leu Ala Pro Glu Ser Arg Val Asp
65   70   75   80
Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys Ala Gln Asn Ser
                85   90   95
Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln Gln Arg His Leu
            100   105   110
Glu Lys Gln His Leu Arg Ile Gln Arg Leu Gln Ser Gln Val Gly Leu
        115   120   125
Leu Asp
    130

<210> 489
<211> 444
<212> DNA
<213> Macaca fascicularis

<400> 489
atgcgcggtg ctccgacggc cggagcagcc ctgatgctct gcgtcgccac ggccgtgctg 60
ctgagagctc agggcggccc ggtgcagtcc aagtctccgc gctttgcgtc ctgggacgag 120
atgaatgtcc tggcgcacgg actcctgcag ctaggccagg ggctgcgcga acacgcggag 180
cgcacccgca gtcagctgaa cgcgctggag cggcgcctca gcgcttgcgg gtctgcctgc 240
cagggaaccg aggggtccac cgccctcccg ttagcccctg agagccgggt ggaccctgag 300

```
gtccttcaca gcctgcagac acaactcaag gctcagaaca gcaggatcca gcaactcttc 360
cacaaggtgg cccagcagca gcggcacctg gagaagcagc acctgcgaat tcagcgtctg 420
caaagccagg ttggcctcct ggac                                       444

<210> 490
<211> 148
<212> PRT
<213> Macaca fascicularis

<400> 490
Met Arg Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu Cys Val Ala
 1               5                  10                  15
Thr Ala Val Leu Leu Arg Ala Gln Gly Gly Pro Val Gln Ser Lys Ser
            20                  25                  30
Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu
        35                  40                  45
Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser
    50                  55                  60
Gln Leu Asn Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly Ser Ala Cys
65                  70                  75                  80
Gln Gly Thr Glu Gly Ser Thr Ala Leu Pro Leu Ala Pro Glu Ser Arg
                85                  90                  95
Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys Ala Gln
            100                 105                 110
Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln Gln Arg
        115                 120                 125
His Leu Glu Lys Gln His Leu Arg Ile Gln Arg Leu Gln Ser Gln Val
    130                 135                 140
Gly Leu Leu Asp
145


<210> 491
<211> 444
<212> DNA
<213> Macaca mulatta

<400> 491
atgcgcggtg ctccgacggc cggagcagcc ctgatgctct gcgtcgccac ggccgtgctg 60
ctgagagctc agggcggccc ggtgcagtcc aagtctccgc gcttcgcgtc ctgggacgag 120
atgaatgtcc tggcgcacgg actcctgcag ctaggccagg ggctgcgcga acacgcggag 180
cgcacccgca gtcagctgaa cgcgctggag cggcgcctca gcgcttgcgg gtctgcctgc 240
cagggaaccg aggggtccac cgccctcccg ttagcccctg agagccgggt ggaccctgag 300
gtccttcaca gcctgcagac acaactcaag gctcagaaca gcaggatcca gcaactcttc 360
cacaaggtgg cccagcagca gcggcacctg gagaagcagc acctgcgaat tcagcgtctg 420
caaagccagg ttggcctcct ggac                                       444

<210> 492
<211> 148
<212> PRT
<213> Macaca mulatta

<400> 492
Met Arg Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu Cys Val Ala
 1               5                  10                  15
Thr Ala Val Leu Leu Arg Ala Gln Gly Gly Pro Val Gln Ser Lys Ser
            20                  25                  30
Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu
        35                  40                  45
Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser
    50                  55                  60
```

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