SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> HUMAN ANTIBODIES TO FEL D1 AND METHODS OF USE THEREOF

<130> 7500A-WO

<140> To be assigned
<141> Filed herewith

<160> 490

<170> FastSEQ for Windows Version 4.0

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ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaagtga gacatactgt 180
gtggactctg tgaagggccg attcaccatc tccagagacc acgccaagaa ctcactgttt 240
ctgcaaatga acagcctgag agccgaggac acggctgtat attactgtgc aagaggagct 300
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Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Ile Phe Ser Asn Phe
            20                  25                  30
Trp Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Asn Ile Lys Gln Asp Gly Ser Glu Thr Tyr Cys Val Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp His Ala Lys Asn Ser Leu Phe
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 Gly Ala Gly Thr Ile Tyr Tyr Tyr Gly Met Asp Val Trp Gly
            100                 105                 110
Gln Gly Thr Thr Val Ile Val Ser Ser
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Ile Lys Gln Asp Gly Ser Glu Thr
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<400> 8
Ala Arg Gly Ala Gly Thr Ile Tyr Tyr Tyr Gly Met Asp Val
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<210> 9
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gggaaagccc ctaacctcct gatctatgct gcatccggtt tgcaaagtgg agtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcaa cctgcagcct 240
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            20                  25                  30
Leu Thr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Gly 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 Asn Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
                85                  90                  95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
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<400> 12
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<210> 14
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<400> 14
Ala Ala Ser
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ccagggaagg ggctggagtg ggtctcactc atcagtggta gtagtagtta catatattac 180
gcagactcag tgaagggccg attcaccgtc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gaggcggaca 300
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20 25 30
Asn Ile Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Leu Ile Ser Gly Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Val 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 Val Tyr Tyr Cys
85 90 95
Ala Arg Arg Thr Leu Ser Tyr Tyr Val Met Asp Val Trp Gly Gln Gly
100 105 110
Thr Thr Val Thr Val Ser Ser
115

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<210> 20
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<400> 20
Gly Phe Thr Phe Arg Asn Tyr Asn
1 5

<210> 21
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<400> 21
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<210> 22
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<220>
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<400> 22
Ile Ser Gly Ser Ser Ser Tyr Ile
1 5

<210> 23
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<400> 23
gcgaggcgga cattaagcta ctacgttatg gacgtc 36

<210> 24
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<220>
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<400> 24
Ala Arg Arg Thr Leu Ser Tyr Tyr Val Met Asp Val
1 5 10

<210> 25
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gggagagttc ctcagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Arg Val Pro Gln 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 Lys Tyr Asn Ser Ala Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
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<400> 28
Gln Gly Ile Ser Asn Tyr
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<210> 29
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<400> 29
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<400> 30
Ala Ala Ser
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<400> 31
caaaagtata acagtgcccc gtacact 27

<210> 32
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<400> 32
Gln Lys Tyr Asn Ser Ala Pro Tyr Thr
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cagtccccat cgagaggcct tgagtggctg gggaggacat actacaggtc caaatggtat 180
aatgattatg cagtatctgt gaaaagtcga ataaacatca acccagacac atccaagaac 240
cacttctccc tgcagttgaa ttctgtgact cccgaggaca cggctgttta tttctgtgca 300
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tca 363

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


<210> 35
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<400> 35
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<210> 36
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<400> 36
Gly Asp Ser Val Ser Ser Asn Ser Val Ala
 1               5                  10


<210> 37
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<400> 37
acatactaca ggtccaaatg gtataat 27

<210> 38
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<400> 38
Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn
1 5

<210> 39
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<212> DNA
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<400> 39
gcaagagcct ggaactggta ctaccttgac tac 33

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<400> 40
Ala Arg Ala Trp Asn Trp Tyr Tyr Leu Asp Tyr
1 5 10

<210> 41
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<400> 41
gatattgtga tgacccagtc tccagactcc ctggctatgt ctctaggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ttacttaggt 120
tggtaccagc agaaaccagg acagcctcct aaactgctca tttactgggc atctacccgg 180
gaatccggtg tccctgaccg aatcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata tcttagaaat 300
acgctcactt tcggcggagg gaccaaggtg gagatcaaa 339

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

<210> 43
<211> 36
<212> DNA
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<223> Synthetic

<400> 43
cagagtgttt tatacagctc caacaataag aattac 36

<210> 44
<211> 12
<212> PRT
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<400> 44
Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
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<210> 45
<211> 9
<212> DNA
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<400> 45
tgggcatct 9

<210> 46
<211> 3
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<223> Synthetic

<400> 46
Trp Ala Ser
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<210> 47
<211> 27
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<400> 47
cagcaatatc ttagaaatac gctcact 27

<210> 48
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<400> 48
Gln Gln Tyr Leu Arg Asn Thr Leu Thr
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<210> 49
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<212> DNA
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tcctgtgcag cctctggatt caccttcagt agctatagca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcatcc attagtagta gaagtagtta catatactac 180
gcagactcag tgaagggccg attcaccatc tcaagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attattgtgc gagagatcat 300
attgtagtag taccaggtgc ctcctactac tactacggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
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20 25 30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ser Ile Ser Ser Arg Ser Ser Tyr Ile Tyr 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 Val Tyr Tyr Cys
85 90 95
Ala Arg Asp His Ile Val Val Val Pro Gly Ala Ser Tyr Tyr Tyr Tyr
100 105 110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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ggattcacct tcagtagcta tagc 24

<210> 52
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<400> 52
Gly Phe Thr Phe Ser Ser Tyr Ser
1 5

<210> 53
<211> 24
<212> DNA
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<220>
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<400> 53
attagtagta gaagtagtta cata 24

<210> 54
<211> 8
<212> PRT
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<220>
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<400> 54
Ile Ser Ser Arg Ser Ser Tyr Ile
1 5

<210> 55
<211> 60
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<400> 55
gcgagagatc atattgtagt agtaccaggt gcctcctact actactacgg tatggacgtc 60

<210> 56
<211> 20
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<400> 56
Ala Arg Asp His Ile Val Val Val Pro Gly Ala Ser Tyr Tyr Tyr Tyr
 1               5                  10                  15
Gly Met Asp Val
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<212> DNA
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gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctctgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a                                           321

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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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
Ser 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 Leu Gln His Asn Ser Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105

<210> 59
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<220>
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<400> 59
cagggcatta gaaatgat                                              18

<210> 60
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<220>
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<400> 60

Gln Gly Ile Arg Asn Asp
 1               5

<210> 61
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<220>
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<400> 61
gctgcatcc 9

<210> 62
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<400> 62
Ala Ala Ser
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<210> 63
<211> 27
<212> DNA
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<220>
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<400> 63
ctacagcata atagttaccc gctcact 27

<210> 64
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<220>
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<400> 64
Leu Gln His Asn Ser Tyr Pro Leu Thr
 1               5

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<212> DNA
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<400> 65
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tcctgcaagg cttctggata caccttcacc gactactata tacactggat acgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaaccctg acagtggtcg cacaaactat 180
gcacagaagt ttcaggtcag ggtcaccatg accagggaca cgtccatcac cacagcctac 240
atggaactga acagactgaa atctgacgac acggccgtgt attactgtgc gagaggaccc 300
ctacgtggat atagcggcta cgatttttt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

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<400> 66
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Glu Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20                  25                  30
Tyr Ile His Trp Ile Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Asn Pro Asp Ser Gly Arg Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Val Arg Val Thr Met Thr Arg Asp Thr Ser Ile Thr Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Asn Arg Leu Lys Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Pro Leu Arg Gly Tyr Ser Gly Tyr Asp Phe Phe Asp Tyr
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


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<220>
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<400> 67
ggatacacct tcaccgacta ctat                                          24

<210> 68
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<212> PRT
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<220>
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<400> 68
Gly Tyr Thr Phe Thr Asp Tyr Tyr
 1               5


<210> 69
<211> 24
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<220>
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<400> 69
atcaaccctg acagtggtcg caca                                          24

<210> 70
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<400> 70
Ile Asn Pro Asp Ser Gly Arg Thr
 1               5


<210> 71
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<212> DNA
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<400> 71
gcgagaggac ccctacgtgg atatagcggc tacgattttt ttgactac 48

<210> 72
<211> 16
<212> PRT
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<400> 72
Ala Arg Gly Pro Leu Arg Gly Tyr Ser Gly Tyr Asp Phe Phe Asp Tyr
 1               5                   10                  15


<210> 73
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<212> DNA
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<400> 73
gacatcgtga tgacccagtc tccagactcc ctggctatat ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagca gtacttagct 120
tggtacaagc agagaccagg acagcctcct aagctgctca tttcctggac atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttatttct gtcaacaata ttatagtact 300
ccgtacactt ttggccaggg gaccaagctg gagatcaga 339

<210> 74
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 74
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Ile Ser Leu Gly
 1               5                   10                  15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
            20                  25                  30
Ser Asn Asn Lys Gln Tyr Leu Ala Trp Tyr Lys Gln Arg Pro Gly Gln
        35                  40                  45
Pro Pro Lys Leu Leu Ile Ser Trp Thr Ser Thr Arg Glu Ser Gly Val
    50                  55                  60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                  80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln

85 90 95
Tyr Tyr Ser Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110
Arg

<210> 75
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 75
cagagtgttt tatacagctc caacaataag cagtac 36

<210> 76
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 76
Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Gln Tyr
1 5 10

<210> 77
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 77
tggacatct 9

<210> 78
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 78
Trp Thr Ser
1

<210> 79
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 79
caacaatatt atagtactcc gtacact 27

<210> 80
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 80
Gln Gln Tyr Tyr Ser Thr Pro Tyr Thr
 1               5


<210> 81
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 81
caggtggtac tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
gtagactccg tgaagggccg attcaccatc tccagagaca attccaataa cacaatctat 240
ctgcaaatga acagcctgag agccgaggac acggctgtat attactgtgc gagatccctt 300
ataccagtgg ctggtacgga ccccattttt ggatactggg gccagggaac cctggtcacc 360
gtctcctca                                                         369

<210> 82
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 82
Gln Val Val 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 Val Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Asn Thr Ile 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 Ser Leu Ile Pro Val Ala Gly Thr Asp Pro Ile Phe Gly Tyr
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 83
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 83
ggattcacct tcagtagcta tggc                                        24

<210> 84
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 84
Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5


<210> 85
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 85
atatggtatg atggaagtaa taaa                                          24

<210> 86
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 86
Ile Trp Tyr Asp Gly Ser Asn Lys
 1               5


<210> 87
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 87
gcgagatccc ttataccagt ggctggtacg gaccccattt ttggatac                48

<210> 88
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 88
Ala Arg Ser Leu Ile Pro Val Ala Gly Thr Asp Pro Ile Phe Gly Tyr
 1               5                  10                  15


<210> 89
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 89

gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtgttagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctttaag gcgtctggtt tagaaagtgg ggtcccattt 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 90
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 90
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 Val 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
Phe Lys Ala Ser Gly Leu Glu Ser Gly Val Pro Phe 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 Pro
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 91
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 91
cagagtgtta gtagctgg 18

<210> 92
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 92
Gln Ser Val Ser Ser Trp
 1               5


<210> 93
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 93
aaggcgtct 9

<210> 94

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

<220>
<223> Synthetic

<400> 94
Lys Ala Ser
 1

<210> 95
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 95
caacagtata atacttattc tccgacg 27

<210> 96
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 96
Gln Gln Tyr Asn Thr Tyr Ser Pro Thr
 1               5

<210> 97
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 97
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggatat atctattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt caccatatca gtggacacgt ccaagaacca gttctccctg 240
aagctgaggt ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgag acatcgtata 300
actagaactg cggactcctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 98
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 98
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Asn Tyr
            20                  25                  30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

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

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

<220>
<223> Synthetic

<400> 99
ggtggctcca tcagtaatta ctac 24

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

<220>
<223> Synthetic

<400> 100
Gly Gly Ser Ile Ser Asn Tyr Tyr
1 5

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

<220>
<223> Synthetic

<400> 101
atctattata gtgggagaac c 21

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

<220>
<223> Synthetic

<400> 102
Ile Tyr Tyr Ser Gly Arg Thr
1 5

<210> 103
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
gcgagacatc gtataactag aactgcggac tcctttgact ac 42

<210> 104
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
Ala Arg His Arg Ile Thr Arg Thr Ala Asp Ser Phe Asp Tyr
1 5 10

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

<220>
<223> Synthetic

<400> 105
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatgttg caacatttta ctgtcaccag tatggtgatc tcccgtacac ttttggccag 300
gggaccaagc 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 Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Val Ala Thr Phe Tyr Cys His Gln Tyr Gly Asp Leu Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

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

<220>
<223> Synthetic

<400> 107
caggacatta ccaactat 18

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

<220>
<223> Synthetic

<400> 108
Gln Asp Ile Thr Asn Tyr
 1               5


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

<220>
<223> Synthetic

<400> 109
gatgcatcc                                                                9

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

<220>
<223> Synthetic

<400> 110
Asp Ala Ser
 1


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

<220>
<223> Synthetic

<400> 111
caccagtatg gtgatctccc gtacact                                           27

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

<220>
<223> Synthetic

<400> 112
His Gln Tyr Gly Asp Leu Pro Tyr Thr
 1               5


<210> 113
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 113
caggtggtat tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atttggtatg atggaagtat taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaataa cacaatctat 240
ctgcaaatga acagcctgag agccgaggac acggctgtat attactgtgc gagagccctt 300
ataccagtgg ctggtacgga ccccattttt gggtactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 114
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114
Gln Val Val 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 Ile Lys Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Asn Thr Ile 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 Ala Leu Ile Pro Val Ala Gly Thr Asp Pro Ile Phe Gly Tyr
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 115
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 115
ggattcacct tcagtagcta tggc 24

<210> 116
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116
Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5


<210> 117
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 117
atttggtatg atggaagtat taaa 24

<210> 118
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118
Ile Trp Tyr Asp Gly Ser Ile Lys
1 5

<210> 119
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 119
gcgagagccc ttataccagt ggctggtacg gaccccattt ttgggtac 48

<210> 120
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 120
Ala Arg Ala Leu Ile Pro Val Ala Gly Thr Asp Pro Ile Phe Gly Tyr
1 5 10 15

<210> 121
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 121
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtgttagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctttaag acgtctggtt tagaaagtgg ggtcccattt 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa a 321

<210> 122
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 122
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 Val 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
Phe Lys Thr Ser Gly Leu Glu Ser Gly Val Pro Phe 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 Pro
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 123
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 123
cagagtgtta gtagctgg 18

<210> 124
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 124
Gln Ser Val Ser Ser Trp
1 5

<210> 125
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 125
aagacgtct 9

<210> 126
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 126
Lys Thr Ser
1

<210> 127
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 127
caacagtata atacttattc tccgacg 27

<210> 128
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 128
Gln Gln Tyr Asn Thr Tyr Ser Pro Thr
 1               5

<210> 129
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 129
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggatat atctattaca gtgggagaac caactacaac 180
ccctccctca agagtcgagt caccatatca gtggacacgt ccaagaacca gttctccctg 240
aaactgagct ctgtgaccgc cgcagacacg gccatttatt actgtgcgag acatcgtgta 300
actagaactg cggactcctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 130
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 130
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
            20                  25                  30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Tyr Ile Tyr Tyr Ser Gly Arg 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 Ile Tyr Tyr Cys Ala
                85                  90                  95
Arg His Arg Val Thr Arg Thr Ala Asp Ser Phe Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120

<210> 131
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 131
ggtggctcca tcagtagtta ctac 24

<210> 132
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 132
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 133
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 133
atctattaca gtgggagaac c 21

<210> 134
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 134
Ile Tyr Tyr Ser Gly Arg Thr
1 5

<210> 135
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 135
gcgagacatc gtgtaactag aactgcggac tcctttgact ac 42

<210> 136
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 136
Ala Arg His Arg Val Thr Arg Thr Ala Asp Ser Phe Asp Tyr
1 5 10

<210> 137
<211> 321

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 137
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattaac aactatttaa attggtatca gcagaaaaca 120
gggaaagccc ctaagttcct gatctacgat gcatccaatt tggaaacagg ggtctcatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatgttg gaacatatta ctgtcaccag tatggtgatc tcccgtacac ttttggccag 300
gggaccaagc tggagatcaa a 321

<210> 138
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


<210> 139
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 139
caggacatta acaactat 18

<210> 140
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 140
Gln Asp Ile Asn Asn Tyr
 1               5


<210> 141
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 141
gatgcatcc 9

<210> 142
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 142
Asp Ala Ser
1

<210> 143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 143
caccagtatg gtgatctccc gtacact 27

<210> 144
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 144
His Gln Tyr Gly Asp Leu Pro Tyr Thr
1 5

<210> 145
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 145
gaggtgcagc tggtggagtc tgggggaggc ctggtcaggc cgggggggatc cctgagactc 60
tcctgtgcag cctctggatt caccttcact agctatgcca tgaattgggt ccgccaggct 120
ccagggaagg gactggagtg ggtctcatcc atttctagtt atagttctta catatatatc 180
gcagactcag tgaagggccg attcaccctc tccagagaca atgccaagaa ctcactgtat 240
ctacaaatgc acagtctgag acccgaggac acggctgttt atttctgtgc gagagaggga 300
tatagtgcct actcctactt tgacttctgg ggccggggaa ccctggtcac cgtctcctca 360

<210> 146
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 147
ggattcacct tcactagcta tgcc 24

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

<220>
<223> Synthetic

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

<210> 149
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 149
atttctagtt atagttctta cata 24

<210> 150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 150
Ile Ser Ser Tyr Ser Ser Tyr Ile
 1               5

<210> 151

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

<220>
<223> Synthetic

<400> 151
gcgagagagg gatatagtgc ctactcctac tttgacttc 39

<210> 152
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 153
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggccagtca gagtgttatt agttggttgg cctggtatca acagaaacca 120
gggaaagccc ctaaactcct gatccatagg gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcgg cctgcagcct 240
gatgattttg caacttatta ctgtcaacag tataatactt attttccgac gttcggccaa 300
gggaccaagg tggaagtcaa 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 Val Ile Ser Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
His Arg 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 Gly Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Phe Pro
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Val Lys
100 105

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

<220>
<223> Synthetic

<400> 155
cagagtgtta ttagttgg 18

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

<220>
<223> Synthetic

<400> 156
Gln Ser Val Ile Ser Trp
1 5

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

<220>
<223> Synthetic

<400> 157
agggcgtct 9

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

<220>
<223> Synthetic

<400> 158
Arg Ala Ser
1

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

<220>
<223> Synthetic

<400> 159
caacagtata atacttattt tccgacg 27

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

<220>
<223> Synthetic

<400> 160
Gln Gln Tyr Asn Thr Tyr Phe Pro Thr
1 5

<210> 161
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 161
gaggtggaac tgttggaatc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagt agttatgcca tgagttgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcatct attagtggta gggttggtag cacacatttc 180
gcagactccg tgaagggccg gttcaccttc tccagagaca attccaagaa cacgctgtat 240
ctgcagctga gcagcctgag agccgaggac acggccgtat attactgtgc gagaagtaga 300
ggagcagcct actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 162
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 162
Glu Val Glu Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Ser Gly Arg Val Gly Ser Thr His Phe Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Phe Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Leu Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ser Arg Gly Ala Ala Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115


<210> 163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 163
ggattcacct ttagtagtta tgcc 24

<210> 164
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 164
Gly Phe Thr Phe Ser Ser Tyr Ala
 1               5


<210> 165

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

<220>
<223> Synthetic

<400> 165
attagtggta gggttggtag caca 24

<210> 166
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 166
Ile Ser Gly Arg Val Gly Ser Thr
1 5

<210> 167
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 167
gcgagaagta gaggagcagc ctactttgac tac 33

<210> 168
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 168
Ala Arg Ser Arg Gly Ala Ala Tyr Phe Asp Tyr
1 5 10

<210> 169
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 169
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgaatca ggacattagc aacttttaa attggtatca gcagagacca 120
gggaaagccc ctaacctcct gatctatgct gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacat tatgataatt ttccattcac tttcggccct 300
gggaccaagg tggatatcaa a 321

<210> 170
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 170
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 Gln Ala Asn Gln Asp Ile Ser Asn Phe
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Ile Ala Thr Tyr Tyr Cys Gln His Tyr Asp Asn Phe Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105


<210> 171
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 171
caggacatta gcaacttt                                                  18

<210> 172
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 172
Gln Asp Ile Ser Asn Phe
 1               5


<210> 173
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 173
gctgcatcc                                                            9

<210> 174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 174
Ala Ala Ser
 1

<210> 175
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 175
caacattatg ataattttcc attcact 27

<210> 176
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 176
Gln His Tyr Asp Asn Phe Pro Phe Thr
1 5

<210> 177
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 177
cagctgcagc tgcaggagtc gggcccagga ctggtgaacc cttcggagac cctgtccctc 60
acctgctctg tctctggtgg ctccatcagc agtgttaatt actactgggg ctggatccgc 120
cagtccccag ggaagggact ggagtggatt gggagtatct attatactgg gagtaccgac 180
tacaacccgt ccctcaagaa tcgagtcacc atatccgtag acacgtccaa gaaccagttc 240
tccctgaagc agacttctgt gaccgccgca gacacggctg tctattactg tgcgagacat 300
gtggcactgg ctgggggggc ttttgatatc tggggccagg ggacaatggt caccgtctct 360
tca 363

<210> 178
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 178
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Asn Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Gly Ser Ile Ser Ser Val
20 25 30
Asn Tyr Tyr Trp Gly Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Ser Ile Tyr Tyr Thr Gly Ser Thr Asp Tyr Asn Pro Ser
50 55 60
Leu Lys Asn Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80
Ser Leu Lys Gln Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg His Val Ala Leu Ala Gly Gly Ala Phe Asp Ile Trp Gly
100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 179
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 179
ggtggctcca tcagcagtgt taattactac 30

<210> 180
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 180
Gly Gly Ser Ile Ser Ser Val Asn Tyr Tyr
1 5 10

<210> 181
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 181
atctattata ctgggagtac c 21

<210> 182
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 182
Ile Tyr Tyr Thr Gly Ser Thr
1 5

<210> 183
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 183
gcgagacatg tggcactggc tgggggggct tttgatatc 39

<210> 184
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 184

Ala Arg His Val Ala Leu Ala Gly Gly Ala Phe Asp Ile
 1               5                  10

<210> 185
<211> 315
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 185
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagt agcagcttct taggctggta ccaacagaaa 120
cctggccagg ctcccaggct cctcatctat ggttcttcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcaata tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtttggta ggtccttcgg ccctgggacc 300
aagctggaga tcaaa                                                  315

<210> 186
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 186
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20                  25                  30
Phe Leu Gly Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ser Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Asn Ile Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Arg Ser Phe
                85                  90                  95
Gly Pro Gly Thr Lys Leu Glu Ile Lys
            100                 105

<210> 187
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 187
cagagtgtta gtagcagctt c                                           21

<210> 188
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 188
Gln Ser Val Ser Ser Ser Phe
 1               5

<210> 189
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 189
ggttcttcc 9

<210> 190
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 190
Gly Ser Ser
1

<210> 191
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 191
cagcagtttg gtaggtcc 18

<210> 192
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 192
Gln Gln Phe Gly Arg Ser
1 5

<210> 193
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 193
caggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgcgcag cctctggatt caccttcagt gactattaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg gatttcatat attagtagtg gtggtagtac cacatactac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc gagagatggg 300
aagtacaaca cctcgccggg ggactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 194
<211> 120

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 194
Gln 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 Asp Tyr
            20                  25                  30
Tyr Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Ser Tyr Ile Ser Ser Gly Gly Ser Thr Thr Tyr 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 Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Gly Lys Tyr Asn Thr Ser Pro Gly Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


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

<220>
<223> Synthetic

<400> 195
ggattcacct tcagtgacta ttac                                          24

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

<220>
<223> Synthetic

<400> 196
Gly Phe Thr Phe Ser Asp Tyr Tyr
 1               5


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

<220>
<223> Synthetic

<400> 197
attagtagtg gtggtagtac caca                                          24

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

<220>
<223> Synthetic

<400> 198
Ile Ser Ser Gly Gly Ser Thr Thr
 1               5

<210> 199
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 199
gcgagagatg ggaagtacaa cacctcgccg ggggactac 39

<210> 200
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 200
Ala Arg Asp Gly Lys Tyr Asn Thr Ser Pro Gly Asp Tyr
 1               5                   10

<210> 201
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 201
gaaattgtgt tgacgcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgcc gggccagtca gtccattggt agtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg ctacgtatta ctgtcttcag agtagtagtt tacggacgtt cggccaaggg 300
accaaagtgg atatcaaa 318

<210> 202
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 203
cagtccattg gtagtagc 18

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

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 205
tatgcttcc 9

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

<220>
<223> Synthetic

<400> 206
Tyr Ala Ser
 1

<210> 207
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 207
cttcagagta gtagtttacg gacg 24

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

<220>
<223> Synthetic

<400> 208
Leu Gln Ser Ser Ser Leu Arg Thr
 1               5


<210> 209
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 209
caggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg gatttcatac attagtagta gtggtagtac cacatactac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgttt 240
ctgcaaatga acagcctgag aggcgaggac acggccgtgt attattgtgc gagagatggg 300
agatacaaca ccgtcgccgg ggactactgg ggccagggaa ccacggtcac cgtctcctca 360


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

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 211
ggattcacct tcagtgacta ctac                                          24

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

<220>
<223> Synthetic

<400> 212
Gly Phe Thr Phe Ser Asp Tyr Tyr
 1               5


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

<220>
<223> Synthetic

<400> 213
attagtagta gtggtagtac caca                                          24

<210> 214
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 214
Ile Ser Ser Ser Gly Ser Thr Thr
 1               5


<210> 215
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 215
gcgagagatg ggagatacaa caccgtcgcc ggggactac                          39

<210> 216
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 216
Ala Arg Asp Gly Arg Tyr Asn Thr Val Ala Gly Asp Tyr
 1               5                   10


<210> 217
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 217
gaaattgtga tgacgcagtc tccagacttt cagtctgtgg ctccaaagga gaaagtcacc 60
atcacctgcc gggccagtca gaacattggt ggtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcttcag agttacactt tacggacgtt cggccaaggg 300

accaaggtgg agatcaaacg a 321

<210> 218
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 218
Glu Ile Val Met Thr Gln Ser Pro Asp Phe Gln Ser Val Ala Pro Lys
 1               5                  10                  15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Gly Gly Ser
            20                  25                  30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
        35                  40                  45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65                  70                  75                  80
Glu Asp Ala Ala Thr Tyr Tyr Cys Leu Gln Ser Tyr Thr Leu Arg Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 219
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 219
cagaacattg gtggtagc 18

<210> 220
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 220
Gln Asn Ile Gly Gly Ser
 1               5


<210> 221
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 221
tatgcttcc 9

<210> 222
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 222
Tyr Ala Ser
 1


<210> 223
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 223
cttcagagtt acactttacg gacg 24

<210> 224
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 224
Leu Gln Ser Tyr Thr Leu Arg Thr
 1               5


<210> 225
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 225
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatat attagtagta gtggcagcag tatttattac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgtat 240
ctgctaatga acagcctgag agccgaggac acggccgtgt attactgtgc gagagatggg 300
aagtataaca gttcgccggg ggactactgg ggccagggaa ccctggtcac cgtctcctca 360


<210> 226
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 226
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 Asp Tyr
            20                  25                  30
Tyr Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Gly Ser Ser Ile Tyr 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 Leu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95
Ala Arg Asp Gly Lys Tyr Asn Ser Ser Pro Gly Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 227
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 227
ggattcacct tcagtgacta ctac 24

<210> 228
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 228
Gly Phe Thr Phe Ser Asp Tyr Tyr
1 5

<210> 229
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 229
attagtagta gtggcagcag tatt 24

<210> 230
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 230
Ile Ser Ser Ser Gly Ser Ser Ile
1 5

<210> 231
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 231
gcgagagatg ggaagtataa cagttcgccg ggggactac 39

<210> 232
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 232
Ala Arg Asp Gly Lys Tyr Asn Ser Ser Pro Gly Asp Tyr
 1               5                  10


<210> 233
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 233
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcgcttgtc gggcgagtca gggcattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataacagtt acccgctcac tttcggcgga 300
gggaccaagg tggaaatcaa acga                                        324

<210> 234
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 234
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 Ala Cys Arg Ala Ser Gln Gly 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 Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Asn Ser Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 235
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 235
cagggcatta gcaattat                                              18

<210> 236
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 236
Gln Gly Ile Ser Asn Tyr
 1               5

<210> 237
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 237
gctgcatcc                                                                  9

<210> 238
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 238
Ala Ala Ser
 1

<210> 239
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 239
caacagtata acagttaccc gctcact                                              27

<210> 240
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 240
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
 1               5

<210> 241
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 241
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatat attagtagta gtggcagtag tatttattac 180

gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgtat 240
ctgctaatga acagcctgag agccgaggac acggccgtgt attactgtgc gagagatggg 300
aagtataaca gctcgccggg ggactactgg ggccagggaa ccctggtcac tgtctcctca 360

<210> 242
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 242
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 Asp Tyr
            20                  25                  30
Tyr Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Gly Ser Ser Ile Tyr 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 Leu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Gly Lys Tyr Asn Ser Ser Pro Gly Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120

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

<220>
<223> Synthetic

<400> 243
ggattcacct tcagtgacta ctac 24

<210> 244
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 245
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 245
attagtagta gtggcagtag tatt 24

<210> 246

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

<220>
<223> Synthetic

<400> 246
Ile Ser Ser Ser Gly Ser Ser Ile
 1               5


<210> 247
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 247
gcgagagatg ggaagtataa cagctcgccg ggggactac                          39

<210> 248
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 248
Ala Arg Asp Gly Lys Tyr Asn Ser Ser Pro Gly Asp Tyr
 1               5                   10


<210> 249
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 249
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgcc gggccagtca gagcattggt ggtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcttcag agtagtagtt tacggacgtt cggccaaggg 300
accaaggtgg aaatcaaa                                                318

<210> 250
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 250
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1               5                   10                  15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Gly Ser
            20                  25                  30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
        35                  40                  45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly

50 55 60

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

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

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

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

<220>
<223> Synthetic

<400> 251
cagagcattg gtggtagc 18

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

<220>
<223> Synthetic

<400> 252
Gln Ser Ile Gly Gly Ser
1 5

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

<220>
<223> Synthetic

<400> 253
tatgcttcc 9

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

<220>
<223> Synthetic

<400> 254
Tyr Ala Ser
1

<210> 255
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 255
cttcagagta gtagtttacg gacg 24

<210> 256
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 256
Leu Gln Ser Ser Ser Leu Arg Thr
 1               5


<210> 257
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 257
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagta gtggtaattc catatactac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgttt 240
ctgcagatga gcagcctgag agccgaggac acggccgtgt attactgtgc gagagatggg 300
aggtataacg accgtcgccg ggggtactac tggggccagg gaaccctggt caccgtctcc 360
tca                                                               363

<210> 258
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


<210> 259
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 259
ggattcacct tcagtgacta ctac                                        24

<210> 260
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 260
Gly Phe Thr Phe Ser Asp Tyr Tyr
 1               5


<210> 261
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 261
attagtagta gtggtaattc cata                                          24

<210> 262
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 262
Ile Ser Ser Ser Gly Asn Ser Ile
 1               5


<210> 263
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 263
gcgagagatg ggaggtataa cgaccgtcgc cgggggtact ac                      42

<210> 264
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 264
Ala Arg Asp Gly Arg Tyr Asn Asp Arg Arg Arg Gly Tyr Tyr
 1               5                  10


<210> 265
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 265
gaaattgtga tgacgcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgcc gggccagtca gagcattggt agtagcttac actggtacca gcagaaacca 120
gatcagtctc caaaactcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcttcag agtagtagtt tacggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a 321

<210> 266
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 266
Glu Ile Val Met Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1               5                  10                  15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser
            20                  25                  30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
        35                  40                  45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65                  70                  75                  80
Glu Asp Ala Ala Thr Tyr Tyr Cys Leu Gln Ser Ser Ser Leu Arg Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 267
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 267
cagagcattg gtagtagc 18

<210> 268
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 268
Gln Ser Ile Gly Ser Ser
 1               5


<210> 269
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 269
tatgcttcc 9

<210> 270
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 270
Tyr Ala Ser
 1

<210> 271
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 271
cttcagagta gtagtttacg gacg 24

<210> 272
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 272
Leu Gln Ser Ser Ser Leu Arg Thr
 1               5

<210> 273
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 273
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg gatttcatat cttagtagta gtggtagtgc cacatactac 180
gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtgt attattgtgc gagagatggg 300
aagtacaaca ccgtcgccgg ggactactgg ggccagggaa ccacggtcac cgtctcctca 360

<210> 274
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 274
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 Asp Tyr
            20                  25                  30

Tyr Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Ser Tyr Leu Ser Ser Ser Gly Ser Ala Thr Tyr 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 Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Gly Lys Tyr Asn Thr Val Ala Gly Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 275
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 275
ggattcacct tcagtgacta ctac 24

<210> 276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 276
Gly Phe Thr Phe Ser Asp Tyr Tyr
1 5

<210> 277
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 277
cttagtagta gtggtagtgc caca 24

<210> 278
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 278
Leu Ser Ser Ser Gly Ser Ala Thr
1 5

<210> 279
<211> 39
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 279
gcgagagatg ggaagtacaa caccgtcgcc ggggactac 39

<210> 280
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 280
Ala Arg Asp Gly Lys Tyr Asn Thr Val Ala Gly Asp Tyr
 1               5                  10


<210> 281
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 281
gacatccagt tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa cataatagtt acccgtacac ttttggccag 300
gggaccaagg tagagatcaa acga 324

<210> 282
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 282
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 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 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 Leu Gln His Asn Ser Tyr Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 283
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 283

cagggcatta gaaatgat 18

<210> 284
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 284
Gln Gly Ile Arg Asn Asp
1 5

<210> 285
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 285
gctgcatcc 9

<210> 286
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 286
Ala Ala Ser
1

<210> 287
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 287
ctacaacata atagttaccc gtacact 27

<210> 288
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 288
Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 289
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 289
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactactaca tgaactggat ccgccaggct 120
ccagggaagg ggctggagtg gatttcatac attagtagta gtgatgatac cacatactac 180
gcagactctg tgaagggccg attcaccata tccagggaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtgt attattgtgc gagagatggg 300
aagtacaaca ccgtcgccgg ggaccactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 290
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 290
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 Asp Tyr
            20                  25                  30
Tyr Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Asp Asp Thr Thr Tyr 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 Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Gly Lys Tyr Asn Thr Val Ala Gly Asp His Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120

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

<220>
<223> Synthetic

<400> 291
ggattcacct tcagtgacta ctac                                          24

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

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 293
attagtagta gtgatgatac caca 24

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

<220>
<223> Synthetic

<400> 294
Ile Ser Ser Ser Asp Asp Thr Thr
1 5

<210> 295
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 295
gcgagagatg ggaagtacaa caccgtcgcc ggggaccac 39

<210> 296
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 296
Ala Arg Asp Gly Lys Tyr Asn Thr Val Ala Gly Asp His
1 5 10

<210> 297
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 297
gaaattgtga tgacacagtc tccagacttt cagtctgtgg ctccaaagga gaaagtcacc 60
atcacctgcc gggccagtca gaacattggt agtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcttcag agttatactt taaggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a 321

<210> 298
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 298

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

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

<220>
<223> Synthetic

<400> 299
cagaacattg gtagtagc 18

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

<220>
<223> Synthetic

<400> 300
Gln Asn Ile Gly Ser Ser
 1               5

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

<220>
<223> Synthetic

<400> 301
tatgcttcc 9

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

<220>
<223> Synthetic

<400> 302
Tyr Ala Ser
 1

<210> 303
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 303
cttcagagtt atactttaag gacg 24

<210> 304
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 304
Leu Gln Ser Tyr Thr Leu Arg Thr
1 5

<210> 305
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 305
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agttatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggtc gtggttataa cgcagactac 180
gcagactccg tgaagggccg gttcaccatc tccagggaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaagac acggccgtat attactgtgc gaaattggaa 300
tactttgact actggggcca gggaaccctg gtcactgtct cctca 345

<210> 306
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 306
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Ser Gly Arg Gly Tyr Asn Ala Asp 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 Leu Glu Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
100 105 110
Val Ser Ser
115

<210> 307
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 307
ggattcacct ttagcagtta tgcc 24

<210> 308
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 308
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 309
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 309
attagtggtc gtggttataa cgca 24

<210> 310
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 310
Ile Ser Gly Arg Gly Tyr Asn Ala
1 5

<210> 311
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 311
gcgaaattgg aatactttga ctac 24

<210> 312
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 312
Ala Lys Leu Glu Tyr Phe Asp Tyr
1 5

<210> 313

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

<220>
<223> Synthetic

<400> 313
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgaggcct 240
gaagattttg caacttatta ctgccaacag tataatagtt accctctgac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 314
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 314
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 Asp Phe Thr Leu Thr Ile Ser Ser Leu Arg Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105

<210> 315
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 315
cagagtatta gtagctgg 18

<210> 316
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 316
Gln Ser Ile Ser Ser Trp
 1               5

<210> 317
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 317
aaggcgtct 9

<210> 318
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 318
Lys Ala Ser
1

<210> 319
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 319
caacagtata atagttaccc tctgact 27

<210> 320
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 320
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
1 5

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

<220>
<223> Synthetic

<400> 321
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acctatgcca tgcactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaagt attagtggtc gtggtcgtaa ctcagaccac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctctat 240
ctacaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaggaccgaa 300
tacttccacc actggggcca gggcaccctg gtcaccgtct cctca 345

<210> 322
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 322
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
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Ser Gly Arg Gly Arg Asn Ser Asp His 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 Thr Glu Tyr Phe His His Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110
Val Ser Ser
        115

<210> 323
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 323
ggattcacct ttagcaccta tgcc 24

<210> 324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 324
Gly Phe Thr Phe Ser Thr Tyr Ala
 1               5

<210> 325
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 325
attagtggtc gtggtcgtaa ctca 24

<210> 326
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 326
Ile Ser Gly Arg Gly Arg Asn Ser
 1               5

<210> 327

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

<220>
<223> Synthetic

<400> 327
gcgaggaccg aatacttcca ccac 24

<210> 328
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 328
Ala Arg Thr Glu Tyr Phe His His
1 5

<210> 329
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 329
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagaatcacc 60
atcacttgtc gggcgagtca ggacattaac aattatttag cctggtttca gcagaaacca 120
ggaaaagccc ctaagtccct gatctatggt gcatccagct tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacaa tatagttctt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a 321

<210> 330
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 330
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asn 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 Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Ser Ser Tyr Pro Phe
85 90 95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 331
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 331
caggacatta acaattat 18

<210> 332
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 332
Gln Asp Ile Asn Asn Tyr
1 5

<210> 333
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 333
ggtgcatcc 9

<210> 334
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 334
Gly Ala Ser
1

<210> 335
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 335
caacaatata gttcttaccc attcact 27

<210> 336
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 336
Gln Gln Tyr Ser Ser Tyr Pro Phe Thr
1 5

<210> 337
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 337
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt catctttagt acctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaac gtgaaccatg atggaagtga ggaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgcccagaa ttcactgtat 240
ctgcaaatgg accgcctgag agccgaggac acggctatgt atttctgtgc gcgaagagcc 300
gggctttttg actcctgggg ccagggaacc ctggtcactg tctcctca 348

<210> 338
<211> 116
<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 Ile Phe Ser Thr Tyr
            20                  25                  30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Asn Val Asn His Asp Gly Ser Glu Glu Tyr Tyr Val Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met Asp Arg Leu Arg Ala Glu Asp Thr Ala Met Tyr Phe Cys
                85                  90                  95
Ala Arg Arg Ala Gly Leu Phe Asp Ser Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115


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

<220>
<223> Synthetic

<400> 339
ggattcatct ttagtaccta ttgg 24

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

<220>
<223> Synthetic

<400> 340
Gly Phe Ile Phe Ser Thr Tyr Trp
 1               5


<210> 341

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

<220>
<223> Synthetic

<400> 341
gtgaaccatg atggaagtga ggaa 24

<210> 342
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 342
Val Asn His Asp Gly Ser Glu Glu
1 5

<210> 343
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 343
gcgcgaagag ccgggctttt tgactcc 27

<210> 344
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 344
Ala Arg Arg Ala Gly Leu Phe Asp Ser
1 5

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

<220>
<223> Synthetic

<400> 345
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatattgac aactggttag cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctttact tcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcattggatc tggaacagat ttcactctca ccatcagcag cctacagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa 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 Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp Asn Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Phe Thr Ser Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ile 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 Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


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

<220>
<223> Synthetic

<400> 347
caggatattg acaactgg                                                  18

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

<220>
<223> Synthetic

<400> 348
Gln Asp Ile Asp Asn Trp
 1               5


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

<220>
<223> Synthetic

<400> 349
acttcatcc                                                            9

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

<220>
<223> Synthetic

<400> 350
Thr Ser Ser
 1

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

<220>
<223> Synthetic

<400> 351
caacaggcta acagtttccc gtggacg 27

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

<220>
<223> Synthetic

<400> 352
Gln Gln Ala Asn Ser Phe Pro Trp Thr
1 5

<210> 353
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 353
caggtgcagc tggtggagtc tgggggaggc gtggtcctgc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt cacctttagt agttatctca tgtattgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaattctat 180
ggagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgttgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagataat 300
gggaatagtg gttacgagga cagctggaat gcttttgata tatggggcca agggacaatg 360
gtcaccgtct cttca 375

<210> 354
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 354
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Leu 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
Leu Met Tyr 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 Phe Tyr Gly 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 Asn Gly Asn Ser Gly Tyr Glu Asp Ser Trp Asn Ala Phe
100 105 110
Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 355
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 355
ggattcacct ttagtagtta tctc 24

<210> 356
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 356
Gly Phe Thr Phe Ser Ser Tyr Leu
 1 5

<210> 357
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 357
atatggtatg atggaagtaa taaa 24

<210> 358
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 358
Ile Trp Tyr Asp Gly Ser Asn Lys
 1 5

<210> 359
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 359
gcgagagata atgggaatag tggttacgag gacagctgga atgcttttga tata 54

<210> 360
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 360

Ala Arg Asp Asn Gly Asn Ser Gly Tyr Glu Asp Ser Trp Asn Ala Phe
 1               5                  10                  15
Asp Ile

<210> 361
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 361
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacatttac aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaactgg ggtcccatca 180
cagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctccagcct 240
gaagattttg caacttatta ctgccaacag tataataatt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a                                           321

<210> 362
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 362
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 Tyr 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 Ser Ser Leu Gln Thr Gly Val Pro Ser Gln 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 Asn Asn Tyr Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105

<210> 363
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 363
caggacattt acaattat                                              18

<210> 364
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 364
Gln Asp Ile Tyr Asn Tyr

1 5

<210> 365
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 365
gctgcatcc 9

<210> 366
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 366
Ala Ala Ser
1

<210> 367
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 367
caacagtata ataattaccc attcact 27

<210> 368
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 368
Gln Gln Tyr Asn Asn Tyr Pro Phe Thr
1 5

<210> 369
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 369
gaggtgcagc tggtggagtc tgggggaggc ttggcacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaac aactatgcca tgacctgggt ccgccaggct 120
ccagggaagg gtctggactg ggtctcagct attagtgata gtggtcgtag cacattctcc 180
gcagactccg tgaagggccg gttcaccatc tccagagaca actccaagaa cacgctgtat 240
ctgcaaatgg acagcctgag agccgaggac acggccttat attactgtgc gaaacatagg 300
aactggaact atcccgtctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 370
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 370
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ala Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Tyr
            20                  25                  30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val
        35                  40                  45
Ser Ala Ile Ser Asp Ser Gly Arg Ser Thr Phe Ser 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 Asp Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys His Arg Asn Trp Asn Tyr Pro Val Phe Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 371
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 371
ggattcacct ttaacaacta tgcc                                          24

<210> 372
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 372
Gly Phe Thr Phe Asn Asn Tyr Ala
 1               5


<210> 373
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 373
attagtgata gtggtcgtag caca                                          24

<210> 374
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 374
Ile Ser Asp Ser Gly Arg Ser Thr
 1               5


<210> 375
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 375
gcgaaacata ggaactggaa ctatcccgtc tttgactac                          39

<210> 376
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 376
Ala Lys His Arg Asn Trp Asn Tyr Pro Val Phe Asp Tyr
 1               5                   10


<210> 377
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 377
gacatccagt tgacccagtc tccatccttc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgct gggccagtca gggcattagt agttatttag cctggtatca gcaaaaacca 120
gggaaagccc caaagctcct gatctattct gcatccactt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacaa cttaatagtt acccattcac tttcggccct 300
gggaccaaag tggatatcaa a                                             321

<210> 378
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 378
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 Ser 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 Asn Ser Tyr Pro Phe
                85                  90                  95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 379
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 379
cagggcatta gtagttat 18

<210> 380
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 380
Gln Gly Ile Ser Ser Tyr
1 5

<210> 381
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 381
tctgcatcc 9

<210> 382
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 382
Ser Ala Ser
1

<210> 383
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 383
caacaactta atagttaccc attcact 27

<210> 384
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 384
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
 1               5


<210> 385
<211> 190
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 385
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe Ala
 1               5                  10                  15
Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu Ser Leu Thr Lys Val
            20                  25                  30
Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp Cys
        35                  40                  45
Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val Met
    50                  55                  60
Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn
65                  70                  75                  80
Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro
                85                  90                  95
Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly Thr Pro Asp Glu
            100                 105                 110
Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu Glu
        115                 120                 125
Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met Thr Glu Glu
    130                 135                 140
Asp Lys Glu Asn Ala Leu Ser Val Leu Asp Lys Ile Tyr Thr Ser Pro
145                 150                 155                 160
Leu Cys Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Gly Glu Gln
                165                 170                 175
Lys Leu Ile Ser Glu Glu Asp Leu His His His His His His
            180                 185                 190


<210> 386
<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 = Phe, Tyr or Gly

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Thr or Ser

<220>
<221> VARIANT

<222> (4)...(4)
<223> Xaa = Phe or Ile

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Ser, Arg, Thr, or Asn

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Asn, Thr, Asp, or Ser

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Tyr

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Asn, Tyr, or Ala

<400> 386
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1               5

<210> 387
<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 = Tyr, Ser, or Asn

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Tyr, Ser, Gly, Pro, or Asp

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Asp, Arg, or Ser

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Gly, Val, or Ser

<220>

<221> VARIANT
<222> (6)...(6)
<223> Xaa = Ser, Gly, Arg, or Tyr

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Tyr, Arg, Thr, Ser, or Asn

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Ile, Thr, Ala, Ser, or absent

<400> 387
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1               5

<210> 388
<211> 16
<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 = Lys or Arg

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Arg, Gly, His, Ser, Asp, Leu, or Thr

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Thr, Pro, Arg, Gly, or Glu

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Leu, Val, Gly, Lys, Tyr, or Asn

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Ser, Arg, Thr, Ala, Tyr, Phe, or Trp

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Tyr, Gly, Arg, Ala, Asn, Asp, His, or Asn

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Tyr, Thr, Ser, or His

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Val, Ser, Ala, Phe, Pro, or absent

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Met, Gly, Asp, Pro, Val, or absent

<220>
<221> VARIANT
<222> (11)...(11)
<223> Xaa = Asp, Tyr, Ser, Gly, Phe, or absent

<220>
<221> VARIANT
<222> (12)...(12)
<223> Xaa = Val, Asp, Phe, or absent

<220>
<221> VARIANT
<222> (13)...(13)
<223> Xaa = Phe, Asp, or absent

<220>
<221> VARIANT
<222> (14)...(14)
<223> Xaa = Phe, Tyr, or absent

<220>
<221> VARIANT
<222> (15)...(15)
<223> Xaa = Asp or absent

<220>
<221> VARIANT
<222> (16)...(16)
<223> Xaa = Tyr or absent

<400> 388
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1               5                  10                  15

<210> 389
<211> 12
<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, Ser, or Asp

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ile or Val

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Ser, Leu, Asn, or Gly

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Asn, Tyr, Gly, or Ser

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Tyr, Ser, Phe, or Trp

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Ser or absent

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Asn or absent

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Asn or absent

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Lys or absent

<220>
<221> VARIANT
<222> (11)...(11)
<223> Xaa = Gln or absent

<220>
<221> VARIANT
<222> (12)...(12)
<223> Xaa = Tyr or absent

<400> 389
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1 5 10

<210> 390
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Ala, Trp, Asp, Tyr, Lys, Gly, or Ser

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Ala or Thr

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ser

<400> 390
Xaa Xaa Xaa
1

<210> 391
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Gln, Leu, or His

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Lys, Gln, or His

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Tyr, Ser, or Leu

<220>
<221> VARIANT
<222> (4)...(4)
<223> Xaa = Tyr, Asn, Gly, Asp, or Ser

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Ser, Asp, or Asn

<220>
<221> VARIANT

<222> (6)...(6)
<223> Xaa = Leu, Ala, Tyr, Thr, or Phe

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Pro or Arg

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Leu, Phe, Tyr, or Thr

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Thr or absent

<400> 391
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1               5

<210> 392
<211> 70
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 392
Glu Ile Cys Pro Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly
 1               5                  10                  15
Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro
            20                  25                  30
Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys
        35                  40                  45
Met Thr Glu Glu Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile
    50                  55                  60
Tyr Thr Ser Pro Leu Cys
65                  70

<210> 393
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 393
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe Ala
 1               5                  10                  15
Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu Ser Leu Thr Lys Val
            20                  25                  30
Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp Cys
        35                  40                  45
Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val Met
    50                  55                  60
Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn
65                  70                  75                  80
Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg
                85                  90

<210> 394
<211> 398
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 394
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe Ala
 1               5                  10                  15
Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu Ser Leu Thr Lys Val
            20                  25                  30
Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp Cys
        35                  40                  45
Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val Met
    50                  55                  60
Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn
65                  70                  75                  80
Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro
                85                  90                  95
Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly Thr Pro Asp Glu
            100                 105                 110
Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu Glu
        115                 120                 125
Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met Thr Glu Glu
    130                 135                 140
Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile Tyr Thr Ser Pro
145                 150                 155                 160
Leu Cys Leu Ile Asn Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro
                165                 170                 175
Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe
            180                 185                 190
Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro
        195                 200                 205
Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val
    210                 215                 220
Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr
225                 230                 235                 240
Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala
                245                 250                 255
Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys
            260                 265                 270
Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser
        275                 280                 285
Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro
    290                 295                 300
Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val
305                 310                 315                 320
Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly
                325                 330                 335
Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp
            340                 345                 350
Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp
        355                 360                 365
Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His
    370                 375                 380
Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
385                 390                 395


<210> 395
<211> 413
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 395
Glu Ile Cys Pro Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly
 1               5                  10                  15
Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro
            20                  25                  30
Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys
        35                  40                  45
Met Thr Glu Glu Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile
    50                  55                  60
Tyr Thr Ser Pro Leu Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
65                  70                  75                  80
Gly Gly Gly Gly Ser Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr
                85                  90                  95
Asp Val Phe Phe Ala Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu
            100                 105                 110
Ser Leu Thr Lys Val Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys
        115                 120                 125
Lys Ile Gln Asp Cys Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu
    130                 135                 140
Asp Gly Leu Val Met Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly
145                 150                 155                 160
Glu Ala Val Gln Asn Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly
                165                 170                 175
Arg Leu Ile Asn Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro
            180                 185                 190
Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile
        195                 200                 205
Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile
    210                 215                 220
Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln
225                 230                 235                 240
Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln
                245                 250                 255
Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu
            260                 265                 270
Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys
        275                 280                 285
Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys
    290                 295                 300
Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro
305                 310                 315                 320
Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr
                325                 330                 335
Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys
            340                 345                 350
Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly
        355                 360                 365
Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val
    370                 375                 380
Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn
385                 390                 395                 400
His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
                405                 410


<210> 396
<211> 199
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 396
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe Ala

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 1               5                  10                  15
Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu Ser Leu Thr Lys Val
            20                  25                  30
Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp Cys
        35                  40                  45
Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val Met
    50                  55                  60
Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn
65                  70                  75                  80
Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro
                85                  90                  95
Ala Val Lys Arg Gly Val Asp Leu Phe Leu Thr Gly Thr Pro Asp Glu
            100                 105                 110
Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu Glu
        115                 120                 125
Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met Thr Glu Glu
    130                 135                 140
Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile Tyr Thr Ser Pro
145                 150                 155                 160
Leu Cys Gly Pro Gly Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
                165                 170                 175
Gly Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Ser Gly His His
            180                 185                 190
His His His His Ser Ser Gly
        195
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<210> 397
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 397

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Glu Ile Cys Pro Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly
 1               5                  10                  15
Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro
            20                  25                  30
Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys
        35                  40                  45
Met Thr Glu Glu Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile
    50                  55                  60
Tyr Thr Ser Pro Leu Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
65                  70                  75                  80
Gly Gly Gly Gly Ser Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr
                85                  90                  95
Asp Val Phe Phe Ala Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu
            100                 105                 110
Ser Leu Thr Lys Val Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys
        115                 120                 125
Lys Ile Gln Asp Cys Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu
    130                 135                 140
Asp Gly Leu Val Met Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly
145                 150                 155                 160
Glu Ala Val Gln Asn Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly
                165                 170                 175
Arg Gly Pro Gly Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly
            180                 185                 190
Gly Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Ser Gly His His His
        195                 200                 205
His His His Ser Ser Gly
    210
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<210> 398
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 398
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr
 1               5                  10


<210> 399
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 399
Ile Ser Arg Val Leu Asp Gly
 1               5


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

<220>
<223> Synthetic

<400> 400
Ile Ser Arg Val Leu Asp Gly Leu
 1               5


<210> 401
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 401
Ile Ser Arg Val Leu Asp Gly Leu Val Met
 1               5                  10


<210> 402
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 402
Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro Ala Val Lys Arg
 1               5                  10                  15
Gly Val Asp



<210> 403
<211> 20
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 403
Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro Ala Val Lys Arg
 1               5                  10                  15
Gly Val Asp Leu
            20


<210> 404
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 404
Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu
 1               5                  10                  15


<210> 405
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 405
Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu
 1               5                  10


<210> 406
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 406
Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met
 1               5                  10


<210> 407
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 407
Leu Asp Lys Ile Tyr Thr Ser Pro Leu Cys Gly Pro Gly Gly Glu Gln
 1               5                  10                  15
Lys Leu



<210> 408
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 408
Ile Ser Glu Glu Asp Leu Ser Gly His His His His His His
 1               5                  10


<210> 409
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 409
Ile Ser Glu Glu Asp Leu Ser Gly His His His His His His Ser Ser
 1               5                  10                  15
Gly



<210> 410
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 410
Glu Asp Leu Ser Gly His His His His His His Ser Ser Gly
 1               5                  10


<210> 411
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 411
Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr
 1               5                  10


<210> 412
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 412
Phe Ala Val Ala Asn Gly Asn Glu Leu Leu
 1               5                  10


<210> 413
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 413
Ile Ser Arg Val Leu Asp Gly
 1               5


<210> 414
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 414
Ile Ser Arg Val Leu Asp Gly Leu
 1               5


<210> 415
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 415
Ile Ser Arg Val Leu Asp Gly Leu Val Met
 1               5                   10


<210> 416
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 416
Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro Ala Val Lys Arg
 1               5                   10                  15
Gly Val Asp



<210> 417
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 417
Leu Lys Leu Asn Thr Leu Gly Arg Glu Ile Cys Pro Ala Val Lys Arg
 1               5                   10                  15
Gly Val Asp Leu
            20


<210> 418
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 418
Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu
 1               5                  10                  15

<210> 419
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 419
Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu
 1               5                  10

<210> 420
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 420
Tyr Lys Ala Leu Pro Val Val Leu
 1               5

<210> 421
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 421
Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met
 1               5                  10

<210> 422
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 422
Leu Asp Lys Ile Tyr Thr Ser Pro Leu Cys Gly Pro Gly Gly Glu Gln
 1               5                  10                  15
Lys Leu

<210> 423
<211> 14
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 423
Ile Ser Glu Glu Asp Leu Ser Gly His His His His His His
 1               5                  10


<210> 424
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 424
Ile Ser Glu Glu Asp Leu Ser Gly His His His His His His Ser Ser
 1               5                  10                  15
Gly



<210> 425
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 425
Glu Asp Leu Ser Gly His His His His His His Ser Ser Gly
 1               5                  10


<210> 426
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 426
Tyr Val Glu Gln
 1


<210> 427
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 427
gaggtgcagc tggtggagtc gggcccagga ctggtgaacc cttcggagac cctgtccctc 60
acctgctctg tctctggtgg ctccatcagc agtgttaatt actactgggg ctggatccgc 120
cagtccccag ggaagggact ggagtggatt gggagtatct attatactgg gagtaccgac 180
tacaacccgt ccctcaagaa tcgagtcacc atatccgtag acacgtccaa gaaccagttc 240
tccctgaagc agacttctgt gaccgccgca gacacggctg tctattactg tgcgagacat 300
gtggcactgg ctgggggggct tttgatagtc tggggccagg ggacaatggt caccgtctct 360
tca                                                                 363

<210> 428
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 428
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Asn Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Gly Ser Ile Ser Ser Val
            20                  25                  30
Asn Tyr Tyr Trp Gly Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Ser Ile Tyr Tyr Thr Gly Ser Thr Asp Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Asn Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Gln Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg His Val Ala Leu Ala Gly Gly Leu Leu Ile Val Trp Gly
            100                 105                 110
Gln Gly Thr Met Val Thr Val Ser Ser
        115                 120


<210> 429
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 429
ggtggctcca tcagcagtgt taattactac                                    30

<210> 430
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 430
Gly Gly Ser Ile Ser Ser Val Asn Tyr Tyr
 1               5                  10


<210> 431
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 431
atctattata ctgggagtac c                                             21

<210> 432
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 432
Ile Tyr Tyr Thr Gly Ser Thr
 1               5


<210> 433
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 433
gcgagacatg tggcactggc tgggggggctt ttgatagtc                          39

<210> 434
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 434
Ala Arg His Val Ala Leu Ala Gly Gly Leu Leu Ile Val
 1               5                   10


<210> 435
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 435
gacatccaga tgacccagtc tccagactcc ctggctgtgt ctctgggcgc gagggccacc 60
atcaactgca agtccagcca aagtgtttta ttcagctcca acaataagaa cttcttagcc 120
tggtaccagc agaaaccagg acagcctcct accctgctca tttcctgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggg agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttatttct gtcaacaata ttataatagt 300
cctccacttt tcggccaggg gaccaaggtg gagatcaaac ga                       342

<210> 436
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 436
Asp Ile Gln Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1               5                  10                  15
Ala Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Phe Ser
            20                  25                  30
Ser Asn Asn Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35                  40                  45
Pro Pro Thr Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
    50                  55                  60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                  80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln
                85                  90                  95

Tyr Tyr Asn Ser Pro Pro Leu Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 437
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 437
caaagtgttt tattcagctc caacaataag aacttc 36

<210> 438
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 438
Gln Ser Val Leu Phe Ser Ser Asn Asn Lys Asn Phe
1 5 10

<210> 439
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 439
tgggcatct 9

<210> 440
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 440
Trp Ala Ser
1

<210> 441
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 441
caacaatatt ataatagtcc tccactt 27

<210> 442
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 442
Gln Gln Tyr Tyr Asn Ser Pro Pro Leu
 1               5


<210> 443
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 443
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag tctctggatt cacctttagc aactatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagtt attagcgaca gtggtcgtag cacctactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctatat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat atttctgtgc gaaaaggtat 300
aactggaact tacactactt tgactactgg ggccagggaa ccacggtcac cgtctcctca 360


<210> 444
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 444
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 Val Ser Gly Phe Thr Phe Ser Asn 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 Asp Ser Gly Arg Ser Thr 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 Phe Cys
                85                  90                  95
Ala Lys Arg Tyr Asn Trp Asn Leu His Tyr Phe Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 445
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 445
ggattcacct ttagcaacta tgcc                                          24

<210> 446
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 446
Gly Phe Thr Phe Ser Asn Tyr Ala
 1               5


<210> 447
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 447
attagcgaca gtggtcgtag cacc                                          24

<210> 448
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 448
Ile Ser Asp Ser Gly Arg Ser Thr
 1               5


<210> 449
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 449
gcgaaaaggt ataactggaa cttacactac tttgactac                           39

<210> 450
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 450
Ala Lys Arg Tyr Asn Trp Asn Leu His Tyr Phe Asp Tyr
 1               5                   10


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

<220>
<223> Synthetic

<400> 451
gaaattgtgt tgacgcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60

atcacctgcc gggccagtca gagcattggt ggtagcttac actggtacca gcagaaacca 120
gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcttcag agtagtagtt tacggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a 321

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

<220>
<223> Synthetic

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

<210> 453
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 453
cagagcattg gtggtagc 18

<210> 454
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 454
Gln Ser Ile Gly Gly Ser
1 5

<210> 455
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 455
tatgcttcc 9

<210> 456
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 456
Tyr Ala Ser
 1

<210> 457
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 457
cttcagagta gtagtttacg gacg 24

<210> 458
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 458
Leu Gln Ser Ser Ser Leu Arg Thr
 1               5

<210> 459
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 459
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agttatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggtc gtggttataa cgcagactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaagac acggccgtat attactgtgc gaaattggaa 300
tactttgact actggggcca gggaaccacg gtcaccgtct cctca 345

<210> 460
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 460
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Ser Gly Arg Gly Tyr Asn Ala Asp 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 Leu Glu Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr
100 105 110
Val Ser Ser
115

<210> 461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 461
ggattcacct ttagcagtta tgcc 24

<210> 462
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 462
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 463
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 463
attagtggtc gtggttataa cgca 24

<210> 464
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 464
Ile Ser Gly Arg Gly Tyr Asn Ala
1 5

<210> 465
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 465
gcgaaattgg aatactttga ctac 24

<210> 466
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 466
Ala Lys Leu Glu Tyr Phe Asp Tyr
 1               5


<210> 467
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 467
gacatccagt tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgaggcct 240
gaagattttg caacttatta ctgccaacag tataatagtt accctctgac tttcggcgga 300
gggaccaagg tggaaatcaa acga                                        324

<210> 468
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 468
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 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 Asp Phe Thr Leu Thr Ile Ser Ser Leu Arg Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 469
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 469
cagagtatta gtagctgg                                              18

<210> 470
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 470
Gln Ser Ile Ser Ser Trp
 1               5


<210> 471
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 471
aaggcgtct                                                                9

<210> 472
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 472
Lys Ala Ser
 1


<210> 473
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 473
caacagtata atagttaccc tctgact                                           27

<210> 474
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 474
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
 1               5


<210> 475
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 475

gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acctatgcca tgcactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaagt attagtggtc gtggtcgtaa ctcagaccac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctctat 240
ctacaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaggaccgaa 300
tacttccacc actggggcca gggcaccacg gtcaccgtct cctca 345

<210> 476
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 476
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
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Ser Gly Arg Gly Arg Asn Ser Asp His 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 Thr Glu Tyr Phe His His Trp Gly Gln Gly Thr Thr Val Thr
            100                 105                 110
Val Ser Ser
        115

<210> 477
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 477
ggattcacct ttagcaccta tgcc 24

<210> 478
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 478
Gly Phe Thr Phe Ser Thr Tyr Ala
 1               5

<210> 479
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 479
attagtggtc gtggtcgtaa ctca 24

<210> 480
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 480
Ile Ser Gly Arg Gly Arg Asn Ser
 1               5


<210> 481
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 481
gcgaggaccg aatacttcca ccac                                          24

<210> 482
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 482
Ala Arg Thr Glu Tyr Phe His His
 1               5


<210> 483
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 483
gacatcgtga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagaatcacc 60
atcacttgtc gggcgagtca ggacattaac aattatttag cctggtttca gcagaaacca 120
ggaaaagccc ctaagtccct gatctatggt gcatccagct tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacaa tatacgttct taccattcac tttcggccct 300
gggaccaagg tgaaaatcaa acga                                          324

<210> 484
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 484
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asn Asn Tyr
            20                  25                  30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile

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        35                  40                  45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Lys 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 Thr Phe Leu Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Lys Ile Lys Arg
            100                 105
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<210> 485
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 485
caggacatta acaattat 18

<210> 486
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 486
Gln Asp Ile Asn Asn Tyr
 1               5

<210> 487
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 487
ggtgcatcc 9

<210> 488
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 488
Gly Ala Ser
 1

<210> 489
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 489

caacaatata cgttcttacc attcact 27

<210> 490
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 490
Gln Gln Tyr Thr Phe Leu Pro Phe Thr
 1 5